The Path to College: Transition Experiences of Students with Disabilities

DISSERTATION

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Abstract

The rate of students with disabilities transitioning to college remains low in comparison to peers without disabilities despite the greater prospects college provides them to lead a productive life. Also, they face educational barriers because of non-inclusive schoolwide cultures, different transition models in different states, inadequate implementation of individualized education programs (IEP), and little focus on college education despite the Individuals with Disabilities Education Improvement Act (IDEIA) of 2004 designating college as one of the postsecondary transition options. The omission of college option in the implementation of individualized transition program (ITP) contributes to insufficient transition goals that lead to low rate of students with disabilities that transition to college, which again lead to high numbers of students that become vulnerable to economic and social vagaries. Moreover, most of the ongoing education system reforms are less informed by the insights of students with disabilities thus providing incomplete information essential to significantly improve education systems and processes. Hence, this research study was to gain a clearer understanding of the facilitative and inhibitory influences on students with disabilities P12 through college transition from their perspectives. It adopted a qualitative interpretivist paradigm, disability studies in education framework, and a descriptive qualitative interviewing approach, and involved eight undergraduate students with disabilities who were sampled and interviewed based on the funnel approach. Findings showed that individual, institutional, instructor, peer, and family-related factors were sources that either
undermined and/ or enabled students with disabilities education and transition to college. Of significant facilitative factors were individual competences and parents’ supports. In contrast, one of the most limiting factors to access quality education was instructors’ differing opinions, actions or characters. Noteworthy, students with disabilities struggled in the social realm in high school; but with an enabling college milieu, they rejuvenated their social skills to build a supportive network that made college life satisfying. So, colleges were spaces for healing, re-imagination, and practicing independent living skills through intellectualization and socialization.

Instructors’ attitudes influenced provision of resources, services, and supports that either afforded or hindered students’ access to quality education and transition to college. Barriers created by some instructors were a considerable issue; and it raises questions about teacher education programs in preparing highly competent teachers capable of designing, developing, and implementing P12 education programs that supports needs of diverse learners. Considering diversity in schools and continued placements of students with disabilities in general education classes, and the importance of collaboration in the implementation of IEPs, there is need for continued teacher education programs reforms and transformations to train dynamic teachers capable of working with diverse students and families. Also, few students with disabilities that aspire to attend college actualize their dreams because of lack of supports, lack of information, fear, and non-involvement in the pre-college visits. Hence, there is need to create school-college links to encourage students with disabilities and their families’ involvements.

1 Unless delineated to discuss specific level of schooling, instructor is used broadly to refer to teachers, academics, and graduate teaching assistants.
Dedication

To all those who believed that what matters most is my abilities to contribute to the wellbeing of others.
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Publications


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Fields of Study

Major Field: Education
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CHAPTER 1

INTRODUCTION

Statement of the Problem

The enactment of U.S. disability laws has led to disability rights awareness, increased federal and state governments investment in the provision of special education and related services and training of teachers in varied instructional repertoires and their exposure to diversity and inclusion practices. The laws have also seen more students with disabilities accessing general education spaces and curricula, increased enrollment in P12 education systems, and increased high school graduation rates. Still, the rate of students with disabilities transitioning to colleges and universities and those that attain degree diplomas after enrollment remains lower than that of students without disabilities (Cobb et al., 2013; Fabian, 2007; Fritton, 2009; Greenbaum, Graham, & Scales, 1995; Janiga & Costenbader, 2002; Milsom & Hartley, 2005; Murray, Goldstein, Nourse, & Edgar, 2000; Raue & Lewis, 2011; Sharpe & Johnson, 2001; Snyder & Dillow, 2013; Wagner, Newman, Cameto, & Levine, 2005).

Low rate of students with disabilities moving to college. The National Center for Education Statistics 2013 report showed that only one out of five children with disabilities received P12 education in the 1970s in the United States (U.S.). However, by 2012, over 200,000 infants and toddlers and their families received services and benefits from early intervention programs, and over 6.5 million children and youths ages 3-21 (about 13% of the public school population) received special education and related
services (Snyder & Dillow, 2013). The number of students with disabilities ages 14-21 exiting high schools with diploma and certificate of attendance have also increased. For example, in 2009-10 academic year, a total of 408,642 students with disabilities exited high school, 255,800 graduated with a diploma and 59,973 with the certificate of attendance. In 2010-11 academic year a total of 402,038 graduated with a diploma and 58,938 received a certificate of attendance. The percentage that received a diploma rose from 62.6 percent in 2009-10 academic year to 63.6 percent in 2010-11 academic year, and in the same academic years, the percentage that received a certificate of attendance remained the same at 14.7 percent (Snyder & Dillow, 2015, p. 220). The percentage of those graduating with high school diploma though seems good, the double digit percentage of those graduating with a certificate of attendance is a cause of alarm. Thus, the statistics demonstrate that graduation with a diploma remains elusive for students with disabilities. Besides, between 1995 and 2005, the number of youths with disabilities who enrolled in a postsecondary institution within four years of leaving high school increased from 26 to 46 percent (Newman et al., 2010). However, the 2005 data from the National Longitudinal Transition Study 2 (NLTS-2) of students surveyed in high schools showed that of the 76.7 percent of youth with disabilities who aspired to attend postsecondary schools or to take post-secondary programs, only 19 percent attended a two-year college after high school, and only 9 percent attended a four-year college for any period as compared with 70 percent of peers without disabilities (NLTS-2; Newman et al., 2005; Wagner, Newman, Cameto, Garza, & Levine, 2005). In addition, a 2010 survey report by Kessler Foundation/N.O.D. showed that 17 percent of individuals with disabilities did not complete high school in comparison to 11 percent of individuals
without disabilities. Also, only 19 percent of individuals with disabilities graduated from college compared to 27 percent of peers without disabilities.

This transition rate of students with disabilities to postsecondary institutions have remained up to now low despite the disability legislations and increased funding and awareness of disability rights that started in the early 1970s. Less than 50 percent of students with disabilities than peers without disabilities enrolled in postsecondary institutions (Pierangelo & Crane, 1997 as cited in Stodden, & Dowrick, 1999). Other reports have also shown the discrepancy of students with disabilities and students without disabilities attending college upon high school graduation to be 27 percent and 68 percent respectively (Blackorby & Wagner, 1996; Wittenburg, Fishman, Golden, & Allen, 2000 as cited in Dutta, Kundu, & Schiro-Geist, 2009). A year later, Heath (2003) and Wehman (2003) reported that fewer students with disabilities were moving to college noting that students with significant disabilities were less likely to attend college because of disability linked factors that limited access to quality education, and so only two percent of those that aspired to attend college made it. The disproportion is reflected across states in the U.S., including the state of Ohio that in 2010 initiated measures to double college entry for 18 and 19-year-olds with disabilities (Ohio Department of Education, 2012, 2014).

The number of students with disabilities accessing education has improved since the enactment of federal disability laws. While the statistics provide the overall picture of limitations of (education) systems to bridge the gap of students with disabilities aspiring to attend college versus the actual number that finally move to college, it is also less informative on the substantial issues that influence their education.
Variables that affect access to education. Students with disabilities’ access to education, their learning outcome, retention and progression in school, and their transition to college are influenced by social, economic, cultural, political, and legal structural factors that interact at micro and macro levels (discussed in Chapter 2). These variables include: Culture (Cole, 1996; Pollock, 2008), institutions (Apple, 2004; Hetherington et al., 2010), ecology (Bronfenbrenner, 1979), systems (Masten, 2003), personalities (Butler, 2011; McGrew, 2008), learning theories and education practices (Danforth & Gabel, 2006; DeVries, 2000; Gabel, 2005; Vygotsky (1978), economics, disability legislations (e.g., ADA, IDEIA, Section 504 of the Rehabilitation Act 1973).

Baer, Daviso, Flexer, Queen, and Meindl (2011) predicted low socio-economic status of the family, unavailability of financial aid, few college applications, and poor transition plans to reduce students with disabilities’ chances of attending college.

For the past two decades, research has pointed to critical areas that, when addressed, would enhance the rate of students with disabilities transitioning to college. Although students with disabilities are one of the extensively studied groups, most research have focused on specific disabilities, specific topics, specific actors, and specific significant others, making findings and conclusions less centered on student with disabilities. Overreliance on third-parties rather than the student may provide inaccurate or one-sided information, that may be contributing to the continued educational challenges despite the availability of resources and legislative changes. Moreover, prior research to understand students with disabilities transition to college have focused on education processes related to policies and practices and transition (Baer et al., 2011; Hetherington et al., 2010; Hitchings, Luzzo, Ristow, Horvath, Retish, & Tanners, 2001;
Kohler & Field, 2003; Martin, Van Dycke, Christensen, Greene, Gardner, & Lovett, 2006a; Martin et al., 2006b; Mason, Field, & Sawilowsky, 2004; Milton & Hartley, 2005; Pierangelo & Guiliani, 2004; Shogren et al., 2007); accommodations, adaptions, and modifications of learning environments (National Council on Disability, 2000; Shaw, Madaus & Banerjee, 2008; Smith, 1992); barriers to learning (Banks, 2013; Dunn, Rabren, Taylor, & Dotson, 2012; Ford et al., 2008; Garner, 2008; Hasse, 2011; Lee, 2011); opportunities in higher education (Shaw et al., 2008); behaviors, characters, and skills of students (Ankeny & Lehmann, 2011; Connor, 2012, 2013; Moreno, 2013; Webster, 2004); and families of children with disabilities (Hetherington et al., 2010).

The 2000–2010 data of the National Longitudinal Transition Study 2 (NTLS2) reveals that fewer rates of students with disabilities were attending college in comparison to students without disabilities. Yet, very little research, as depicted above, have attempted to understand how the interplay of various factors contribute to education outcome of students with disabilities. Rather, they have majorly focused on the performances of students with and without disabilities in education relative to spaces and curricula, career, and independent living, for example (Blackorby & Wagner, 1996; Bragg, Kim, & Barnett, 2006; Butler, 2011; Wagner et al., 2005).

**Limitation of disability laws.** Since the enactment of the Education for All Handicapped Children Act (EAHCA) in 1975, there has been a great state and federal government investment in education programs for students with disabilities. The impetus of EAHCA has continued with the re-authorization of the Individuals with Disabilities Education Act (IDEA) in 1990 and 1997 and the Individuals with Disabilities Education Improvement Act (IDEIA) in 2004 and 2008. Specifically, IDEIA 2004 emphasized
inclusion of a transition component in the Individualized Education Program (IEP) as a means of facilitating movement of students with disabilities to post-secondary life—post-school employment, postsecondary education, and independent living. The requirement for schools to add a transition component in the IEP was to prepare students with disabilities for post-secondary life including moving to college. This requirement mandated schools to start or adopt transition programs to support students with disabilities in high schools moving to post-secondary life. Investments in transition programs have led to a proliferation of different approaches developed by school districts and states to support students with disabilities in their transition. Furthermore, the transition programs defer markedly in design and implementation because school districts and states develop different curricula, different transition models, and provide different levels of accommodations to diverse students with and without disabilities. Moreover, the various transition models are hinged on the interests of states, schools, and major stakeholders, which makes it difficult to evaluate their efficacies (Alwell & Cobb, 2006). Moreover, emerging transition programs led to increased research on their form and efficiency (Alwell & Cobb, 2009). Hence, research and theories have informed and have been informed by transition programs. Researchers have produced many recommendations including ways of empowering students with disabilities (e.g., training skills such as self-advocacy), reforming school programs (e.g., to allow inclusion of students with disabilities in general classrooms), training general education teachers in disability practices (e.g., providing general education teachers), and providing resources (human resource, technology) to develop education programs (Danforth, 2009; Ferri, 2011; Flexer, Baer, Luft, & Simmons, 2008; Kohler & Greene, 2004; Punch, Hyde, &
Creed, 2004; Richards, 2004; Stodden, Conway, & Chang, 2003). Despite the broad research and recommendations, the rate of students with disabilities moving to college still lags behind that of students without disabilities (Cobb & Alwell, 2009).

Moreover, making education accessible to students with disabilities has involved addressing barriers through disability legislations, which have also created public awareness about their rights. As a result of IDEIA 2004, Section 504 of the Rehabilitation Act of 1973, the American with Disabilities Act (ADA) of 2008, and the No Child Left Behind Act (NCLB) of 2002, many students with disabilities, ages 3-21, are provided with special education and related services, post-secondary adults are provided with accommodations and support to mitigate adverse individual and environmental effects. Nonetheless, the disability laws are limited in effecting best practices. They have not addressed all education issues related to: students and their families’ access to spaces, resources, services, and support; culture and learning environment of institutions; and practices and processes of systems. Also, the implementation of Individualized Education Plans (IEPs) and Individualized Transition Plans (ITP) vary in quality, which influence students with disabilities access to appropriate resources, services, and supports to grow and develop essential experiences to manage their disabilities, to function in their milieus, and to succeed in academics. Also, it is difficult for students with disabilities to access school transition services upon high school graduation or attaining age 21, which adds to challenging of accessing right information during the switch process, and acclimating to the new environment after the switch. Acclimating to institutional environments is imperative for students with disabilities’ academic success, development of personal agency, and wellness. While transition involves change of statuses, students with
disabilities’ unpreparedness in high school limits their essential knowledge and skills to cope in a new environment (i.e., manage existing and emerging demands).

Consequently, structures that interact with physical, physiological, socio-economic, political, cultural, and linguistic factors continue to limit students with disabilities’ access to quality and equitable education; thus, only a few students with disabilities aspiring to attend college actually do so (Brantlinger, 1997; Fabian, 2007; Gartin et al., 2002; Getzel & Thoma, 2008; National Organization on Disability, 2000; Roessler & Rumril, 1998; Sharpe & Johnson, 2001; Williams, 2009).

**Access to quality education.** Students with disabilities access to quality education though fundamental to their success in the future, still remains elusive because of cultural and structural barriers. Access to general education curricula and standardized tests, which are some of the prerequisites to admission into a degree program, provide opportunities for college education and advancements in future careers (Raue & Lewis, 2011; Wilson, Hoffman, & McLaughlin, 2009). While IDEIA mandates educating students with disabilities in the least restrictive environment (LRE), debates on what constitutes LRE is inconclusive, as seen in the classical literature on special education (e.g., by Brantlinger, 1997; Fuchs & Fuchs, 1994; Kauffman & Hallahan, 1995), and current literature on inclusive education (e.g., by Kanter & Ferri, 2013). (For detailed enquiry of classical literatures on the debates, research, and theorizations of special education read the article by McLeskey, 2004.) Additionally, teachers’ use of biased approaches in the placements of students with disabilities, and provision of special education and related services continue to deny them opportunities to access quality education (Allensworth & Easton, 2007; Cleary, Platten, & Nelson, 2008; Gwynne et al.,
Whether placements of students with disabilities in general education classroom is beneficial or not is a continual subject of debate: Even so, majority of students with disabilities are currently spending over 80 percent of their school day in the general education classrooms (Aud, Hussar, Kena, Bianco, Frohlich, Kemp, & Tahan, 2011; McLaughlin & Tilstone, 2000; Snyder & Dillow, 2013; Sumbera, Pazey, & Lashley, 2014). Consequently, lack of consensus on the most appropriate placements and practices for students with disabilities has become the basis for continued researches and theorizations on teaching and learning processes; teachers’ practices, perceptions, and attitudes; and students with disabilities’ behaviors.

Moreover, high schools prepare students for the world of further education, work, and adult responsibility; hence, they have great influence on students’ future life since they help to determine paths they take after graduation (Williams, 2009). However, not all post-secondary fields guarantee students success in life. At the current time, more job opportunities are predicted for individuals with degrees (National Council on Disability, 2004; U.S. Department of Commerce), particularly in the fields of science, technology, engineering and math (STEM); unfortunately, students with disabilities are underrepresented in these classes and fields (Alston, Bell, & Hampton, 2002). A link between disability and poverty, and a correlation of college education, employment and performance means that unless students with disabilities gain access quality education, those without college diplomas will be predisposed to life failure (American Youth Policy Forum & Center for Education Policy, 2001; IDEIA 2004; Kauffman, 2005).

Coping with change of statuses. Transition is a form of change. It has its benefits and challenges; it can be fascinating or intimidating for students with disabilities and
their families. Students with disabilities change statuses when they move from one institution to another (e.g., from high school to college) and become more independent and accountable for their actions when move to college (Getzel, 2005). Abilities to cope with change depend on individuals’ preparedness and capabilities to fit into the new milieu and to deal with the emerging issues (Butler, 2011). High school-college transition period requires that students with disabilities learn to shift roles, responsibilities, and duties to match requirements and expectations of postsecondary settings. The Individuals with Disabilities Education Act (IDEA) 2004 mandate schools to provide “a coordinated set of activities designed within an outcome-oriented process” to prepare students with disabilities exiting high school (Plotkin, 2011; Rueda, Monzo, Shapiro, Gomez, & Blacher, 2005). Often, however, transitioning students with disabilities in high schools are less prepared for opportunities and risks, which leaves them vulnerable to unexpected and inexplicable changes in life (Greathouse & Shaughnessy, 2010; Milsom & Hartley, 2005; Murray, Lombardi, Wren, & Keys, 2009; Wilson et al., 2009).

Perceptions of students with disabilities. A review of the extant literature captures traits, experiences, and opinions of students with disabilities on the effect of resources, services, support, and accommodations on their education and transition to college (Ankeny & Lehmann, 2011; Banks, 2014; Butler, 2009; Butler, 2011; Camarena & Sarigiani, 2009; Connor, 2013; Dorow, 2010; Garner, 2008; Harbour, 2008; Hetherington et al., 2010; Hunt, 2012; Hurley, 2014; Moreno, 2013; Soto, 2011; White, 2011). Specifically, transition of students with disabilities is predicated on certain factors. Supportive factors that influence students with disabilities’ education and transitions include: schoolwide culture and collaboration among teachers, school administrators, and
service providers (Banks, 2013; Hetherington et al., 2010); the support provided to increase students’ positive personal attributes, for example, self-motivation and self-efficacy (Banks, 2013; Connor, 2012, 2013); opportunities to access college entry courses and standardized tests; and enhanced home-school partnerships, which have been reported to influence mobility of students with learning disabilities from high school to college (Brigharm, Morocco, Clay, & Zigmond, 2006; Butler, 2011). In addition to challenging learning environments, counseling and positive student-teacher relations have been identified to improve students with disabilities’ academic performances and personalities such as self-esteem and self-determination (Williams, 2009). Also, studies show that parents and peers play a vital role in providing supportive and caring environments that help students with disabilities graduate from school and college (Williamson, 2003).

Acclimating to a new institutional and home environment is imperative for students with disabilities’ academic success, agency, and well-being. Their well-being and agency improve and encourage self-disclosure, self-advocacy, and involvement in community events and activities (Liparini, 2008). Thus, it is not enough to provide resources to increase chances of students with disabilities moving to college and succeeding in their education; it requires nurturing positive behaviors, a welcoming and comfortable learning atmosphere, and providing appropriate information even after graduation. Edeiken-Cooperman (2011) found that implementation of the Individualized Transition Plan (ITP) ceased immediately after students with disabilities graduated or attained age 21. Lack of support and provision of transition services diminishes students with disabilities chances of switching to college or university (Hetherington et al., 2010).
Moreover, as other studies have shown, collaboration of stakeholders is key to successful planning and implementation of programs that support mobility of students with disabilities (Edeiken-Cooperman, 2011; Kochhar-Bryant et al., 2009; Liparini, 2008; Williams, 2009). Despite these findings, students with disabilities still face challenges in accessing quality education and so their transition to college still lags behind that of students without disabilities.

**Research informed by undergraduate students with disabilities.** It is important to understand experiences of students with disabilities who have transitioned successfully from P12 to college in order to understand factors and circumstances that facilitate or hinder positive education outcome. However, in the review of literature, the few studies that have focused on the high school to college transition period have considered undergraduate students with disabilities’ perceptions of self-initiated efforts and other factors that influenced their education and transitions (Banks, 2014; Connor, 2012). Of particular interest is a research study by Connor (2012) who examined the effects of intrinsic agency (self-initiated effort) on the academic, social, emotional, and personal realms of three college students with learning disabilities. Connor’s findings showed that although disability may have serious consequences on a student’s academic work, self-esteem, aspirations, socialization, integration, and participation in education, proactive students with learning disabilities were fairly prepared to meet the academic demands in college. (For definition of terms, see Appendix A.) However, little is known about the influence that individual agency has on normal school progression and education attainment of undergraduate students with different disabilities. That is, the influence that
individual effort has on learning and transitioning to college of students with varieties of disabilities.

**Summary of statement of the problem.** As presented in the aforementioned review of literature and studies, the rate of students with disabilities moving to college is lower than of students without disabilities because many variables affect their access to quantity and quality education: cultural, economic, social, structural, policy, and legislative factors. Therefore, findings on factors that influence transition of students with disabilities to college are consistent and inconsistent. Besides, most research have focused on external determinants, efforts, and practices that contribute to success in academics, mainly informed by experiences of teachers, professionals, specialists, service providers, and significant others. In addition, collaboration of stakeholders is key to successful planning and implementation of IEP/ITP programs. Yet, despite the important role of families in the education and transition of students with disabilities, their involvement in school programs is limited. Thus, it is not enough to provide resources to increase chances of students with disabilities moving to college and succeeding in their education; it requires nurturing positive behaviors and providing appropriate information even after graduation. Nonetheless, little is known on the influence that individual agency has on normal school progression and education attainment of students with different disabilities because limited research is informed by undergraduate students with disabilities.

Hence, there are gaps, which include the following: (1) the impact of disability on access to quality general education and transition to college; (2) the interactions of variables and disability and their impact on students with disabilities transitioning to
college; (3) the impact of social milieu on students with disabilities’ involvement in learning processes and transition to college; and (4) the impact of special education and related services and provision of resources, services, and support on realization of education goals. Despite many researchers’ attempt to understand shades of transition experiences of students with disabilities exiting high school and transitioning to college, many questions remain on how education and transition of students with disabilities are impacted by different macro and micro factors such as disability legislations, professionals, instructional settings, resources, services, and supports.

This dissertation focuses on transition experiences of undergraduate students with disabilities in a mid-western research one university to understand these changes from P12 to college. The basis of this work supported by the dearth of knowledge on the experiences of undergraduate students with disabilities perceptions of the confluence of factors that facilitated and/or hindered their mobility P12 through college. The researcher was interested in exploring the unique factors that influenced students with disabilities’ education and successful transitioning to college.

Purpose of the Study

The current trends to make colleges and universities accessible to diverse student populations make it necessary to encourage increased number of students with disabilities graduating from high school to attend college. Students with disabilities that transition to college can provide information about individual abilities and the efficacy of education programs (Horn, Berktold, & National Center for Education Statistics, 1999). Then, the aim of this dissertation is to learn about how interactions of factors influenced students with disabilities’ P12 through college transition. The goal is to capture transition
moments in their educational lives that could illuminate individual and systemic
efficacies or inefficacies that will enable stakeholders in education to address factors that
would lead to increased students with disabilities’ enrollment in colleges/universities.
The purpose is to identify, assess, and describe factors that influenced undergraduate
students with disabilities’ successful navigation of systems P12 through college from
their perspectives, in order to gain deeper understanding of their transition experiences
that will inform their education and transition programs.

Specific research objectives were as follows: (1) To identify experiences of
students with disabilities during P12 education that contributed to their social, emotional,
and cognitive competences to attend college; (2) To identify experiences of students with
disabilities during P12 education that hindered their actualization of academic goals; and
(3) To identify areas of school life that students with disabilities invested in during P12
education to succeed academically.

Research Questions

College education is indispensable for students with disabilities’ future success;
and delineating factors that influenced their P12-college transition is essential. Therefore,
this dissertation seeks to understand the transition experiences of students with
disabilities P12 through college using the following research questions:

1) What critical factors helped students with disabilities to successfully navigate
   the academic demands during P12 education to transition to college?

2) What critical factors helped students with disabilities to successfully navigate
   the social demands during P12 education to transition to college?
3) What kinds of accommodations and related services provided to students with disabilities during their P12 education helped them navigate the transition to university, given the demands of their disability?

**Research Design**

The dissertation is situated within the qualitative interpretivist paradigm, disability studies in education framework, and descriptive qualitative interviewing approach. The qualitative interpretivist paradigm is a form of social constructivism (Carson, Gilmore, Perry, & Gronhaug, 2001) that subscribes to the concept that certain aspects of human beings, for example, experiences, behaviors, and attitudes, lead to multiple realities that are best understood when subjected to methodological approaches that allow for the interpretation of the multiple realities to arrive at various meanings (Berger & Luckman, 1967; Lincoln & Guba, 1985; Maholtra & Birks, 2000; Neuman, 2000). The disability studies in education (DSE) framework incorporated herein is an interdisciplinary area that examines disability from a social, cultural and political lens, and gives credence to ideas, experiences, and voices of persons with disabilities in critically examining accepted truths of values and knowledge that are produced and propagated by people, cultures, and institutions to justify and sanctify privileged oppressive positions (Baglieri, Valle, Connor, & Gallagher, 2011; Danforth & Gabel, 2006; Gabel, 2005; Gibson, 2012). A descriptive qualitative interviewing approach (Seidman, 1998) utilizes a qualitative data collection method—interviews (three face-to-face interviews with each individual and one focus group), direct observations, field notes, artifacts (e.g., admission documents) to capture experiences, views, feelings, attitudes, actions, and expressions of students with disabilities as they navigated the
school systems (Patton, 2002). A combination of the three methods helped to describe, examine, define, categorize, and delineate themes (Dey, 1993; Gibbs, 2007) on transition experiences of eight undergraduate students with disabilities who were selected through a purposive, theoretical, and snowball sampling strategies (discussed in-depth in Chapter 3) (Cohen, Manion, & Morrison, 2007; Silverman, 2010). Verbal data helps test theory and the “theory influence the way in which we encode and analyze our data” (Ericsson & Simon, 1993, p. 10). Therefore, verbal data facilitated understanding of disability studies in education (DSE) theory and also to make predictions about P12 through college education and transition experiences of students with disabilities (Ericsson & Simon, 1993).

**Significance of the Study**

The significance of this dissertation is multi-pronged: it contributes to different theories of education and makes practical contributions to teaching and learning processes. By using disability studies in education framework, it attests students with disabilities experiences as true, and therefore it brings credentialed perspectives of undergraduate students with disabilities of their education and transition experiences to extends existing findings on education practices. It therefore connects epistemologies with varieties of experiences of students with disabilities, teachers, families, and service providers, which provides an understanding of education programs and transition phenomena in more depth. Thus, it may inform the academy through contributions to different paradigms, theories, or models (e.g., counternarrative theory, transition theory, disability studies, or disability discourses) that further inform education that support inclusive education and enhance the efficiency of transition programs. These may lead to
acknowledgement of the naturalness of disability, approval of disability qualities, acceptance of students with disabilities, and advancement of their rights to access quality education.

Additionally, this dissertation identifies events, circumstances, practices, beliefs, and support mechanisms that were part of students with disabilities’ lives when they interacted with institutions, systems, and communities, and make the experiences available for inquiry, and possibly solutions to education issues (Lichtenstein, 1993).

The Individuals with Disabilities Education Improvement Act (IDEIA 2004) mandates schools to design, plan, and implement the Individualized Education Programs (IEP) in ways that make quality education accessible to enhance students with disabilities’ functionalities, acquisition of appropriate behaviors that lead to successful postsecondary life. However, research shows that high school students with disabilities receive little appropriate transition information (Murray, Lombardi, Wren, & Keys, 2009). Yet, as educators know, such information is critical for the IEP teams including students with disabilities to have successful education and transitions. Hence, information about resources, support, identities, personal traits, relationships, or disability may reveal how they affected the education of individuals with disabilities. This can help guide educators in providing necessary resources that enhance school performance.

Moreover, study on the benefits of inclusion or segregation of students with disabilities is inconclusive. Equally, the scholarly debates on least restrictive environment (LRE) that have borne different philosophical approaches that inform teacher education programs— inclusive education and special education— and academics’ orientations are unsettled. Though key stakeholder in the education system, often students with
disabilities’ perspectives are lacking in the formulation of disability programs leading to changes in policies or practices that are less reflective of their experiences. Information that is less representative of all stakeholders in education (e.g., students, parents, teachers, community leaders, and policy makers) contributes to uncertainties and hurdles that make management and implementation of education, transition, and disability programs difficult. With unresolved barriers, students with disabilities have limited access to quantity and quality education, limited access to right information, and so many fail to move to college despite the essentialness of college education for their future success. Therefore, this study will fill gaps by providing critical information from students with disabilities perspectives.

In addition, in the past two decades, few research studies have focused on the transition experiences of low incidence category of undergraduate students with disabilities pursuing degree programs that lead to a diploma and examined their experiences using disability studies in education (DSE) framework. Hence, there is nominal dialogue regarding individual efforts in navigating systems and meeting expectations to move onto college. The minimal evidence provided in the academic, social, emotional or affective, and personal realms in the literature reinforces traditional/deficit notions of students with disabilities that limits effective education practices. Understanding effects of different variables on the individual (un)preparedness for college requires co-research with students with disabilities on their personal transition experiences in order to discern how they navigated through systems; and identify the essential information that can inform pedagogy, theories, and practices to enhance disability programs that will increase numbers of those that qualify and aspire to move to
college. Thus co-researching with undergraduate students with disabilities can provide rich information that can improve education systems and transition programs in particular. Also, working with students with disabilities as informed participants is emancipatory and challenges traditional notions that they are hapless and helpless and depended (American Education Research Association n.d. as cited in Connor, 2012; Baglieri et al., 2011). Besides tapping into their agency, use of DSE gives credence to their experiences in informing education practices, and it provides a rich and strong theoretical basis for examining complex aspects of disability and education.

Few humanizing and/or emancipatory research have focused on the interactions of disability and systems of inequalities, and used emancipatory approach with students with disabilities to examine variables that influence their education outcome (e.g., Gibson, 2012). Still, there is no known research on transition experiences of undergraduate students with disabilities conducted by someone who uses a wheelchair for mobility due to physical disability and who is native of Africa. The researcher’s exotic presence created the insider-outsider phenomenon and enhanced the researcher-participants’ interactions, which unfolded in spaces of un/familiarity, occasionally pushing both the researcher and participants into liminal zones; it created a sense of curiosity, interest, inquiry, and possibilities to engage in dialogic interviews, full of commonalities (comparison and contrast) of lived experiences, which further led to identifications and discoveries of un/shared perspectives. It is the researcher’s belief, therefore, that the intended audience—educators, teachers, parents, students with disabilities, and policy makers—will benefit from a better understanding of the effects of barriers and support on transition of students (with disabilities). Likewise, future and current students with
disabilities aspiring to attend colleges and universities may find this dissertation comforting and informative: Comforting and encouraging in that they can identify with some of the participants’ experiences; and informative in that they can invest in academics and still make it to college despite the challenges at P12. Also, that the position of those with disability vying for space in undergraduate studies is often forgotten and undocumented thus the need and significance of the study.

**Delimitations**

Academic success of students with disabilities is important for their success in life. While the goal of this dissertation is to capture transition experiences of students with disabilities in order to illuminate efficacies of systems, programs, and individual behaviors, not all topics could be addressed at once (see Chapter 5 for the limitation of the research study). Only undergraduate students with disabilities on the main campus of the Midwestern research one university registered in a degree program during the 2014-15 academic year participated in the study. Moreover, this study depended on the introspection of participants to understand transition processes, events, moments, affordances, and barriers; however, reflections are contextual. Thus, the issue with what events are remembered made it difficult to ascertain experiences or effectiveness of practices and programs through introspection. Nevertheless, it was supposed that participants had good memory to recall events and moments, and answered interview questions honestly and factually, and shared authentic educational experiences and opinions about their education life and history (Simon & Goes, 2013).

Furthermore, a number of students were omitted automatically including any student who acquired a disability or claimed to have a disability after graduation from
high school, or any student with a disability who did not identify with the disability community (i.e., did not consider themselves disabled), or any student who did not qualify for disability services under federal disability laws. Also excluded from the dissertation were veterans with disabilities (i.e., those who acquired their disability after high school) or those who never had high school-college transition experiences that could be related to disability; students with cognitive disability or intellectual disability, and/or mental illness that impaired independent sound/correct judgment (e.g., students with bipolar condition); students with disabilities under 18 years old; and students with disabilities in non-degree awarding programs (i.e., students with disabilities enrolled in employment focused program where they earn postsecondary certificate), or in constituent campuses (the university had many campuses; but participants came from one campus).

While this dissertation focused on individual students, students operate in spaces influenced by micro and macro factors (Bronfenbrenner, 1979; Masten, 2003). Nevertheless, this dissertation confined itself to the research questions within the following realm in education—academic, social, and personal experiences. Macro factors (i.e., grand scale factors such as the effects of the 2007-2008 global economic crisis) were not directly considered in the analysis of data even though they determinably influence distribution and use of resources, and access to quality education (e.g., employment of teachers and provision of assistive technologies). In addition, some participants transferred from other (community or relatively smaller) colleges and universities; however, examination of data did not emphasize their experiences in other specific universities per se because it was considered an intra-institutional transition.
which is opposite of inter-institutional transitioning that involves moving from home to pre-kindergarten to kindergarten to elementary to middle school to high school). Lastly, even though some theories or approaches such as grounded theory (Oktay, 2012), portraiture (Lawrence-Lightfoot & Davis, 1997), and narrative inquiry research method (Wells, 2011) could inform an understanding of students with disabilities experiences, Disability Studies in Education (DSE) was chosen because it privileges disability discourses. These delimitations may raise questions on the validity and reliability of the dissertation; however, Chapter 3 of this dissertation will detail discussed in detail the necessary steps taken to increase the trustworthiness of this research study.

In the quest to understand transition trends and its supporting terminology, I turn to the literature review. First, the organization of this dissertation is presented.

**Organization of the Dissertation**

Chapter 1 of this dissertation is organized in the following manner, which includes statement of the problem, purpose of the study, research questions, research design, significance of the study, and delimitation of the dissertation. In light of the previous discussions, it is apparent that very few students with disabilities transition to college, and that their self-initiated efforts have received minimal attention by researchers even though knowledge on it may inform transitioning planning programs. The actual lived experiences of undergraduate students with disabilities are the focus of this research study. Chapter 2 will review the extant empirical and conceptual literatures on transitions of students with disabilities while Chapter 3 discusses the methodology and methods. Chapter 4 presents the findings, and Chapter 5 concludes with the discussion, implications, and recommendations of the study.
CHAPTER 2

LITERATURE REVIEW ON TRANSITION

INTRODUCTION

This chapter begins with a review of studies that look at transitions to college of students with disabilities. There is a broad range of empirical and theoretical literature on transition experiences of students with disabilities to postsecondary life in general; however, findings are both consistent and inconsistent regarding the factors that influence their transitions to college in particular. As such, this dissertation builds on previous work on the topic, albeit from the standpoint of Disability Studies in Education (DSE), to provide students with disabilities a platform to share their education and transition experiences - one that will, in turn, inform education practices. The literature review is multi-faceted, and it cover complex educational issues and practices, based on DSE.

Chapter 2 is organized into four major parts presented in the following order. In Part I, the definition and importance of transition – according to the Individuals with Disabilities Education Improvement Act (IDEIA) 2004’s definition of the term – is discussed within a broader context. Also reviewed is the research studies that focus on students with disabilities’ transitions to postsecondary life, especially college. In Part II, the influences of various factors on education are broadly considered. Particular attention is paid to the interactions of learning theories, culture, economics, and disability legislation as they relate to individual’s characteristics and access to education. In Part III, disability studies in education is discussed relative to this dissertation.
The main objectives of this literature review are twofold: (1) to showcase achievements in research pertaining to education and transition experiences of students with disabilities; and (2) to identify gaps in the current literature on education and transition experiences of students with disabilities attending college. It is important to delineate the parameters of the literature review. Only empirical research studies in the U.S. published in English from 2008 to 2015 were considered. Nevertheless, other literature materials that directly address the transition experiences of college students with disabilities, some published before 2008, were considered following analysis of the data and during the writing of the discussion section. Thus, the perimeters of this study were based on previous literature reviews as well as on participants, data collection, and analysis. I begin with a discussion of the definition of transition and the particular importance of this topic.

**Part I. The Definition and Importance of Transition**

**Definition of Transition.** A transition is a change of state and place, an experience that involves processes and activities. Change is a normal human experience, and it occurs throughout peoples’ lifetimes, making it a key component in transitional periods. Change, in its many forms, is built into mainstream childhood education. The normative educational path in the U.S. is for children to be initially cared for by their parents/guardians until they are 3 years old. As they grow older, they move through childcare/pre-kindergarten (for 3-4 year olds), to kindergarten (for 5 year olds), to primary/elementary school (6 – 10 year olds), to middle school/ junior high (11 – 13 year olds), and, eventually, to high school (14 – 18 year olds), from where they can transition to either employment or college.
Section 602(a) of IDEIA 2004 describes transition as a coordinated set of activities for a student, designed within an outcome-oriented process, which promotes movement from school to post school activities, including postsecondary education. The coordinated set of activities is based on the student’s needs, interests, and preferences.

Transition periods begin in high school, at age 16 (or earlier depending on the decisions of the IEP team), and extend through graduation to postsecondary education, to the beginning of adult services, or to the first few years in the workforce. During transition periods, students with disabilities are prepared for adult roles with the goal of going on to college, vocational school, employment, independent living, or integration in the community (Butler, 2011; Dorow, 2010; Fritton, 2009; Hagner et al., 2012; Hunt, 2012; Garrison-Wade, 2004; Sanon, 2007). For different students and their families, change can be either an instant experience or a constant progression of accomplishments. Sometimes change consists of connections of past and present experiences and in the process students and their families familiarize themselves with the society, spaces, and happenings which lead to harmonies in the milieus that support their accumulation of knowledge and skills. Use of appropriate resources, services, and supports can help students and their families make effective change to fit in various community spaces.

Based on these definitions, transition is broadly conceptualized in this dissertation as an episode or process occurring during students with disabilities’ academic transformations from pre-kindergarten to college. The assumption here is that students with disabilities build on previous experiences when moving from one education level to the next (i.e., previous successful experiences support students with disabilities’ movement through grades, school systems, and education systems).
The importance of the topic to the field. Successful transitions of students with disabilities from one level to another are beneficial to society in general as they create spaces and opportunities for succeeding and preceding groups, which in turn lead to planning, implementation, management, evaluation, and sustenance of education and transition programs, as well as to the reduction of achievement gaps in postsecondary experiences (e.g., in education, employment, health care, social participation) between persons with and without disabilities that occurs in “education, employment, and other quality-of-life indicators” (Webster, 2004, p. 152). Students with disabilities transitioning from one level to another may provide essential information on the efficacy of education systems. The key components of quality transitions lie in the appropriately-timed provision of services and the derivative benefits of those services on students and their communities. Furthermore, appropriate management of transition programs also promotes students’ cognitive, social, and emotional competences (Madaus & Shaw, 2006; Webster, 2004).

Change is non-linear, and it can be both exciting and intimidating. Transitioning from grade school to high school to postsecondary life involves changes in surroundings and location. However, students with disabilities have markedly different experiences due to their unique relationship and environmental requirements. Like starting school, joining college is a major life event for students and their families. It brings change in the form of newness – new experiences, places, roles, identities, expectations, interactions, and relationships – which in turn affect their personalities, relationships, and experiences in many different ways. High school and college environments differ in terms of class schedules, class demographics, study regimens, instructional strategies, and assessment
and evaluation. Change from a ‘dependent life’ to an ‘independent life’ often leaves students with disabilities vulnerable to college-based stress. Some get overwhelmed with the “academic demands, social expectations, and emotional and personal growth” (Heiman & Kariv, 2004, p.). This can then affect their matriculation (Eckes & Ochoa, 2005). Levinson and Ohler (1998) found that students with learning disabilities experience difficulties in college because of the change in environment. Later research showed that although students with learning disabilities make up approximately 50 percent of student with disabilities in college, only 28 percent end up graduating (Gregg, 2009). This is mostly due to their difficulties in coping with increased academic workloads, in managing anxiety and frustration, in negotiating with professors, and in socially fitting in (Connor, 2013). Failure to meet academic demands harms student’s own social expectations, particularly in their relationships with teachers and peers, which affect their emotional and personal growth as they come to see the education system as inimical to them (Heiman & Kariv, 2004). Unlike self-aware students with disabilities, those that are insecure and inexperienced in navigating different situations find college environments unfriendly (Banks, 2014). Thus, preparing students with disabilities for change as they move to postsecondary life is essential especially as they shift from more secure environments under the care of school and parents to the adult life full of prospects and possibilities or risks (Butler, 2011).

While change is continuous throughout life, each child’s individual experience takes different trajectories due to the variables of age, gender, dis/ability, race, ethnicity, school setting, and socioeconomic status (SES) as they intersect with other socio-economic and political factors. Intersectionality is profoundly significant to the education
of students with disabilities and their families, as it affects access, retention, progression, and transition (Schutz, 2002).

Research shows that positive attributes help students with disabilities manage academic demands and frustrations. Connor’s (2012) study focused on the contribution of intrinsic factors to competence. He interviewed three college students with learning disabilities about their transition experiences and the strategies they used to succeed in college during their freshman year. The group was diverse in terms of gender, socioeconomic status (SES), age, class, ethnicity, and type of learning disability (i.e., dyslexia, a combination of ADD, ADHD, and Asperger). Findings showed that disability may have serious consequences on a student’s academic work, self-esteem, aspirations, socialization, integration, and participation in college activities. Students also demonstrated good knowledge of navigating academic, social, emotional, and personal realms when transitioning into college. Students that exhibited intrinsic agency were proactive in seeking help, they were aware that provision of disability services depended on their disclosure and they consequently registered with the disability services office. These students also participated in social activities and, through interaction, they shared ideas and expanded their knowledge base. Over the course of the study, they learned how to manage academic, social, and emotional education- and transition-related issues. Connor (2012) collected data through interviews. Although the sample group was diverse, his focus on three particular students with learning disabilities (specifically regarding academic, social, emotional or personal issues) makes generalizing these findings difficult. Also, he actively worked with persons with disabilities and was interested in challenging societal practices that limited their empowerment. He used the
Disability Studies in Education (DSE) framework to analyze the data, which might have provided more credence to students’ perspectives than other framework. Even so, this analysis framework limited his critique of students’ perceptions, since DSE maintains that disabling factors are socially constructed. Furthermore, it privileges disability perspectives over other deficit perspectives, and emphasizes identity as an important component of self-awareness and self-determination. Thus, his orientation and use of DSE to analyze students’ experiences leaves some gaps that would benefit from more studies on self-initiated skills that can help students with disabilities transition to college.

In another study, Connor (2013) sought to support students with learning disabilities (LD) develop a positive disability identity. He focused on student’s intrinsic experiences during their transition to college and he found that students with learning disabilities that were aware of their disabilities invested in their strengths to meet academic and social needs. They weighed potentials against challenges before making academic decisions and used different strategies to compensate for their deficiencies. These included investing more time in academic work and less time in socialization, choosing courses that they were likely to pass, and seeking support and services before experiencing academic failures. They sought support early, as soon as they realized they needed it to succeed academically, including tutoring, extended time, private rooms, and assistive technology. Two students had discrete experiences, which challenges the common notion that students with disabilities are a monolithic group by virtue of shared disability. Thus, treating each case individually is essential, especially when implementing IEP so that the program can reflect the unique needs and potentials of the individual. Intersection of disability and other variances such as race, ethnicity, and
gender produce different experiences less common to the main group (Connor, 2009, 2013; Ferri & Connor, 2009; Erevelles, 2011; Leonardo & Broderick, 2011). Therefore, understanding the impacts of sociocultural, economic, and political factors on the education outcomes of students with disabilities still require in-depth examination of individual experiences.

Stigma has serious consequences on the education of students with disabilities. Connor (2012, 2013) found that college students with learning disabilities were likely to excel academically when they accepted their disabilities, as it encouraged them to seek appropriate accommodations on time (Beale, 2005). Also, Connor’s (2012) findings showed that involvement in research does not immediately change engrained negative associations with disability. There is no definitive explanation for this, however, students with invisible disabilities, such as learning disabilities or ADHD/ADD, consider their disabilities a minor part of who they are and therefore find their association with other disability categories or conditions—blindness, physical disability, deafness, or mental disability—very stigmatizing. Liparini (2008) found that psychiatric students tend to avoid identification out of fear of ostracism. Some avoid being lumped together, despite accepting the impact of their disability on their education and the importance of services in meeting their educational needs. In contrast, students with physical disabilities tend to accept the disability identity. Students with invisible disabilities prefer passing to escape the disability stigma. Regrettably, they experience academic failures and, when they fail to meet their matriculation, they drop out of school. Disability is integral to the identity of students with disabilities; it is important to encourage self-disclosure for college-bound
students as it may help with developing identity, advocacy skills, and self-control necessary to direct their own lives.

Students with disabilities that accept their disability are likely to seek accommodations and excel academically (Beale, 2005). However, Connor’s (2012, 2013) study raised critical issues about disability stigma and the importance of allies. The fact that stigma has serious consequences on students with disabilities points to the necessity of allies that can champion their rights. Though important, Connor’s (2012) study focused on students with LD and used DSE. Furthermore, it looked at success exclusively in academic terms. Yet other aspects of success, such as social, personal/emotional, and financial successes, influence students’ learning and successful transitions to college. Expanding the study to encompass these aspects may illuminate the perceptions and knowledge employed by students with disabilities to successfully navigate education systems. Whereas findings reveal the contributions of individual characteristics in transitioning to college, basing the analysis of data in disability studies on the education framework narrows understanding of students’ experiences. Hence, we need to look at the interaction of intrinsic and extrinsic factors to understand the ways in which students with disabilities succeed in varied environments.

Garner’s (2008) qualitative study with three college graduates with learning disabilities (LD) examined challenges they experienced as they transitioned from high school to college, including how they successfully navigated high school and their perspectives on the skills that contributed to their success. Analysis of their experiences looked at both differences and commonalities in the data. Garner found that general education curriculum, explicit academic goals, and self-identity were critical transition
components. Students with disabilities that took general education curriculum were exposed to rigorous classes that helped them work hard and set their own education and transition goals. They approached learning with confidence and they were encouraged, which allayed fears of cooperating with teachers and parents. Placement in general education classrooms also boosted their self-esteem, self-identification, and self-advocacy, which helped them become proactive in requesting accommodations.

Findings point to the importance of preparing students with learning disabilities for postsecondary education; it cannot be assumed that students with disabilities will acquire skills just by interacting with peers or paraprofessionals. This study however has some shortcomings that makes more research necessary. Firstly, the three students with learning disabilities were college graduates, they had first degrees, and were fully employed in various fields. Only one student of African American racial identity was included; yet research shows that transitions by different ethnicities/races are affected differently (2012 Civil Rights Data Collection [CRDC]). Knowing students’ ethnicities/races is useful in understanding circumstances that enhance or limit transitions by minority students, particularly when we consider that a number of variables impact different groups differently. Although this research focused on intrinsic factors, associations and influential distinctions between intrinsic and extrinsic factors were not considered. Some questions remain unanswered: How does a lack of resources influence teachers’ treatment of students with disabilities? How does treatment influence students’ social-emotional wellbeing? In addition, how does students’ social-emotional wellbeing influence their determination? What are the students’ perspectives on skills that contributed to their successful completion of secondary education and transition to
college? Answers to these questions require a deeper exploration of the challenges students with disabilities encounter at P12, so that we may better understand how they successfully navigated the school system. The differences and commonalities between student experiences can inform the recommendations needed to prepare students with disabilities for postsecondary education.

Ankeny and Lehmann’s (2011) qualitative study with four gainfully employed graduates from a community college focused on the contribution of self-determination skills in transitioning to college. Three major themes emerged in the study: the association of personal factors and self-determination; self-determination as nurtured through environments and personal experiences; and IEP team playing an important role in supporting student self-determination. The study revealed that self-determination depends on individual drive, self-knowledge, and support from significant others, and it is therefore important for students with disabilities’ successful transition to college or employment. Findings showed that parents and peers, not educators, influenced students to work toward achieving transition goals. Though an important study, a limitation is that findings cannot be generalized due to a lack of ethnic diversity, a small sample, and inductive data analysis. Researchers used a purposeful sampling process to select four participants who were already college graduates and gainfully employed. They carried out three dialogic interviews, using the “funnel approach”, with each interview taking about one hour. Their data analysis “involved organization, classification, search for patterns, and synthesis to achieve an in-depth and holistic understanding of the students’ experiences” (Riesman, 1993 as cited in Ankeny & Lehmann, 2011, p. 281). Although data collection and in-depth analysis provided important information, it fell short of
revealing how peers’ knowledge or lack of knowledge of disability influence students with disabilities’ awareness of their disability. Furthermore, Ankeny and Lehmann suggested more research on the influences of accommodations, “family members’ roles in fostering self-determination skills, the significance of opportunities to experience risk, and the potential effects of incorporating joint recollection and reflection in the development of self-determination skills” (ibid, p. 287). Still, their findings are similar to Banks’ (2013) who found that parents and peers supported students with disabilities’ education and transition to college significantly more than did teachers. Also, findings identify the importance of building teamwork for successful implementation of IEP/ITP goals (Banks, 2014; Hetherington et al., 2010).

Students with disabilities are intuitive and know what they want to pursue after graduating from high school (Webster, 2004). This knowledge is translated into goal setting, risk taking, hard work, the right attitude toward oneself, and perseverance in the transition to college. However, students with disabilities transitioning to college may or may not be aware of their disabilities or their disability category, how it affects them, or the accommodations they may need to mitigate their condition (Ankeny & Lehmann, 2011; Webster, 2004). As the self-study by Moreno (2013) revealed, she was unaware of the different obligations required by different institutions. She was less informed of the requirements related to accommodations in high school and college; she only found out in college that she could not be provided with a personal assistant. Self-studies have gained acceptance in the field of disability studies in education, but they raise questions of truthfulness and of the ungeneralizability of experiences. This can be enhanced by the triangulation of data—by providing other artifacts, for instance. Still, the study provides
significant information about the importance of correct information for college-bound students with disabilities. Colleges are required to make learning accessible to students with disabilities, but the quality of accommodations differs among colleges due to status (e.g., public or private) and availability of resources (ADA 2008). Therefore, knowledge of one’s abilities and needs and of accommodations provided in college can help students make the right choices.

Webster’s (2004) research on students with disabilities at a four-year institution revealed that self-awareness and awareness of others contributed to their successful transition to college. However, Webster’s study has a number of limitations. First, she influenced the type of students that were included because she was interested in studying agents of change. She therefore selected students that participated in social awareness raising. Second, her data consisted of weekly journals where students’ writing of their experiences was guided by a daily topic. The curriculum and related readings as well as her personal views may have influenced the content of these journals. Moreover, analysis of data was inductive in nature and involved organization, classification, search for patterns, and synthesis of data, which indicates a degree of personal bias in delineating themes. Also, the analysis and interpretation of data should have included students’ opinions regarding services and supports they received in P12 and in college in order to better understand their perceptions of the transition process. Furthermore, the sample was less representative with 91 percent of the students being Caucasian and 77 percent female. While the findings are informative, considering that the research was emancipatory, Webster should have actively involved students in the research process by
having them generate interview questions. Conducting interviews by e-mail eliminated her connection and ability to ascertain nonverbal cues.

Banks’ (2013) study with three African American students with learning disabilities examined how they perceived supports and barriers during their transitions. She looked at student’s high school transition experiences, influential school-related and non-school factors, and how they constructed their social and cultural networks to support their postsecondary endeavors. Major themes were teachers’ deficit ideologies, self-identity, and self-advocacy. The study revealed that lack of disclosure negatively affects one’s education. Also, Banks found that some students with disabilities were unaware of their disability and never sought accommodations. Others were aware of their disabilities, but because of disability stigma didn’t disclose or seek help despite the availability of resources until they experienced academic failure. One of the students was an athlete; while he experienced academic difficulties, he resisted seeking disability services because of disability stigma and the fear of losing his well-established social circle. He consequently experienced academic failures until his coach had him sign up for disability services. Banks also found that external social causes, rather than individual academic ability, limit academic excellence, and that in some cases significant others were a barrier to transition to college. She found that parents and peers provided practical support that helped students transition to college. Peers were role models and sources of moral and emotional support; through social networks, they shared goals and received moral support that helped them navigate systems successfully. Peers also helped them grow and develop skills to manage stereotypes, stigmas, and misbeliefs about the
education of minority students. Some students devised counter-narratives to respond to stereotypes attributed to African Americans.

Of particular interest are the findings regarding parents and peers’ roles in students with disabilities’ educations. The expectation is that teachers and parents should not limit students’ skill development under the guise of protecting them from failure, since real life includes many successes and challenges. That some students considered teachers less supportive or even unhelpful raises questions about the impact of teacher attitudes on education outcomes of students with disabilities, especially now that they are included in transition programs. Still, while some parents offered moral and physical support that helped students navigate school systems, some students reported that their parents were less supportive, which forced them to rely on peers. Others held divergent expectations from their families, particularly when parents and teachers shared the deficit position. Parents with a deficit view were mostly disengaged from their children’s school life, which further harmed students’ academic prospects. Banks’ findings that parents and peers play essential roles in the educational lives of students with disabilities echo earlier research by Geenen et al. (2001), who reported that parents and peers positively contribute to students with disabilities’ success in school.

Findings that students with disabilities received more support from families and peers than from teachers confirm Geenen et al.’s (2001) assertion that much of transition planning and support occurs at home, rather than at school (even though IEP planning and implementation is a collaborative effort). This can be attributed to close relationships between children and parents; many parents invest financially, emotionally, morally and socially in their children’s education, in the hope that an appropriate transition program
will lead to a successful life (Ankeny & Lehmann, 2011; Banks, 2014; Hetherington et al., 2010). Weak connections between teachers and minority students with disabilities can be linked to the interface of disability and ethnicity/race, which often decreases the academic engagement of minority students in school. Every so often, minority students with disabilities do not seek support from service providers or teachers even when failing academically. Instead, they rely more on parents and peers for support, whom they tend to trust more than teachers (Banks, 2014). Whereas positive relationships of students with disabilities with their significant others is essential, their limited engagement with teachers predisposes them to academic failure particularly in areas where parents and peers are less competent, or in circumstances where they cannot provide support. For example, the identification and provision of assistive technology requires expertise, which can be provided by special education teachers.

Whereas Banks’ (2013) study raises critical points related to the transition of minority students with disabilities to college, the findings are less generalizable because of the limited context and sample. A small sample in qualitative research is not uncommon. In fact, it allows for the comprehensive analysis of data; however, involvement of three African American students with learning disabilities from a predominantly and historically black college does limit the representativeness of the findings. These students’ experiences may be less representative of transition experiences of other minority students with disabilities, particularly if we consider that freshmen and graduate students were not included in the ‘four-year university’ group. While the research is informative, its findings raise some questions on teacher-student relationships. There was little consideration of the impact of barriers and lack of support at the high
school level on students’ learning, yet the high school level is critical in students with
disabilities’ transitions to college. Moreover, findings showed that students with
disabilities were passively involved in transition planning programs. It is essential to find
out what contributed to this. Was it because of unreciprocated actions? The fact that the
college in question was a historically Black university might have influenced students’
perspectives on teachers as well as the researcher’s interpretation of their experiences.
Also, use of Bourdieu’s (1986) social capital and cultural theory to analyze data was
inadequate in understanding students’ experiences of how they navigated education
systems from P12 through college. By using Bourdieu’s social capital and cultural lens to
interpret students’ experiences, Banks restricted the analysis of reflections, making it
difficult to validate students’ introspection and reflection.

Part II. The Interaction of Multiple Factors on Education

This part presents a broad discussion of the influences of multiple factors on
education with regards to students with disabilities. Specifically, how the interactions of
confluence of internal and external factors impact their access to education. The
education of students with disabilities is impacted by a confluence of cultural, social,
economic, political, legislative factors interacting on various levels (e.g., home, school,
state, national) and thereby determining their access to education, retention, progression,
and transition (Baer et al., 2011; Banks, 2014; Eckes & Ochoa, 2005; Madaus, 2005;
Kessler Foundation/National Organization on Disability—N.O.D). Figure 2.1 shows
macro- and micro-factors relative to students with disabilities’ transitions. Some of these
factors act at greater level outside of students with disabilities and their families’ direct
control, and their effects can be slow and long lasting. For instance, changes caused by
federal and state governments through funding and policies have long-term effects on special education programs. Meanwhile some factors act within students with disabilities and their families’ direct control, and their effects are immediate. For example, changes initiated by schools or teachers to implement the IEP program and deliver the curricula have an immediate effect on students with disabilities’ learning. Whether activities are initiated at individual, school, or national level, they impact educations systems and individual to produce transient and/or permanent changes or outcomes that affect an individual’s immediate and future life such as transition to college.

Figure 2. Interactive factors that impact education outcome and transition to college.
Though not within the scope of this dissertation, it is worth mentioning that several scholars have examined the interactive influences of multiple factors such as cultural, social, economic, political, and legislative on education outcome of students in general (Apple, 2004; Bronfenbrenner, 1979; Foucault, 1980, Giroux, 1983; Masten, 2003; Willis, 1977). For a long period, scholars such as Apple (2004), Foucault (1980), Giroux (1983), and Willis (1977) have all examined the interactions of culture, economic models such as capitalism, politics and power and how these elements influence students’ access to education, their mobility within the education systems, their categorization, and their future roles as citizens. Equally, other developmental system theory scholars such as Bronfenbrenner (1979) and Masten (2003) have examined the interactions of various elements around or within the child that influence their learning processes and education outcome and how these elements determine their growth and development in general.

Bronfenbrenner (1979) theorized five layers of socio-cultural contexts that influence children’s education. The microsystem consists of institutions and groups having immediate and direct effects on a child’s growth and development. The mesosystem interconnects microsystems and allows for the interaction of institutions and groups. The exosystem is the greater social system in which the child does not directly function, though they do feel the impact of changes implemented at this level. The macrosystem comprises cultural values, norms, rituals, customs, and laws that permeate every aspect of the child’s life and define his or her locus in the community. The chronosystem defines the above relationships relative to time; how the continuum of experiences past, present, and future affect life changes, such as entering college or the workforce. These systems affect both the education and social life of students with
disabilities relative to their milieu. For instance, Bronfenbrenner’s ecological framework identifies the importance of social networks in supporting children’s growth and development; the social milieu provides spaces that allow children to learn through interaction, sharing, imitation, observation, and communication with the wider community through circumscribed cultural practices and activities that nurture their functional qualities. This allows the child’s present behavior to be influenced by culturally bound references to past events and projections of future events (Rogoff, 1998), which further help the child adapt and contextualize his/her behavior during social participation. In the context of students with disabilities, schools provide a social structure for interaction, learning, and assessment of abilities, from which they are categorized, judged, and assigned programs and practices.

Likewise, Masten (2003) theorized the systems principle in which she discussed that individuals are systems that form larger systems through interactions with families, peers, community, and the larger society, and that through interactions individuals are molded in ways they learn to operate and survive within the systems. The relations between individuals lead to co-dependence and co-regulation of “each other(s)” behaviors (Masten, 2006, p. 49). Even though personal agency takes precedence in the survival of the individual in the system, the ongoing influence on the individual behaviors is caused by multiple systems whose input come from different directions (Masten, 2006). And so the individual’s behavior can be dynamic or static, depending on context. That individual’s “functional course and behavior of a living system are continually influenced by internal and external interactions” (Masten, 2006, p. 49) have also been examined previously by cognitive developmental theorist Jean Piaget (1977) and social
developmental theorist Levi Vygotsky (1978) who were interested in how individual abilities and environments interact with schooling to contribute to students’ academic, social, physical, and physiological growth and development. (Under learning theory below, I discuss how cognitive developmental theory and social developmental theory have influenced approaches in special education and inclusive education.)

Thus, interactions of multiple factors – including factors related to government policies, disability laws, education systems, communities, and individual disabilities - directly and indirectly impact students with disabilities' access to education as well as their transitions through systems and their relations with society in general (Kessler Foundation/N.O.D). Efforts to make education accessible to these students have involved greatly increasing government funding, disability legislations, and research into new pedagogies, which have resulted in increased numbers of students with disabilities enrolled in school and transitioning to postsecondary life. Nevertheless, challenges still remain in providing equitable education to all students with disabilities, as is apparent through the fact that fewer transition to college than students without disabilities (Banks, 2014; Snyder & Dillow, 2013; Wagner, Newman, Cameto, & Levine, 2005). The National Longitudinal Transition Study–2 revealed that the ratio of students with and without disabilities attending a 4-year college for a particular period was 1 to 7 (NLTS-2; Wagner et al., 2005).

Even though postsecondary education is beneficial to them (Banks, 2014; Cummings, Maddux, & Casey, 2000; Dutta et al., 2009; Getzel, Stodden & Briel, 2001; Gilmore, Bose, & Hart, 2001; Harris & Associates, 2000; Milsom & Hartley, 2005; Madaus, 2006; National Center for Education Statistics, 2000; National Organization on
Disability, 1998; Stodden & Dowrick, 2000; Wilson et al., 2009), few transition to college since their academic performances are predicated on increased access to opportunities by reducing/removing education barriers (Donovan & Cross, 2002; Mainzer et al., 2003; Milsom & Hartley, 2005; Soukup et al., 2007; Williams, 2009). These have involved greatly increased government funding of disability programs and legislation of disability laws as well as awareness-raising about disability rights, making environments accessible, providing assistive technologies, increasing accountability in schools, and reducing poverty and unemployment. As such, understanding the impact of various factors on individuals requires broad and specific examinations especially from the students with disabilities’ perspective. I further discuss the impact of learning theories, legislative, economic, cultural, and institutional factors on the education and transition of students with disabilities below. First, I discuss how learning theories have influenced education practices that determine students with disabilities’ access to education.

**Learning Theories**

As discussed later in this chapter, placements of students with disabilities, in either segregated or inclusive learning environments influence their access to quality education and transition to college. Yet in consideration of their placements is the influence of learning theories. Learning theory uses learning models to explain human responses to stimuli. Much research and documentation is dedicated to defining learning as innate and/or as an environmental process. Behaviorism, cognitive theory, cognitive-behavioral theory, and constructivism are some of the learning theories that have influenced philosophies and practices of educating students with disabilities (Danforth, 2009; DeVries, 2000). These theories, however, diverge in their approaches which
introduces variability in the pedagogy of students with disabilities (Danforth, 2009).

Constructivists view learning as an active process of meaning-making, and they believe that construction of meaning occurs through accommodation and assimilation. This view emphasizes the importance of self-directed learning based on individuals’ learning desires and abilities, which relegates teachers’ roles to that of facilitators. Learning, according to behaviorists such as B.F. Skinner, is an innate ability and therefore an intrinsic process. Accordingly, a child’s capacity to learn depends on their cognitive growth and development, and their environment only stimulates the process. Behaviorism considers learning as a change in behavior that occurs through rewards and punishments. In this view, the individual acquires patterns of behavior when his or her actions are rewarded or punished. Cognitive theorists such as Jean Piaget consider child development universal and invariantly sequential. They also postulate that a child’s intelligence experiences qualitative changes, informed by four stages development (sensory motor, preoperational, concrete operational, and formal operational). Thus, any child not meeting the stages is considered an outlier. Conversely, sociocultural theorists such as Vygotsky (1978) postulate that child development stems from the environment. In this view, children’s social, cultural, emotional, physical, and cognitive growth and development is informed by their social, cultural, and historical experiences. Thus learning is a social process that is developed through relationships (Rogoff, 1990, 2009).

The basis of environment theory is that learning is an action-oriented event that occurs when the individual engages in social interaction using their cultural and psychological tools. Interaction processes with material things (e.g., artifacts) and immaterial things (e.g., language, information) facilitate the acquisition of experiences that allow the child
to manipulate or control their environments (Cole, 1996). In this way, cognitive development is stimulated when the child’s internalized socially-shared processes result in new dimensions (Vygotsky, 1978, 1986). Vygotsky (ibid.) extended the argument that a child’s handicap thus could be compensated for by providing rich environments to nurture their potential.

Cognitive theorists’ belief that intellectual development is innate and behaviorists’ view that behaviors can be acquired through reward and punishment both gained predominance in special education practices through studies on learning processes of ‘intellectually’ challenged children (Danforth, 2009). Behaviorism has guided special education practices that consider children with disabilities to be deficient of innate abilities and as having reduced physiological and cognitive development, which they believe can be “fixed” with medicine, technology, or specialized instructional strategies provided by experts in segregated or simulated environments to improve their functionality to the acceptable level before they can join their peers without disabilities in general education classrooms (Danforth, 2009). On the contrary, sociocultural theory, that has informed inclusive education philosophies, considers segregation of children based on abilities and other human variances counterproductive and unjust (Danforth & Gabel, 2006; Gabel, 2005; McCaleb, 1997). Nevertheless, these learning theories continue to influence education of students with disabilities. To understand how the nurture-nature positions influence education practices, I discuss below the impact of special education and inclusive education philosophical perspectives on the education of students with disabilities.
**Special Education and Inclusive Education.** While the IDEIA defines the least restrictive environment (LRE) provision in general terms, two major school placement environments for students with disabilities are special education classrooms and general education (or inclusive) classrooms. They are the binary precepts that inform special education and inclusive education (general education). The two differ both philosophically and in practice regarding students with disabilities’ placements.

Philosophically, special education is based more on medical or behavioral models, while inclusive education is anchored in disability theory and sociocultural models of learning. In an effort to delineate strengths and weaknesses of each program and their impacts on the education of students with disabilities, special education and inclusive education programs are often explained through models of Disability Studies—social, medical, and environmental (Siebers, 2008). Still, they are better understood by examining structural factors related to economy, culture, politics, and law, from which standpoint the inclusion-exclusion binary reveals ways of positioning students with disabilities in the education system.

**Special Education.** Though undergoing reforms, as mentioned earlier, special education is more of a medical, behavioral, and psychological model; hence, special education teachers use modified curricula and multiple instructional strategies that incorporate the aforementioned models to address students’ educational needs.

Knowledge of cognitive development has contributed to the understanding of various learning processes that have led to development of teaching practices; however, overemphasis on behavior has resulted in distinctions of learners; this has led to discrimination against students presumed not to fit the established learning norms, hence
the overrepresentation and underrepresentation of certain groups of students in certain education programs (which I discuss in detail in the section on culture) (United States & United States, 2013). While special education has positively impacted the education of students with disabilities, scholars have questioned practices related to mainstreaming, integration, and labeling, which they feel contribute to segregation and prejudice against underrepresented students including those with disabilities, and can lead to abuse of power, perpetuation of biased cultural practices, and selective distribution of knowledge (e.g., Danforth, 2009; Danforth & Gabel, 2006; McDermott & Varenne, 1995; Schutz, 2002). Labeling, when used appropriately, permits identification and provision of resources, services, and support to students with disabilities; however, inclusive education scholars argue that it is a social, economic, cultural, and political process used to marginalize certain groups of students (Danforth & Gabel, 2006). They believe that it is a tool for discrimination and misrepresentation used to deny labeled individuals access to education when they are selectively placed in certain learning environments based on teachers’ whims. They determine distribution of resources, which denies programs the capacity to address the labeled students’ needs; they are stigmatizing, oppressive, and adversely influence access to quality education. Labeling also denigrates and condemns students, relegating them to third-rate citizenship when they are sorted, essentialized, and when their differences qualify them for differential treatment (Brantlinger, 2003; Danforth & Gabel, 2006; Gabel, 2005). Thus, labeling leads to the failure of institutions to address children’s educational needs, to erroneous corrective measures that fail to empower students with disabilities, and to the empowerment of labelers (e.g., Apple, 2004; McDermott & Varenne, 1995; Schutz, 2002).
Disability-related misconceptions that focus on embodied disability instead of on the child’s milieu influence teachers’ decisions and children’s placements. Classification of students’ (future) abilities is based on the norm scale and results in boxing children into disabled, normal, or gifted groups, which end up determining the type of education they access. Although these classification criteria are arbitrary, they remain popular in determining who can access what education. Even with legislation that encourages a zero tolerance approach to discrimination, disability remains an exclusionary factor.

In general, the efficacy of special education has contributed to higher rates of enrollment of students with disabilities in schools and colleges than ever before (Garner, 2008). It has contributed immensely to the development of instructional strategies that benefit diverse student bodies. Despite such benefits, some special education practices have had detrimental effects on children’s education, leading to calls to reform education systems to make them more accessible to all students, specifically by changing approaches to identification and placement (Artiles & Harry, 2004; Salend & Duhaney, 2005). These undesirable practices have prompted inclusive education advocates to locate disability issues within the greater frameworks of legal rights, social justice, and human rights (Danforth, 2009; Ferri, 2011). Likewise, overrepresentation of minority students in special education programs (United States & United States, 2013) have led to criticism of biased procedures that make it easy for teachers to refer and place certain students in certain learning environments; this concern has led educators and policy makers to initiate numerous measures to decrease the disproportion (Arnold & Lassmann, 2003).

Attempts to address the issues have led to a broader view of learning processes (Bronfenbrenner, 1979; Masten, 2003) such as the theory of multiple intelligences
(Gardner, 1983) and the socio-cultural models of learning such as the situated learning (Lave & Wenger, 1991). The recognition of culture, history, and language as fundamental to learning has pushed special education to widen its practices in order to more holistically address the needs of students with disabilities (Gerber, 2005). This has led to new approaches such as mainstreaming, integration, and inclusion, which have made access to general education curricula possible (Office of Special Education Programs, 2000). However, even within the frameworks of mainstreaming and integration, common practice is to train students with disabilities in isolated spaces so that they can acquire functional skills before they join their peers without disabilities; they must be ‘fixed’ before they can be placed in general education settings. This position contrasts from the inclusive education philosophy that requires school reforms to create accessible learning milieus that support all learners.

**Inclusive Education.** Inclusion is a philosophy rooted in the social justice and civil rights movements of the 1960s (Brantlinger, 2003; Danforth, 2009) that contributed to deinstitutionalization and the ‘back to the community movement’ that later shaped persons with disabilities’ perceptions of inclusion as an emancipatory process. As mentioned above, some inclusive education philosophies are informed by sociocultural theory. Sociocultural theorists have postulated (Vygotsky, 1978) that inclusive education is based on the assumption that learning is embedded within social events, that children learn through interaction with people and objects, and that they attain competence when appropriate supported in a challenging environment. Thus, inclusive education concentrates on creating personalized learning embedded in communal activities (Ainscow, 2006; Dixon & Verenikina, 2007), it recognizes that teacher-student
collaboration and home-school partnerships are essential in nurturing children’s abilities and relationships. Thus, like sociocultural scholars that emphasize the importance of social components in nurturing students’ competences (Rogoff, 2009; Vygotsky, 1978), inclusive education scholars consider the education of students with disabilities entwined with their social milieu (Danforth & Gabel, 2006; Ferri, 2011; Gabel, 2005).

Inclusive education scholars argue that careful and systematic implementation of inclusive education benefits all children (Baer et al., 2011; Brantlinger, 2003; Danforth, 2009; Danforth & Gabel, 2006; Ferri, 2011; Gabel, 2005; Vakil, Freeman, & Jo Swim, 2003). They consider general education classrooms a microcosm of society that expose students to natural experiences that foster their behaviors and increase their competences, performance, and chances of continuing on to college (Baer et al., 2011). In addition to exposing all students to cultural differences, they also gain awareness of different circumstances through socialization, which helps them appreciate difference in general and develop symbiotic community-based relationships (Vakil et al., 2003). Children learn about dis/ability, and through exposure to a range of cultures, values, and orientations they can relate and adapt to diverse milieus and empathize with and understand others’ intentions and goals. Challenging inclusive learning environments prepare these students to respond to diverse issues, stimulate their social and cognitive development, and provide appropriate learning opportunities that allow them to maximize their potentials as they grow and develop (Lam, 2010).

Moreover, the inclusion of students with disabilities is an integral element for school diversity and inclusion (Brantlinger, 2003; Danforth, 2009). Hence, inclusive education scholars cite teachers’ insufficient experience in meeting students with
disabilities’ needs as a cause of exclusion; unpreparedness leads to academic demands and abdication of responsibilities to special education teachers or parents. Thus, exclusion is a human phenomenon correctable through the training of general education teachers in the most appropriate pedagogical practices that value students with disabilities. It also requires complementing existing professional supports by providing resources and services to enable teachers to efficiently plan, schedule, and execute learning processes.

Students with disabilities placed in segregated environments are provided with inferior education opportunities that limit their academic experiences and restrict their growth and development into productive individuals (Ankeny & Lehmann, 2011; Kim, 2012). Moreover, most experiences and behaviors are learned through naturally programmed social interactions. Yet, those in segregated environments have little exposure to natural behaviors because of the simulated environments or settings that are less a microcosm of society. This creates unfamiliarity and intolerance of different cultures that hinder the development of positive relationships and limit the understanding of norms and the development of a plural society. It also limits interactions with role models, which result in challenging behaviors and tensions between groups due to misconceptions and misunderstanding. In segregated learning settings, students are grouped based on their disabilities and mainly interact with professional adults. This denies them natural learning opportunities, such as sharing ideas with peers, and leads to alienation, which then leads to less inclusive schools, inaccessible education, incoordination of programs, and lack of collaboration in school and within teacher-parent partnerships – all of which limit educational opportunities and deny children the chance
to naturally access experiences thereby widening opportunity gaps by limiting exposure to fair competition, lowering self-esteem, and affirming deficit orientations that denigrate and devalue (McDermott & Varence, 1995; Banks & Banks, 2004).

Inclusive education classes, meanwhile, are beneficial to all. They promote collaboration between general education and special education teachers, which is essential in maximizing instructional effectiveness for all students. No Child Left Behind, the Individuals with Disabilities Education Improvement Act, and the widespread implementation of the Common Core State Standards (National Governors Association Center for Best Practices & Council of Chief State School Officers, 2010) have set the stage for bringing special education and general education closer to each other to address the needs of students with disabilities. All teachers are accountable for educating all students. That being said, many instructional practices “can support all teachers in raising academic achievement for all students while still meeting the demands of rigorous teacher accountability measures” (Graham-Day, Fishley, Konrad, Peters, & Ressa, 2014, p. 69). Students in inclusive education classes already benefit from various pedagogical practices such as universal design of learning, differentiated instruction, authentic multilevel instruction, and culturally sensitive pedagogy and assessments.

Inclusive learning settings are much broader and richer than segregated milieus. On the whole, inclusion of students with disabilities in general education classrooms is linked to high social, emotional, and academic competence (Allensworth & Easton, 2007; Gwynne et al., 2009; Jones, 2008; Kettler, Shiu, & Johnsen, 2006; Palmer et al., 2004; Willford, 2009), resilience, self-determination, and high ambitions (Cleary et al., 2008; Rumberger, 2004; Wagner, 1991), increased transition to college and work (Bottoms &
Timberlake, 2007; Smith, 2006), and effective impacts of transition programs on students with disabilities (Allen, 2005). Still, successful inclusion depends on an inclusive schoolwide culture that promotes reciprocal relationships and collaborations, and lead to availability and efficient use of resources (Sell, 2005).

On the other hand, some scholars have raised concerns with the feasibility of inclusive education; they have argued that students with disabilities are better served in special education classrooms with special education teachers and other specialists and paraprofessionals (Cosier, & Causton-Theoharis, 2011; Fuchs & Fuchs, 1994; Hanline & Daley, 2002). They also believe that segregation is practicable; it allows for maximization of scarce resources, modifications of learning settings according to students’ needs, and flexible staffing of special education teachers, specialists, and paraprofessionals to easily and appropriately manage and provide resources, services, and support. They believe that managing programs for a few students with disabilities scattered throughout different general education classes in various schools is infeasible. They also point out that some parents of children with and without disabilities have been resistant to inclusion of their children. Hanline and Daley (2002) identified the following misconceptions about the education of children with disabilities: that it is expensive to offer resources to every student when they are scattered throughout different classrooms; that students with disabilities require more attention, which steals time needed to address the needs of students without disabilities; that they need a highly structured learning environment to function; that it is time consuming because of the required rigors of accountability of content standards, individualized instruction, and dangerous behaviors.
that require more attention; and that students with disabilities are vulnerable to bullies and are therefore predisposed to challenging behavior.

Efforts to harmonize special education and general education practices continue as many students with disabilities spend most of their school day in the general education classrooms (Aud et al., 2011; Snyder & Dillow, 2013; Sumbera et al., 2014). Even so, efforts to expose students with disabilities to inclusive learning settings, to increase their access to general curricula, and to improve their school outcomes have mostly focused on general education classrooms. Implementation of successful inclusive education requires structural and theoretical organization (Friend & Bursuck, 2006; Meyen, Vergason & Whelan, 1996). Nurturing tolerance and reciprocal relationships in schools depends on the development of schoolwide cultures that embrace diversity and inclusion, that validate students with disabilities and enhance their involvement in learning processes to promote their experiences and competences. Mallory and New (1994) identified the following four main principles necessary for successful inclusive education: inclusive classroom functioning as a community of learners; developing reciprocal relationships to accelerate learning processes; using inclusive practices to make links and make content and context accessible to all students; and providing authentic and emotional support through feedback and assessment processes. Whereas learning theories continue to influence special education and general education approaches, legislations have also continued to impact students with disabilities’ education and transition to college, which I discuss below.
Legislative Factors

Federal and state governments support the education of students with disabilities through legislation and policies. Major disability laws that have influenced the education of students with disabilities are: The Education for All Handicapped Children Act (EAHCA, Public Law 94-142) of 1975; Section 504 of the Rehabilitation Act of 1973; and the American with Disabilities Act (ADA 1990, 2008). Other laws such as No Child Left Behind Act (NCLB 2002) and the Higher Education Opportunity Act of 2008 have also impacted access to education. These legislative acts require institutions receiving government funds to provide resources and services that promote the academic achievement and successful post-school outcomes of students with disabilities. Many schools and colleges therefore now provide disability services and accommodations with the expectation that they do not compromise general academic standards (Garner, 2008).

Section 504 and ADA. There was little emphasis on the education of students with disabilities until the mid-1970s when Section 504 of the Rehabilitation Act of 1973 took effect. The Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 are federal nondiscrimination and equal access statutes that require institutions to provide equal opportunities to students with disabilities. The Office for Civil Rights (OCR) in the U. S. Department of Education enforces Section 504 of the Rehabilitation Act of 1973 and Title II of the ADA of 1990, which prohibit disability-based discrimination.

EAHCA 1975. The sharp increase in enrollment of students with disabilities in schools is attributed to the enactment of the Education for All Handicapped Children Act (EAHCA 1975), later reauthorized as the Individuals with Disabilities Education Act
IDEA in 1990 and 1997, and the Individuals with Disabilities Education Improvement Act (IDEIA) in 2004 and 2008 (Milson & Hartley, 2005). The law raised awareness for the rights of children with disabilities and mandated schools to provide special education and related services to mitigate adverse effects of disability and environments on these students’ academics. IDEIA deals with early intervention, special education, and related services for children with disabilities from age 3 through 21. It postulates the following: that (1) Disability is a natural part of the human experience and in no way diminishes the right of the individual to participate in or contribute to society; and that (2) Improving educational results for children with disabilities is an essential element of the U.S. national policy of ensuring equality of opportunity, full participation, independent living, and economic self-sufficiency for individuals with disabilities (Connor, Gabel, Gallagher, & Morton, 2008). The law protects students with disabilities from arbitrary discrimination based on physical, socio-economic, cultural, and political factors. Its reauthorization strengthened the mandate of schools to provide suitable public education to all children with disabilities at public cost.

The IDEIA (2004) defines special education as specially designed instruction to meet the unique needs of a child with a disability at no cost to parents. This includes specialized learning strategies designed to meet the needs of students with disabilities in service-supported learning settings (Gerber, 2005). The IDEIA is divided into several provisions, including Free Appropriate Public Education (FAPE), Least Restrictive Environment (LRE), and Individualized Education Program (IEP) (Friend & Bursuck, 2006). The FAPE provision stipulates that an educational program should be designed to meet the child’s unique needs to prepare him/her for a productive life. Realization of
FAPE depends on many other provisions including LRE and IEP. The LRE provision requires the placement of a child in a learning setting that maximizes his/her functionality and potential. Learning settings may include self-contained facilities (i.e., for students with special needs) or integrated facilities (i.e., having students with disabilities spend part of their school day in general education classes with peers without disabilities) in the classroom, at home, or at the hospital where the child can access general education or a modified curriculum. Therefore, the provision of specialized instructional services is conducted in the settings deemed fit to meet the child’s educational needs. The IEP, on the other hand, focuses on detailed programs of service tailored to each individual child. The instructional services may include therapy or daily living skills training, and special remedial academic support is provided to prepare the child for readiness to learn and to compete equitably with peers. They exclude placement in special education classes on purpose in order to instead provide services such as counseling, physiotherapy, speech therapy, and hearing aids (IDEIA 2004; U.S. Department of Education).

**Parameters of disability laws.** Although the IDEIA, Section 504, and the ADA complement each other, they differ in their requirements due to varying criteria for providing accommodations. Section 504 of the Rehabilitation Act (1973) and the IDEIA cover student’s rights at P12, while ADA (1990) and Section 504 of the Rehabilitation Act (1973) cover student’s rights and responsibilities in postsecondary institutions (Eckes & Ochoa, 2005). Under the IDEIA, it is the schools’ responsibility to identify and provide appropriate services and resources to students with disabilities. Under Section 504 and the ADA, it is the student’s responsibility to disclose their disabilities and to request accommodations from the disability services office, and provision of disability
services is contingent on students furnishing the disability services office with appropriate and valid documentation (Eckes & Ochoa, 2005; Hunt, 2012; Oesterreich & Knight, 2008). Other students with disabilities are accommodated under the 504 Plan, which details support and accommodations needed to enhance their functioning. In general, the IEP is more detailed than the 504 Plan in terms of instructional services provided to mitigate educational demands caused by disability and environments. Other struggling students are accommodated under the Response to Intervention (RTI) model, which requires educators to identify struggling students and to either institute instructional techniques that reduce the probability of failure, or recommend students for special education early in that individual’s academic period. (See Appendix A for detailed definitions.)

**Access to education.** All of the disability laws have been reauthorized several times; they greatly impacted lives of children with disabilities by increasing their enrollment and graduation rates and assisting in the transition to postsecondary life (Newman et al. 2010; Snyder & Dillow 2010). Historically, in the U.S. context, it was considered most convenient to educate students with disabilities in segregated spaces. This approach became less popular, however, with the growth of deinstitutionalization and the civil rights movement in 1970s that led to the back to the community movement (Shapiro, 1993). Under the IDEIA, students with disabilities have optional placements, which include regular, inclusive, or segregated schools, as well as general education or segregated classrooms. Also, Section 505 of the Rehabilitation Act of 1973 and the American with Disabilities Act (ADA 2008) forbid postsecondary institutions from discriminating against students on the basis of disability. The Higher Education
Opportunity Act 2008 (P.L. 110-315), a reauthorization of the Higher Education Act of 1965, created new programs and added financial assistance for students with disabilities, including those with cognitive disabilities (e.g., intellectual disabilities [ID], anxiety disorders, etc.) (VanBergeijk, 2011). Guided by these laws, postsecondary institutions continue to invest in universal design facilities and programs, and to provide services to support diverse student populations. During the 2008–09 academic year, 88 percent of 2-year and 4-year Title IV degree-granting postsecondary institutions, 99 percent of all public 2-year and 4-year institutions, and 100 percent of medium and large institutions reported enrolling students with disabilities (Raue & Lewis, 2011; Piper, 2014). Even so, few students with disabilities aspiring to pursue college education actually make it to college (Fabian, 2007; Williams, 2009).

Access to resources. While disability laws have accelerated cultural changes by contributing to disability rights awareness, they have not fully addressed or solved access barriers in the education system. Consequently, students with disabilities continue to face academic, social, economic, cultural, linguistic, political, legal, and structural barriers that limit their access to educational opportunities (Garner, 2008; Williams, 2009). Mismatches between cultures, linguistics, socioeconomic statuses, abilities, and orientations hinder the facilitation of disability programs to address their needs (Gartin et al., 2002; Williams, 2009), hence the increasing gap between individuals with and without disabilities in education, employment, and general quality life. Specifically, it is hard for individuals with disabilities to access general education settings and curricula and participate in quality learning processes that lead to high grades and graduation with a diploma to switch to colleges and later on get into high paying career to lead a
successful independent living (Getzel & Thoma, 2008; National Organization on Disability, 2000; Roessler & Rumril, 1998; Sharpe & Johnson, 2001; Williams, 2009).

**The IEP/ITP program.** Secondary schools prepare students for adult citizenship responsibility; as such, the high school-to-college transition period is critical for students with disabilities due to the technical shift from a secure school structure to an adult life full of opportunities and risks (Williams, 2009). The reauthorized Individuals with Disabilities Education Improvement Act—IDEIA (P.L. 108-446) of 2004 requires schools to provide “a coordinated set of activities designed within an outcome-oriented process to both promote their movement from school” to postsecondary transition options—college, employment, adult community services, or independent living (Office of Special Education and Rehabilitative Services, 1996; Plotkin, 2011; Rueda et al., 2005), as well as to identify and recommend special education and related services for students ages 16 or below. The IEP team incorporates Individualized Transition Plans in the Individualized Education Program based on each student’s needs, potential, preferences, and interests with the aim of equipping them with knowledge and skills to lead a productive adult life (Folsom-Meek, Nearing, & Bock, 2007; Neece, Kraemer, & Blacher, 2009; Shaw, 2009).

The Individualized Transition Plan (ITP) is embedded in the IEP to help with the transition from high school to postsecondary life (Rueda et al., 2005). Merged IEP/ITP postsecondary goals are centered on the student’s needs, abilities, preferences, and interests, and aim at equipping the student with the knowledge, skills, and attitude to lead a successful independent life and to contribute to the welfare of the community (Edeiken-Cooperman, 2011; Rowe, 2004; Stuart & Smith, 2002). The IEP details pathways for
providing the support that is essential for ameliorating disability and reducing or eliminating barriers to quality education. It describes annual transition statements and other information regarding transfer rights, behavioral concerns, and community necessities (Folsom-Meek, Nearing, & Bock, 2007), while the ITP focuses on postsecondary goals and the services and support needed to achieve them (Rueda et al., 2005). Transition services, which may include assistive technology, instruction, community experiences, functional vocational evaluation, and/or related services (Pierangelo & Giuliani, 2004), are provided in order to improve students with disabilities’ academic and functional achievements and to facilitate their mobility to postsecondary life, including the transition to vocational training, college education, integrated employment, independent living, and adult community services or participation (Black, 2010; Brinckerhoff, McGuire, & Shaw, 2002; Cummings et al., 2000).

The IEP team which consists of the child and their parents or family members, teachers, administrators, professionals, specialists, and other significant persons, identifies and recommends special education and related services (Neece et al., 2009; Shaw, 2009) and then they work collaboratively to help meet the child’s learning needs (Eckes & Ochoa, 2005; Kauffman, 2005). The IEP team members’ roles and responsibilities are clearly defined in order to enhance efficient delivery of resources, services, and support tailored to the child’s needs and abilities to increase her/his functionality and involvement in the learning processes. Involvement of IEP team members is predicated on reciprocal relationships (Hetherington et al., 2010). Their collaboration ensures that they contribute their experiences collectively to provide services that most benefit the child’s developmental needs. Different perspectives from
different disciplines help in understanding the child’s disability vis-à-vis the child’s environment. The team works together on joint identification, diagnosis, assessment, planning, management, implementation, intervention, evaluation, and reporting of programs. The multidisciplinary analysis of the program and the child’s behaviors and environment allows for the determination of learning needs, recommendation of interventions, and provision of specific services or information that help the child achieve identifiable educational goals. Documentation of information on reports and test results allow for the development of multi-faceted and holistic treatments or intervention plans, for revaluation of the child, for the program to ensure achievement of set goals, and for future reference (Bruder, 1994). DeFur (1999) suggested inclusion of competent persons with experience in transitions as part of the IEP team (p. 94), the inclusion of parents being especially important due to the significant role they play in increasing their child’s chances of reaching education and transition goals. They are responsible for reporting the child’s physiological and psychological behavior at home, for treatment and interventions, and for approving services. Their involvement in the child’s referral to and provision of services ensures the IEP plans are centered on each child’s individual needs. Parents are responsible for contributing to plan implementation, and for evaluating and monitoring the child’s progress (Martin et al., 2006a; Martin et al., 2006b; Mason et al., 2004).

IDEIA mandates the provision of transition services; however, research showed twenty years ago that schools failed to provide precise services needed by students with disabilities, thus causing a major discrepancy between their abilities to realize learning outcomes and achieve education goals (Horn, Berktold, & Bobbitt, 1999). Ironically,
recent research still identifies similar problems. The ITP goals complement the IEP goals for transitioning students with disabilities; however, IEP teams have reportedly failed to address student’s needs and IEP goals (Neece et al., 2009). Even though students showed progress in their skills, Edeiken-Cooperman (2011) found that implementations of IEPs were perfunctory and not in conformity with IDEIA 2004 and that some of the IEPs goals were not measurable. Moreover, while the expectation is that IEPs address the student’s needs holistically, that is not always the case. Reports show that IEP teams focus on academic content and neglect experiential aspects (Ornstein & Hunkins, 2004). Lack or improper implementation of IEPs adversely affect students with disabilities’ education outcome and their possibilities of leading a productive future life as their non-disabled peers (Getzel & Briel, 2006; Hetherington et al., 2010; Neece et al., 2009). Compounding this problem, as some research findings show, is that students with disabilities in regular high school receive little transition services, primarily because teachers emphasize curricula-based teaching (i.e., subject content) over the teaching of general knowledge and social skills.

In addition, many students with disabilities are less engaged with the Individualized Education Plan (IEP) process (e.g., Murray et al., 2009). Hetherington et al. (2010) and Liparini (2008) (whose research I discuss later in detail) found students and parents less involved in the IEP process. Liparini (2008) found that students with disabilities were either actively or passively involved in their college selection process. Though findings fail to clearly explain causal reasons, it can be deduced that students with disabilities that are passively involved in college selection are less informed of the opportunities and resources available to them, or that they assume that their parents or
teachers are capable of addressing their needs without their input. Their disengagement limits their access to information necessary to transition to college. Decisions are often made for them that further deny them the opportunities to take on responsibilities and to develop the self-determination skills necessary for decision-making (Greathouse & Shaughnessy, 2010), and also it helps with the goal-directed behaviors (Field & Hoffman, 1994). Students with disabilities that are not encouraged to develop interpersonal
communication, self-awareness, and self-advocacy skills may be less enthusiastic to pursue college education, while those that are not exposed to career options early enough may lack the knowledge of prerequisites for future career interests (Wilson et al., 2009).

College students with disabilities that receive inadequate transition preparation in high school often need additional support to persist and graduate (Milsom & Hartley, 2005). Webster (2004) found that, though they understood their capabilities to manage college education demands, most students with disabilities aspiring to attend college struggled to manage the demands of switching from high school to college, due to a lack of correct information during the transition process. Less elaborate IEPs/ITPs, lacking/limited involvement of students with disabilities in the IEP process, and lacking/limited correct information are barriers that contribute to a fear of change and make it difficult to reach goals, resulting in fewer students with disabilities completing college applications and attending college.

**Factual information about college.** Attending college can be overwhelming to unprepared students with disabilities and their families/parents due to the requirements that accompany the shift of responsibilities and expectations mostly related to individual initiatives to disclose disability, to request accommodations, and to be accountable to
one’s actions. Students with disabilities that depended on parents and teachers’ representation may find self-accountability demanding. Transitions also involve linking and/or separating the past with the present. When students move into a new environment, they embark on new experiences – although the continuation may sometimes involve receiving similar services to those provided at P12. Access to correct information before transitioning to college can prepare these students once the change is underway, and help them manage new circumstances. Pre-college visits and information from siblings, parents, or friends attending or working at a college can expose them to college life and prepare them to adapt to their new environment. However, not all students with disabilities have early exposure to college life because of the different abilities of families to access right in resources and information, which makes them vulnerable to changes.

Knowledge is an important social and cultural capital (Trainor, 2008). Knowledge of self and others can contribute to the individual’s ability to navigate social situations and create social networks that support their growth and development. Social capital enables information-sharing networks, while cultural capital inculcates the value of college education (Oesterreich & Knight, 2008). Nearly two decades ago, a report by the National Organization on Disability (1998) revealed that a third of students with disabilities faced key barriers in finding desirable education and training due to their inability to identify their own disabilities, their unfamiliarity with the requirements and opportunities in postsecondary education, and limited or absence of supports to meet the education requirements (National Council on Disability, 2000; Smith, 1992).Ironically, as further discussed later on, recent research by Hetherington et al. (2010), Moreno (2013), and Webster (2004) still find that students with disabilities experience difficulties
in accessing correct information on transitioning to college. Students with disabilities destined for college need information and preparation, which can be provided through pre-college visits and community involvement (Garner, 2008; Moreno, 2013; Trainor, 2005). Service providers, teachers, families, and professionals are also sources of information. Pre-college visits prepare students with disabilities for and mitigate challenges caused by change, since they provide opportunities to scout colleges that would meet their needs. They also enhance their academic performance, ameliorate their disabilities, and foster socialization. During campus visits, students with disabilities familiarize themselves with the physical and social environment, university programs, university admission criteria (importance of general education curriculum, college-track courses, and college entrance exams (SAT)), and available services, resources, and support. Students interact with university staff, current and potential students and their families, and alumni from whom they may learn about transitioning and where to find correct information (Madaus & Shaw, 2006; Webster, 2004). When students with disabilities are helped to understand the factors affecting their education and social life (Knight, Oesterreich, & Newton, 2003), and how they are situated in their environments, they can become change-making agents to improve practices and systems that support their development of positive beliefs, make education accessible and transition to college possible, and lead to individual wellness (Oesterreich & Knight, 2008).

Multiple transition models. Since the IDEIA mandates schools to provide transition services, states and school districts across the U.S. have developed different curricula and transition models to prepare students with disabilities to exit high school. As these transition programs are hinged on the interests of these states, schools, and
stakeholders, it is difficult to evaluate their effectiveness (Alwell & Cobb, 2006). Learning theories and disability legislations have influenced institutional practices that either include and exclude students with disabilities from academic spaces, which I discuss below.

**Institutional Factors**

*Access to general education settings.* As discussed above, the philosophical orientations of schools determine the schoolwide practices that favor either inclusion or exclusion of students with disabilities. As such, these orientations also influence their education outcomes. Comparisons between the performance of students with and without disabilities still raise questions on the importance of general education classrooms for students with disabilities. For the past few decades, the U.S. Department of Education has funded the National Longitudinal Transition Study-2 (NLTS2), which looks at the characteristics and experiences of youths with disabilities. This research has focused on self-representations, personal relationships, future aspirations, and secondary schooling (e.g., credits earned, grade performance, enrollment, and transition). The NLTS2 report of 2001 to 2010 showed that general education and special education settings differently impacted the teaching and learning of students with disabilities. The report showed that secondary school students with disabilities in general education classes were more likely to take general education courses and earn more academic credits than peers with disabilities in special education settings.

On average, students with disabilities in inclusive high school settings were more likely to earn more credits in general education courses (16.7 credits or 72 percent) than in special education courses (6.1 credits or 28 percent). Still, in either setting, they
averaged fewer credits than did their peers without disabilities (22.7 vs. 24.2); their coursework focused less heavily on academic courses than that of peers without disabilities (12.7 academic credits vs. 16.1); and they earned more nonacademic, vocational, and nonvocational credits than their peers without disabilities. Similarly, students with disabilities were more likely to have low grade performance in segregated settings than in general education settings (mean GPA of 2.2 vs. 2.5, respectively). In comparison to their peers without disabilities, students with disabilities were more likely to have lower grade point averages (GPA) and score less A-range and more D-range grades. They were also more likely to fail at least one course during secondary school than their peers without disabilities (66 vs. 47 percent). On average, students with disabilities were likely to earn a lower GPA on a 4-point scale than their peers without disabilities (2.3 vs. 2.7 GPA); and also, 28 percent of students with disabilities were likely to have GPAs between 2.75 and 4.0 and 45 percent were likely to have GPAs less than 2.25 (Raue & Lewis, 2011). Thus, students with disabilities in general education settings are more likely to take general education curricula, earn more general education credits to transition to college, and more likely to maintain good academic performance in college than colleagues in segregated learning settings.

**High school graduation rate.** Very few students with disabilities transition from high school to college despite their increased enrollment in P12. The 2005 statistics show that only 9 percent of students with disabilities, compared to 70 percent of their peers without disabilities, attended a 4-year college (Banks, 2014; NLTS-2; Wagner et al., 2005). Students with disabilities can remain in school until the age of 21, which allows them to take academic, non-academic, vocational, and/or non-vocational credits to
complete and exit high school with a diploma, a certificate of attendance, or an Individualized Education Program diploma (depending on their course work). However, Raue and Lewis (2011) reported that staying in school longer has minimal effects on both academic performance and on enabling the student to continue on to college; groups of students with disabilities who dropped out or extended their stay in school had the same percentage of academic courses (99 percent) and approximately the same total credits from these academic courses (56 percent and 57 percent, respectively). While non-academic, vocational, and non-vocational credits increase the possibility of students with disabilities continuing on to vocational institutions, they lower their chances of pursuing professional courses at the college level, mostly because postsecondary education is structured to benefit students that display above average intellectual abilities, particularly in academic courses (Wilson et al., 2009).

Section 618 of the IDEIA mandates state to give account of all students with disabilities exiting school. A review of the Ohio’s education system shows discrepancies in the number of students with disabilities who enroll and graduate from high school. During the 2010-2011 reporting period, Ohio’s Local Education Authorities (LEAs) enrolled 63,836 students with disabilities aged 16 and above. Of these, 63,554 required transition components in their Individualized Education Programs (IEPs). The Ohio’s graduation rate for the 2004-2005 academic year was 85.3 percent for students with disabilities and 87.6 percent for students without. The percentage of students with disabilities who graduated with the same requirements (i.e., as students without disabilities) was 46.1 percent and those who graduated with modified requirements was 53.9 percent. For the 2009-2010 academic year, 82.6 percent of students with disabilities
and 84.6 percent of students without disabilities graduated from high school. During this same year, 87.5 percent of students with disabilities of graduation age with IEPs graduated from high school with a regular diploma. Between 2002 and 2010, the number of students with disabilities graduating from high school increased from about 78.9 percent in 2003 to 82.6 percent in 2010. Despite this increased graduation rate, the 2002-2010 statistics show that the graduation rate of students without disabilities nevertheless remains higher than that of students with disabilities.

Although there is increased enrollment of students with disabilities in P12 and increased rates of high school graduation, both their overall graduation rate and the rate that graduate with a regular diploma (essential to pursuing degree programs) significantly lag behind that of students without disabilities. This discrepancy prompted the state of Ohio to initiate measures to address students with disabilities’ performance and transitions, including the approval of a plan in December of 2010 to focus on five specific areas for improvement. The objective was to:

Increase high school graduation rates by 50 percent per year; reduce graduation rate gaps by 50 percent; reduce performance gaps by 50 percent; reduce the gap between Ohio and the best-performing states in the nation by 50 percent; and double the increase in college enrollment for 18 and 19 year olds (OPBSPP, p. 6). (See the Ohio’s Part B State Performance Plan [OPBSPP 2005-2013] and the Ohio State Part B Annual Performance Report [APR 2010-2011]).

Other causal factors for low rates of students with disabilities transitioning to college are the length of time they stay at home after high school graduation and a general lack of information (which I will further discuss later). The possibility of students
with disabilities enrolling in college reduces with the time they stay out of school; after high school graduation, students with disabilities who have been out of school for over two years were less likely to switch to college (Wager, Newman, Cameto, & Levine, 2005). Students were less likely to enroll in college after staying at home, and the longer they stayed out of school, the less likely they were to attend college. The 2009-2010 school year data – based on the interview information of the 2008-2009 school year for exiting data and on information collected during the summer of 2010 for post-school data – had a sample size of 1,610 surveyed youth with disabilities and showed that only 39.6 percent of students with disabilities enrolled in higher education within one year of leaving high school. The 2010-2011 school year data – based on the interview information of the 2009-2010 school year for exiting data and on information collected during the summer of 2011 for post-school data – surveyed 1,718 youth with disabilities and found that 41.4 percent of students with disabilities enrolled in higher education within one year of leaving high school.

The number of students with disabilities spending more time in general education classrooms has been increasing and, by 2013, over 50 percent spend at least 80 percent of class time in general education classrooms rather than in segregated classrooms (McLaughlin & Tilstone, 2000; Snyder & Dillow, 2013). Whether this translates as access to quantity and quality learning is yet to be fully established. Moreover, public schools’ general education classes are diversified as more students with different abilities, cultures, languages, genders, races, and orientations are enrolled (Coley, 2001; Mather, 2009; NCES, 2013; Vogel, 1990), which requires a range of teaching repertoires to close existing academic achievement gaps (U.S. Department of Education, 1992–2007).
Whether all teachers have multiple instructional repertoires to work with diverse students is another question altogether. Furthermore, debates on which instructional setting is better at improving educational opportunities for students with disabilities are inconclusive – hence the ongoing attempts to interpret the least restrictive environment (LRE) provision of IDEIA 2004 (Brantlinger, 1997; Fuchs & Fuchs, 1994; Kanter & Ferri, 2013; Kauffman & Hallahan, 1995).

**School drop out rate.** The rate at which students with disabilities drop out of school remains higher than that of students without disabilities. This drop out rate increases as the availability of transitional support services decrease (Mpofu & Wilson, 2004), which in turn decreases their mobility to college. Also, the dropout rate of minority students with disabilities tends to be higher than that of other categories of students with and without disabilities because of the confluence of disability and ethnicity/race (CRDC 2012 report). Research shows that a confluence of disability, race, gender, and social status predisposes students with disabilities to neglect by teachers, punishment, and lack of provision of accommodations, which affects teacher-student relationships, confidence, and self-advocacy, and again predisposes them to challenging behaviors that increases the odds of suspensions, expulsions, and the likelihood of dropping out school (Chamberlain, 2005; Connor, 2009; Durodoye, Combes, & Bryant, 2004; Green, 2006; McDonald, Keys, & Balcazar, 2007; Petersen, 2009; Rojewski & Kim, 2003). Specifically, disability status may have deleterious psychological consequences for postsecondary students with learning disabilities, particular when they adversely affect their self-worth (Connor, 2009). Students with disabilities are at risk of dropping out of school because of parents’ lack of involvement in their school life, an
unresponsive school system, stereotyping by counselors, parents, and teachers, and a need for early employment to reclaim one’s identity were contributory factors to unsuccessful transitions from high school to college (Lichtenstein, 1993). Variables predictive of drop-out (from college) include: prior academic preparation, type and degree of disability, availability of resources, parents’ education level, family socioeconomic status, student’s age, grades, and orientation of faculty (American Council on Education—ACE, 2003; Connor, 2012; Cummings et al., 2000; Dutta et al., 2009; Lehr, Johnson, Bremer, COSÍO, & Thompson, 2004).

**Standardized tests.** Besides access to general education settings and general education curricula and high expectations influencing education outcome, standardized tests also impact students with disabilities transition to college. The purpose of testing as a means to inform teaching and learning processes is shifting as demands for accountability increase, pushing teachers to teach to the test (Popham, 2001; Townsend, 2000). Standardized tests have become a tool for determining access to education, thus hampering students with disabilities’ inclusion, promotion, graduation, and transition. They determine placements, access to general curriculum, and teacher-student relations, and they create competition that pressures teachers into teaching to the test in order to improve academic standing (Kohn, 1999; Ohanian, 1999). Standardized tests also heighten teachers’ apathy towards students with disabilities, which further determines their placement, access to general curriculum, and transitions, particularly when instructors fear low grades could depress the school’s score (Heubert & Hauser, 1999; Peterson et al., 2002; Thurlow, 2000). In addition, competition stresses students emotionally and socially, contributing to challenging behaviors that result in a zero-
tolerance response, that is, a student is pushed out of the system rather than disciplined within the educational system (Garner, 2008).

To safeguard students from arbitrary teacher actions and to prevent schools from unilaterally exempting all students with disabilities from taking general education curricula, IDEIA 2004 placed a cap on what schools could do. It mandated that students with disabilities receive the same opportunities as peers without disabilities in taking state standardized tests. For students with moderate to severe disabilities, for whom the regular state test is deemed inappropriate, each state is required to develop an alternative assessment (IDEIA, 2004), but only a maximum of two percent of students receiving services in special education can qualify. Other states have instituted measures to limit exemption of students with disabilities from taking tests. For example, Ohio adopted two kinds of diplomas – regular and honors – with no plans to create a lesser diploma for students with disabilities (the Ohio State Part B Annual Performance Report—APR 2010-2011). Students must pass all five sections of the Ohio Graduation Test in order to receive a high school diploma. Still, students with disabilities may be excused from the consequences of this exam by their IEP teams and, therefore, they may receive a high school diploma without passing the exam. Furthermore, the application of the Common Core State Standards pressured teachers into teaching general education curriculum and subsequently to teaching to the tests. This encouraged sieving out and denying students with disabilities opportunities to learn general education curriculum. However, the National Governors Association Center for Best Practices and the Council of Chief State School Officers (2010) brought special education and general education closer together
by harmonizing the interpretation of No Child Left Behind (NCLB), IDEIA, and the Common Core State Standards, making all teachers accountable to all students.

Today teachers are trained in a range of teaching and learning repertoires in order to identify and address the learning needs of diverse students. In addition, disability laws have allocated resources to institutions for disability programs while the Office for Civil Rights (OCR) enforces Section 504 and Title II, which prohibit discrimination because of disability. Despite the resources, policies, and interventions, fewer students with disabilities access college in comparison to their peers without disabilities (Knight et al., 2003; Oesterreich & Knight, 2008).

**STEM courses and careers.** Lack of skills, particularly in the sciences and mathematics, portend difficult future life for students with disabilities because of the greater opportunities arise within the science, technology, engineering, and math (STEM) occupations (Dunn et al., 2012). Currently the U.S. Department of Education is projecting percentage increases in STEM jobs 2010-2020 in all occupations to be 14 percent, with increase expected in the following fields: Mathematics 16 percent, Computer systems analysis 22 percent, Systems software developers 32 percent, Medical scientists 36, and Biomedical engineers 62 percent (http://www.ed.gov/stem). Already, colleges are investing in STEM in anticipation of these fields becoming the leading job creators. Unfortunately, the number of students with disabilities in STEM fields remain low despite its great promise as a career choice for students exiting high school because of cultural, physical, social, economic, and political barriers (Committee on Equal Opportunities in Science and Engineering, 2006). The compounding of these barriers
with a disability greatly limits students with disabilities’ education, employment, and healthcare opportunities.

Barriers to STEM careers for students with disabilities are varied; but major barriers revolve around educational experiences, preparations, and employment. These factors include poverty (Shaw et al., 2008), prejudiced instructors (Ford et al., 2008; Hasse, 2011; Lee, 2011), instructors that are less prepared to work with students with disabilities therefore demotivating them from pursuing STEM fields (Rule, Stefanich, Hadelhuhn & Peiffer, 2009), school systems that are less practicing inclusive schoolwide cultures (Danforth & Gabel, 2006; Hetherington et al., 2010; Gabel, 2005), low grades in science and math (CRDC, 2012), limited access to general education curricula leading to low high school graduation, low number of students with disabilities prepared for STEM courses (Wagner et al., 2005), and suspensions and expulsions that lower students’ performance or denies them education (CRDC, 2012). Also, less exposure to science and math affect students with disabilities’ pursuance of STEM courses and eventual choice of STEM fields.

Early access to science and math lead to early success in these subjects (CRDC, 2012). Yet, underrepresented groups of students, including those with disabilities, are likely to access math and science courses later in their schooling life, which often leads to poor performance and disinterest in science and math careers. Data by CRDC (2012) show that Hispanic and African-American students are less likely to access Algebra II classes in many schools with the percentage standing at 82 percent of schools in diverse districts and 65 percent of schools that serve the most African-American and Hispanic students. They are also less likely to enroll in Gifted and Talented Education (GATE)
Programs; they make only 25 percent in comparison to 75 percent of White and Asian students. This disproportionate underrepresentation of Hispanic and African-American students in these educational opportunities is magnified for students with disabilities. Consequently, students with disabilities are less likely to access STEM courses early in elementary school to develop competences necessary to pursue STEM programs in college.

Math and science require hands-on experiences to make abstract concepts meaningful. Lack of exposure in structured and unstructured STEM-related activities lowers students’ ability to conceptualize topics and work independently on projects (Eriksson, Welander & Granlund, 2007). Some students with disabilities have less exposure in structured and unstructured STEM-related activities primarily due to unaccommodating learning environments that stem from negative teacher attitudes and inaccessible labs (Hasse, 2011). Also, teachers’ beliefs that students with disabilities are less able to pursue STEM subjects (Lee, 2011) or teachers that lack experience in including students with disabilities make it hard for these students to partake in science and math classes, which further lowers their aspirations and interest in STEM careers (Rule et al., 2009). Misunderstanding disabilities adversely impacts teacher-student relations, reduces trust and consultations, and leads to low grades, thereby reducing their pursuance of STEM courses in college and their employment prospects in the STEM careers. Fewer students with disabilities in STEM fields also means fewer role models with disabilities in STEM (Hasse, 2011; Lee, 2011; Napper, Hale, & Puckett, 2002), which further affirms the misconceptions about their inability to pursue STEM. Misconceptions adversely affect teacher-student relations, demotivates and denies them
counseling and access to right information (Alston & Hampton, 2000; Alston, Bell, & Hampton, 2002; National Science Foundation, 2002, 2015).

Negative perceptions of disability and technology also limit their access to correct information. People with disabilities are considered consumers of technological developments (assistive technologies—cochlear implant, electric wheelchairs or MiniComs) and not creators, inventors, or investors, despite history being replete with scientists with disabilities whose inventions have enriched people’s lives (e.g., theories about the nature and origins of our universe such as the Black Hole, Stephen Hawking—motor neuron disease). Thus, a lack of emphasis on role models may have negative effects on students with disabilities’ psyche and contribute to a fear of math and science. Thus, fewer students with disabilities in STEM fields mean fewer future life opportunities, which leads to cyclic poverty (Nagle, Marder, & Schiller, 2009). Lack of students with disabilities’ involvement in the STEM fields is a lost talent (Oakes, 1990) and, therefore, one that needs to be tapped into. With neo-liberalization, globalization, and competitive job markets, college education is necessary for students with disabilities to maximize their knowledge and skills, especially in the STEM fields (Mazzotti et al., 2009).

Collaborations. IDEIA of 2004 places a lot of responsibility on schools in providing students with special education and related services; but it also requires the collaboration of the IEP team in planning and implementing of IEP/ITP programs, which means that parents occupy an important space in the team. Parents, teachers, professionals, and specialists know students with disabilities from their individual perspectives; although professionals provide support services and interventions based on
their expertise, their knowledge of the student is limited to their interactions and to the professional realm. Thus, collaborations and partnerships are important to develop appropriate interventions beneficial to the student and to actualize IEP goals. Collaborations between teachers, service providers, and parents allow for the sharing of experiences and the development of holistic approaches in addressing the student’s educational needs. As discussed earlier, involvement of students with disabilities and their parents in the IEP/ITP process is paramount, as it ensures the setting of goals that reflect student’s interests, aspirations, performance, and potential. Realization of transition goals within a set timeline depends on a meaningful curriculum, student-oriented outcome-based goals, the students’ active involvement, continuous student and parent engagement, the delivery of transition services, and open communication (Hetherington et al., 2010; Kohler & Field, 2003; Martin, Van Dycke, D’Ottavio, & Nickerson, 2007; Shogren et al., 2007). Therefore, disengagement by any party in the IEP team frustrates relationships and leads to discrepancy in the transition program (Powers et al., 2005). It complicates the team’s relationships and makes it difficult to meet the student’s transition goals, which further affects the student’s participation.

Hetherington et al.’s (2010) study looked at the experiences of high school students and their parents during the educational transition-planning process. Researchers interviewed thirteen youths with disabilities who were members of a self-advocacy group in western New York. They found that parents in the focus groups deplored how school districts engaged them in the transition-planning process. Parents and students considered school curriculum inadequate, transition goals either irrelevant or immeasurable, and teachers’ adamant, unsupportive and unprepared to direct transition programs, a factor
that made it difficult to obtain correct information on time in order to make career planning decisions. Parents also found the rigors of the transition process, full of misinformation and miscommunication, confusing. Some disengaged from the schools, and attributed their decision to superficial treatment that left them caught in the bureaucratic systems. Also, they found that a majority of students were disengaged most of the time from the IEP process and considered the IEP meetings unhelpful. Instead, they relied on parents and peers whom they considered more supportive than teachers, which echoes previous and subsequent research, particularly with regards to the transition process including college choice and decision-making (Ankeny & Lehmann, 2011; Banks, 2014; Geenen et al., 2001). This validates the involvement of parents and significant others in the IEP team. Nonetheless, this study is limited in its findings and generalizability due to the small sample size limited to a particular geographical region. It nevertheless raises a couple of concerns. First, parents found teachers unsupportive in their quest to help their children prepare for their transition. Considering what transpired, what changes would be required for teachers to initiate transition planning for students with disabilities in middle school or earlier in high school, and to actively engage students and their parents in the process? Correspondingly, since students with disabilities considered peers and parents more helpful in their transition journey than most teachers, what could be done to nurture a support circle that would work as a team to encourage students with disabilities to achieve education and transition goals? Moreover, what is the prevalence and impact of the exclusion of students and their parents from the transition process? In addition, there is a need to study whether students’ detachment from the IEP transition process is related to, and perhaps a result of, their
exclusion from the transition process in general. There is also a need for research to determine the impact of the exclusion of students with disabilities and their families on IEP implementation, students’ learning outcomes, and mobility to college.

**Role of family.** Involvement of family in a child’s education is important. As mentioned above, Lichtenstein’s (1993) study of young adults with disabilities who dropped out of school revealed that a lack of parental involvement in child’s school because of busy schedules, parent-teacher misunderstandings, or lack of advocacy increases their risk of dropping out of school. Also, studies by Banks (2013), Hetherington et al. (2010), and Webster (2004), find that parents are important players in the educational lives of children with disabilities. Families contribute to students with disabilities’ academic achievements when they are involved in their school lives (e.g., Bryan, & Burnstein, 2004; Coleman, 1987). Their social, moral, and physical support positively influences children’s attitudes and goals, and helps build their confidence and identity, and motivates them to work hard in meeting education and transition goals (Ankeny & Lehmann, 2011; Trainor, 2005; Zhang, 2005; Webster, 2004; Williams, 2009; Zhang, Wehmeyer, & Chen, 2005). The level of family involvement might explain why students value family and peers/friends and consider them more helpful than professionals (Webster, 2004). Proactive involvement of both family and student in school affairs is necessary in dealing with the bureaucratic school/college systems (Neece et al., 2009). Families play a critical role in the realization of IEP/ITP goals, and their involvement in the implementation of IEP processes ensure that IEP teams understand students with disabilities’ needs and potentials, as they know the available resources needed to prepare them for transition. Despite the importance of families, their
antagonism with schools over their children’s education affects trust in and involvement with the school.

Overprotection and under expectations of parents and teachers limit students with disabilities’ access to education and continuation to college (Stodden & Dowrick, 1999). Some parents and teachers sometimes recommend exempting students with disabilities from taking tests out of fear that failing tests adversely affects their self-esteem (Garner, 2008; Heubert & Hauser, 1999; Peterson et al., 2002; Thurlow, 2000; U.S. Department of Education). Overprotection, or shielding children from harsh experiences, though important in some situations, it denies students with disabilities educational and future opportunities; it can lead to the overdependence of children on their parents and hinder their skill development. Overdependence suppresses self-determination and leaves children vulnerable to change. It also denies students their independence, and access to natural real-life experiences that are often a mixture of successes and failures. Students with deficient skills find independent life difficult to lead (Eckes & Ochoa, 2005; Smith, English & Vasek, 2002). Overdependence may be inevitable in some circumstances. Students with severe disabilities may need personal assistants, since colleges are not required to provide one and/or may lack adequate resources. It is prudent to have parents step in to provide support so that students can pursue their educational goals, especially now when many students with disabilities aspire to pursue college education to increase their life opportunities (Wagner et al., 2005; Webster, 2004). While support is necessary for them to actualize their goals, it should be provided moderately without suppressing the development of non-cognitive behaviors, such as perseverance, that are learned through exposure to risks (Ankeny & Lehmann, 2011). Still, worth investigating is why
some parents wanted to protect their children from failure or disappointing
circumstances, such as test-taking.

Institutionalization of correct measures to foster parents’ and teachers’ positive
attitudes is necessary if negative consequences such as opportunity gaps are to be reduced
(Mpofu & Wilson, 2004). Equally important is that students with disabilities be exposed
to risks, rather than shielded from them, so they can develop suitable skills necessary to
face real-life experiences (Ankeny & Lehmann, 2011). This approach has its successes
and failures (Moreno, 2013). As Moreno (2013) puts it, “Individuals with disabilities
have typical worries and pain, but we also have a lot of happiness and moments of true
passion and strength (p. 18).” Thus preparing them for various situations that occur in
one’s life allows them to develop skills such as perseverance necessary to manage their
lives. Foley (2006) suggests having students with learning disabilities take specific
courses that address time management, self-advocacy, and self-determination; and
organize workshops where students with learning disabilities can meet and discuss with
university staff about the learning environment.

The purpose of IEP is for a team of competent individuals to address a child’s
needs and help him/her succeed in life. For efficient functioning, the team should have a
reciprocal relationship with the student to allow for the flow of information. Open
communication ensures the continuous flow of information between home and school;
this helps families and teachers establish partnerships that support students in their quest
to achieve their educational and transition goals. Transition is a long-term process that
requires collaboration in the implementation of transition plans. Communication helps
build reciprocal relationships within the IEP team to provide support and direction so that
the students with disabilities is exposed to diverse information and is prepared to take control of and manage their lives, particularly in the case of transitioning students. Reciprocal relationships enable the sharing of genuine thoughts and self-criticism, as well as critical evaluation of transition programs. Through the exchange of ideas on student’s prospects, the IEP team fosters environments that enable and support the initiation of programs that effectively support the student’s growth and development toward achieving their education goals (Ankeny & Lehmann, 2011; Black, 2010; Garner, 2008; McKenna, 2000). Frequent discussion of transition plans, for example during school career fairs and during IEP annual review meetings when the team evaluates the student’s overall progress, helps keep the IEP team up to date on the student’s progress and it helps harmonize the team’s input, and centers the child’s needs in the implementation of education and transition goals. Hartnell-Young, Smallwood, Kingston, and Harley (2006) suggested distinct transition phases, such as “school-to-college, school to-employment, college-to-employment, or employment-to graduate study”, to help the IEP teams address transition issues gradually and more in-depth as the student with disabilities prepares to exit high school (cited in Black, 2010, p. 118). Even though the IEP team plays critical role in the education and transition of students with disabilities to postsecondary, challenges still remain with the implementation of the IEP programs.

*Complaints about institutions.* Schutz’s (2002) review of literature on transition from secondary to postsecondary education for students with disabilities revealed that, between 1998 and 1999, the Office of Civil Rights (OCR) identified major complaints raised by students with disabilities against colleges and universities. Starting with the most frequent complaint, students with disabilities reported challenges with admission
applications, procedural requirements, access to auxiliary aids, academic adjustments, access to test/exam, retaliation, harassment, physical accessibility, and program accessibility in general. The OCR Report 2015 also revealed disability-related biases and non-obligations of institutions in providing equal access to education opportunities as a result of limited or lack of “programs, services, and activities available to other students” and inadequate adherence to “policies, practices, and procedures” (p. 35). Although OCR found no violations for some of the complaints, as Schutz (2002) observed, we cannot tell whether OCR processes were efficient in assessing the cases as well as whether the students’ complaints were genuine or not, whether students were satisfied with the OCR’s decision, and whether the institutions processes were fair and just (p. 51). It is probable that some of these issues could have been resolved at the institutional level or even simply between professors and students. Still, the complaints showcase difficulties students with disabilities experience when transitioning to college and how that affect their success in postsecondary institutions.

Challenging experiences students with disabilities experience in postsecondary institutions have been reported to be connected to instructors’ lack of skills and knowledge, inadequate resources, biases or negative feelings and attitudes, and unawareness of rights and responsibilities, which contribute to difficult student-professional relationships and low-esteem in students (Schutz, 2002; Office of Civil Rights Report 2015; Webster, 2004). Nevertheless, both the complaints received by OCR previously and in its 2015 report about colleges, and Webster’s discernment of the causal factors for misunderstandings raise issues of expectations versus demands, and may indicate misunderstandings between instructors and students with disabilities regarding
protocols, needs, accommodations, modifications, and provision of services and support. Overall, questions remain on the efficacy of institutions in facilitating students with disabilities’ mobility to college. Besides institutions impacting students with disabilities access to quality education, economic factors have also impact their education and transition to postsecondary life, which I discuss next.

**Economic Factors**

*Poverty and education.* As presented in the previous discussion about legislative factors, federal and state governments influence students with disabilities’ education through funding and policies (Garner, 2008). States and school districts that meet the criteria of disability laws are funded to develop and sustain special education programs. Conversely, failure to meet the criteria results in the government withholding funds. Schools are also funded by local property tax, and so community taxes determine the education quality accessible to students. minority students living in low income inner city have limited opportunities to access quality education because of the considerable inexperienced teachers and limited resources which adversely affect access to all subjects including science and mathematics and engagement with learning processes at school and at home (Oakes, J., 1990 as cited in Shaw et al., 2008). Thus, schools with limited resources may lack the capacity to provide students with disabilities with resources, services, and support to access (quality) education.

Poverty adversely affects students access to education. About 47 percent of students with and without disabilities come from low-income families and over 63 percent of students from low socioeconomic statuses depend on financial aid and loans (U.S. Department of Education, 2002), while some have to balance education and work
to finance their education. Working, though it brings income, also drains students mentally and physically, leaving them with little or no time to meet their matriculation requirements. Rojewski and Kim (2003) observed that students with learning disabilities from higher socioeconomic status groups were four times more likely than working-class and poor students to pursue college education. In general, children living in poverty are disadvantaged due to lacking or limited education, healthcare, protection, and information. Thus, the interaction of poverty and disability negatively impacts education and transitions to college. Therefore, students with disabilities from low socioeconomic backgrounds often lack basic needs and spend more time worrying about out-of-school matters, which interferes with their education. As already discussed under STEM courses and careers, poverty compounds issues of inaccessibility to quality education, limited future employment opportunities, and possibilities of leading a productive life.

**Poverty and job prospects.** The U.S. Department of Commerce Census Bureau data for the 2012 American Community Survey 1-Year estimates of non-institutionalized populations showed that, of the population aged 16 and over, more persons with disabilities (22.1 percent) than people without disabilities (12.7 percent) lived below 100 percent of the poverty level. Over 73.7 percent of people aged 16 and over were not in the labor force, compared to 28.8 percent of people without disabilities, and their median earning was $20,184 compared to $30,660 of persons without disabilities. Also, education attainment for people aged 25 and over revealed that only 14.2 percent of persons with disabilities had a bachelor’s degree or higher, in comparison to 32.4 percent of people without disabilities. This is a problem considering that the Bureau of Labor Statistics projects more jobs in 2018 for people with at least an associate degree, at a time
when fewer people will hold these degrees (National Council on Disability, 2004), particularly in the promising career fields (e.g., business, oil, banking) where students with disabilities are underrepresented (Alston, Bell, & Hampton, 2002). Links between disability and poverty, and correlations between college education, employment, and performance mean that unless students with disabilities have more successful education outcomes, those without college diplomas will be predisposed to failure (American Youth Policy forum & Center for Education Policy, 2001; IDEIA 2004; Kauffman, 2005).

People with disabilities account for the largest proportion of persons living in poverty and on welfare programs due to their low rates of employment and low rates of access to (college) education, healthcare, and technology. Since college education increases opportunities to escape from poverty, the need to increase the rate of students with disabilities transitioning to college is not difficult to defend (Dutta et al., 2009).

**Prerequisite job skills.** Lack of guidance and counseling on career choice contribute to fewer students with disabilities continuing on to college. College-bound students fail to make final career choices until later in their college education. A general lack of career choice coupled with an unpreparedness to deal with the bureaucratic college system leaves them intimidated by the prospect of living away from family, further derailing their transition goals (Chang & Logan, 2002; Edmondson & Cain, 2002).

Also, limited participation in internships reduces students with disabilities' interests in certain careers, which demotivates them from pursuing college degrees. The confluence of disability and cultural and socioeconomic factors denies internship experiences to many students with disabilities. Segregation denies them opportunities to
develop prerequisite social skills needed to lead an independent life and maintain a job; it limits their exposure to job market requirements and reduces their pool of skills and their chances of succeeding after graduation. They therefore usually lack knowledge about job markets and the skills to compete for jobs, handle failures, or fit in at the workplace (Cummings et al., 2008). Preparing students with disabilities to manage changes is essential for their independent life in college and success in subsequent careers. This preparedness begins by matching their abilities to careers and creating opportunities for internship and participation in extracurricular activities (Levinson & Ohler, 1998). Matching students’ abilities with appropriate careers as they grow up helps realign their education and career goals.

As presented earlier with the IDEIA mandate on IEP/ITP, the goal of transition services is to develop students’ employment and other post-school adult living skills so they can function in their communities. Although age 16 is the official transition period, starting transition five years prior to high school graduation can give the IEP team time to figure out what works best for the student (Pierangelo & Guiliani, 2004). Shaw et al. (2008) recommended beginning transition planning early in order to identify postsecondary needs and set goals that foster students’ knowledge and skills. This is similar to earlier suggestions by Brinckerhoff (1996), who noted that institutionalization of the transition process as early as eighth grade may give students the opportunity to become more responsible for their own learning objectives and outcomes (p. 120; cited in Schultz, 2002, p. 53). Since career development of some students starts as early as preschool (Cummings et al., 2000), it may be judicious to initiate transition planning for
young children with disabilities early enough to address their needs, values, interests, abilities, and skills in order to prepare them for adult roles (Cummings et al., 2000).

**Cultural Factors**

Culture permeates and defines the individual’s and a community’s way of life. It consists of shared beliefs, symbols, and interpretations (McDermott & Varenne, 1985; Pollock, 2008; Rogoff, 2009). The essence of culture is the way members of a group interpret, use, and perceive artifacts (or learn) (Lam, 2010). Culture influences students with disabilities’ access to education, and their drop out and graduation rates, as discussed above. Societal stigmas and prejudices and stereotypes of individuals with disabilities as deficient, weak, special, or victim influence students with disabilities’ integration and participation in the schools and community. Disability stigmas and stereotypes are the basis of negative perceptions and frameworks that qualify invalidation and marginalization (Barton, 1993; Oliver, 1992, 1993). Cultural practices that turn disability into alien human experience limit students with disabilities relationships with peers and adults without disabilities and hamper their access to quality education and academic success. Even those that persevere in school may, due to exclusion, lack the necessary academic, social, emotional, interpersonal, decision-making, management, and compensatory skills to strategize and cope in a new environment and they may therefore find college life extremely confusing and feel frustrated by having to identify, seek, locate, and access support services.

**Orientations of faculties.** Culture is critical in the relations among students, teachers, professionals, staff, and the wider community; these relations determine access to learning spaces and resources and supports. Schools are social institutions, a
microcosm of society, greatly influenced by cultural practices and norms. A community’s culture influences administrators’, teachers’, and parents’ perception and treatment of students with disabilities. As members of society, teachers are cultural creators and disseminators and, through their practices, they facilitate or hinder students with disabilities’ access to education. Their perceptions determine their relationships with these students, the provision of accommodations, and the quality of learning processes. Student-teacher relationships are essential in fostering belonging and involvement in school and learning activities. Learning is a process of sharing information through interactions (Vygotsky, 1978). As such, teachers that value all students adopt teaching and learning practices that nurture relationships and correctly promote their experiences and their citizenship. Also, they consider their teaching a duty and a moral obligation that requires dedication, ingenuity and creativity and they use multiple strategies to maximize children’s abilities to realize their dreams (Sapon-Shevin, 2013). Thus inclusive practices depend on students’ and teachers’ relationships, which determine the greater schoolwide culture (Kliwer, 2008). As mentioned earlier, placement of students with disabilities in environments representative of their communities provides learning opportunities that stimulate their social, cultural, physical, psychological, and cognitive growth and development. It promotes collaborations and partnerships; it allows development of reciprocal relationships among different players in the child’s life who further create opportunities though social participation that expands his/her social network and, again, builds his/her knowledge, skills, and qualities.

**Instructors and service providers’ attitudes.** Instructors and service providers either facilitate or hinder students’ successes (OCR 2015 Report). In particular,
instructors directly influence students with disabilities’ academic success; however, their attitudes matter in building relationships and in shaping students’ personalities. Negative teacher attitude has adverse effects on relationships and student performance. Supportive teachers create inclusive environments that help students with disabilities belong and succeed in school, while less supportive teachers create social barriers, make access to general education curricula difficult, and undermine students’ transitions, hindering their integration and widening opportunity gaps (Banks, 2014; Hetherington et al., 2010). Influential people sometimes discourage students with disabilities from pursuing college education (Hitchings et al., 2001; Milsom & Hartley, 2005). Hitchings et al. (2001) found that teachers and/or school counselors discouraged 20 of 97 college students with learning disabilities from pursuing college. Moreno (2013) who was diagnosed with Spinal Muscular Atrophy (SMA) Types II, a genetic condition that impairs the muscles, wrote about her experiences growing up in a family that supported her education and enhanced her academic competences; she loved school and performed well in academics. Besides equitable treatment in the family, peers were equally supportive; but she experienced challenges in school majorly caused by some teachers who essentialized her disability, thus limiting her opportunities to socialize with peers. Her peers never considered her disability an issue but “[t]he awful teachers … seemed to enjoy reminding me that I was different… (p. 16).”

While teachers and staff contribute to students with disabilities’ academic successes, research on underrepresented groups, including students with disabilities, show that negative cultural practices contribute to malpractices that adversely affect students with disabilities’ access to quality education and transition to college. Teacher
prejudices limit students’ access to accommodations (Pellegrino, Sermons, & Shaver, 2011) and general education curricula (Losen, Orfield, & Jeffords, 2002; Trainor, 2005), which their relations (Willis, 1977), categorizations and placements (Wagner et al., 2005), and performance (Baer et al., 2011; Newman, Wagner, Cameto & Knokey, 2009). Negative teacher perceptions also lead to non-reciprocal relationships, limited home-school partnerships, and challenging behaviors, which affect delivery of services and access to quality learning (chamberlain, 2005; Connor, 2009; Kliewer, 2008; Sapon-Shevin, 2013). In addition, students with disabilities are easily suspended, expelled, or otherwise punished affecting their regular process for exiting school. A 2012 Civil Rights Data Collection (CRDC) by the U.S. Department of Education Office for Civil Rights showed that students with disabilities were more likely to be punished, restrained, secluded, excluded, suspended, or expelled. Their out-of-school suspensions doubled those of peers without disabilities. They were therefore less likely to graduate from high school and transition to college and, because of challenging behaviors or suspensions, they were less likely to develop interpersonal skills or positive relationships to derive the social support necessary to succeed academically.

Teachers’ prejudices are also linked to overrepresentation and underrepresentation of certain groups of students in certain education programs (e.g., in special education, English language learners, and gifted classes). This has been attributed to cultural deficit, that is, the privileging of mainstream cultures over cultures of underrepresented groups (Donovan & Cross, 2002; Ford, 2011; Ford, Grantham, & Whiting, 2008; Lohman, 2005). A systematic review of studies looking at teacher referrals for gifted education placement from 1971 to 2008 by Ford et al. (2008) revealed that teachers consistently
under-referred African American children for gifted education screening and placement. Furthermore, while African American children represent 17 percent of public-school student enrollment, they comprise 22 percent of children classified as having a disability (National Center for Educational Statistics [NCES], 2005, 2011). Teachers’ arbitrary practices contribute to disproportionate representation of certain groups of students in special education programs (Salend & Duhaney, 2005). This has been attributed to incongruent teacher-student cultures that lead to teachers’ misconceptions and misunderstandings, and makes their relationships with children of color and English language learners difficult. This discrepancy further complicates teachers’ understanding of students’ cultures and behaviors. Often, teachers’ conscious or unconscious deficit perspectives guide such practices as referral, labeling, punishment, recruitment, or retention of students from minority groups.

Different cultural practices influence how students with disabilities are treated in society. Disability-based misconceptions are barriers to education and are caused by misunderstandings and marginalization. Hence, understanding how cultures validate and invalidate individuals can be a foundation for challenging disability-based biases and building reciprocal relationships. This requires understanding interactions of teachers or institutional practices with regards to disability (Pollock, 2008) in order to nurture schoolwide cultures that embrace diversity and inclusion and encourage students with disabilities’ belonging and involvement in school activities and events. Culture is the key determinant of the processes of learning theories, legislations, institutions, and economics, and these factors interact to make education either accessible or inaccessible to the individual student with disabilities. As presented earlier, students and the larger
human group are social species whose behaviors are influenced by internal (e.g., Piaget, 1977; Sun & Hui, 2012) and external factors in the ecology or systems (Bronfenbrenner, 1979; Masten, 2003; Vygotsky, 1979) as so they co-depend and co-regulate each other’s behaviors and determine each other’s access to spaces and resources. Below, I discuss the impact of individual factors on student’s access to education and transitions.

**Individual Factors**

As already presented, different external factors influence students with disabilities’ access to education and transitions to college. Individual characteristics also determine their involvement in the learning process, their management of academic demands, their inclusion or exclusion, and their transition to postsecondary life (Carter, Lane, Pierson, & Stang, 2008; Linnenbrink-Garcia, Tyson, & Patall, 2008; Maehr & Zusho, 2009; Walker & Test, 2011). Deficiency in cognitive and non-cognitive skills predisposes them to academic failure while competency in academic, career, personal, and social domains increase their possibilities of success in life (Connor, 2012, 2013; McGrew, 2008). Academic interests and values determine individual student engagement with their learning processes and education outcomes (McGrew, 2008). Academic values are defined as the individual’s desires, preferences, or wants of certain academic goals and outcomes, while academic interests are the individual’s power or curiosity to work and achieve certain specific academic outcomes (McGrew, 2008). Both influence a student’s engagement with learning activities and learning. Positive education outcomes depend on students’ non-cognitive behaviors. Students’ abilities to communicate in social settings influence the development of relationships that further influence access to education opportunities and resources. Also, self-beliefs influence perceptions of their
capabilities to relate with people and manage circumstances with or without outside support. A locus of control determines individual students’ conceptions of factors that cause success or failure. The two major loci of control are internal and external (McGrew, 2008). With internal attribution, individuals associate their success or failure to their own behaviors or personal traits, while with external attribution, individuals link their success or failure to forces beyond their control such as luck, fate, teachers, or friends. Students with internal locus control are more likely to succeed academically because of their willingness to plan, set goals, persist, and execute decisions even when dealing with challenging circumstances. In contrast, students with external locus control are vulnerable as they blame others for their experiences or problems, while also attributing their success to others. Students with high internal locus control engage in self-regulated strategies and recognize their need to succeed and how to do so. In addition, the ability to manage one’s milieu depends on individual characteristics. Individual behaviors affect competences to manage demands in one’s environments. Students with disabilities that succeed in school are patient, resilient, persistent, creative, social, motivated, and set achievable goals (Gerber, et al., 1992).

When students with disabilities move to college, they change statuses and become more independent and accountable for their actions. Adult roles require active involvement in various activities, and socialization provides spaces for students with disabilities to acquire the necessary experiences to succeed in life (Getzel, 2005). Personal qualities such as self-determination, self-identity, self-awareness, self-acceptance, and self-advocacy determine individual’s successes in social and academic realms. Self-determination is the ability to make choices and decisions based on one’s
own preferences and interests, to monitor and regulate one’s own actions, and to be goal-oriented and self-directing (Field & Hoffman, 1994). Self-determined individuals value themselves, are knowledgeable about their potentialities, set goals based on what they can achieve or accomplish, and act on plans leading to new opportunities for relearning (Ankeny & Lehmann, 2011; Field & Hoffman, 2002). Self-determined students set genuine goals about their future (Thoma & Wehmeyer, 2005; Wehmeyer & Shogren, 2008) and, based on their abilities, institute measures that enable them to function in their learning settings (Thoma & Getzel, 2005). The need for students with disabilities moving to college to self-direct their lives makes self-determination essential skills for survival considering the challenges in postsecondary life, the different expectations from stakeholders in education, and the differences of disability laws (IDEIA 2004; ADA 2008; OCR Report 2015). Besides, self-identity is the appreciation of ones’ strengths and weaknesses; it enables students with disabilities to accept their disability and the impact of this disability on their learning (Dowick, Getzel, & Briel, 2004). Often, students with disabilities are considered victims of some unfortunate circumstance. However, as already discussed, disability studies locate disability issues within different contexts and frameworks, which allow for the examination of disability through different lenses. Doing so promotes the conceptualization of disability as an embodied human state to celebrate. Thus, disability pride is the basis of Disability Studies’ social model, and therefore it challenges stigmas and stereotypes and elevates the disability identity (Siebers, 2008).

Furthermore, the social model espouses identity as the cornerstone for self-advocacy, which is the ability to represent oneself, to effectively communicate one’s
views, and to “negotiate, or assert one’s own interests, desires, needs, and rights…make informed decisions…and take responsibility for those decisions (Van Reusen, Bos, Schumaker & Deshler, 1995, p. 6; cited in Cummings et al., 2000).” Self-advocates are aware of their needs and know how to communicate those needs to others. Self-advocacy skills may help students with disabilities navigate school systems and could reduce incomplete transitions (Cunningham, 2001; Proctor et al. 2006). The five components of self-advocacy identified by Hicks-Coolick and Kurtz (1997) are: self-awareness, self-acceptance, knowledge of rights and resources, assertiveness skills, and problem-solving skills (cited in Milsom & Hartley, 2005, p. 5). Test et al. (2005) proposed four key components of self-advocacy: knowledge of self, knowledge of rights, leadership, and communication. Self-awareness refers to knowing one’s abilities (strengths and weaknesses), skills (e.g. reading, writing, determination), knowledge (e.g. rights and responsibilities, services, career), and feelings (e.g. anger, self-esteem, pride) (Field & Hoffman, 1994). Students who know themselves are cognizant of their capabilities, needs, and learning styles and are able to request the right resources and services. Knowledge of rights means that students know their obligations and duties, and the rights, duties and obligations of their school as per federal law. Hence, awareness of others is knowledge about the society, its composition, and the roles of families, friends, educators, teachers, and other specialists that work with the child (Webster, 2004, p. 158).

Successful mobility to college depends on self-awareness and awareness of others. Lack of awareness, lack of support, and misinformation limit students with disabilities’ mobility to college. Students with disabilities who are self-aware and aware
of others control their lives: they make academic plans, set realistic education and career goals, know how to navigate systems and access resources, services, and support, and they are able to identify barriers and provide solutions (Webster, 2004). In contrast, those that are unaware of their disabilities may be ignorant of available services, become disengaged, demotivated, experience failure, and drop out of school. Self-awareness helps students with disabilities manage frustrating negative cultural practices towards disability (Mooney, 2008; Mortimore & Crozier, 2006). Those that comprehend their capabilities and the demands of their disabilities and environments are well prepared to direct their lives to succeed in their goals (Hitchings et al., 2001). Getzel (2005) found that the success of students with disabilities in college depended on their willingness to accept their disability qualities and its impact on their academics. Such students evaluate their abilities, identify needed support services, and describe their needs to service providers and educators. Failure to disclose one’s disability may cause academic difficulties; fear or guilt lead to disengagement, demotivation, frustration, and inability to ask for accommodations. Lack of disclosure leads to difficulties in accessing services and functioning in the inclusive environment; students with disabilities spend much of their energy hiding even the most conspicuous disability (Moreno, 2013; Webster, 2004). In contrasts, disclosure helps college students with disabilities access services since they require proof of disability and explicit documentation of needs (Gil, 2007; Hadley 2007; Kravets 2006; Madaus & Shaw, 2006; Oesterreich & Knight, 2008). While self-identity and self-awareness are essential for students with disabilities, the supposition that they are experts of their disability can reduce their access to knowledge from significant others about their condition and available support. This may keep them in an illusory state of
wellbeing when, in reality, others could be informative. Research also shows that, in college, fewer students with disabilities register with disability services offices because of disability stigma; self-stigmatized students refrain from requesting accommodations until they experience failure or difficulties with instructors (Barry & Mellard, 2002; Izzo & Lamb, 2002; Roessler & Rumrill, 1998). Then, some students will seek accommodation directly from the faculty (Izzo, Hertzfeld, & Aaron, 2002) while others never seek help because of inadequate disability services (Fichten & Barile, 2001; Michaels, Pollock, Morabito, & Jackson, 2002; Test & Neal, 2004; Test, Fowler, Wood, Brewer, & Eddy, 2005; Shogren, 2013). In general, students with disabilities that fail to disclose their disability and do not request accommodations are vulnerable to failure. A safe and welcoming atmosphere is essential in developing reciprocal relations between college-bound students with disabilities and teachers and service providers so they can be prepared for college by nurturing their personal qualities and making accessible correct information so they can make correct choices as they navigate various systems (Masten, 2003).

**Confluence of Factors.** The review of literature delineated a confluence of factors that influence learning outcomes and education attainments of students with disabilities—legislative, economic, learning theories, culture, and individual characteristics. These factors interact and intersect at broad and specific levels to influence access and education outcome. Nonetheless, studies on the transition of students with disabilities to postsecondary education have found both consistent and inconsistent results on influential factors. Many external factors impact students with disabilities education and transition to college. Baer et al. (2011) identified predictors that reduce the likelihood that
students with disabilities transition to college to include socioeconomic status of the family, unavailability of financial aid, fewer applications to colleges, and poor transition plans. Edeiken-Cooperman’s (2011) research study with low incidence students with disabilities found that implementation of the individualized transition plan (ITP) ceased immediately after they graduated or turned 21 years old. Lack of support or limited provision of transition services diminished their chances of moving to college/university. Moreno (2013) and Hetherington et al. (2010) found that teachers were less supportive and created barriers that limited access to correct information. On the other hand, Brigharm et al. (2006) observed that the mobility of students with learning disabilities from high school to college was influenced by the school-wide culture: teamwork among teachers, school administrators and service providers; support services available to increase positive personal attributes (e.g., self-motivation); opportunities to access college-entry courses and standardized tests; and enhanced home-school partnerships. Williams (2009) found that challenging learning environments, counseling, and positive student-teacher relations improved students with disabilities’ academic performance and fostered self-esteem and self-determination. In general, research shows that adequate implementation of IEP plans (Edeiken-Cooperman, 2011), parent and peer support (Williamson, 2003), challenging learning environments (Williams, 2009), positive perceptions (Butler, 2011), and belonging (Liparini, 2008) improves academic performance and increases students with disabilities’ possibilities of moving to college. Additionally, parent and peer support and care contribute to students with disabilities’ academic success and transition to college. At the college level, Williamson (2003) found
that parents and peers provided hearing-impaired students with supportive and caring environments that helped them graduate from college.

Besides external factors, factors related to students also impact their education and transition to college. Individual characteristics such as self-determination, self-awareness, self-efficacy, and self-identity have been reported to contribute to positive perceptions and academic success. A study by Butler (2011) on the perceptions of students with learning disabilities on their transitions to college revealed that academic self-efficacy contributed to positive postsecondary academic outcomes. Liparini’s (2008) study revealed that acclimating to an institution’s environment is important for a student’s social, personal, and academic experience; but that college students with psychiatric disabilities struggled to adjust socially and emotionally, which made education life more demanding. She also found that the agency and wellbeing of students transitioning from high school to college improved with their self-disclosure, self-advocacy, and involvement in the events and activities of their communities both off- and on-campus. Other studies have revealed that collaboration among stakeholders in education is key to the successful planning and implementation of programs that support the mobility of students with disabilities to postsecondary life (Butler, 2011; Edeiken-Cooperman, 2011; Kochhar-Bryant et al., 2009; Liparini, 2008; Williams, 2009).

The impact of internal and external factors warrant attention on education systems and programs in understanding their influence on students with disabilities’ academic achievements and transitions to college. A concerted effort in planning, initiating, implementing, and evaluating educational programs and in providing students with appropriate resources and services throughout school life is needed, especially now when
the School-to-Work Opportunity Act of 1994 (STWOA) emphasizes providing all students with the needed skills to enter the labor market (Dorow, 2010). While various approaches have been initiated to make education accessible to students with disabilities, many still face unsolved, unresolved, and emerging barriers that hinder their access to quality education and transitions to college. Therefore, to examine factors that influence undergraduate students with disabilities’ mobility from P12 to college, this dissertation uses qualitative research approaches (Denzin & Lincoln, 1994), which I further discuss below. Increased trends in diversifying college and university student populations make it necessary to encourage more students with disabilities to attend college. Those transitioning to college can provide information about their individual abilities and efficacy of programs in P12 through college (Horn et al., 1999).

Whereas many variables influence students with disabilities’ learning outcomes and education attainment, most research have focused on specific disabilities and topics. Findings have also been informed by teachers, service providers, and significant others (e.g., parents), placing the emphasis of these findings on external sources of support rather than on student agency. Overreliance on people other than students with disabilities may provide information that is less helpful to teachers, educators, children with disabilities and their families; omission of students with disabilities’ experiences reinforces traditional hapless and helpless notions ascribed to them as dependent on external assistance (Baglieri et al., 2011; Heshusius, 2004). Moreover, a lack of emancipatory research in education on the transition experiences of college students with disabilities represents a critical gap in the research practice, in turn contributing to a dearth of literature directly informing their education. Therefore, their experiences of the
education systems and practices are essential information that can supplement teacher education programs and disability programs in general.

While many variables impact students with disabilities’ access to education and transition to college, how these variables determine access and influence low-incidence undergraduate students with disabilities has received very little attention from researchers. Most previous studies have focused on one category of disability, for example, students with learning disabilities (Banks, 2014; Butler, 2011; Chaplin, 2011; Connor, 2012 & 2013; Garner, 2008; Williams, 2009), deaf and hard of hearing students (Williamson, 2003), students with mental disabilities (Mowbray, Megivern, & Strauss, 2002; Wagner, Kutash, & Duchnowski, 2006), or students with psychiatric disabilities (Liparini, 2008). However, a few scholars have researched on different categories of disabilities; but not with undergraduate students with disabilities using DSE framework. For example, research with students with disabilities of low incidence group (Edeiken-Cooperman, 2011), youths with a variety of physical and cognitive disabilities (Hetherington et al., 2010), four students with dyslexia and one student with cerebral palsy (Gibson, 2012). Hence, there is a need for further studies. My research takes place in a large university. In comparison to peers without disabilities, challenges are compounded for students with disabilities. Disability-associated challenges affect their access to education and likelihood to continue on to college. They may also limit students’ social participation, relationships, and access to social and cultural capital. In order to learn more about factors that impact students with disabilities’ mobility and access to college education, it’s necessary to conduct a study looking at a diverse group of college students with disabilities as well as incorporating disability studies in
education’s (DSE) perspectives for delineating the interactions of individual experiences in understanding the aforementioned factors.

**Part III. Connecting Theory to Research Studies**

The dissertation adopts the qualitative interpretivist paradigm, disability studies in education (DSE) framework, and descriptive qualitative interviewing approach. The qualitative interpretivist paradigm is a form of social constructivism (Carson, Gilmore, Perry, & Gronhaug, 2001) that subscribes to the concept that certain aspects of human beings, for example, experiences, behaviors, and attitudes, lead to multiple realities that are best understood when subjected to methodological approaches that allow for the interpretation of the multiple realities to arrive at various meanings (Berger & Luckman, 1967; Lincoln & Guba, 1985; Maholtra & Birks, 2000; Neuman, 2000). As presented in Chapter 3, the exploratory nature of this qualitative approach allows the researcher to collect in-depth data on undergraduate students with disabilities’ experiences through interviews, descriptions of events and circumstances, inquiry, and analysis of data. (Note that this methodology relative to this research study is discussed in-depth in Chapter 3.) In view of this, I now discuss disability studies in education principles, followed by the descriptive qualitative interviewing approach.

**Disability.** Disability is a natural human experience that refers to the interaction between health conditions, personal experiences, and environmental factors (Snow, 2001). It can be visible or invisible, acquired or congenital, permanent or temporary, given or claimed, and, as a result, the disability community is heterogeneous and fluid (Wendell, 1996). The definition, identification, categorization, and treatment of persons with disabilities differ greatly by factors such as: history, linguistics, ethnicity and
cultural heritage, society, politics, economics, geographic location, labeler identity, religious orientation, ability, sex, gender, age, and technological, scientific, and medical advances (Nielsen, 2012; Park et al., 2007; Priestley, 2003). These factors “can cushion or compound the experience of discrimination and oppression” (Barton, 1993, p. 239). Whereas perception of disability differs across societies due to the abovementioned factors, in most cases, it is considered a deficiency to be eliminated, treated, or avoided (Barton, 1993). Thus, disability strains relationships between people (Oliver, 1992, 1993). The range of perceptions and treatment of persons with disabilities has turned disability into a field of study. Thus, Disability Studies has emerged as an interdisciplinary area of inquiry that focuses on the interactions of disability and cultural, socioeconomic and political factors (Davis, 1995).

Disability Studies. Disability Studies critically examine how interactions between disability and social, economic, cultural, and political phenomena influence the lived experiences of people and how social processes lead to categorization, marginalization, and ableism (Connor, 2013; Danforth & Gabel, 2006; Gabel, 2005). It then challenges practices that individualize disability and justify and qualify the invalidation of persons with disabilities (Society for Disability Studies, 2004). Five models of Disability Studies are moral, medical, rehabilitation, social, and legal (Davis, 1995). The moral model considers disability a punishment from the gods for sins committed by parents or family members; the medical model regards disability as a determinable impairment of the body and mind that interferes with the individual’s normal functional ability and that can be cured or alleviated through medical processes; the rehabilitation model regards disability as a defect transformable through therapy; and the social model regards disability as a
socially constructed phenomenon and it contextualizes views of disability as attitudinal, social, cultural, and environmental (Davis, 1995; Siebers, 2008).

The social model is the central component of Disability Studies; it conceptualizes disability in relation to how people with disability are situated politically. Therefore, it focuses on culture, economy, work, independent living, medicine, education, identity, self-actualization, empowerment, social in/justice, and liberty in its pursuit for an inclusive society (Charlton, 1998; Davis, 1995; Siebers, 2008; Finger, 1998; Shapiro, 1993). The social model is widely used by disability scholars who consider disability an outcome of social arrangements used to create barriers that restrict the inclusion of persons with disabilities (Garland-Thompson, 1997; Gilson & Depoy, 2000; Linton, 1998). Disability studies therefore focus on how dominant societal practices are systematized for the preference of able-bodied people. They argue that disability is a part of human diversity and that exclusion is an injustice pervaded by hegemonic practices (Danforth, 2009; Ferri, 2011). The social model embraces disability identity and attributes handicapping experiences to human phenomenon (Danforth & Gabel, 2006; Gabel, 2005). As early as 1980s scholars and activists have argued that people become handicapped when their physical or mental condition restricts or obstructs their normal functioning (Shapiro, 1993). However, its popularity as a social construct is limited in the context of embracing embodied disabilities realities, such as chronic pain. Thus, its transformation has incorporated human rights and social justice standpoints to respond to biases against individuals with disabilities in general.

The fifth model, the legal model, is based on disability conventions and legislation that address issues of empowerment and discrimination (e.g., the
Rehabilitation Act 1973, the Individuals with Disability Education Act 1975, and the American with Disabilities Act 1990 in United States). To harmonize the aforementioned parallel positions within Disability Studies, the legal model incorporates social and medical concepts in their definitions. Hence, Federal Civil Rights legislation, including Americans with Disabilities Act (ADA, 1990), Section 504, IDEA (1990, 2004), and NCLB, define disability in a way that recognizes the impact of impairment but also the need for the inclusion of persons with disabilities in their communities. This legislation also addresses issues of equal opportunity for persons with disabilities, accessibility, empowerment, employment, discrimination, health, and education, among others. No one model, however, can fully explain disability experiences or address disability issues due to differences of context, time, and place (Davis, 1995).

Disability Studies in Education. Disability Studies in Education (DSE) “is an intellectual and practical tradition intersecting Disability Studies and educational research, creating a general orientation to disabilities as social and political phenomena within activities of education, schooling, and learning” (Danforth & Gabel, 2006, pp. 4-5). DSE investigates the meaning of disability, its interpretations, enactments, and how it is resisted across individuals, groups, communities, and cultures. It offers counter-discourses/practices and, from this new window, students with disabilities are viewed as individuals whose circumstantial factors have conferred to qualify and justify their marginalization (Danforth & Gabel, 2006; Gabel, 2005). The core tenets of Disability Studies in Education include: (1) keeping persons with disabilities central to theories of disability; (2) privileging knowledge derived from the lived experiences of persons with disabilities; (3) working with persons with disabilities as informed participants or co-
researchers; (4) valuing disability as a natural part of human diversity, rather than as
dysfunction; and (5) supporting students with disabilities in the development of a positive
disability identity (American Education Research Association n.d.; cited in Connor,
2012). With this broad approach to disability, Disability Studies in Education provides a
rich and strong theoretical basis for examining complex aspects of disability and
education (Baglieri et al., 2011). Thus, it was chosen over other qualitative approaches
(e.g., narrative inquiry, counternarrative theory, grounded theory, and the portraiture
research method) because of its emancipatory approach that privileges experiences of
individuals with disabilities and allows for the critical examination of accepted truths of
disability discourses that are produced and disseminated by society and maintained
through cultures and institutions that justify and sanctify oppressive ‘normal’ positions
(Baglieri et al., 2011; Danforth & Gabel, 2006; Gabel, 2005). By positioning educational
and transitional experiences of students with disabilities as counter-discourses, DSE
theorizes disability and turns individual experiences into valuable products usable to
challenge prejudices and to recognize and appreciate the naturalness of disability, thereby
creating awareness of persons with disabilities’ rights.

The general view of disability as a handicap that limits individual
intellectualization and socialization pervades academic and other educational spheres.
However, DSE locates students with disabilities’ strengths through personal traits such as
identity and agency. Educators and researchers in the field of education have made
accessibility and inclusion a common theme for evaluating equity and equality; they have
used DSE to interrogate forms of discrimination that limit the potentialities of students
with disabilities. Accordingly, students with disabilities’ personal experiences provide
ideas that heal, correct, sensitize, and encourage dialogue and counter-discourse on education and disability (Siebers, 2008). Research is nevertheless needed that can illuminate and share experiences of students with disabilities’, which teachers can then use to build on their strengths in the classroom.

**Summary**

The literature review presented many factors that influence education and transitions of students with disabilities to college. Education structures interact with economic, cultural, legal, political, and social factors at macro and micro levels, and in the process, they impact the physiological, socioemotional, and economic norms, and linguistic aspects that benefit or limit students with disabilities’ access to (quality and equitable) education. Other factors including but not limited to inadequate implementation of the individualized education plans (IEPs), different transition models in different states and school districts, and family, instructor, and service providers’ attitudes have been identified to impact students with disabilities’ access to education. Research shows that high school students with disabilities receive little appropriate transition information (Murray et al., 2009) despite that the IDEIA 2004 mandates schools to implement the individualized education programs in ways that benefits them. Also, most research studies have focused on one category of disability, majorly learning disability, which may be contributing to limited information that inform education practices of diverse students with disabilities.

Factors that impact education and transition of students with disabilities are consistent and inconsistent. Also, there is dearth of information on the impact of these factors on diverse students with disabilities of low incidence category. Hence, this
dissertation is particularly important for adding to the scope of knowledge on P12 through college transition experiences of students with disabilities. Building upon previous research findings that have revealed factors that impact education and transition of students with disabilities to postsecondary life including college, this study uses disability studies in education (DSE) to give credence to their experiences. Also, this dialogic interview with college students with disabilities on their experiences going through the education system is as a significant emancipatory study that highlights their experiences in order to inform education practices. In Chapter 3, I justify my choice of methodology and focus on the general research perspective.
CHAPTER 3

METHODOLOGY

Restatement of the Purpose of the Study

The purpose was to identify, assess, and describe factors that influenced undergraduate students with disabilities’ successful navigation of systems P12 through college from their perspectives, in order to gain deeper understanding of their transition experiences that will inform transition programs.

Research Questions

The study seeks understandings of transition experiences of students with disabilities P12 through college using the following questions:

1) What critical factors helped students with disabilities to successfully navigate the academic demands during P12 education to transition to college?
2) What critical factors helped students with disabilities to successfully navigate the social demands during P12 education to transition to college?
3) What kinds of accommodations and related services provided to students with disabilities during their P12 education helped them navigate the transition to university, given the demands of their disability?

Research Design

This dissertation adopted a qualitative interpretivist paradigm, disability studies in education framework, and a descriptive qualitative interviewing approach. The descriptive qualitative interviewing approach involved interviews and reflective
journaling, which helped collect rich data (Cohen et al., 2007; Fraenkel & Wallen, 2006; Gillham, 2008; Lecompte & Preissle, 1993; Patton & Patton, 2002; Punch, 2009; Robson, 2011). The disability studies in education (DSE) framework was used to understand participants’ lived experiences because of its emancipatory approach that gives credence to students with disabilities’ perspectives (Baglieri et al., 2011; Danforth & Gabel, 2006).

As an interdisciplinary framework that examines the nature, meaning, and consequences of disability in local-global cultures from integrated social, political, and cultural paradigms, DSE was used to explore participants’ education and transition life experiences in order to identify behaviors, feelings, opinions, attitudes, values, circumstances, events, activities, support, services, and resources that afforded (facilitated, enabled, or enhanced) and/or hindered (limited, decreased, or disabled) them to meet the P12-college educational demands and/ or goals. By exploring and privileging participants’ agencies and voices, DSE provided a rich and strong theoretical basis for examining complex aspects of participants’ education life thus providing lenses for critical analysis of individuals, systems, and cultures (Ferri, 2011; Gibson, 2012).

Often individual’s with disabilities’ experiences are less considered in the formulation and adaption of disability programs because of the negative cultural practices that invalidate them and puts them in the periphery (Shapiro, 1993). Hence, giving credence to students with disabilities experiences allow for critical examination of accepted truths of values and knowledge that are produced and disseminated by society’s cultures and institutions to justify and sanctify their privileged positions in the oppression of individuals with disabilities. By positioning students with disabilities within the borders of education, repositioning them as agents of change, and centering on their educational
experiences provides counterdiscursive from which DSE theorizes disability and disability discourses as a valuable area, or materials, or products usable for awareness of and progression of students with disabilities. That is, they lead to recognition of the naturalness of disability, appreciation of disability identity, acceptance of students with disabilities, and advancement of their rights to access quality education.

**Data Collection Methods**

**Research Site and Participants**

**Research Settings**

_Savvy University Setting._ This research study was conducted at the main campus of a large Midwestern research one public university in the United States with a population of about 60,000 students. Savvy University prides itself in diversity and inclusion—it serves students, faculty, and staff with and without disabilities. The university has a rich history of admitting students with disabilities. Currently, students with documented disabilities registered with the disability services office were estimated at 2,000. This number is presumed to be less than the actual population of students with disabilities on campus. The disparity is attributed to disability stigmas that deter qualified students from registering with the disability services office (Barry & Mellard, 2002; Izzo & Lamb, 2002; Roessler & Rumrill, 1998). In addition, some students seek accommodations directly from the faculty (Izzo et al., 2002) while others never seek disability services because of lack of (adequate) services (Fichten & Barile, 2001; Michaels et al., 2002; Test & Neal, 2004; Test et al., 2005; Shogren, 2013).

The student body is diverse in terms of abilities, race, ethnicity, orientations, socio-economic status, sex, gender, and origin. There are different categories of disability
including, from the highest to the lowest, Attention Deficit Disorder (ADD), Attention Deficit and Hyperactivity Disorder (ADHD), learning disorders (LD), psychiatric disorders, medical conditions, visual impairments, deaf/hard of hearing, mobility impairments, temporary impairments (e.g., students with sprains or broken limbs), and Autism Spectrum Disorder (ASD). The university invests in accessible infrastructure and facilities including buildings with ramps and elevators, kneeling or lift-equipped buses, paratransit vans, accessible sports and recreation facilities, and other legally mandated services such as counseling and assistive technology. The university’s goal is to serve the broadest student constituency possible with a high level of responsiveness and accommodation (Carro, 2009).

The university offers various academic and non-academic programs to students with disabilities and families through various colleges, departments, and schools. Academic programs that specifically target disability include courses on adapted physical education, disability studies, inclusive education, special education, deaf education, and disability programs for young adults with intellectual and developmental disability. It also offers non-academic programs, including organizations and clubs for students with disabilities. There are other offices that provide disability resources and services mandated by the federal disability laws (e.g., the Americans with Disabilities Act, the Rehabilitation Act of 1973).

Participants

Access to Participants

A variety of media were used to reach a wide audience upon approval of the research by the Institutional Human Subjects Review Board. These included flyers (e.g.,
print, offline [electronic bulletin board] and online flyers), mass-mailed letters, and emails. Flyers inviting college students with disabilities for the study were posted on the websites of specific campus departments and programs (e.g., disability studies, special education, and inclusive education) and on the bulletin boards across campus. Website postings opened to the flyer and the detailed electronic invitation letter in a Portable Document Format (PDF). Letters and emails were sent out to different departments that served students with disabilities and to listservs associated with the campus disability community. Recruitment information detailed the topic of the research study/focus, aim, purpose, and objectives of the study, the research questions and procedures, recruitment criteria, the rights and protection of participants, accommodations, the minimal time commitment to participate in the study, and the researchers’ biography—interests, professionalism, and contact information. (Please see Appendices F-I.) Potential participants were contacted differently, through emails, phone calls, texts, and face-to-face communication. Face-to-face communication with potential participants occurred mostly during meetings at the university’s students with disabilities organizations. During these meetings, potential participants were handed flyers and letters, and were given time to ask questions and to share concerns or opinions.

Participation in the research study was voluntary and only participants age 18 years and over and capable of making informed independent decisions without coercion were recruited through indirect methods—print (flyers), offline and online flyers, mass letters to departments and mass emails to listservs. Research materials (e.g., questionnaire, consent form, researcher’s bios, and contacts) were available in different formats so that potential participants could access appropriate information on time. Those
who volunteered for the study had a right to withdraw at any point without giving a reason for their decision or experiencing any consequences (Robson, 2011).

After initial identification of potential participants, five attempts were made to invite them for the research study. However, final decision to recruit participants depended on the first response. When a student asked not to be contacted, or said s/he was committed, the researcher terminated the communication instantly. Otherwise, participants were contacted several times (to rule out other contingencies such as lost email), or when they requested a reminder or just showed interest in the research study. Communication was terminated after the fifth attempt. Four of the eight participants were contacted several times after initial communication because they showed interest in the research study; but they kept rescheduling meetings because of exams, assignments, tight work schedule, sickness, lack of transportation, bad weather, or activities on campus (e.g., football game).

Before signing the consent forms, I shared comprehensive information about the study including the potential benefits and possible harm with participants. Benefits for participating in the study were, but not limited to, the opportunity to share their experiences with someone who was interested in their experiences, probability of incorporating their voices in the academic literature, and using their experiences to inspire other students with disabilities currently in P12 education that are aspiring to attend college (Oakes, 1990). Those who participated in the research study viewed it as an honor and an opportunity for introspection; recognition was a positive reinforcement for some, an outlet for others, and an encouragement for others to focus on their education goals. Moreover, publications of findings could inform disability discourses,
learning theories, and education programs (e.g., inclusive/special education and teacher education) and provide academics, teachers, educators, families, students, policy makers, and communities with important information on education and transition programs, processes, and experiences.

Possible risks, harms, and discomferts was also discussed with the participants. Generally, the risks were minimal in this caveat study. Perhaps the primary risk included the possibility of embarrassment or loss due to a public or private breach of confidentiality. Therefore, the risks were possible for those that participated in the interviews and focus group discussion, in particular. As presented above, data collection took place in two phases—face-to-face dialogic interviews, and a focus group session. In Phase 1, each participant was interviewed individually to ensure confidentiality of information and to reduce effects of listener pressure that often influence responses (i.e., the tête-à-tête involved the researcher and the participant). Phase 2 involved the focus group. It provided great insights into the topic of discussion and complemented the face-to-face dialogic interviews (Banks, 2014). However, focus groups also create challenges of confidentiality and privacy of information. I could not guarantee total protection of information revealed under such a circumstance. While I could not guarantee total confidentiality and privacy during and after interviews, the risks were minimized. Rules of engagement were shared with the focus group, as discussed earlier. Name tags and rules of engagement helped inculcate respect and mutuality. I encouraged participants to self-censor their experiences (i.e., they were to withhold information considered private or sensitive). Also, I urged them to be mindful or considerate of the impact of sharing other people’s sensitive information with the public (i.e., to avoid sharing information
about colleagues with the public). After the focus group meeting, participants reviewed shared experiences to determine information they wanted retained, deleted, omitted, or destroyed so it could be inaccessible to the public. Some of the participants’ experiences posed little harm to the individual because they were contextual and had been shared before in some ways with counselors, parents, siblings, peers, and/or teachers. Still, participants reviewed the transcriptions and determined sensitive information they wanted expunged from the data. Moreover, participants were not obliged to share their experiences because certain school information is considered privileged as a matter of law—Family Educational Rights and Privacy Act [FERPA]. Hence, no personal and sensitive information was accessed or requested. All information was handled as a matter of privacy regardless of whether participants provided sensitive information knowingly or unknowingly. Besides, I invited and moderated participants input to ensure varying points of view not likely to harm one’s status were discussed. At the same time, I remained neutral, reserved, and cautious to avoid steering the group in one direction.

No part of the dissertation required deception or use of difficult language that could cause misunderstanding or misrepresentation of ideas. Only participants that comprehended the purpose and procedures and their rights, and had signed the consent form participated in the research study (Cohen et al., 2007; Patton & Patton, 2002; Punch 2009). Nonetheless, access to participants was negotiated continuously, being aware that even those who gave their consent to participate, due to unforeseeable circumstances, might have been unable to fulfill this obligation. None of the participants took a class with the researchers or needed accommodations that required the presence of a third party (e.g., sign language interpreter). In situations when the interviews were
conducted in the university recording rooms, strict measures were taken to make the interview private and to safeguard data. The technician only set up the equipment and then left the researcher and the participant in the closed room. After recording the interviews, all files were downloaded on the researcher’s flash drive, given a pseudonym, and data on the recording machine was deleted. To protect participants, data (both software and hard copies) were kept in a secure place under lock and key; the encrypted and coded data on the computer could only be accessed with a password. All identifying materials were removed to conceal identity, and to uphold participant’s confidentiality, privacy, and anonymity, and in the write-up, real names were substituted with pseudonyms to guise identifications (O’Reilly, Ronzoni, & Dogra, 2013).

**Sampling Procedure of Participants**

A combination of purposive, theoretical, and snowball sampling strategies were used to identify participants because of individual characteristics (Cohen, Manion, & Morrison, 2000, 2007; Silverman, 2010). The purposive sampling technique ensured that only participants with attributes important for the achievement of the needs of the study were selected (Strydom & Venter, 2002). Choosing diverse participants ensured access to a variety of lived experiences that could be compared and contrasted. Despite the benefits of purposive sampling, it lacks generalizability and transferability of findings (Cohen et al., 2007; De Vaus, 2002) because, one, human behaviors, beliefs, or attitudes are complex; and two, human behaviors are unusually distributed and therefore cannot be assumed to follow a given pattern in any given population (Marshall, 1996). Theoretical sampling helped with the identification of participants whose disability fitted the
definitions of the disability laws—The Individuals with Disabilities Education Improvement Act (IDEIA) of 2004, Section 504 of the Rehabilitation Act 1973, and the Americans with Disabilities Act Amendments Act (ADAAA) of 2008. Finally, snowball sampling helped with the identification of convenient and appropriate participant population (Babbie & Mouton, 2001). Often because of disability stigma, students with disabilities shy away from activities that require them to discuss their disability, and therefore they tend to identify with those that have shared experiences (Kelly, 1999 as cited in Cobb, Lehmann, Newman-Gonchar, & Alwell, 2009). In fact, six of the eight participants were referred by other participants.

Eligible for the research study were any student who received disability services under the IDEIA, or identified oneself as disabled, or who claimed to have a disability but were never provided with services during P12 schooling. (See Appendix A for the detailed definition of disability according to the disability laws). Students who identified as disabled or claimed disability were considered because ADAAA recognizes individual disability identity or those that are treated as having a disability. Often, however, because of stigma, some students do not self-identify as having a disability and therefore do not receive services. Specific criteria to select participants were:

- Any undergraduate student with disabilities registered in the education program that led to a degree at Savvy University’s main campus.
- Any student who had special education and related services or accommodations, and had an individualized education plan (IEP) or 504 Plan during any time of their P12 education.
• Any student with disabilities who received accommodations based on their (perceived) disabilities but had no IEP during any time of their P12 education.

• Any student who was diagnosed with a disability prior to graduation from high school, which pertained to the disability laws—IDEIA, the Rehabilitation Act, and ADA.

Only eight undergraduate students with disabilities of Caucasian background volunteered for the research study. The researchers’ intention was to recruit participants from a spectrum of disabilities and demographics at the university to capture arrays of education and transition experiences (e.g., unique experience relative to ability, race, gender, sex, citizenship, socio-economic status, origin, or locality). Nevertheless, the group was an important distinctive population from which to examine education and transition experiences because of their distinct but related capabilities, practices, understandings, and experiences. As they went through the education system, they were involved in different events and activities, interacted with various teachers, educators, professionals, and service providers; and they accessed different resources, services, and support at different institutional levels (Cohen et al., 2007).

Moreover, as Marshall (1996) observed, even people categorized as having the same disability are unique because of the uniqueness of human nature in terms of behavior, beliefs, or attitudes that are not normally distributed. The unique attributes of participants were an appropriate representation of the university’s disability community. Additionally, the number of participants enabled the researcher and participants to meet several times and to acquaint with one another, which led to the capturing of diverse disability experiences; hence, multiple perspectives for data analysis (Patton & Patton,
Qualitative research is a process of social life that portrays dynamism and change in life (Bryman, 2012); it is good at describing people’s lives at specific moment to make meaning out of it (Denzin & Lincoln, 1994). And so they help with the understanding of individual’s past and how they impact their present and future (Cresswell, 2002). The nature and scope of qualitative research “is to limit breadth (i.e., sample size) but to increase depth (i.e., participant input)” (Murphy & Salomone, 1983, p. 92 as cited in Lichtenstein, 1993). This is a trend in most qualitative research studies on transition experiences of college students with disabilities, which have involved much smaller sample sizes. For example, three participants (e.g., Ankeny & Lehmann, 2011; Banks, 2014), four participants (e.g., Connor, 2012), or five participants (e.g., Hetherington et al., 2010).

Demographics of Participants

To understand critical factors that helped students with disabilities to successfully navigate the academic and social demands during P12 education to transition to college, and the kinds of accommodations and related services they were provided to navigate education systems, given the demands of their disability, I focus on participants’ demographic information. This was important in understanding the intrinsic and extrinsic qualities and factors related to their introspections, reflections, or experiences on education and transitions. As summarized in Table 3.1, eight undergraduate students with disabilities—four males, and four females—that were interviewed were age 18 or older and capable of making an independent decision. Participants’ parents were medical doctors, professors, engineers, or entrepreneurs.
Education. All of the participants were undergraduate students, and they included one freshman, four sophomores, two juniors, and one senior. They were registered with the disability services office, and received support, services and accommodations, which included extended time during exams, assistive technologies, electronic books, silent rooms, transportation, and counseling. All of the participants were traditional students registered in a university education program leading to a degree (i.e., were admitted into college upon exiting high school with a diploma). Four participants were direct entry to Savvy University (i.e., they were directly admitted to Savvy University after graduating from high school), while the other four transferred from other universities. Two of the transfer students took college courses under the Post-Secondary Enrollment Options (PSEO) program. In the 2014–2015 academic year, participants majored in different degree awarding programs. All participants went through the U.S. P12 education system. Seven participants had full-time education experiences in the U.S., and one participant had early childhood education in France. Some participants attended regular public school while others attended inclusive schools or special school during P12 education. All of the participants accessed general education curriculum; two participants accessed general education curriculum and special education. All of the participants had an IEP or 504 Plan.

Participants’ Disabilities. Low incidence disabilities are rare and often consists of less than one percent of the school student population (e.g., orthopedic impairment, deaf, blind) while high incidence disability are common and may be ten percent of the school student population (e.g., learning disability, ADHD). All of the participants belonged to a low incidence disabilities group. They had either congenital or acquired disorders prior to
graduation from high school. Seven participants had physical disabilities (systemic lupus, cerebral palsy, legally blind, spina bifida, stickler syndrome, fragile ataxia, Tourette syndrome) and one cognitive disability (Asperger syndrome and Attention deficit hyperactivity disorder—ADHD). Other participants had secondary disabilities besides their primary disabilities, which qualified them as having multiple disabilities (e.g., short, visual, and hearing impairment, emotional disturbance, orthopedic impairment, other health impairment, learning disability, speech and language impairment, chronic migraine and traumatic brain injury). Participants’ disabilities were distinct and unique despite commonalities. Their physical, cognitive, communication, social or emotional or adaptive developmental conditions significantly limited their functionality whereas they all heavily depended on assistive technologies. Hence, they fitted within the definitions of disability laws (IDEIA 2004, Section 504 of the Rehabilitation Act 1973, and ADA 2008). Below, their biographies are briefly described with the focus on variability of disability conditions. (This was the information they provided during the initial interview. See Appendix D for medical description of the conditions.)

HERA: She was a 20-year-old female, and a junior majoring in sciences. She was the oldest child in a family of four. Her mother was a trained physiotherapist, her father worked with the government, and her elder sister was a trained journalist. She grew up and attended public/regular schools in different states in the U.S. because her family moved a lot. She was deaf and used hearing aids in both ears, was diagnosed with systemic lupus as a teenager, and had mild allergies to lactose. Because of systemic lupus, she was prone to develop rashes, symptoms of her hair falling out, swollen joints, and organ problems particularly with the kidneys, ears, heart, and bladder control. These
conditions affected her education adversely. She had a 504 Plan starting sophomore year in high school. In college, she was registered with the disability services office, and qualified for accommodations (see Chapter 4). She lived off campus with a roommate.

HUGO: He was a 20-year-old male, and a sophomore majoring in neuroscience. His family consisted of his father, a neuro-ophthalmologist, his mother, a psychiatrist, his twin sister, and older sister who was out of college and majored in philosophy. He considered his whole family as “mentally disabled” (see Chapter 4). He was a high-functioning individual despite having Asperger syndrome and ADHD. He was on medication for anxiety. He was considered both dependent and independent because of the nature of his disability. He lived on campus in a single apartment, and managed his affairs well (e.g., he attended classes and did his assignments with little supervision). Still, he often consulted his parents before and/or after making personal decisions. He had an IEP and received special education and related services from fifth grade through 12th grade. In college, he was registered with the disability services office and received accommodations. He used assistive technologies for his academics and to connect with family and peers. He was interested in this research study because he believed that his involvement (the interviews) would help him introspect and self-reflect, and help him improve his self-awareness. He requested that I share with him all the recordings and transcriptions, which I did.

JUNE: She was a 21-year-old female sophomore majoring in exploration\(^2\). She had 3-4 forms of cerebral palsy (CP) due to premature birth (three months early), which

\(^2\) “Exploration provides a starting place for both students who want to experience course work at the college level before committing to their major of interest and students with multiple areas of interest and abilities who do not want to limit their options.” (http://majors.osu.edu/pdfview.aspx?id=61)
was diagnosed as CP when she was 18-months old. She lacked good “neck movement” at birth and her eyes were underdeveloped; a condition that can lead to anophthlamia/microphthalmia but they later developed and today she has normal vision and also a birth mark on her left eye. She also had secondary health complications—spastic ataxia, dystonia, and pleurisy. She was also diagnosed with arthritis, which limited her involvement in physical activities. She occasionally uses a manual wheelchair and braces for mobility. She first saw a neurologist at age 12. She is the youngest in a family of five. Her two older sisters were also born premature although they grew up healthy. The premature births ran in the family after her grandmother had treatment for miscarriages. Her father was a dentist, her mother was a gifted and talented teacher and a registered dietician. She came from a rural town where most of the families were from low socio-economic levels where the children were on reduced lunch. She attended a special kindergarten for children with disabilities and then attended regular elementary school through high school. She had IEP from elementary school through high school. In college, she was registered with the disability services office and received accommodations. Our interviews ran from fall 2014 to spring 2015 because of her personal commitment with academics, work, and health issues. Overall, the interviews were insightful, and full of laughter and sadness, at the same time.

KIM: He was a 21-year-old male, and a junior majoring in computer and information science. He was legally blind in both eyes, partially deaf in his left ear, and “short”, 4’7”. He was diagnosed with an inoperable brain tumor at age two, and he was placed on two years of chemotherapy; by the end of the treatment, his optic nerve and the auditory nerve was damaged, which also damaged his pituitary gland; hence, his stunted
growth (he was a pituitary dwarf). He was the eldest child of a family composed of his father and mother and two younger sisters. His youngest sister had dyslexia. He attended regular school, had IEP and received special education and related services from pre-kindergarten through high school. In college, he was registered with the disability services office and qualified for accommodations. He used different technologies mostly braille, computers, and iPhone to complement his residual sight. At college, he lived with a roommate within a walkable distance off campus.

MEI: She was a 21-year-old female sophomore majoring in psychology. She was diagnosed with Stickler syndrome when young and as a teenager, she was diagnosed with arthritis. She was born premature (five weeks early), and was diagnosed with cleft palate and a small airway the first six weeks. She had surgery to correct the cleft palate at around age one, and a tracheostomy at age two, which was followed by treatment of her recurrent ear infections. She acquired language naturally and was able to read by age three or four although her speech was slightly inhibited due to the above-mentioned reasons. At age four, she lost vision of the left eye after the optical nerves detached by themselves; it was surgically removed when she turned 18 and could sign the consent form. Her disabilities limited her functionality. She attended regular school, and had a 504 Plan after kindergarten. She was a transfer student. In college, she was registered with the disability services office, and received accommodations and services. She was the eldest child in a family of four. Her father was a civil engineer and her mother an elementary school teacher; her three-years younger sister was a freshman in college fall 2014, also majoring in psychology.
PERRY: He was an 18-year-old male, an out-of-state freshman (i.e., he comes from another state) majoring in linguistics and physics, and the youngest born in a family of four. His father was a professor, his mother was coordinator of a community-based learning program that recruited and placed students for field experiences overseas, and his older sister was a junior at his father’s university, majoring in a liberal arts program. He lived with his parents in France for four years as a toddler and then as a teenager. He spoke French competently besides his first language English. He used a manual wheelchair, braces, and crutches for mobility because of spina bifida. He lived in the on-campus dormitory in a non-handicapped apartment of four with a roommate (having the two of them was to accommodate his wheelchair). He was schooled in both France and the U.S., attended regular schools, and had an IEP (when in the U.S.). In college, he was registered with the disability services office and received accommodations and services.

RITA: She was a 20-year-old female, an in-state junior majoring in mathematics with a focus in biochemistry. She was diagnosed with Tourette syndrome and chronic migraines. Her vocal tics were managed but she experienced some anxiety, which she attenuated with plenty of sleep. Her chronic migraines involved majorly recurrent unilateral pulsatile headaches. She had surgery in 2012 to correct the brain malfunction but recovery was projected to take about five years. She lived in the on-campus dormitory in a single apartment, and worked as a residence hall office student assistant. Her family consisted of her father (a construction manager), mother (stay-at-home mom), and elder sister who was three years older (who struggled with academics). She was very friendly and informative during the interview period. She attended regular school, and had a 504 Plan starting junior year.
ZEUS: He was a 19-year-old male, and a sophomore majoring in management and industry exploration. He transferred from Goodhope University to Savvy University in fall 2014. He had Fragile X-associated tremor/ataxia syndrome (FXTAS) and hypertrophic cardiomyopathy that affected his mobility and speech. He experienced problems with coordination and balance, tremors, rigidity, pain, muscle weakness, and anxiety. He also had bladder control problems and used a urinary catheter tube. He broke his leg in fourth grade and started using a wheelchair full-time in sixth grade. He attended public regular school and was in the general education classroom most of P12 schooling period, and had an IEP from around third grade. He was registered with the disability services office and received accommodations and services. He lived in an on-campus dormitory in a single handicapped accessible room during fall 2014, and then switched to a residence for students with disabilities in spring 2015. He was the only child. His mother was a professor while his father was an entrepreneur. He had a personal assistant. received most of his support from his parents, which included personal care and technology (e.g., SmartDrive). Zeus attended different schools and colleges, and he was a frequent visitor to Europe where he has extended families.

Considering the demographics, these participants were suitable for this study because: 1) they possessed an ‘insider’s knowledge’ of the education and transition processes and were able to provide the best and the most relevant information, 2) they were conveniently available, and 3) they had many characteristics that represented the majority of students with disabilities P12 through college. Consequently, they were representative of the sampling pool needed to understand transitions of students with disabilities.
<table>
<thead>
<tr>
<th>STUDENT</th>
<th>HERA</th>
<th>JUNE</th>
<th>MEI</th>
<th>RITA</th>
<th>HUGO</th>
<th>KIM</th>
<th>PERRY</th>
<th>ZEUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Female</td>
<td>Female</td>
<td>Female</td>
<td>Female</td>
<td>Male</td>
<td>Male</td>
<td>Male</td>
<td>Male</td>
</tr>
<tr>
<td>Age</td>
<td>20</td>
<td>21</td>
<td>21</td>
<td>20</td>
<td>20</td>
<td>21</td>
<td>18</td>
<td>19</td>
</tr>
<tr>
<td>Disability/designation</td>
<td>Systemic Lupus, deaf in one ear (one hearing aid is inside permanently, the other is removable)</td>
<td>Cerebral Palsy / multiple disabilities; has braces but doesn't wear them</td>
<td>Stickler syndrome</td>
<td>Tourette syndrome, chronic migraine</td>
<td>Asperger Syndrome &amp; ADHD</td>
<td>Legally blind, partially deaf in the left ear &amp; 4'7&quot; tall;</td>
<td>Spina bifida;</td>
<td>Fragile ataxia, a neuromuscular diseases, &amp; hydrotropic cardio-myopathy</td>
</tr>
<tr>
<td>Onset of Disability</td>
<td>Hereditary; manifest /great impact at age 16</td>
<td>Congenital</td>
<td>Congenital</td>
<td>Congenital</td>
<td>Congenital</td>
<td>Elementary</td>
<td>Congenital</td>
<td>Elementary</td>
</tr>
<tr>
<td>Level of Study</td>
<td>Junior</td>
<td>Sophomore / Fall 2013</td>
<td>Sophomore / Fall 2014</td>
<td>Senior</td>
<td>Sophomore / Fall 2013</td>
<td>Junior</td>
<td>Freshman /Fall 2014</td>
<td>Sophomore / Fall 2014</td>
</tr>
</tbody>
</table>

Table 3.1 Attributes of Participants (N=8)

Continued
Table 3.1 continued

<table>
<thead>
<tr>
<th>STUDENT</th>
<th>HERA</th>
<th>JUNE</th>
<th>MEI</th>
<th>RITA</th>
<th>HUGO</th>
<th>KIM</th>
<th>PERRY</th>
<th>ZEUS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Major</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Direct Entry (DE)/Transfer (T)</strong></td>
<td>DE</td>
<td>DE/T</td>
<td>T</td>
<td>DE</td>
<td>T</td>
<td>DE</td>
<td>DE</td>
<td>T</td>
</tr>
</tbody>
</table>
### Table 3.1 continued

<table>
<thead>
<tr>
<th>STUDENT</th>
<th>HERA</th>
<th>JUNE</th>
<th>MEI</th>
<th>RITA</th>
<th>HUGO</th>
<th>KIM</th>
<th>PERRY</th>
<th>ZEUS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Special Education &amp; Related Services</strong></td>
<td>504 Plan, She received RTI services</td>
<td>IEP</td>
<td>504 Plan</td>
<td>504 Plan</td>
<td>IEP</td>
<td>IEP</td>
<td>IEP</td>
<td>IEP</td>
</tr>
<tr>
<td><strong>Attendant</strong></td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Received Accommodations at College Level</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Assistive Technologies Used</strong></td>
<td>Computer, iPhone</td>
<td>Computer, iPhone, Manual wheelchair</td>
<td>Computer, iPhone</td>
<td>Computer, iPhone</td>
<td>Computer, doesn’t use white cane but iPhone</td>
<td>Braces &amp; crutches &amp; manual wheelchair, computer, iPhone</td>
<td>Wheelchair, iPhone, Computers</td>
<td></td>
</tr>
<tr>
<td><strong>Jobs on Campus</strong></td>
<td>No</td>
<td>Student employee</td>
<td>No</td>
<td>Student employee</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

IEP—Individualized Education Plan  
RTI—Response to Intervention
<table>
<thead>
<tr>
<th>STUDENT</th>
<th>HERA</th>
<th>JUNE</th>
<th>MEI</th>
<th>RITA</th>
<th>HUGO</th>
<th>KIM</th>
<th>PERRY</th>
<th>ZEUS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>No. in the family</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. in the family</td>
<td>4/ Has older sister</td>
<td>5 / Has two older sisters</td>
<td>4 / Has younger sister</td>
<td>4/Has older sister</td>
<td>5 / Has older sister &amp; twin sister</td>
<td>5/ Has two younger sisters</td>
<td>4/ Has older sister</td>
<td>3/ only child</td>
</tr>
<tr>
<td><strong>Parents’ Occupation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother—physiotherapist, father—civil servant</td>
<td>Mother—teacher, Father—dentist</td>
<td>Mother—teacher, father—civil engineer</td>
<td>Mother—stays at home, father—construction manager</td>
<td>Mother—psychiatrist, father—ophthalmologist</td>
<td>Mother—civil servant, Father—civil servant</td>
<td>Mother—coordinator of NGO, Father—professor</td>
<td>Mother—professor, Father—entrepreneur</td>
<td></td>
</tr>
<tr>
<td><strong>Living Arrangement</strong></td>
<td>Off campus with a roommate</td>
<td>On campus: single room</td>
<td>On campus: single room</td>
<td>On campus: single room</td>
<td>On campus; single room</td>
<td>Off campus with roomie</td>
<td>On campus with roomie</td>
<td>On campus: single room</td>
</tr>
</tbody>
</table>

NGO—Non-Governmental Organization
Numeral symbols: 3, 4,5 indicate number of immediate family members.
Data Collection Process

Almost eighteen hours of interviews were recorded, which produced about 200 pages of transcribed material. The ‘hard’ data was used to test disability studies in education (DSE) theory and also to make predictions about P12 through college education and transition experiences of participants (Ericsson & Simon, 1993). Participants and the researcher co-constructed the ideas we shared during the interviews. Even so, dependability and legitimacy of data matters in arriving on concrete matters that influenced participants’ education and transition processes (Ericsson & Simon, 1993). Thus, my relationship with the participants was defined by reciprocity; however, truthfulness still depends on trust (Ericsson & Simon, 1993). Trust determined participants’ willingness to share their “true” lived education and transition experiences. Many steps were taken to build reciprocal relationships and trust with the student participants. Before the first interview, I met with individual students with disabilities, and explained the purpose of the research study, student’s rights, any possible harm, benefits for participating, and shared my biography and genuine information. I established rapport through formal and informal techniques such as greetings and negotiations (of settings, processes, times, and findings) throughout the data collection and analysis period (Lather, 1991). Interviews were held in secure and private settings and at participant’s opportune time. Moreover, we oriented our bodies during interviews so we could have an “easy, direct, and equal access to every other participant’s transactional segment” (Kendon, 1977, p. 181 as cited in Ciolek & Kendon, 1980).

The interviews were conducted in a span of six months, fall 2014—spring 2015, and participant-researcher engagement continued into spring 2016. The prolonged
engagement was sufficient to create rapport with participants, and to collect rich data; also, the timeline supported understanding of data through questioning and explanations (Greene, 1996). Rapport led to participants’ comfortableness whereas they discussed sensitive subjects and shared educational experiences enthusiastically, particularly in the preceding interviews. Thus, many interview meetings mitigated the unfamiliarity effect and “professional distance” (Ankeny, 2003; Rose, 1997) and helped participants become accustom to the researcher (Lee, 2000; Robson, 2011), which led to collection of rich data that yielded rich outcomes. Also, participants had different disabilities and experiences; but commonalities of perspectives increased credibility of the data. These led to a better understanding of the complex education and transition phenomenon.

The initial plan was to conduct a 45-60 minute face-to-face dialogic interview with each participant; however, they ranged between 15-135 minutes in one sitting because of breaks, familiarization with the settings, and introductions. Some participants needed breaks after sitting for too long, others needed breaks to use the bathroom, or others needed breaks to have a snack, or to take medication. Some participants were curious about my disability life in Africa, and so they had questions that I had to respond to before formally interviewing them. This was necessary because sharing of my own personal experiences strengthened our trust, which allowed participants to open up and enthusiastically share their personal experiences.

Descriptive qualitative interviewing approach. There are many ways of collecting qualitative data, including with interviews and observations. Many researchers (e.g., Connor, 2012, 2013; Kotler, Wegerif, & LeVoi, 2002) have used unstructured face-to-
face dialogic interviews based on the funnel approach (Seidman, 1998) and a reflective journal to study the education and transition experiences of students with disabilities.

*Dialogic interviews.* Dialogue is a discussion among people that aims to produce an agreement. People dialoguing are engaged in the “‘real life’ [in] real world” through intuition and deed (Robson, 2011, p. 316). Persons partaking in face-to-face dialogic interviews are “embodied entities performing relevant social action in concrete situations” (Kendon, 1992, p. 328). Social interaction during face-to-face dialogic interviews consists of talk, body movement, context, and commonality of readiness (Kendon, 1973; cited in Wiersma, 2000). Bodily movements convey messages of feelings, attitudes, actions, and expressions; they complement dialog (Kendon, 1992; Robson, 2011). Formation of intimate interaction, socially and psychologically, occurs when people strike commonality. This is evident in “spatial and postural behaviors … people create and sustain” in the joint transactional space (Kendon, 1977 as cited in Ciolek & Kendon, 1980, p. 243).

One’s personal experiences are associated with other people, things, and places; they carry hidden meanings that allow individuals to memorize past and present events and activities in order to position themselves for the future. People typically share a bit of their life experiences in different contexts and due to the need to connect with their audience (i.e., so the audience can make meaning out of the experiences) (Bomer, 2005). As mentioned above, there has been much research done on the transitions of students with disabilities to postsecondary life. However, most of this research is on rather than with these students, which relegates their voices, their experiences, and their agencies. Research with students with disabilities is emancipatory (Baglieri et al., 2011).
Emancipatory disability research (EDR) engages with several key issues, requiring the establishing of relationships with students with disabilities so that collected information can represent them in ways that allow for the information to improve their situation (Baglieri et al., 2011; Gibson, 2012; MacConville, 2007). Stevenson (2010) recommended that academic researchers take a Human Rights activist’s stance so their research process would permit co-research of disability issues and encourage students with disabilities to share personal experiences (cited in Gibson, 2012), a core tenet of DSE. When students with disabilities share personal (educational) experiences, they illuminate and disseminate information allowing others to learn about their behaviors and experiences and, in the process, they speak for many ‘voiceless’ persons with disabilities while challenging ‘normal’ discourses.

Data Collection Procedures

Face-to-Face Dialogic Interviews and Focus Group.

Phase 1: Face-to-Face Interviews.

Phase 1, a three-step funnel approach to face-to-face dialogic interviews (see Figure 3.1) was used with each participant (Seidman, 1998). The first interview was a trust-building stage that involved nurturing a researcher-participant relationship through simple straightforward open-ended personal or background and relationship questions (i.e., participants provided their demographics—their names, contacts, home, age, major, and year in the program). Overview questions connected and prepared the participants and researcher for later thoughtful questions. Aside from building rapport, questions during the initial interviews invited participants to easily recall education events and experiences. Emotive questions and words were deferred to avoid distressing the
participant. The second interview deeply inquired into the topic using questions that were developed from the first interview and the identified emerging themes. The third interview focused on education and transition experiences, delving further into the emerging themes that were identified in the previous interviews. An average of three face-to-face dialogic interviews lasting averagely 75 minutes was conducted with each individual participant. The actual number of interviews with each individual participant ranged from three to six due to factors beyond our control.

**Phase 2: Focus Group.**

One focus group was used for the purposes of this study, which lasted approximately 60 minutes. Participants discussed their lived experiences, circumstances, behaviors, feelings, or opinions; they revisited previous interviews (done with a particular individual) and reacted to themes and new information, which led to broader material about their education and transitions. The researcher moderated the conversations, increased trustworthiness of the research study, and provided safety and protection of participants’ privacy. (See Appendix H for safety details in the consent form.) The researcher developed and maintained reciprocal relationships with participants throughout the research period. Our interactions were conducted in a friendly, courteous, respectful, and professional manner. For example, the beginning of interviews involved greetings and sharing the day’s experiences and then sharing the interview agenda. This followed disclosure and confirmation of identities; a brief discussion of their rights and safety considerations; sequential, logical, general discussion of the goal and the purpose of the interview, the interview procedure; and clarifications and responses to participants’ concerns or questions. Participants were allowed ample time to reflect on the topic, key
points and questions in the questionnaire (each participant had electronic and hardcopies of the questionnaire all the time). At the conclusion of each interview, participants were asked for final remarks, the next interview was negotiated, they were thanked for their participation, and encouraged to contact the researcher in case of concerns, questions, or had additional information to share. In general, the interviewer engaged participants through exploratory questions (i.e., questions that help discover and examine issues) while the interviewee engaged the researcher through inquisitive questions (i.e., questions of curiosity). Files for each individual participant and for the focus group session were set up on the researcher’s personal password-protected computer, and all electronic and hard copy materials kept securely under key and lock (with password for digital material).

The focus group is generally an in-group interested in exploration of a topic of common interest. Group members engage in a collective discussion of phenomena, and through interactions, they encourage each other to share and decipher experiences. This allows the group to compare and contrast behaviors, experiences, practices, feelings, perceptions, and opinions (Banks, 2014). A minimum of three meetings for a focus group is recommended for best practice approaches (Seidman, 2006), to add to the breadth and depth of information (i.e., in order to get a more objective and macro view of the subject under investigation) (Fullarton, 2013). However, only one focus group was conducted because two of the eight participants felt uncomfortable to share their personal experiences in public. This included two participants of which one had a police restraint against contacting another after a disagreement (not much can be reported for the sake of participants’ right to privacy). Nevertheless, rich data was collected from those that participated. These complemented individual interviews and field notes. Moreover, one
meeting with the focus group did not compromise data as shown by previous research studies that successfully used several interviews and/or focus group. Examples of scholars that have used funnel approach interviews to conduct research with individual students with disabilities include: Ankeny and Lehmann (2011) and Banks (2013) who used three interviews, Connor (2012) who used four interviews, and Coccarelli (2010) who used five interviews. Other scholars that have used both funnel approach interviews and focus groups include: Connor (2013) who used three interviews with a focus group (that met once), and Hetherington et al. (2010) used one interview and two focus groups (one of the students with disabilities and the other with parents of students with disabilities). And most research had interviews as short as 15 minutes and focus group as long as 90 minutes, as discussed in Chapter 2.

*Funnel approach interview in previous studies.* The funnel approach can be used with one-on-one interviews and focus groups to collect rich data from the participants. Several interviews and focus groups can be held depending on the research question and the aim, goal, purpose, and objective of the research. Different scholars have conducted research with students with disabilities using funnel approach interviews only (Ankeny & Lehmann, 2011; Banks, 2014; Coccarelli, 2010; Connor, 2012). Others have used a combination of individual interviews and focus groups, all based on the funnel approach (Connor, 2013; Hetherington et al., 2010). Also, research studies that have used the funnel approach to examine the transition of students with disabilities have conducted different amounts of interviews: three interviews (e.g., Ankeny & Lehmann, 2011; Banks, 2014), four interviews (e.g., Connor, 2012), five interviews (e.g., Coccarelli, 2010), three interviews and a focus group (e.g., Connor, 2013), and a combination of
weekly journals and one interview with a selected group of students (e.g., Webster, 2004). Specifically, Banks’ (2014) study used three interviews to examine transition experiences of three African American students with learning disabilities. She also examined high school transition processes, and school and non-school factors and social networks supported their postsecondary endeavors. Hetherington et al. (2010) used one interview with each student with disabilities and focus groups with parents to learn about their experiences with transition programs. The interviewees were thirteen youths with disabilities, members of a self-advocacy group in western New York, and the focus group was made up of six mothers and three fathers. A 15-minute interview with interviewees and a 90-minute focus group. Connor (2013) conducted three individual interviews with two female college students with learning disabilities, followed by a fourth and final informal meeting to verify the data. Three interviews, each lasting approximately 75 minutes, were sequentially audiotaped and transcribed and then shared with participants for them to review for accuracy.

Connor (2012, 2013) developed a four-step funnel approach for interviewing students with learning disabilities (LD) on their transition experiences to college. Step one involves interviewing, transcribing, and coding data. Then data is reduced based on the academic issues and incidents to identify emerging themes, which are further explored in the subsequent interviews. Step two involves organizing data into sub-categories. This can be based on the research question(s) or theory. Themes are revisited and further discussed in a recursive cycle. Step three involves breaking down data into components such as: (a) the research aims, goals, purpose, and objectives (e.g., isolating or identifying actions of students that contributed to their academic success and
competence traits), (b) the research questions, and (c) the paradigm (i.e., the core tenets of disability studies in education). Step four involves clustering, categorizing, and arranging data for interpretation and description. During data analyses, emerging themes are matched with field notes to find contextual meanings. Generally, the audio interviews and focus group dialogues are transcribed (this is a continuous process), and then the transcripts are coded by an individual or by different persons. Coding can take the form of line-by-line or independent open-coded. Line-by-line coding prompts a search for patterns and meaning in the data (Charmaz, 2006) while open coding allows identification of concepts from chunks of raw data (Corbin & Strauss, 2008). The data analysis process can also involve the use of in vivo codes (i.e., the actual words of participants) rather than the researcher’s own words (Charmaz, 2006; Corbin & Strauss, 2008). This way, the researcher is able to delineate participants’ verbal expressions and use them as symbolic markers.

At each step of the funnel approach, the researcher and the participant share, review, and discuss all the information for their accuracy. This process is to capture lived experiences, behaviors, or opinions incorrectly and inadequately presented, and to clarify perspectives, concerns, and all the outstanding issues (Connor, 2012, 2013). While technically Step four is the last step, data gathering continues throughout the research period in the form of observational, methodological, theoretical, and personal notes (Richardson, 2000). Hence, participants continue to furnish the research study with information such as artifacts (e.g., commendations, awards, and transcripts); in the case of new concerns, meetings between the researcher and the participant are used to address them (e.g., issues of trustworthiness and ethics). The continuous process of exchanging or
sharing data (e.g., audio, transcripts, and data analysis—emerging themes) helps to create a deeper, holistic understanding of the subject (e.g., participant’s life in relation to the theory), and it also humanizes the research study.

Specific steps to reduce data on paper and *Nvivo 10 for windows* software involved:

a) Identifying parts of the audio-recordings for relevant texts;

b) Transcribing interviews;

c) Reading the transcripts to tentatively identify categories or responses for linkage;

d) Reading the categories of responses to categorize them into themes;

e) Using final categories to code all responses;

f) Tallying coded responses to identify major themes (this is optional).

Face-to-Face Dialogic Interviews and Focus Group.

All interviews were guided by the questionnaire (see Appendix B.) The researcher reviewed the questions thoroughly before interview meetings. During face-to-face dialogic interviews, the first interview was guided by the open-ended personal/background questions, interview two and three were guided by semi-structured questions and participants’ initial responses. Interview questions were tailored to each participant’s personal experiential reality to elicit extended responses. Equally, the focus group was guided by previous subjects, emerging themes, and participants’ responses. Interview processes involved repeating and/or paraphrasing questions, verifying, validating, and clarifying comments and questions, giving participants sufficient time to
respond, to verify and to qualify answers. This method helped to reduce misinterpretations or eliminate misunderstandings.

*Interview Setting.* Face-to-face interviews were conducted at multiple locations, off campus and on campus. The locations were chosen by the participants and agreed upon by the researcher to ensure that the research study was done *with* the participants in a considerably convenient, accessible, and safe environment. More importantly, the locations were selected where participants could share sensitive or affective experiences without jeopardizing their privacy, and also to ensure that rich data was collected in the process. The locations included the audio-recording studios (whisper rooms), participant’s apartment, and study rooms in the dormitories or libraries. One interview was conducted in a restaurant at a secluded table and background music, after the participant chose it. Except for this one interview, the rest of the settings were secure which increased privacy and minimized interruptions. The locations were well-aerated and lighted rooms, had good (warm) temperatures, enough seats and table(s), and spacious for easy maneuverability. All meetings were scheduled in advance in consultation with the participants to reduce the amount of time spent on traveling, sideshows such as setting up equipment, and discussion of the data (Robson, 2011). For instance, being in the interview room thirty minutes early allowed me to set up the equipment and verify their functionality. During the interview, participants sat next to the door so they could exit when they wanted or needed to.
Three-step face-to-face dialogic interviews based on funnel approach

Figure 3.1 Funnel Approach Interview

Figure 3.2 Focus Group
Data were collected by means of unstructured face-to-face dialogic interviews (Kotler et al., 2002) based on the funnel approach (Seidman, 1998), a focus group, and the reflective journal that the researcher maintained throughout the study. Reflected in the journal were notes on researcher-participant’s interactions that contextualized the research study (i.e., interactions that provided information about participants’ education and transitions). The field notes included participants’ behaviors, the settings, the artifacts, debriefs, and other pertinent details such as likes/dislikes of peers.

Data Collection Instruments

Materials

Field Equipment. Various data collection tools were utilized to conduct interviews. Some of the interviews were recorded using two Livescribe Echo Smartpens (two for contingency measures) while others were conducted in a recording studio/whisper room (with installed recording equipment).

Questionnaire. The questionnaire was developed by the researchers, which consisted of both open-ended and semi-structured questions. The questions were categorized into seven parts, sequenced from personal biography, relationships, disability, goals, education, and transition which included application processes, campus visits, and orientations (see Appendix B). The end targets of the inquiry were: 1) to find out where and when participants realized their disability was a concern for themselves and their families, peers, teachers, and educators; 2) when they needed placement in certain programs (for a certain period of time or to receive certain resources, services, and support); 3) what things remained the same and what changed; and 4) how the changes impacted their education and transition to college.
Open-ended questions were structured to invite participants to enter into more natural conversations with the researcher about their education and transition experiences (Banks, 2014). Also, they were to prompt participants to give in-depth responses (Rossman & Rallis, 2003) that were neither right nor wrong so they could express their opinions without the influence of the researcher’s perspectives (Peterson, 2000). The semi-structured questions guided the interview and helped prompt participants to focus on their transition experiences, such as responses related to transition experiences (Wilson, 2014). The multiple questions in the questionnaire guided the face-to-face dialogic interviews. The researcher used different techniques such as looking at the questionnaire to direct the participant to the next right question, to transition, or to terminate a response to a question. They also helped the researcher and participant head in the right direction, and also prompted participants to recall events and moments in their school life so they could provide in-depth answers. While the questions addressed various subjects, most of the interview questions were spontaneously generated from participants’ responses (i.e., questions were developed based on insights gained from the extant interactions with participants). Interviews were contextualized whereas questions were tailored to each participant’s personal experiential reality. This also allowed the researcher to tailor questions to specific education and transition-related topics that suited the purpose of this particular study, and encouraged participant-researcher dialogue. Besides helping to elicit extended responses, the questions invited description of personal experiences (first-hand information) rather than experiences of others (second-hand information). This led to rich discussions that helped the researcher to assess and gauge participant’s verbal, non-verbal, and physical reactions.
Data Analysis Process

Verbal protocol analysis may or may not require analysis of meaning (Ericsson & Simon, 1993). In this case however, the researcher was interested in the meanings of the protocols; and so data analysis involved deriving meanings to understand factors that impacted participants’ education and transition to college and also to test DSE theory (Ericsson & Simon, 1993). Qualitative interpretive analysis of data involves “breaking down data into smaller units to reveal their characteristic elements and structure” (Dey, 1993, p. 30). The coding process involves assigning tags, names, or labels to relationships or interactions, consequences, or meanings to people’s specific experiences, behaviors, acts, texts, and pictures (Robson, 2011). Coding helps with the categorization and/or delineation of themes (Cohen et al., 2007; Gibbs, 2007; Greene, 1996). Similar data was put together, coded, categorized, manipulated further, recorded, and diagramed to show “categories, relationships, and assumptions” (McCracken, 1988, p. 42; as cited in Chaplin, 2011, p. 86). Data were analyzed through applied thematic analysis guided by the deductive and inductive approaches (Guest, MacQueen, & Namey, 2012). Applied thematic analyses “move beyond counting explicit words or phrases and focus on identifying and describing both implicit and explicit ideas [themes] within the data” (Guest et al., 2012, p. 10).

Guest et al. (2012, p. 17) summarizes the defining features of applied thematic analysis as follows:

- “Identifies key themes in text. Themes are transformed into codes and aggregated in a codebook.”
• “Uses techniques in addition to theme identification, including word searches and data reduction techniques.”
• “Can be used to build theoretical models or to find solutions to real-world problems.”

There is no one agreed way of conducting applied thematic analysis; still, it was used to code and categorize data (Gibbs, 2007; Howitt & Cramer, 2011; Punch, 2009; Robson, 2011). Applied thematic analysis is convenient for delineating complex experiences such as that of students with disabilities. Then, its use in this dissertation study helped focus on major experiences of participants that corresponded to the research questions. By aggregating experiences of different undergraduate students with disabilities, the aim was to escape the entrapment of reifying the “overcoming script so prevalent in the fictional portrayals of disability” (Ferri, 2011, p_) as people that have overcome odds of disability (Davis, 1995; Mitchell & Snyder, 2000); but rather look at disability as a social phenomenon (Danforth & Gabel, 2006).

Data Analyses Procedure.

The interviews were continually analyzed as data was collected (Connor, 2012); however, only data P12 through college that informed education and transition processes were considered for analyses (see Figure 3.2 below). Categorization of data on paper involved listening to every audio interview several times and, profiling each participant’s qualities, challenges, and competences, and taking notes of various influences (e.g., school environments), and reflecting on them. Paper work complemented the use of Nvivo 10 for Windows software, a qualitative data analyses program. Standard editing, coding procedure, and simple and cross-tabulations involved the use of Nvivo 10 for Windows.
Windows software. I read and re-read the transcripts in order to comprehend and decipher the discourse. This helped me identify, sort, classify, and cluster pertinent information—first, according to the research questions; second, according to mega-themes, and finally to code the evidence into distinct themes that corresponded with the goals, purpose, and objectives of the dissertation. The Nvivo 10 for Windows software indicated automatically the references or locations of the discourses on interview transcripts (e.g., the speaker and the percentage of coverage and any other field notes in the electronic data). The efficiency saved time and increased effectiveness of categorization, supporting the categories, and reporting the topics and themes.

Specific coding procedure. Bryman (2012) suggests four stages of text analysis. Stage 1 involves reading the whole text, making notes, sorting major themes, and grouping text into categories. Stage 2 involves marking text and key words, making notes, and labeling for codes. Stage 3 involves coding the text, and Stage 4 involves relating the general theoretical ideas to the text. This includes adding interpretations and identifying significance in the codes. Specific coding procedures involved labeling and assigning meanings to texts (see Appendix C for a list of emerging themes). This process allows one to identify and break the discourse down into meaningful components, which are easy to manage and analyze. The discourse was selected (letter, word, sentence, or paragraph) and moved into the nodes. The discourses either were merged with the existing complementary code or formed a new code. The matrixes of coded discourses were related to first, the research questions—the academic and social factors, and/or availability or unavailability of resources, services, and support that influenced participants’ education and transitions. The broad categories were further processed
contextually based on individual experiences, and then synthesized to generate major themes—demands, competences, affordances, and barriers that participants experienced in P12 through college. These helped develop a general meaningful explanation of participants’ education and transition experiences.

The interpretation of data involved matching verbal responses with field notes from the reflective journal (Thomas, 1993). Notes were taken on our participations, relationships, and the settings (Lofland, Lofland, Charmaz, & Preissle, 1996). These led to explanations, descriptions, justifications, and rationalizations of participants’ lived experiences and behaviors. Because data analyses operate on the level of discourse (Foucault, 1972), common patterns were sought in the data, concentrating on feasible measures that were meaningfully related to the goals of this research study before gradually integrating theoretical notes into longer analytic memos that focused on the study. Sorting and categorization of data involved multiple readings of data to identify and mark essential distinguishing emerging information. Emerging themes were thematically analyzed based on the Disability Studies in Education (DSE) to derive meaning. This brought to the fore individual’s “agency and consciousness” and respect of individuals “as subjects with histories and intentions” (Riessman, 2008, p. 5). Interpretation of data focused on individual experiences and behaviors that revealed influence of systems, placements, culture, practices, and strategies on participants’ education and transition to college. That is, the relationship between personal agency and individual experiences and behaviors (i.e., effort and personalities—self-determination and self-awareness) (Ankeny, 2003; Field & Hoffman, 1994). Also considered in the
interpretation of data was the emphasis that participants placed on a particular phenomenon and the effects of processes on their education and transitions.

As mentioned earlier, the process of interviewing, categorization, and analysis of data was progressive. The systematic data collection process and analysis involved transcribing the interviews and analyzing emerging themes. This led to the formal phase of analysis after the collection of the final data. Synchronization of interviews, transcriptions, and data analyses helped focus on the research questions (Glesne & Peshkin, 1992) and made it possible to identify, schematize, and categorize items to support emerging thoughts, to relate findings to one another, and to link findings with existing literature. The data analyses process continued until themes were fully exhausted. That is, until I “developed some kind of guiding metaphor, general scheme, or overall pattern for data analysis” (Vincent, 2009, p. 116) that accounted for the entire education and transition phenomenon—experiences, views, feelings, attitudes, actions, and expressions of how participants navigated the school systems (Patton, 2002). This process ended when no new ideas or concepts seemed to emerge, and when no negative cases could be found that disconfirmed or invalidated the proposed framework of analysis.

Focus on the research questions made analysis of data pinpoint the essential elements, which informed the aim, goal, purpose, and objectives of the dissertation. That is, the actual varying experiences of activities, events, and behaviors perceived as beneficial to students with disabilities and their families, teachers, educators, and communities. Thus, the data regarding experiences, behaviors, and opinions were “selected, organized, connected, and evaluated” (Riessman, 2008, p. 3) to inform
educators and other stakeholders about students with disabilities’ education and transitions to college. This analysis involved matching facts (e.g., participants’ description of their disability characteristics such as systemic lupus, with the characteristics identified by peer-reviewed information) and matching verbal responses with actions and reactions particularly during interviews (e.g., facial expressions—smiles, laughter, crying, soft voice, sigh, heavy breathing, feelings of pain, exhilaration, which were recorded in the reflective journal). Furthermore, analyses of data were guided by established rules for coding and management of missing data in responses, such as does not know, refused to respond, indecipherable, or inappropriate response. Also, I managed multiple responses from the focus group by paraphrasing or summarizing the main themes since the analysis of data aimed at finding relationships and patterns that led to significant themes.

**Analysis of data in previous studies.** Hetherington et al. (2010) interviews and focus groups were audio taped, transcribed, and then presented to parents for validation that correct and adequate representations of their perspectives were documented. Emerging themes were matched with field notes to find contextual meaning. Two members of the research team open-coded the transcripts, independently coding each individual interview and focus group transcripts line-by-line. Open coding allows identification of concepts from chunks of raw data (Corbin & Strauss, 2008), while line-by-line coding prompts searches for patterns and meaning in the data (Charmaz, 2006). Researchers also considered in vivo codes rather than their own analysis during the process. In vivo codes are the actual words of participants (Charmaz, 2006; Corbin & Strauss, 2008) and serve as symbolic markers of participants’ verbal expression. In
another study, Ankeny and Lehmann (2011) used Seidman’s (1998) funnel approach to hold an hour-long interview with four students. Their data analysis process involved organization, classification, search for patterns, and synthesis to achieve an in-depth, holistic understanding of the students’ experiences (Riesman, 1993).
The question in the Questionnaire was:

5. How would you describe your relationships with peers (or friends) at P12 period?

<table>
<thead>
<tr>
<th>Code:</th>
<th>JUNE: I definitely, like, I even—some of my friends. I know that the difference would be helpful, but sometimes I just feel really trivialized, like I’m a caricature. I know you’re trying to help, but you’re actually making me feel worse about the entire situation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Question</td>
<td>This discourse mostly fits in Research Question 2</td>
</tr>
<tr>
<td>Node:</td>
<td>Social Domain</td>
</tr>
<tr>
<td>Sub-Node:</td>
<td>Social Demands</td>
</tr>
<tr>
<td>Sub-Sub-Node:</td>
<td>School Environment</td>
</tr>
<tr>
<td>Mega-Themes</td>
<td>Barriers/ hindrances, Normalcy, Culture</td>
</tr>
<tr>
<td>Themes</td>
<td>Disability stigma, exclusion versus inclusion, peer-relationships, reciprocal relations, respect, fair treatment, misunderstandings, social misrepresentation,</td>
</tr>
<tr>
<td>Analysis:</td>
<td>The natural social dependence on each other is typical with humans. Equally, people with disabilities need social supports to succeed in the milieu. Often the social circle is a barrier because of disability stigma. As computed in the above excerpt, June reported troubled by “over helpful” friends or those who wanted to connect with her situation. And because of her distrust and suspicions of the intent of peers without disability coupled with disability stigma, she struggled to impress peers and to maintain positive relationships that would lead to emotional supports and academic discussions of assignments.</td>
</tr>
</tbody>
</table>
| Reflection on the discourse relative to past, current, and preceding texts and relative to other participants’ texts. | ● June yearned for appreciation of her abilities and identity, some “respect” of what she is. She expected recognition and acknowledgement from peers; but not in the “sense” “public appreciation” accorded athletes.
● Misreading of ‘help’ as under-helpful or over-helpful made it difficult for participants and peers to develop relations. June was bothered by “over helpful” peers because they diminished her ‘competent student status’; it left her “feel worse off” because peers somehow “trivialized” her condition.
● Barriers related to disability stigma limited June’s socialization and in the processes she was depressed. Still, she was prepared to succeed academically; and so she invested in her strengths.
● June’s discourse was part of the responses to Question 5 in the Questionnaire, which looked at the broader relationships of participants and peers without disabilities in learning environments. |

Table 3. 2 Sample Coding Scheme Based on Applied Thematic Analysis.
**Triangulation of Methods and Sources**

Triangulation is the “attempt to map out, or explain more fully, the richness and complexity of human behavior by studying it from more than one standpoint” (Cohen et al., 2007, p. 254). It is “a validity procedure where researchers search for convergence among multiple and different sources of information to form themes or categories in a study” (Creswell & Miller, 2000, p. 126). It helps with the authentication and verification of regularities of data from multiple sources (Audrey, 2013; Bogdan & Biklen, 2006; O’Donoghue & Punch, 2003, p. 78), which lead to “a more detailed and balanced picture of the situation” (Altrichter, Feldman, Posch, & Somekh, 2008, p. 147). Ways of triangulating data conceptualized by Denzin (2006) are data triangulation, investigator triangulation, theory triangulation, and methodological triangulation. Data triangulation examines different elements that inform the phenomenon (e.g., time, space, and persons); investigator triangulation uses multiple researchers to investigate a phenomenon, and analyst triangulation involves different people reviewing data by either checking selective perceptions or illuminating gaps in the interpretive analysis. The goal is having multiple views of data without necessarily coming to a consensus. Theory triangulation uses multiple theoretical schemes to examine and interpret the phenomenon; finally, methodological triangulation uses multiple data collection methods. This can involve interviews, observations, questionnaires, comparison of artifacts, including documents, reflective journals, field notes, reports or debriefs, and interview transcriptions (Connelly & Clandinin, 2006).

The researcher used a variety of ways to collect information from participants to enrich data and to analyze data and to increase the truthfulness of this study.
Triangulation of data included individual interviews with participants, focus group, dialogue with officials at the undergraduate admission program to learn more about the transition processes, reflective journal of field notes which included debriefs, notes of observations of participant-researcher interactive behaviors, notes of interview settings, notes of artifacts—records and forms. The analysis of data also involved member checking, and academic advisor and peer debriefings. The sources of information, methods of data collection, and analyses addressed possible gaps and increased truthfulness of data and this research study as a whole.

**Issues of Trustworthiness**

All research are ideological (Baglieri et al., 2011). Therefore, the assumptions, scope of the study, limitations, and delimitations may raise questions on the validity and reliability of this dissertation. Whereas it may be incompatible to use the established standards of validity and reliability popular in quantitative studies with qualitative studies (Creswell, 1998; Ramchander, 2004), necessary steps were taken to increase trustworthiness as suggested (Connelly & Clandinin, 1990; Fullarton, 2013; Golafshani, 2003; Mertens, 2005). The four major criteria for evaluating the substance of a qualitative research study identified by Lincoln and Guba (1985) are credibility, transferability, dependability, and confirmability.

**Credibility.** It is the confidence in the ‘truth’ of the findings (Fullarton, 2013; Lincoln & Guba, 1985; Liparini, 2008). The research design only recognized participants’ contributions that consciously transformed events under study to increase credibility of the dissertation (Lather, 1991; Velez-Ibanez, 1988). An average of three face-to-face dialogic interviews with each participant based on the funnel approach and
one focus group were conducted to collect in-depth and broad data to increase truthfulness of the findings. In actuality, instead of conducting three face-to-face dialogic interviews with each participant, the number ranged between three to six, and the time between each interview varied due to factors beyond the participant and the researcher’s control: rescheduling of meetings because of bad weather, illness, medical appointments, events and activities on campus (e.g., football games and heavy traffic), tight work schedule (e.g., because of jobs, assignments, and exams), and my need for ample time to collect an in-depth and breadth of relevant information.

**Transferability.** It is the applicability of findings in other contexts (Fullarton, 2013; Liparini, 2008). Eight undergraduate students with a variety of disabilities participated in the current research study. This restricts generalizability and transferability of the findings (De Vaus, 2002). Participants had individual identity and collective identity; though they had distinctive disabling conditions and unique personal experiences, they shared the ‘disability’ tag, which made interviewing them significant instead of others such as parents, brothers, or teachers. To access authentic information about participants’ education experiences, I encouraged honest sharing of experiences by assuring them that their responses were confidential and would be kept securely (Simon & Goes, 2013). The interviews produced personal experiences about their interactions with and positioning in the milieu, and how that influenced their education and behaviors. While participants’ experiences may not be representative of the experiences of all college students with disabilities, the naturalness of experiences may help readers connect with the participants’ feelings (Ellis, 1997). Thus, to a certain degree, their experiences can inform programs and future studies to address existing and emerging issues in
educating students with disabilities. This might be particularly useful if other college students with disabilities have similar experiences in a similar context.

**Dependability.** It is the consistency of findings when repeated; the quality of data being reliable (Fullarton, 2013; Lincoln & Guba, 1985; Liparini, 2008). Truthfulness of data was also enhanced through member checking. All interviews were transcribed, coded, and categorized into themes. The researcher transcribed 60% of the audio-recordings and the remaining 40% was transcribed by the professional commercial college department. However, the researcher did the final editing to fill in the gaps and to add explanations. During and after interviews, data were shared with each participant to authenticate the information before the next interview was held (Butler, 2009; Connor, 2012). Follow-up phone calls, emails, and meetings with participants helped review themes and respond to doubts. Also, peer debriefing enhanced persuasiveness of the data. Two colleagues reviewed data for the accuracy of information to identify any discrepancies. They reviewed the excerpts to ensure that the transcriptions represented what was heard in the audio-recordings and/or the intent of participants. “Encoding is often evaluated by tests of reliability—agreement between different persons encoding independently of each other” (Ericsson & Simon, 1993, p. 289). While use of different persons to encode verbal data increases in its reliability; it is still limited even with achievement of “high-coder agreement” (Ericsson & Simon, 1993, p. 289). While the issue of reliability and validity in verbal data is critical; it is worth noting that there is no mechanism of knowing what goes inside one’s head (what is in the individual’s short term memory or long term memory or individual mental process). Hence, in verbal data collection, we have to trust what the individual is saying as true (Ericsson & Simon,
Nevertheless, disambiguation of data is checked or limited by contextualizing speakers thought processes and also by identifying “a space of possible concepts” and “a set of problem configurations and goals” (Ericsson & Simon, 1993, p. 288). Simply put it, verbal data was tailored to the DSE theory, the research questions, and the objectives and purpose of the research study. Also, continuous meetings with my academic advisor and critical analysis of each constituent of the dissertation enriched the outcome. Equally, the feedbacks from the committee members and other professors within and outside of my department and university augmented findings. Moreover, information in the reflective journal was used to corroborate discrete facts as suggested (Cohen et al., 2007; Fraenkel & Wallen, 2006; Gillham, 2008; Lecompte & Preissle, 1993; Lincoln & Guba, 1985; Patton & Patton, 2002; Punch, 2009; Robson, 2011). Several steps were used to develop reflexivity (i.e., my relation to the research), which included the use of snippets of my experiences in Kenya and in U.S., being upfront with my intentions and the locus point as a researcher (Lincoln & Guba, 1985; Malterud, 2001).

Being the sole lead questioner, as Goffman (1981) and Kendon (1985) observed, I sustained dialogues by creating a joint transactional segment (cited in Engeström & Middleton, 1996) that enhanced dialogic engagement (Creswell, 2006; Denzin & Lincoln, 2005; Glesne, 2010; Gratton & Jones, 2010; Merriam, 1988). I became a talking partner (Kotler et al., 2002) and therefore it was critical for participants to know my history, my methodology and methods, and how information would be used without risking their lives (Gallas, 1994). I shared with participants my personal experiences before, during, and after interviews, especially when they inquired about my disability and the experiences of people with disabilities in Africa. This display of what Kendon
(1973) called a commonality of readiness created points of common interests in each other’s life experiences that led to full cooperation throughout the interview processes, and helped the researcher to focus on the transition phenomenon (cited in Wiersma, 2000). The “dialectical process” helped with the analysis of data, negotiations and conceptualization of themes, and enabled interpretation of data and understanding of experiences of participants (Seidman, 1998, p. 107).

**Confirmability.** It is the degree of objectivity or neutrality; a situation where data is based on respondents’ insights rather than researcher’s preconceived notion (Fullarton, 2013; Lincoln & Guba, 1985; Liparini, 2008). I nurtured reciprocal relationships with participants before, during, and after data collection by genuinely sharing the purpose of the dissertation. I also shared my personal experiences in Kenya and U.S., which helped to break out of the “professional distance” bubble and connect with participants on a personal level (Ankeny, 2003, p. 284). Sharing of personal experiences humanized the research study, and helped us empathize and sympathize with one another. It also encouraged participants to open up, share, question, and manage sensitive personal experiences without persuasion. Therefore, I was able to capture authentic experiences and behaviors.

As an inclusive special education educator who has taught students with and without disabilities including teacher candidates, my experiences come to bear in different ways with regards to the discussions of the topic at hand—education and transitions of students with disabilities. Sharing my experiences risked biased data collection and findings. However, it is difficult to tell how researcher-participant’s interactions influenced each other’s behavior, experiences, and dialogue. In particular,
how my experiences influenced participants’ responses, reactions, concerns, fears, assumptions, or perhaps misunderstandings. Still, the likelihood that my disability, behaviors, or experiences influenced participants’ behaviors, experiences, or findings are insignificant for a couple of reasons. One, I grew up and was schooled in a different cultural environment. While I have a predilection for disability subjects, as Malterud (2001) noted, “Preconceptions are not the same as bias, unless the researcher fails to mention them” (p. 484). Two, any foreseeable misunderstandings caused by cultural differences, my accent, stress of the first interview (i.e., unfamiliarity), or disability experiences, were reduced or eliminated: through repetition and paraphrasing of interview questions; through verification, validation, and clarification of comments and questions; and through giving participants sufficient time to respond, to verify and to qualify answers. The techniques that were employed ensured that participants’ voices were not directed, dictated, and/or drowned by my beliefs, values, assumptions, preconceptions, and positions (Ankeny, 2003; Rose, 1997). Additionally, they helped with the directional focused analysis and interpretation of data (Wiersma, 2000, p. 208). Hence, participants’ “stories and mine [were] heard with equal volume, clarity and authenticity” (Ankeny, 2003, p. 284).

Possible contamination of participants’ experiences was reduced or eliminated by framing the face-to-face dialogic interviews within the education realm (Goffman, 1961). While confusion was reduced or eliminated through focused interaction (Goffman, 1974), confining the interview within the education and transition topics, our face-to-face dialogic interviews remained within the main line of the subject, what Goffman (1974) intellectualized as attentional track. In the process, we avoided non-relevant discussions
or topics that did not fit with the subject matter. Accordingly, we focused on the research questions, which eliminated the researcher’s bias, motivation, or interest from contaminating the data analysis process. The elements that informed this research study were beneficial to students with disabilities’ education and transitions to college, and beneficial to families, teachers, educators, communities, and other stakeholders. Therefore, the interview questions only dwelt on participants’ views that revealed practices, cultures, experiences, qualities, and behaviors; affordances and barriers; support, resources, and services; and things that influenced participants’ education and transition P12 to college.

Likewise, impartiality was maintained during the focus group session by creating an ambience that enabled and encouraged participants to reflect and to share meaningful experiences they discussed during individual interviews. This involved inviting and moderating participants’ input to ensure that varying points of view were discussed. However, I was careful to avoid judgmental, unfair, and subjective behaviors that could be interpreted as siding with the individual speaker, or could have steered the group in a particular direction (e.g., body language, expressing shock, or similar emotions). With name tags, participants referred to each other by their first name, creating a non-threatening interview environment. The focus group also operated within its purpose and agreed upon directions. A comfortable environment was nurtured by sharing the agenda and the following rules:

i) Researcher is neutral (i.e., I will not support or favor any interviewee).

ii) Everyone has the opportunity to participate.

iii) Cordial turn taking (i.e., listening is as important as talking).
iv) Tolerance of divergent views (i.e., disagreement and differences of opinion are good).

v) Recognition and respect for others (i.e., exhibition of common courtesy at all times).

The insider-outsider positions that qualitative researchers hold demand that they state upfront how they are positioned within and without in order to discuss the effects of their occupation on the data. Doing so upfront creates transparency, which allows readers to discern conflicts of their roles and appreciate the findings. Below I discuss my role and background.

**Issues of Ethics**

**Confidentiality**

*Protection of participants.* The Human Subjects Review Board’s ethical principles of *do no harm, get informed consent, respect the privacy of participants, and not use deception in conducting any study* guided this dissertation (Appendix I; Lodico, Spaulding, & Voegtle, 2010). Thus, I employed high integrity and honesty in the recruitment of the student participants, data collection, transcription, analyses, interpretation, presentation, and reporting of data findings (Cohen et al., 2007; De Vaus, 2002). All data materials were kept under key and lock in the office’s cabinet. These materials included paper copies, flash drives, and computers. Electronic data materials were stored on a password-protected computer. Electronic materials included signed consent forms, interview protocols, audio and print interviews, and reflective journal (field notes). The data materials were also backed up on an external hard drive and stored safely under key and lock at the researcher’s home study room. As mentioned earlier, 40
percent of interview data was transcribed by the professional commercial college department. However, all identifying information was removed before the portion of data was shared with the department. Still, all the files were deleted from their computers after the researcher obtained the transcripts. Also, no information from the data that were used in the conferences and workshops were identifiable to the individual participant.

**My Role as Researcher**

*Disclosure.* All research studies are shaped by the researcher’s perspectives or positions (Lincoln & Guba, 1985; Malterud, 2001). As stated by Malterud (2001), “A researcher’s background and position will affect what they choose to investigate, the angle of investigation, the methods judged most adequate for the purpose, the findings considered most appropriate, and the framing and communication of conclusions” (p. 483). Then, qualitative researchers doing researcher dependent studies (i.e., studies where a researcher subjectively controls the phenomenon under investigation or are a human research instrument) should reveal their locus and viewpoints to help readers be cognizant of their predispositions (Brantlinger et al., 2005; Denzin, Lincoln, & Giardina, 2006; Krathwohl & Smith, 2005; Milner, 2007).

*Biography.* I share commonalities/similarities and differences with the student participants. I was both an insider and outsider participant researcher because of my situation and position: A male of African origin who uses a wheelchair for mobility due to physical disability. I therefore qualified as an insider and outsider within the disability community; an insider because of my disability. I was an outsider because of my race, cultural orientation, accent, and schooling in Kenya, starting from pre-kindergarten to the period of undergraduate. Then I was also an insider. I received a bachelor and master’s
degrees in education majoring in special education. I was a doctoral candidate majoring in education in a university in the U.S., and co-taught inclusive education classes to teacher candidates during the period of the research study (in the same university I previously earned a master’s degree). My personal experiences in different environments, and exposure to a wide range of debates on disability issues informed my global and plural perspectives. Still, I was philosophically inclined to disability discourses and various epistemologies that supported equity in education. Thus, my multiple identities blended well with my interests in disability issues even though they were constantly influenced by the social milieu of people with disabilities. These experiences helped the researcher and participants to develop mutual relationships easily to comfortably engage in constructive face-to-face dialogic interviews. Our shared experiences solidified our relationships and helped to develop a rich interactive research environment that encouraged participants to share their experiences freely, further authenticating data. My interior position (Ankeny, 2003; Rose, 1997) was critical in gaining participants’ perspectives. Interestingly, some of the phenomenon that the student participants shared had personal meaning to me as well.

Motivation. My great interests in education stem from my belief that education empowers students with disabilities to address stigmas, stereotypes, ignorance, and poverty. I have gone through many transitions, some full of enthusiasm, others scary, to reach this doctoral level. Instead of doing an auto-ethnography of my transitions, I decided to learn more about transition experiences of students with disabilities in a developed country that has a long history of isolation and inclusion, and which has, for the past four decades, enacted disability legislations that require non-discriminatory
provision of education to individuals with disabilities. It is for these reasons that in 2014-15 academic year, I undertook a study on P12-college transition experiences of undergraduate students with disabilities with the goal of learning how they navigated education systems. I am a scholar, an educator, a researcher, and a disability advocate. Because of these roles, I have worked with policy makers, educators, families, sponsors, and persons with disabilities to make education accessible to children with disabilities. Having borne many daunting variables on my university journey, it was indispensable to learn about educational experiences of undergraduate students with disabilities in the United States.

Summary

This chapter presented the detailed methodology that was used to achieve the objectives of the dissertation. Eight participants with disabilities, recruited through a purposive sampling method, were interviewed using a funnel approach to elicit comprehensive responses. Data was analyzed using Disability Studies in Education to understand their education and transition experiences. The questionnaire that guided the interview had a panorama of questions (see Appendix B). Interviews were audio-taped, transcribed, coded, member checked for accuracy, and analyzed several times (repeated reading and coding). In the following Chapter 4, I present the findings with patterns and themes analyzed within the framework of the research questions. Chapter 5 presents interpretation of the data, identifies implications for social change, and discusses recommendations for further study and action, all laid out in the form of the summary, conclusions, and recommendations.
CHAPTER 4
FINDINGS AND DATA ANALYSIS

This chapter presents the analysis of the gathered data. First, it provides a summary of the research design: purpose, research questions, setting, participants, and data analysis criteria. Next, is the synopsis of themes, disability in brief, and layout. Finally, the chapter presents emerging themes from the data collection process on P12 through college education and transition experiences of undergraduate students with disabilities. Themes are divided into three sections based on the research questions: (1) academic domain, (2) social domain, and (3) special education and related services/accommodations and support.

Restatement of Purpose

The purpose of this dissertation was to identify factors and their impacts on education and transition of undergraduate students with disabilities from P12 through college. This dissertation was guided by the following research questions: (1) What critical factors helped students with disabilities to successfully navigate the academic demands as they transition from P12 to college? (2) What critical factors helped students with disabilities to successfully navigate the social demands as they transition from P12 to college? (3) What kinds of accommodations and related services provided to students with disabilities during their P12 education helped them navigate the transition to university, given the demands of their disability?
This dissertation adopted a qualitative interpretivist paradigm, disability studies in education (DSE) framework, and a descriptive qualitative interviewing approach. Disability studies in education “is an intellectual and practical tradition intersecting disability studies and educational research, creating a general orientation to disabilities as social and political phenomena within activities of education, schooling, and learning” (Danforth & Gabel, 2006, pp. 4-5). The setting for this research study was at the main campus of a large mid-western research one university in the United States. The student participant interviews were conducted at multiple convenient locations both off campus and on campus. Interviewees included a diverse population in terms of gender and disabilities. The eight undergraduate students chosen to participate had variety of disabilities, were low incidence category, and had either congenital or acquired disabilities; seven had physical disabilities and one cognitive disability. There were four males and four females, which consisted of one freshman, four sophomores, two juniors, and a senior. Interviewees were identified through a combination of purposive, theoretical, and snowball sampling strategies.

Data were collected by means of unstructured face-to-face dialogic interviews based on the funnel approach. In addition, other data were collected through focus group and by means of a reflective journal, I maintained throughout the study. Data were transcribed, member checked, coded, member checked and peer debriefed for trustworthiness. It was then analyzed through applied thematic content analysis guided by didactic and inductive approaches to reveal experiences P12 through college and to identify factors that influenced participants’ education and transition to college. (Please see Chapter 3 for details on coding scheme.)
Synopsis of Themes

The researcher examined specific participants’ experiences to reveal factors that afforded and hindered their education and transition to college, and to develop a mobility and transition profile of their behaviors and abilities. Factors that contributed to educational demands were individual qualities (e.g., disability, health issues, pain, medication, and hospitalization); environmental (e.g., inaccessible learning environments); accommodations (e.g., unavailability of assistive technologies); school and college related (e.g., inaccessible curricula); teacher or instructor related (e.g., professional dissonance, i.e., teachers with contemptuous, differing opinions, actions or characters or attitudes). Factors that contributed to educational competences were individual qualities (e.g., cognitive and non-cognitive behaviors); home environments (e.g., family support), school environments (e.g., access to regular schools, access to general education curricula, Post-Secondary Enrollment Options (PSEO) program, student organizations and clubs); peer supports (e.g., role models and acquaintances); teacher supports (e.g., mentors); and community environments (e.g., access to job opportunities to practice learned knowledge and skills, to acquire work ethics and income). Interactions of academic, social, and accommodation domains are complementary and/or mutually correlated. Consequently, an impact in one domain affects the remaining domains and education outcomes. Interfaces of domains produced different factors that affected participants’ functionalities, experiences, behaviors, relations, and access to quantity and quality education. They contributed to participants’ competences and incompetence, which ultimately and significantly affected their experiences, educational outcomes, and transition to college.
Before I present the student participants’ experiences and the influences of various factors on education outcome and transition to college, first, a brief presentation of their profiles, followed by the layout.

The Layout. Findings of students’ perceptions of experiences that influenced their education and transition to college are divided into three sections, according to the research questions: The academic domain in the first section, social domain in the second section, and special education and related services and/or resources, services and accommodations in the third section. Under each question, I discuss factors that adversely influenced education and transitions (i.e., prevalent educational barriers and unfavorable demands) and factors that facilitated education and transitions (i.e., prevalent educational enablers and competences). While the categories are considered distinct from each other, in reality they intersected, overlapped, and so in some situations the differences between for example, social and academic categories blurred, as in the case of family supports. Nonetheless, other categories remained well defined, such as education or curricular goals.

Figure 1 provides the major conventions used in the presentation of the excerpts.

Figure 1. Conventions Used in the Presentation of Transcripts

HERA: This is a pseudonym for the actual speaker. All identifying information such as names of people and places has been changed to protect the confidentiality of the participants.

// Double slashes indicate a combination of sentences or paragraphs that appear in different parts of the transcript but that speak to the same theme/subject/topic or augment each other.
Brackets contain elucidative words or explanations made by me and not the speaker.

… The ellipses or a set of three dots indicates that I have omitted words from the original source.

(Inaudible) Parentheses enclosing inaudible text indicate unintelligible words or phrases.

(Laugh) Parentheses enclosing text or notes or non-verbal information (e.g., change in tone, grin, face).

(TP1L3) This symbol shows the location of the quotation in the transcript files. “TP” represents the transcript page and “L” represents the line. For instance, TP1L3 means the quote can be found in transcript page 1, line 3.

**Research Question 1**

*What critical factors helped students with disabilities to successfully navigate the academic demands during P12 education to transition to college?*

**ACADEMIC DOMAIN**

Academics are events and activities relating to education and scholarship. The academic domain involves curricula events, activities, tasks, and courses performed at school and at home that contribute to growth and development of cognitive and non-cognitive abilities and positive education outcome. Presented under academic domain are factors that contributed to academic demands and academic competences as students transitioned from P12 through college.

**Academic Demands**

Academic demands are educational activities or tasks, curricula-based course-related work required of students to perform at school or home that enhance their
educational adjustment and cognitive abilities in a subject area so they can move to the next academic level. The requirements are related to computation and communication (e.g., listening, reading, speaking, writing, and calculation); classroom practices that focus on thinking, understanding, and presentation of knowledge and skills; and competing expectations and goals of stakeholders in education (e.g., the expectations of individual and groups of students, teachers, educators, administrators, policy makers, families, community, governments). Demands on the individual student depend on the circumstances such as the interactions of above factors with individual traits, family dynamics, and school and community environments (Ames, 1992; Meece, Anderman & Anderman, 2006).

**Individual-Related Factors**

A confluence of factors that contributed to the students’ academic demands were individual physicality and physiology including disabilities, illness, pain, injuries; dependence on medication and their side effects; infrequent hospitalization; and lack or limited accommodations. These factors reduced or hindered their mobility and participation in learning activities, hampered their continuous school attendance, limited development of classroom relations, made school life challenging, limited their involvement in academics, and compromised learning processes in general. Consequently, students’ actual academic performances were below their potentials.

**Individual Disabilities.** All of the participants mentioned that disability adversely influenced their involvement in learning processes. It was challenging to see the board, attend some classes, and be involved in certain learning activities. These factors compromised their quality of learning. For example, June stated, “My medical stuff is not
all that static or consistent. I never know what I’m doing every morning when I wake up, I have problems to deal with.” In addition, Hera reported that Systemic lupus caused “really bad fatigue” and pain that made it “really hard to concentrate” thus contributing “to learning issues”. Zeus mentioned that his condition made him vulnerable to fractures and low breath; it reduced his independence to manipulate learning materials, and because of “bad eye-hand coordination ... pouring things in science classes was difficult,” so was mixing and cutting things. Besides, it was challenging him to participate in physical exercises or some strenuous activities. He broke his legs severally in fourth grade. By then, his gross motor abilities started to deteriorate making it difficult to grip pens. He then began using a wheelchair full time in “sixth grade” when it turned out that he “needed with the everyday help” (i.e., his need for help with the everyday issues was a result of weakening of heart muscles and general vitality). Change of status from a strong young boy into one dependent upon others limited his motivations, explorations, and experiences. Likewise, Perry who used a wheelchair described his disability as limiting his involvement in learning activities; it restricted mobility particularly when it involved switching classes and riding elevators. Often, he needed more time to switch classes because of the crowded hallway and locked elevators. He mentioned that because of “physical disability...there have been some issues like being late to class because hallways are crowded or the elevator is busy or I have to take some time for self-care.” Similarly, Mei described her involvement in learning activities as being compromised by her left blind eye. For instance, in high school, students switched sitting positions every month, and sometimes she would find herself at the back of the class where she struggled to see the board. In addition, she performed poorly in reading
and math in comparison to peers because it was difficult to read normal/small print without accommodations. Besides, she had to put up with teasing peers, which affected her self-esteem. The excerpt below captures the adverse effect of a blind eye on Mei’s reading and math experiences.

MEI: ...in the elementary school my eyes used to be worse than they are right now... reading was difficult...And math is always a time test. Though I understand it, I couldn't finish it. //...in elementary school we were reading books and I literally held the book ... close to my face and kids would make fun of me. But ... I can't see....

**Mental Fatigue.** Personal misperception of participants contributed to mental fatigue. They were weighed down by what they thought could happen to them when teachers and peers misinterpreted the behaviors. Interactions with members of society negatively molded participants’ perceptions such as lack of confidence. Disability caused worry and fear for some participants such as Hugo and June. In particular, June was interested in going to medical school but she was worried they may “ask me about psychological records” and use them to deny her admission and thus ruin her chances of becoming a doctor. She was preparing to submit applications to medical school, but she was worried that her medical history may be the basis for her disqualification.

JUNE: ...For me it kind of bothers me as I prepare my application. Yes, like if you are disclosing your disability that you want to be assisted then you have to show your confidence to meet the gold standard on what is measured, like level, like showing what somebody’s abilities are to perform these things. So different med schools could ask me for different things with no standards on it. They can ask me to perform such ridiculous things that I just can’t do it. And yes, it’s hard. It is ... legal; probably not. But then there are so few in medicine because who’s gonna challenge them. Someone took a case to the Supreme Court but it took 20 years to be solved. They settled the case in his favor but he was like I don’t want to go to med school anymore. There are some things in my medical records that could end up coming back to bite me. Like if they ask me about psychological records. Yeah, I do have them because they are required by
some of my doctors. But that doesn’t mean that I have psychological issues. But because I have the records it does not matter.

In addition, Hugo was concerned that people may ruin his life by misinterpreting or misunderstanding his anxiety and micro-expressions. Furthermore, disability frustrated participants and made others make uncritical decisions, for example, related to attending college. Besides, participants had unpleasant experiences with teachers, doctors, specialists, and other service providers, who molded their beliefs. Because of difficult relations, they perceived doctors were out to harm them, or society as being against them, which further stressed them and distracted them from academics. For example, June described that she was suspicious of doctors while teachers could not initiate appropriate instruction approaches that directly addressed their problems. At high school and then after graduation, June contracted illnesses that made schooling and transition to college in time difficult. However, doctors were concerned that her illnesses were psychogenic rather than physiological, a factor she disputed. She explained that medics (including doctors) were uninterested in her situation because it was a pre-existing condition. Consequently, she was frustrated by the medical interventions that seemed not to work. She also resisted doctors’ approaches that linked her ailment to psychological issues. In one instance, she reported that one doctor thought she did not have medical problems but rather was she was emotionally affected by her school, and so she advised her to transition to post-secondary: Doctors’ “…big advice was ‘You should get out of high school and think of postsecondary.’ My issues were not like emotional, the school sucks issues. I have physical issues here. You’re not helping me very much.” Moreover, June reported that she was frustrated with her sickness and failure of doctors to identify and provide appropriate interventions. After seeing different doctors for her illnesses, June
was in physical and emotional pain. The cost of emotional pain on her was enormous; as a result, she distrusted medics and the medical procedures: “My ... surgery was supposed to help. It really didn’t. So I was miserable I was in so much pain.” After stint at home and hospital visits without her condition getting better, she reported making uncritical decisions such as to attend Savvy University Main Campus because she wanted to escape the isolation and pain: “jumped straight into it without giving it too much thought because too much thought would have led to another problem”.

**Ill Health.** Ill health, medication, and hospitalization were sources of physical and emotional stress in school or college that contributed to academic demands. These three factors adversely affected participants’ wellbeing; they removed participants from the school environments and limited their access to quantity and quality learning. In addition, they adversely affected participants’ routines and plans, caused absenteeism, poor performance in class, low grades, anxiety, and low self-esteem. Some participants missed tests, some classes, and involvement in group activities. They generally made it difficult for participants to be involved in learning processes. For example, Hera, June, Mei, and Rita dealt with frequent illnesses that caused them to miss school a lot, and so they were behind with class work, which contributed to poor grades. Often, they spent more time trying to catch up instead of meeting with peers, which added to social stress. Besides making learning difficult, ill health affected their education and college plans. In addition, they had to seek medication after graduation. For example, June and Rita almost failed to graduate on time and Mei ended up foregoing attending another university because of illnesses. June reported missing many school days due to illnesses
and injuries that almost disrupted her high school graduation. In the excerpt below, June explained losing time because of her illness.

JUNE: I missed all my time of junior year just for the physical pain that I was in ... [and] ... the first week of my senior year I snapped ... my ankle. So, I was in trouble for that time ... and then ... because of Cerebral Palsy ... I missed seven ... consecutive months of my senior year. ... They [teachers and parents] were even not sure if I was going to graduate....

Some medications left participants drowsy and lethargic; the medications adversely affected their attention and participation in learning activities that needed care or precaution such as laboratory work. Hera described that medication made it difficult to wake up early in the morning and she had to miss morning classes. Besides, the medicine affected her alertness. Likewise, June and Zeus mentioned that they took a number of medications including sleeping pills that sometimes left them drowsy.

Attending school with frequent illnesses minus adjustment to circumstances saw Rita fail some a class. However, she described that it was not needed for her graduation, and so it did not affect her final grades.

Hospitalization caused participants to access learning materials late or have low quality education. In addition, frequent need for medical care adversely affected participants physiologically and educationally. It interfered with their education plans, left them in limbo, and worried. For example, Hera mentioned that she was going into junior year when she had lupus flares. She was forced to move back and forth from hospital to school, making it hard to keep up with academic work. She also ended up being a stranger to classmates, which affected sharing of academics. Even though she received some sort of accommodations with assignments when in the hospital, the quality and quantity of learning materials were compromised. Also, continued use of medicine
left her too weak to participate in constructive learning. She said, “Because I take chemo, sometimes getting up in the morning is especially unpleasant.” She also mentioned that she was “sickest at the beginning of senior year [of high school]” and had to take medical leave for two months after her hospitalization. In the excerpt below, Hera described the challenge with learning materials while in the hospital.

HERA: ... [in the hospital] it’s strange not having interactions or being able to bounce ideas off of other people. Group projects become single-person projects. And so typically that would mean it would be a little bit less work, and I wouldn’t have to do everyone’s work. I’d just have to do mine. But I still wasn’t getting the entire picture that everyone else was.

Similarly, Rita’s disabilities and illnesses decreased her involvement in learning. She described herself as “the smart kid ... who was sick a lot” but “was never labeled disabled”. So, she schooled without essential accommodations and support. She was very sickly during her freshman year of high school and she missed school a lot. She said, “I was very sickly I ... missed like 50-60 days of my second year. And there are 180 days in the school year. And I actually missed substantial days the next year. And they actually called it truancy....” Her migraines were frequent and they interfered with learning. She reported getting erratic “migraines at least once a week ... [that] can last a while ... [which] diminished...” her academic effort. After she was diagnosed with brain malformation, she was forced to homeschool the rest of her second semester of senior year. She took advanced placement (AP) classes and honor classes without tutors. As shown in the excerpt below, Rita stated that she performed poorly in one of the classes in high school because her illness made it challenging to be in school very early in the morning.
RITA: ...I fell off my grade, I failed one semester because I missed every single day of that class, because it was the a.m. class and I didn’t start school until 9 a.m. because I just could not... it just couldn’t work for me...

Illnesses caused academic demands; but at the same time, lack of awareness as to where to get support limited her learning experiences. Rita described that she “didn’t know that there were things that would have helped” her as she struggled with illness. She was unaware of the available support (e.g., that she could be provided with tutors to teach her at home) that could have facilitated her continuous school attendance and alleviated the demands she experienced. She added that although “By first year in high school my condition had not been fully diagnosed. But come later on ... knowing that something is available ... [to ask for] some assistance’...I think it would be more beneficial.” She missed her end of semester tests because she had scheduled surgery to correct brain malformation late at the end of second semester of her senior year.

In addition, Rita described that she “had the MRI [magnetic resonance imaging]” in February of her second semester of her senior year and then her surgery was scheduled at the end of semester. So “the school was like ... if this is an insurance risk factor you’ve got to stay home for its safer for everyone.” She missed most of her second semester exams (although she took them later in the summer before switching to Savvy University). Moreover, because of the brain malformation, she stated that “...most of my high school I was in depression that I had Tourette with severe migraines.” After years of misdiagnosis and living in pain, she later “had surgery [her] senior year of high school” to correct brain malformation. The excerpt below captured her living in pain while attending school.

RITA: ...they [doctors] confirmed it was ... possibly Tourette not epilepsy. And then ...I was diagnosed with migraine and the migraines were so bad that
I had to go back to a different doctor... who said this isn’t Tourette and isn’t migraines. I ended up having ... a brain malformation that needed surgery to fix, which was four years after the initial diagnosis.

Likewise, June reported that sickness hindered her continuous schooling; it negatively affected her academic performance, and almost disrupted her high school graduation and college attendance plans. It also left her graduation from high school in limbo for some time, as she stated: “And graduating from high school was challenging because I missed in my junior year a total of enough days of school like one whole school year... [and] ... seven consecutive months of my senior year....” She was sickly in high school and missed many school days equivalent to one academic year. Besides dealing with chronic illnesses related to cerebral palsy, she developed dystonia (i.e., abnormal muscle tone) and snapped her ankle, which led to several problems that made school involvement difficult. She was sickly but she received inadequate support from some teachers and she struggled with some schoolwork. June described that after she moved to college she came across some of her high school teachers who were proud of her achievement. But she described some of them as unsupportive: “Like a lot of them [teachers] are really happy where I ended up. But it is just like ‘you were not all that supportive when I actually was in your class.’” By senior year, she was ranked twelfth in her class; yet as a sophomore, she tied number one with two other students. By senior year, she was ranked twelfth in her class; yet as a sophomore, she tied number one with two other students.

Furthermore, Hera, June and Mei were forced to attend to their medical issues first and to forgo certain universities, or to postpone their transitions to college by weeks or several months. Health problems interfered with participants’ timely transition to
college; it made it difficult for them to realize their transition plans, and some were forced to choose what was convenient. June described that she made college applications a year and a half after high school graduation and as she recuperated from dystonia and cerebral palsy. As captured in the excerpts below, her disability and erratic ill health interfered with her planning and pushed her into delusion (i.e., that medics were less interested in her health issues and that she had incurable unknown illness).

JUNE: ... I find that mine [disability] is not very static. ... Every day I have a new set of issues because I have so many different issues. ...I can’t really depend on what my health is going to be day-to-day. ... Some days it’s really hard.... ...coming out my sophomore year of high school I was three-way tie for number one ... it was frustrating to lose that one.... ...I was almost number one if I had not been sick at all ... my performance was always way above par. ....So, for me falling from one to twelfth was frustrating.

Even after June had graduated, it was difficult for her to transition to college due to bouts of illnesses. She spent a year seeking medication before making the decision to attend Savvy University. Again, about a month as she was preparing to make transfer applications to Savvy University Main Campus, she was inflicted with another illness and had to forgo the college application process that year. She “developed dystonia where my arms were twisted behind me for weeks.” In the excerpt below, June described the negative impact of another bout of illness as she was preparing to transfer to Savvy University.

JUNE: ...I was just preparing my transfer applications when I got hit with my neck medical problem that took me completely out of school down the route of ridiculous medicine and a horrible doctor that put me on medicine that made me not know even who I was for a year.

Also and as shown in the excerpt below, Hera delayed attending a community college because of sickness and hospitalization the most part of her senior year.

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HERA: ...I was a really good student freshman and sophomore year, and I was really motivated, so I took a lot more classes than I needed to. ...The plan was that I was going to commute to the local community college and take classes there to just be really ahead. But I ended up not doing that.

Likewise, Mei described that “after I got out of high school like 2-3 weeks I had my eye taken out”. After she had recuperated, she decided to attend “Clarisin Community College ... because that was the easy option” after her surgery; it was “10 minutes from my house. I just commuted”. Another reason was she never wanted to start school at another college in the middle of the academic year. She had planned to attend Greenbow Ling University but her “surgery was scheduled like the end of June and then ... it was moved back like three weeks ... [and]... the timeline would not allow me to go to Greenbow Ling University when I’m discharged”.

Pain. Pain was another source of academic demands. Both physical and psychological pain affected participant’s school attendance, their involvement in learning activities, attention in class, time spent on academic work, and their disposition. Hera stated that though she was born with lupus condition, it was difficult to explain to others her experiences and struggles. She reported, “I had symptoms for almost my entire life” but the invisibility of systemic lupus was a “really big challenge” to explain to people the effect of pains on her learning. She added, “...when I was first diagnosed I was 16, and I went through a really, really big flare because no one knew what was wrong.” She lived in pain until her condition manifested at age 16 when people started paying attention to it. The excerpt below expands on Hera’s description of the effects of lupus on her academics.

HERA: ...16 was when everything blew up, it’s when they started getting outward signs and that’s when people started paying attention. Even for probably eight months when I was 16, no one was really paying attention because
everything I was explaining was pain. So it was like joint pain or abdominal pain or chest pain ... So before I was officially diagnosed, even when I was having the very big flare, but I didn’t have outward signs yet, they [teachers] didn’t really react at all. I was just a regular student. And that’s a problem that I have a lot because lupus isn’t always visible.... I was telling people that I’m in a lot of pain, and no one was able to gauge it. ... It [lupus] causes really, really bad fatigue. And then all of these problems kind of contribute to learning issues because when you’re tired and in a lot of pain, it’s really hard to concentrate on what someone’s telling you.

June described that in high school she “was in so much pain that way surgery was supposed to help, it really didn’t” and so she “was miserable.” She also reported that because she “was in so much pain I ended missing like 30 days of my sophomore year of high school and then several months of my junior high school”. After she developed dystonia she was put on “horrible medicine” that “was basically to reset my brain” and stop her arms from “twisting behind my back”. But because of the heavy dosage she reported, “I barely even knew my name, it’s awful, and it didn’t help. My arms still freaked out.” June lived with pain; but she could not do without some medicine, which she explained were less effective in managing her pain. The discomfort because of pain made it difficult to stay focused; she easily got distracted from academic work. She was “antidrug” even though she still depended on sleeping pills as she described below.

JUNE: ...I’m antidrug.... The only drug that I take every day is because I have to, I take sleeping meds because without them, I don’t sleep at all.... Right now, if I take sleeping medicine I may only sleep for half an hour to an hour a night. But that’s still more than nothing. I don’t know why; they haven’t been able to tell me why I haven’t been able to sleep since I was eight. ...Typically, I sleep and then I wake. ... I have a hard time getting into sleep—my body doesn’t like to stay still....

June reported that she never got a comprehensive diagnosis for her health issues, and she was concerned that medics invested little interest in her health because of the pre-
existing cerebral palsy. Because of poor medication, she was suspicious of doctors’ advices particularly those that tried to link her illness to mental problems. Her distrust of medics also weighed her down (i.e., was a psychological pain), which affects her relations with other service providers.

**JUNE:** ...*I was ... seeing the doctor and he was more interested like lecturing me how I need to be in college than solving my medical history or my medical problem. //...I had to see a new doctor who was zero interested in actually solving my medical problems. He ordered tests but actually never had them read.*

**Injuries.** Participants were vulnerable to injuries, which also contributed to academic demands. **June** stated that injuries (e.g., snapping of ankle), illnesses (e.g., cerebral palsy, dystonia), and disability (cerebral palsy) impacted negatively her social life, put her out of school for several months, it almost disrupted her graduation, and later after high school graduation affected her timely switch to college. Additionally, her disabilities and illnesses caused academic, social and personal demands, which affected her school attendance, socialization, and emotional wellbeing. She mentioned that she “was miserable ... [and] in so much pain. I ended up missing like 30 days of my sophomore year of high school and then several months of my junior high school”.

When **Zeus** broke his left leg in fourth grade, he “had to use the wheelchair for a while”, which limited his participation in learning because it was his first time using a wheelchair. Likewise, **June** described using a wheelchair for two months after having “double ankle surgery”, which made access to learning materials difficult. The high laboratory tables made *science* classes challenging because in a seated position she could not “even see the board [and] nobody in my class would even give me the notes from the board”.

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Some participants struggled to adapt to college environment because of illnesses, medication, and limited support. For example, Hugo, June, Rita, and Zeus among others were on full medication for various conditions. June continued to experience health-related problems in college. In addition, she “*stayed up until 4 [am] and I got up at 7 [am] because most of the time, I juggle being a full-time student, a part-time worker, and a full-time medical patient.*” Rita’s recovery from brain surgery was to take five years.

As shown in the excerpt below, Rita’s chronic migraines challenged her pursuance of biochemistry, her area of interest and preference:

RITA: … *One of my diagnoses is called chronic migraines so I get migraines at least once a week and they can last a while. And so, since I never know when I will get a migraine, my working in the lab is diminished a lot. And I can’t guarantee that I would be there every day because … like when you work in biochem you tend to work on organisms, you work on bacteria, yeast, they grow at their timing. So, you need to be there every other day. If you are not there, it messes up your entire experiments because of time.*

In addition, June continued to experience academic demands because of disabilities and illnesses. For example, as shown in the excerpt below, June described that she was late with her laboratory assignments because of continued sickness (rather than cognitive competence).

JUNE: … *I’ve two lab courses that were due three weeks ago, which by now should have got me a zero. But I’m still going to turn it in with full points. In terms of time, that really makes me terribly guilty. Any time I know that I could have done it any sooner because I’m really like I grapple with issues. Like every time I try to work on them … like, I get ready to work on it and then something comes up. … Last week I literally tried to do my lab report while apparently I had a seizure or whatever it is that I’m currently having. So last time I was on my computer doing the assignment but nothing I worked on was saved apparently. So, I had to start over. And then I had another problem last night. I didn’t have anything done. So I felt very dull doing the lab [assignments].*
P12 through college, albeit in different degrees, disability, illness, medication, hospitalization, pain and injuries contributed to absenteeism, isolation, disability stigma, guilt and fear. These factors further affected participants’ learning processes, development of interpersonal skills, and development of relations with peers and teachers. These factors limited their access to quantity, quality of learning, and academic opportunities.

**Institution-Related Factors**

School-related factors that contributed to participants’ academic demands were unfavorable learning environments, unfriendly physical education classes, uncoordination of programs, standardized tests, and high teacher-student ratio.

**Unfavorable Learning Environment.** Some learning settings were less accessible to students with disabilities when they had injuries or recovering from illnesses. Other classes such as laboratories were less accessible to wheelchair users because of the high tables. These unfavorable learning environments limited participants’ involvement in quality learning processes. Physical structures affected participants’ mobility in between classes thus contributing to academic demands. Participants shared that their education was impacted negatively by learning spaces and some physical structures. Although the schools’ infrastructures were accessible, participants temporarily or permanently in wheelchairs such as June, Perry, and Zeus described facing challenges working on high laboratory tables, dealing with broken disability doors, congested elevators or hallways, and monthly changes in the classroom seating arrangement. These factors limited participants’ involvement in learning activities thus subjecting them to academic and social demands.
In high school, Perry reported that he dealt with crowded hallways and busy elevators. These challenges affected his movement between floors to classes, and consumed a lot of time when he took some time for self-care. Switching of classes detracted from study time and concentration on learning activities. In addition, during June’s freshman year of high school, she used a wheelchair but the school “was not a very welcoming, accommodating, or friendly place whatsoever.” She reported that “People broke the disabilities doors in my high school so much so they just locked it. So when I’m in my wheelchair I had to call the main desk to send somebody down to open the door....” The excerpt below captures June’s frustrations with the challenging school environment that increased her academic and social demands.

JUNE: ...I got to high school my freshman year. I had double ankle surgery, and I was in the wheelchair for four months, and I found out how inaccessible my school was, not that I didn’t already know that. Like it was already bad and it became a lot worse. In a science class, and already the tables are right here [gesturing the seated face level]. I couldn’t even see the board. Nobody in my class would even give me the notes from the board. Like I couldn’t see and they wouldn’t give it to me. There were people ready to help me but unless they were getting something out of it. Like ‘oh if I help you I get out of class 10 minutes earlier, perfect.’ I’m like, no. They were miserable and often horrible.

Zeus also reported that his school was two years old but the laboratory tables were inaccessible for wheelchair users.

Also, Mei dealt with monthly switching of seating positions that sometimes pushed her at the back of the class where she could not see the board well, as she reported: “...The classes averaged 30 plus people ... and even when something is gone on well, they will assign you a seat and then they would switch it later. And it's like I need to seat near the front. And they would move me to the back....” Similarly, Hugo reported that simulated environments in his school was not very helpful in teaching him social
skills necessary to acquire more knowledge and skills. As shown in the following excerpt, Hugo faulted the inclusive school milieu as less realistic and so it limited their exposure to real interactive behaviors needed for academic and social competence.

HUGO: ... I went to Jana Academy for my high school and ... they're good at dealing with severe behavioral problems ... but they try to have an inclusion ... but some people with severe behavioral problems can’t navigate a social environment. .../... they could have better ... put me in ... more realistic social environment ... put me in a different environment... Jana’s environment was rather controlled ...

Inaccessible physical education classes made it difficult for participants to socialize. For instance, some participants mentioned that unfriendly physical education classes made exercising and learning together with peers difficult.

Uncoordination of Programs. All of the participants experienced academic demands related to uncoordination, miscommunication, and limited collaboration in the provision of resources, services, and support. Uncoordination of programs was aggravated by lack of communication between teachers, and between teachers and students with disabilities. Limited communication adversely affected sharing of information and timely provision of support to the participants. Participants mentioned that uncoordination of programs contributed to duplication, randomness, disruption, and ultimately friction among service providers, which negatively affected their education outcome. For example, Hugo and Kim shared that they experienced disruptions in learning because of lack of communication as well as collaboration of instructors and staff. The department of education in Kim’s school was unsuccessful in linking different support staff, which made it difficult to access learning materials and support on time. Kim reported doing most of the learning activities on his own because “There wasn’t very much communication between actual teachers and assistants.” Correspondingly,
**Kim** described that uncoordination of departments and lack or limited collaboration between teachers negatively affected the provision of resources, services, learning materials, and timely decision-making. In turn, these factors contributed to social and academic demands that affected his relationships with teachers, peers, and in extension his learning.

Participants reported struggling to navigate school systems because their disabilities were not acknowledged in the schools. There was limited collaboration between teachers and students, poor communication, and poor coordination between departments. They found the school to be mystic and unfriendly, and they felt insecure and uncomfortable in the environment. These caused academic and social demands. As shown in the excerpt below, **Kim** mentioned the problems and how schools should address them.

**KIM:** ...*My school had a department that was called Support Education for all the students with disabilities. And I think in order to better integrate the seamlessness between the students and the education, was the communication between the departments of teachers and that department. And I think that would really relinquish some of the problems of the totem pole effect. While I don’t want to hear it from you, I want to hear it from my teacher.*

Participants such as **Hugo, Kim, Perry,** and **Rita** shared that lack or limited resources and uncoordination of programs, learning activities, and events harmed their relationships with teachers, peers, families, and their involvement in learning processes, which negatively affected their learning outcomes. For instance, in high school, **Perry** reported running “…*into … teachers never fully know what I needed…staff members didn’t know.*”
Some participants also mentioned that in college some academics abdicated their responsibilities to the disability services office, thus causing delays in the decision-making process and provision of learning materials. Rita reported dropping a class and getting “…an F [grade] because he [professor] couldn't grade my assignments because I was late” even though “…I would go to the mailbox that says turned in on that day and I would still get zero.” Hugo reported that some academics failed to deliver learning materials to the disability services office on time even after several reminders. This forced him to work under stress, managing different classes, and taking tests in succession. Besides, Perry and Zeus mentioned that some staff that work with students with disabilities are inexperienced about disability because of lack of interest, or lack of interactive opportunities, or exposure, or professional dissonance, or negative cultural inclination or orientations. Hence, teaching advocacy skills to students with disabilities is essential. In the excerpt below, Kim described his experiences with instructors in high school and college.

KIM: ... I’ve dealt with many cases that some professors didn’t even know how, or think that they needed to provide accommodation because they thought the disability services office is responsible, or in grade school years, the support educators did know how to do it, or wouldn’t do it. They didn’t have to. //... I don’t think there’s enough communication [between departments in high school] ....

Participants wanted their sources of demands remedied. They recommended enhancing communication between teachers and students with disabilities in eliminating such scenarios. Kim observed, “Communication is definitely necessary and that’s how you can improve... the experiences in not only learning, but just experience overall [of students with disabilities].” He suggested having “more people on staff that knows some of these techniques [that works with students with disabilities] to make accommodations,
[at university level having] ambassadors in each department that can relay messages from the disability services office to [other departments].” In addition, Hera shared that some of the misunderstandings between her and some of her high school teachers could have been addressed through dissemination of information about lupus.

HERA: So, what I wish would have happened in high school is that I just wish that maybe more people would have known about lupus. I don’t know how they would have done that without just me specifically telling people because I did tell people, but I wasn’t able to get to enough people for it to make an impact on people wanting to sit next to me or being okay with that. I’m not contagious. But for me here, that’s what I try to do as much as possible. So if I’m having an obvious problem and it kind of looks like someone’s wondering what’s going on, then I don’t really have a problem telling them because lupus is essentially invisible, and it’s not very well known. So, I feel like I have this really great opportunity to educate people on something that they don’t know about, and it helps me, but also maybe it will help somebody else. And I’m hoping that it will help them judge less for people that you can’t tell what’s going on....

**Student-Teacher Ratio.** The student-teacher ratio in general education classrooms is higher in comparison to special education classes, and the rate of individualized supervision is relatively lower than that in special classes. All of the participants spent most of their school day in general education settings where the student-teacher ratio was higher. Consequently, participants felt less attended to by teachers. Teacher instruction practices were geared toward the whole group rather than the individual need, which sometimes left participants deprived of services and support. Besides, the feeling of not belonging adversely affected their confidence, self-esteem, and limited their social relations in school. Others were in gifted classes; but teachers assumed students in these classes were competent to work with not support. For example, Mei shared that her school population was about 3,000 students and that classes consisted of about 30 students. She was in the gifted class. Still, without accommodations and
assumption that she was compensating well, she schooled with little teachers’ support, which burdened her considering the demands of her blindness. Most of her school period Rita was in the gifted classes; but when she became sick, to receive tutorials, the school required her to switch to regular classes, which she did and found out that they were less academically stimulating and challenging. Unlike in the gifted classes where teachers had personal commitment and contact mostly with students, in the regular classes teachers were less committed. She mentioned being in a class of 33 students; however, because it was a non-gifted class, teachers cared less in providing challenging learning materials. They also did little follow-up of students’ work. This was discouraging. Therefore, she opted to move back to AP and honors classes even with limited accommodations later in her senior year of high school.

**Instructor-Related Factors**

Teacher-related factors that contributed to participants’ academic demands were limited collaborations between teachers and students, teachers and parents, and non-inclusive practices.

*Lack/ Limited Collaboration.* In P12, limited collaboration reduced participants’ access to resources including learning materials, which adversely affected their quality of education. Kim described dealing with “*a lot of the teachers [that] didn’t know how to help [because] they had never dealt with a visual impairment child.*” They would not listen to him; instead they would listen to other teachers before they could provide support or accommodations, what he called “*democratic nonsense*”. In the excerpt below, Kim described “*some of the problems of the totem pole effect*” that captured experiences of the majority of participants when dealing with teachers.
KIM: ...While I don’t want to hear it from you, I want to hear it from my teacher. I don’t want to hear it from a student that you need extra time on a homework assignment, and I think you’re just procrastinating. I’ve had times where I needed extra time reading something because it just took me a while to read all the content and I needed a note from such-and-such teacher that said yes, he’s telling the truth, he needs more time....

Non-Inclusive Practices. In addition, teachers’ non-inclusive behaviors limited participants’ access to quality learning and added stress to them. Participants reported that some teachers were less supportive, contemptuous, discouraging, and held low expectations of them. Non-reciprocal teachers’ attitudes made learning environments non-inclusive, which pushed participants to the periphery. In addition, teachers were less committed to some classes and even discouraged some students from working to their optimum. Besides treating participants as aliens in their classes, some teachers held participants in low expectations because of their disability, and were reluctant to provide them with support to enhance their learning, particularly those in gifted programs. Low expectations limited their learning opportunities and realization of their potentials. These non-inclusive teacher practices limited participants’ access to quality education and development of agency. While Mei and Rita were in the gifted program, they still endured demotivating teachers. For instance, Mei reported that “... if a child isn’t in the gifted program they don’t care honestly.” Rita who was in AP classes echoed this sentiment. She reported that teachers invested their instruction time in honors classes more than in regular classes and so students in the former group were well prepared academically than the latter group. That teachers preferred some classes to others forced Rita to remain in AP and honors classes so she could be challenged academically. However, it also meant going without much-needed accommodations. The excerpt below captures Rita’s experiences about the two classes, and why she resisted switching to
regular class when some teachers demanded it because of her frequent absence.

RITA: ... I’m like no, no, I’m interested in my honors classes, it has more in-depth material, faster pace, and actually like you learn something. ... I took one regular class my second year my first semester ...thinking that this would make things a lot easier. That was the worst thing I did... my school population was really diverse so honor students are very conscious of self-learning, they are meant to learn, they read the textbook, they do their homework, they care about it, they listen in class, they respect the teacher. The regular classes I guess they respect their teachers but ... there were some kids who used their cell phones... they were playing the boy game. We had to turn in an essay for the semester final. It happened in that class we had two months to write that essay, and we would have to spend time in the library working on this essay and in class, and it was a five-page minimum essay. ...because it was a regular class, it took two months to write this essay. And then of the 33 kids, seven of us turned it in, and I ended up turning in an eight-page essay and my teacher was like “You wrote too much, why did you write eight pages?”

Rita also described enduring low expectations from teachers who reasoned that because she “was sick often and out of school” she was incompetent to manage advanced classes. She reported one teacher telling her: “ ‘it took you too long to hand in the assignment. It shows how incapable you are in doing higher math class so you don’t have to go to the honors level, you have to go to the regular math.’” But “... I took the higher (math) class and I got a B+ in it.”

Uncaring Teachers. All of the student participants interacted with uncooperative, unsupportive, uncaring, and obstructive teachers that increased their academic demands (I discuss the teacher-student relationship in depth under Question 2). Participants dealt with uncaring teachers’ behaviors; some teachers were intolerant and disrespectful, which increased academic demands. Hera and Hugo dealt with insensitive and condescending teachers while Mei and Rita dealt with intolerant, unfriendly, and bullish teachers. June dealt with “teachers ...who ... singled me out or shuffled me in the corner because [of my disability].” While Mei reported feeling scared of high school teachers and never seeking
emotional help from them because they were “very strict teachers ... [and that] one of my science teachers actually made my friend cry in class.”

Participants shared their frustrations with some teachers and instructors who less acknowledged their disabilities, or were simply uninterested in their circumstances. Other teachers were inflexible, unfriendly, and pessimistic. For example, Zeus described dealing with pessimistic teachers who perceived him as incapable of learning. He reported that teachers having low expectations of him and they “...told me in my freshman year of high school that I would ... not ... graduate in four years [that] I should probably take five... then I graduated in three years technically. ... [and then] I just did PSEO.” He also described teachers holding low expectations of him and undermining his abilities and self-esteem. His family hosted “…a foreign student from Thailand and she was ... in a different class but with the same teachers.” However, his geometry teacher was rude to him in front of the class. In the excerpt below, Zeus captures the teacher’s moral dissonance:

ZEUS: ... She [the geometry teacher] always thought that I was [expletive] her.... She always implied it ... in front of the students; ... she would always question my homework ...because it would usually be kind of the same... and...then the last week of school I started taking the test ... and as she read [what he wrote], then she would actually see that I know what I'm talking about [i.e. he knew the subject content his scribe wrote during the test].

Kim reported that some teachers were barriers to learning, and doubted his disability. He shared, “Some teachers said, I don’t believe you, I don’t believe you’re visually impaired.” They questioned his disability even though it was conspicuous and he used a “magnifier and laptop” in the class. Besides teachers being insensitive to his disability, he also reported receiving support from some teachers. However, limited
collaboration among teachers and service providers led to poor coordination between departments hindered provision of complementary support, which forced him to deal with the bureaucracies that burdened him. He operated on the premise that teachers “don’t know all the time what is going on in class ... what I actually need...” The excerpt below on Kim’s description of the totem pole effect captures the barriers that frustrated him.

**KIM**: ...The biggest hindrance was they treated you like the totem pole effect. You’re a student, I don’t have to listen to you at face value. I want to go toward your support educator first; then I want to go to this person; then I want to go to this person; and the technology person; and there’s all this work around democratic nonsense. I call nonsense very heavily. Um, that’s not needed. I think some of the teachers should have taken what I said at face value and if I needed it, I needed it. I didn’t need some signed document from somebody that says something is okay, now we can actually do something. That’s some of the processes that are in place. Benefits of the doubt, some teachers don’t know how to deal with that.

**Misunderstandings.** Misunderstandings of the student participants’ disability or health coupled with lack of support and teachers’ non-inclusive behaviors limited development of relationships and increased their academic demands. Specially, Hera reported that because her disability was invisible, it caused misunderstandings with peers and teachers who often could not tell some of the side effect behaviors associated with pain: “no one was really paying attention because everything I was explaining was pain”. She also reported that lupus caused fatigue; yet teachers would not provide her with accommodations. Therefore, she performed poorly in her coursework and tests. One teacher whose husband had lupus was unsupportive, and she never provided her with accommodations because her husband was managing his situation well: “I had ... a literature teacher...who was awful. There were no accommodations made. Her husband actually had lupus.” As shown in the excerpts below, Hera had trouble with teachers who she described as providing wrong interventions to her problems.
HERA: ... I would struggle and do badly on the quiz that I couldn’t finish, and as a result, my teacher would take that as me not understanding something. And then so she would want to assign me extra problems to work on, and you know, work with me one-on-one, and maybe I should get a tutor, and all those things. And that’s not the problem. I’m making the connection in my mind and if I had enough time, I would be able to get everything out on paper. But since I wasn’t being given that opportunity, it came across as me not understanding the material.

Participants with invisible disabilities shared that their condition narrowed their involvement in classroom learning, social activities, and school events. Their invisible disabilities also caused misunderstandings between them, their peers, and teachers. For example, Hera, Hugo, and Rita reported that their invisible disabilities predisposed them to harsh treatment from peers and adults, which affected their involvement in events and activities (e.g., physical education classes). Specifically, Hera shared that people misjudged her as lazy when in reality she had pain with joints that made walking or writing difficult. Similarly, Rita struggled with balance, which limited her involvement in certain activities. She mentioned, “I have weighting distractions ... if I carry something very heavy ... I usually end up getting a migraine.” Also, in the eighth grade, Kim started to use computers instead of Braille; but teachers were opposed to having him use computers in the classroom. Kim mentioned that lack of communication between departments added to the academic demands he experienced besides the resistance of some teachers to allow him to use computers in the class or their unwillingness to learn Braille. He reported that “There wasn’t very much communication between actual teachers and assistants”, so he tried “...to be very independent on the premise of: they don’t know all the time what is going on in class or what’s going on here, what I actually need.”
In college, instructional and structural stressors caused participants to continue to experience academic demands related to their disability and ill health in college. All the academic challenges that participants experienced in college were unrelated to their cognitive competency but rather related to adaptation, instructional, or structural demands. For example, Hugo was frustrated by an instructor who failed to take his exams to the disability services office (DSO) in time when he took classes at a community college under the PSEO program.

**HUGO:** ...*I took calculus and physics ... class and the instructor didn’t... bring any of my exams to the DSO more than half week of the semester [and so] I had to take all my exams back to back second half of the semester ...[and] be in the class with no organizational help [which]... was really difficult.*

Hugo explained that this happened even after reminding the professor several times: “*I explained to him multiple times...I need my exams at the DSO at this particular time.*” During his freshman year, it was challenging for Zeus to adapt to the new college environment and to meet peers’ expectations because of disability stigma and limiting infrastructure. He mentioned, “*In the first semester I ended up dropping a class*”.

**Instructors’ Deficit Perceptions.** Instructors’ deficit perceptions were sources of academic demands in some instances. While having students with disabilities pursue STEM fields is important for the disability community and the country in general, participants reported that they experienced discouragement from professors, which made it hard to develop interests in specific areas and pursue their dreams. Rita mentioned that some instructors were guided by whims in dealing with students with disabilities; they considered them homogenous. This generalization of disabilities caused some science instructors to fail to see individual abilities and to provide essential support and
accommodations that facilitate their learning. Besides, some instructors were
disrespectful. Rita was troubled that “the science department you would think they would
... understand the illness because they are studying the illnesses. When it is time to go, oh
no, you’re labeled disabled, therefore you shouldn’t be taking my class....” Because
these instructors were least informed and prejudiced, they created social and academic
demands for these students.

Peer-Related Factors

Peer-related factors that increased the student participants’ academic demands
included alienation, disability stigma, ignorance, and fear of their illness or disability.

Sources of stress. Peers created stressful learning environments, which added to
the academic demand the student participants experienced. Disability and ill health
limited interactions between the participants and their peers. Also, they morphed in
disability stigma, which limited participants-peers’ constructive academic interactions.
As described in the following excerpt, Hera felt alienated after she returned to school,
two months after hospitalization.

HERA: ...I came back [from the hospital] and I didn’t have most of my hair and I
was only like 75 pounds and I had to wear a medical mask to school every
day for a while because I had the rash here so bad [points at her face],
and they didn’t want it to get infected. ... For some reason, seeing a
person in a medical mask is very scary. Even though I’m protecting myself
against them, for some reason they don’t take it that way; they think that
there’s something highly contagious about me. So, they don’t want to sit
next to me or talk to me. So the stress of that and always being conscious
of people moving away, like I would sit down in class and people would
not pick any of these seats because they were too close. Having that
...interfered with being able to learn just because being in a stressful
environment interferes with being able to learn.

Limited Academic Interactions with Peers. Participants’ disabilities, illnesses,
and frequent hospitalizations limited their interactive involvement in learning processes
such as group work or whole class projects. Their inability or limited participation affected their access to quality learning. They also felt alienated and disconnected, which adversely affected their self-esteem. For instance, Hugo, Mei, Hera, and Rita reported that some peers would not talk to them because of their disabilities while others avoided sitting next to them for fear of contracting a disease. Therefore, being different disturbed the participants, which affected their participation in learning.

Stigma are beliefs and attitudes that lead to deeds or actions of isolating, fearing, rejecting, or avoiding of others deemed insignificant or unworthy (Goffman, 1963). High school, in particular, was challenging for Mei because of disability stigma. This limited her socialization and participation in learning processes. Mei shared that until recently people with Stickler syndrome “were diagnosed based on the presentation. You can kind of tell people with Stickler syndrome ... they pretty much have a Pierre Robin sequence, like flattened nose, facial appearance caused by underdeveloped cheekbones.” The unique facial features of people with Stickler syndrome allow individuals with similar conditions to identify with one another; but the uniqueness also predisposes the individual to disability stigma. Having endured trauma that negatively affected her social and academic life, Mei had surgery on her blind eye when she turned 18, “after I graduated from high school.”

Then again, having to take exams somewhere else though needed, it affected Zeus’s perceptions and relationships with peers. Zeus shared that because scribes wrote his tests, he “would leave the class … to take a test” so that he would not disturb the class with noise or make peers hear his responses. Nonetheless, some peers and teachers considered him slow in understanding concepts.
Family-Related Factors

Family-related factors that contributed to the participants’ academic demands were fear for the student’s future, need to protect them from harsh experiences, and lack of appropriated information about their needs.

Parents’ Low Expectations. Parents’ low expectation and over-expectations adversely affected participants’ emotional wellbeing and wellness, adding to the challenges they experienced academically and socially. Some parents added academic demands on participants as they prepared to transition to college. Low expectations of participants’ abilities harmed parent-child relationships and negatively affected participants’ self-esteem and social competence. It also limited parental support especially with transitioning to college. Some parents feared for their children’s ill health and the possibility of college demands exacerbating them. For instance, June’s disabilities were the source of tension with her parents. June reported that her parents were indifferent when it came to her goal to pursue college education: “...college was something that was never directly discussed with me. ... they didn’t...really prepare me for ... college ... never pushed me for higher education.” She also reported that “...my parents never discouraged what I wanted, life goal-wise, they never encouraged it, either. So it’s very much like I’ve been on my own little thing with life goals.” They were apprehensive and concerned about her health that she “would crumble under the pressure” and so they advised her not to pursue a college education. They needed her to stay at home where they could provide support, a reason June considered an affront to her independence as she yearned to lead an independent life in a college far away from home: “...I was like yeah I want to go to college. It never crossed my mind not to.” Even after
she was accepted to Savvy University Main Campus, “they wanted me to apply to Savvy University Branch Campus. I refused, like, I’m not going there.” The excerpt below captures her frustration:

JUNE: I miraculously got out of the high school and my parents are like we’re not sending you off to college. ... it made me so angry ... the problem was like I had to prove myself that I was capable to go to college; that I wasn’t going to have massive amounts of issues. They were like we don’t know what you’re capable of.... Like they were trying to convince me like ‘you know here you’re in a safe environment and we can help you if you are here. We can’t when you are out there.... I was like 'yeah, yes, you’re very generous. Thank you for taking me into consideration; but what else would you exactly do for me.’ ...so, it was like ‘ok, I will stay...and attend one of the community colleges for one year ...if I will be allowed to transfer.’ I was not happy, I hated my parents during this time.

Moreover, June reported that her parents had low expectations of her moving to college because of her health problems. They were prepared to keep her at home to provide parental support. In particular, her father who is a dentist was not for her going to college because he felt her medical needs would make it difficult to pursue an education. However, she was very concerned having to live with her aging parents with no constructive future life goal. Then again, Mei was troubled by her parents’ expectation that she drives when she turned age 16, just like her able-bodied younger sister. She felt belittled and unworthy when reminded of what she could not do through examples of what her sister could do.

**Parental Lack of Appropriate Information.** Parents’ lack of appropriate information caused them to not intervene or provide the right support, which increased participants’ academic demands. The student participants reported that their parents were not informed of their needs and so sometimes, they contributed to their burdens. For instance, June and Mei’s parents lacked appropriate information of what they needed to
succeed in school or about available special education and related services. Lack of information denied them the opportunity to make informed decisions that could alleviate challenges. Some participants were forced to seek information and support by themselves because of parents’ lack of knowledge. Specifically, June mentioned “fighting for myself” most of the time because “most of the time my parents ... advocated for the wrong things. Like they didn’t really consult me on what I needed before they went and did it....” Likewise, Mei reported not getting accommodations because, though her mother advocated for her, she was a “very reserved ... very quiet person. She would talk to my teachers via emails but ultimately it was their decision.” Moreover, she was ignorant of the IEP process, as captured in the excerpt below:

MEI: ...She thought if I didn’t qualify for an IEP at this school this time that I could not reapply, I could not get anything outside like that... So she was like ooh she didn't, she didn’t get it. She is not going to get it.

**Summary: In Pursuit of Academic Success**

In pursuit of academic success, a variety of factors contributed to academic demands that the student participants experienced from P12 through college. The sources of academic demands were related to the individual, the institutions, instructors, peers, and family members. Other factors were individual’s disability, ill health, pain, injuries, medication, and hospitalization. These factors caused stressful experiences because of stigma, alienation, and perceived lack of accommodations. Institutional factors that caused academic demands were unfavorable learning environments caused by inaccessible classes, inaccessible curricula, uncoordination of programs, lack of collaborations, and high teacher-student ratio in general education classrooms. Instructor factors that contributed to academic demands were non-inclusive teacher practices,
limited communications that led to problems with collaboration and coordination of programs. Also, some academics held deficit perceptions of participants, which limited their interactions and consultations. Peers also contributed to academic demands that participants experienced. They created unfavorable learning environments through their fear, avoidance, and isolation of participants. This limited academic interaction and involvement in group work or projects reduced participants access to quality learning. Lastly, families contributed to academic demands experienced by participants through their concerns, fears, overprotection, and lack of relevant information for their needs. Some parents were unable to access right information about accommodations, and so some participants were schooled without appropriate accommodations, which limited their access to learning materials. Moreover, some parents were concerned with their child’s health and ability to cope with higher education, and so they feared for the child’s future life at the expense of encouraging them in their academic life. This led to misunderstandings in the family and limited interactions.

While participants continued to perform fairly well in their academics to move through the grades, these factors made learning environments stressful, added to negative perceptions, low self-esteem, anxiety, and fears of failure. This also adversely affected their continuous school attendance, involvement with learning materials, and building of reciprocal relations in the school and with service providers. Due to these factors, though not linked to their cognitive competence, they struggled with computation and communication, classroom practices, and competing expectations of peers, teachers, and parents. The experiences also caused some participants to resist some of the interventions or advices, and spend more time on studies at the expense of growth and development in
areas such as social relationships. These factors therefore lessened their learning experience, hindered their access to quality learning, functioning to their potential, and access to quality educational opportunities.
Figure 4.1 Factors that Contributed to Academic Demands

**Family-Related Factors**
- Lack of correct information about the child’s needs
- Fear for the child’s future
- Overprotection
- Under-expectations
- Tense parent-child relations

**Instructor-Related Factors**
- Teachers
  - Non-inclusive practices or attitudes
  - Prejudice, uncaring, unsupportive
- Limited collaborations
- Academics
  - Deficit perceptions
  - Limited/lack of support in STEM classes

**Peer-Related Factors**
- Limited academic interactions with peers
- Created stressful learning environments
  - Isolation, fear, avoidance

**Institutional-Related Factors**
- P12
  - Stressful learning settings
  - Inaccessible classrooms
  - Inaccessible curricula
  - Uncoordinated programs
- High student-teacher ratio
- College
  - Inaccessible classrooms

**Individual-Related Factors**
- Disabilities, illnesses, medication, hospitalization
- Pain, injuries
- Mental fatigue
  - Guilt, fear, anxiety
Academic Competence

Academic competence is a collection of related qualities and behaviors (e.g., commitments, dedications, enthusiasms, and perseverance), abilities, knowledge, and skills that enable a student to act effectively to any learning activity in any situation (Horton, 2000). The student with these qualities is academically capable to engage in learning processes, to meet educational objectives and goals, and to exhibit educational outcome (TEN Competence Learning Network). The student is flexibly capable of adapting and coping to educational demands to succeed academically. Factors that influence educational outcome depend on student’s cognitive/conceptual, non-cognitive, and psychomotor behaviors (McGrew, 2008), and cultural and environmental factors (e.g., the community, systems and institutions and their resources and norms) (Apple, 2004; Bronfenbrenner, 1979; Cole, 1996; Vygotsky, 1978).

Below, I discuss the affordances that enhanced participants’ academic competences to manage P12 educational demands to successfully transition to college. I focus on factors related to: individual abilities, families, institutions, teachers, and peers.

Individual-Related Factors

Individual-related factors that contributed to participants’ academic competence were cognitive and non-cognitive abilities.

Cognitive Competence. It is the brain skills/abilities to perform academic tasks adequately at grade level, or the ability to mentally manage complex tasks considered essential for school progress (i.e., to think, remember and learn). Major components of cognitive competences are intellectual development (i.e., skills for obtaining and sharing knowledge, knowledge of how to acquire information, and the ability to cogitate), critical
thinking (i.e., objective analysis, reasoning, inferences, and evaluation of an issue to make a judgment), and creative thinking (i.e., generating novel and practical ideas to problems and situations by broadening viewpoints, assessing multiple ideas, options, and choices), and the processing of information from the environment or from within stored faculties, which include language ability (communication skills e.g., listening, reading, speaking and writing abilities for success); metacognition; memory ability, mental stress mitigation ability, good study habits (e.g., appropriate use of time—sleeping time), interests in the course, and self-monitoring strategies (Piaget, 1977; Sun & Hui, 2012; Vygotsky, 1978).

Participants were cognitively competent, which helped them manage academic demands and move through the education systems. They took college entry courses, standardized tests, and maintained high grade point averages (GPA) throughout their schooling. They also developed positive non-cognitive behaviors (e.g., self-determination, which I present below) that made them qualify for college. Most of the participants reported working under circumstances with little accommodations (see Research Question 3). For instance, Mei was not provided with accommodations but she described herself as smart and that teachers felt she compensated her disability very well. In high school, participants took college qualifying courses and standardized tests. Taking honors classes or advanced-placement courses (e.g., Rita), and college-entry tests and courses (e.g., English, mathematics, science, social science, and world language), or being in the international baccalaureate program (e.g., Perry) prepared participants for college academic demands. Thus, they were motivated in working towards their academic goals. Perry was in the “baccalaureate program and ... took two or three
courses every year of my [high] school.” He was confident that he could manage college-level academic work. All of the participants earned qualifying grades and maintained a GPA of 3+, which qualified them to apply to selective colleges of their choices. June mentioned, “...I graduated with a 3.98 [GPA]” ... and “…the only thing that got me out here [Savvy University] is...my English freshman class...I nearly knocked out all As.” Likewise, Rita considered herself smart. She took honor classes and advanced placement (AP) classes, and did well despite her absences because of sickness. She mentioned, “I had all As and Bs my whole school career while in high school”. Unlike her older sister who also had a disability, she was intellectually endowed and so she succeeded under difficult circumstances: “for me I could miss two weeks of class and still get a B+ on the exam”.

Non-Cognitive Competence. These are the behaviors, attitudes, emotions, abilities, personalities, personal attributes, characteristics, traits, skills or feelings that enable students to effectively function in the learning environments (Garcia, 2013, 2014; Sien, 2014, p. 20). Major academic behaviors that contributed to participants’ educational outcomes were ‘self’-constructs—self-determination and self-identity. These behaviors fall across academic and social domains because they involve individual’s abilities to relate to others such as peers and teachers in seeking affordances that lead to realization of their educational outcome.

Self-Determination. Self-determination is the exhibition of personal agency (Field & Hoffman, 1994; Martin & Marshall, 1995). Individuals with self-determination qualities understand their strengths, limitations, needs, interests, and preferences well enough to evaluate options, to set goals, and to control and decide a clear vision for their
future (Cobb et al., 2009). Self-determination is a major constituent of the education and transition program. The IDEIA 2004 requires inclusion of the needs, abilities, interests, and preferences of students with disabilities in the Individualized Education Plan (IEP) and the Individualized Transition Plan (ITP) (Bremer, Kachgal, & Schoeller, 2003; Field & Hoffman, 2002).

Participants’ self-determination qualities contributed to their academic competences; it propelled them through the education systems. Perry contributed to planning and implementation of his IEP, stating: “As I got older, I started voicing what I needed [and so] I was able to come up with all the needs at the time.” He reported that “the [IEP] meetings were very thorough.” Because of his input, teachers were very familiar with his needs, and so they provided support that enhanced his academic competence and ensured his mobility to college.

Participants experienced social pressures that adversely affected their participation in learning processes. Participants reported being strong-willed even in the face of challenges because they believed they knew themselves better than anyone else did. Despite their challenges, participants set goals and invested in their academics, which allowed them to transition from grade to grade and onto college. Kim reported having a personal will “never to be… left behind” because of visual impairment, which he noted “really helped out in my growth in education and just perseverance”. He reported that he experienced social and academic difficulties in the general education classes because some teachers were reluctant or hesitant to embrace computers in the class after he switched from Braille to a laptop in his learning in the eighth grade. They resisted integrating computer lessons into their instructions making it hard to access
quality education. Nevertheless, he embraced computers and with the support from a blind organization, he was able to learn how to integrate it in his learning processes. He therefore weaned himself of Braille in 2007 because of the computer’s efficiency.

Therefore, meditational tools mattered as both tools and signs (of being competent and committed to his education). Likewise, Rita reported that her “desire to learn was so intense” that it pushed her to work towards going to college. She shared that her success in school was enhanced by her cognitive prowess and positive attitudes toward learning. She stated, “I was always good in science since I was little … [and that she] just loved learning … [and so] … I felt like I have those capabilities to go to college. … During high school I just knew I was going to college.” When in high school, she was sickly and “absent so I was the only one asking others for notes to catch up.” She would not give up her AP and honors classes for regular classes even when the school advised her to switch classes in order to be provided with tutors during her homeschooling. She reported that being an honors student indebted her to academics.

Equally, June also described her strong-will to succeed in academics in the face of unpredictable health issues. She reported missing “all my time of junior year just for the physical pain” and missing “seven consecutive months of my senior year” because of “cerebral palsy”. Even though teachers and her parents “were even not sure I’m going to graduate” she was strong-minded to graduate. She was determined to graduate from high school and attend college despite health issues that weighed her down. She invested in her education, set high educational goals, and won over support of individual teachers who provided individualized guidance even though the support was not part of her IEP. A year and a half after graduating from high school, as she recuperated from another bout of
illness and a botched medical procedure, she submitted college applications, all against her parents’ wishes who were concerned about her ill health and the possibility that academic demands in college would aggravate it. But after negotiation with her parents, she attended a community college before transferring to Savvy University Main Campus. Therefore, “going to college was never discussed with my parents when I was in high school.” But rather it was her personal initiative. Her strength in English contributed to excellent grades and essays, which she believed earned her places in colleges. She stated, “I firmly believe ... my essay was the thing that got me into Savvy University Main Campus because I came in with no ACT score.” She was passionate about medicine, which she reported was her childhood dream, saying, “...I wanted to do something in medicine....” This passion encouraged her to invest in college entry courses in high school. Also, Mei reported difficult social experiences particularly in high school; she invested more of her time to academics than in social life, and with that effort, she pushed herself through school into college.

Participants were determined to succeed despite their disability or health issues. They were action-oriented in their pursuit of a college education. They engaged in self-management and setting achievable goals, they were involved in problem-solving, assessment of their own needs, decision-making, and taking their own course of action. They understood their statuses better and managed their education schedules to make life a little bit easier, and to improve their chances of performing excellently in their academics. For example, Hera shared, “…Because I take chemo, sometimes getting up in the morning is especially unpleasant. ...I scheduled my classes so that I didn’t have a morning class, which was more of an accommodation I made for myself.” Also, Rita
scheduled classes that fitted her needs. They were also determined to pass their tests to move to college. Perry, Rita, and Zeus retook their tests at various points to increase their chances of being accepted in good colleges. Zeus described himself as being “persistent” and that he “took OGT in my sophomore year and failed science with one point and took it again the following year and passed it with super highest honor... it is 200 to pass and I... got 230 out of 250.”

Participants also shared how they addressed their health issues before moving to college to improve on their chances of succeeding in college. They wanted to be involved in learning processes without being bogged down with the previous experiences. Mei was frustrated by her parents’ indecision to have her blind eye removed; it was the source of her disability stigma that placed more demands on her social life particularly at high school. The social isolation was traumatic. She mentioned that she “had... a lot more pronounced with my left eye before I got it taken out when I turned 18” about three weeks after she “got out of high school.” The excerpt below captures her frustrations and social demands:

MEI: My disability was very visible in school. ...But ... my parents didn't want to make any health decisions for me that I may not have wanted. So, even though I didn't have vision in my left eye since age four, they didn't want my eye taken out even though it was useless... When I turned 18, I decided I was gonna do all these by myself. And, yeah, after high school there was a lot of re-imagining of myself....

After having surgery in the fall, Mei started classes at a community college near home. She reported, “When I started college I started as part time. I took two classes... so that helped into easing into it. I was taking like 15 credit hours.”

All of the participants were diligent and persevered through their education, even though they encountered unfriendly circumstances and ill conditions to attain their goals.
For example, Perry reported learning to be self-sufficient after facing academic and social demands when schooling in France, and that “the staff [was] little less ... adaptable and responsive and so I had to learn self-sufficiency over there.” Also, June reported submitting college applications, aware of her capabilities to pursue college education, even though she was recuperating from cerebral palsy. She submitted her college applications at the last minute to Savvy University Main Campus on the deadline day. She also worked as a student assistant in the residence halls in order to gain more work ethics and to earn money “to pay for a study abroad trip all by myself.” She reported that she was recuperating from dystonia when she decided to apply to college several months after high school graduation. She stated, “after we got back home [from the hospital] ... [she told her parents] ... you know what, I’m going to college right now.” She scrambled to file all the applications on that day “because somebody told me the wrong dates ... the dates for Savvy University Branch Campus and not Savvy University Main Campus. And so I found out the day of Savvy University Main Campus application was due that day.” After acceptance, she participated in a campus visit, and though it was hard and tiresome without any accommodations, she was motivated and she walked the routes. She was fully aware of the alternative of living with her parents, and so this was her desperate chance to escape that. The excerpt below captured June’s description of her resiliency.

JUNE: I participated in the transfer student campus visit ... the university did not tell me how I could use the handivan ... so I walked the whole thing by myself. I was really miserable. But ... I could see myself coming here. ... I was so tired of it yet I was still doing it.

Self-initiative empowered the student participants to succeed in school, and their individual initiative significantly contributed to their moving to college. Most of them
initiated their activities, sometimes with limited support and encouragement from parents. **June** decided to attend college after the medical interventions failed to improve her condition. She reported submitting college applications and receiving acceptance and scholarships: “I applied to six different schools and Savvy University was the only one that didn’t give me any money, five other schools accepted me and gave me considerable amounts of money”. In college, **June** reported depending on herself, working hard, and avoiding situations that would diminish her self-esteem or motivation. Even though she continued to experience health issues (e.g., seizure, twisted arms) that affected her academic work, she resisted peers’ help or motives that limited her agency and independent decision-making. She reported that when struck down with illness, a little help from friends would be important but “sometimes when they’re just trying to be helpful, they’re over-helpful. I don’t need that much help.” The excerpt below captured **June’s** description of self-determination.

**JUNE:** ...I fail quite frequently, but I keep trying. ...people that know me really well... they would tell you ... that I never stop trying. ...Sometimes I feel like a phoenix, like I’m rising from my own ashes. I’ve definitely started over a time or again or several. ...it was rough but I refuse to give up. ...I’m not the happiest about it, I’m not very optimistic but I keep trying. And that’s what I’m still trying to do this semester....

As **June** was recuperating, she applied to six colleges and all accepted her; five of them awarded her scholarships except Savvy University. Her parents were unsupportive particularly during the application process and so when she became ill again while in college she never let them know even though she needed emotional support. The excerpt below captures her feelings:

**JUNE:** ...I had to wait for a year and a half and when I heard no answers [medical report on my health], I was like now I’m just done, I’m going to college now. My parents were unsupportive ... they didn’t really think I
would get into any of the schools at all. ...the only school that didn’t give me the money was Savvy University. ... Still they didn’t think I gonna [was going to] make one semester. So, down the road, it was really hard last semester because I would have loved some emotional support but I know they would not give it to me because they think I’m going to fail. ... I ended up in the hospital a lot last semester, and I didn’t call them because ... I knew that they would be worried and they would try to get me come home and I knew that after that I wouldn’t probably come back....

Moreover, June described that attending college was “very much why this is my own doing”. Unlike her older sisters, her “...parents never pushed me for higher education or like what I want to do in life ... that’s not what was ever discussed with me.” Even the “college savings account for me. I had one as well but it was significantly less and less than my sisters.”” The excerpt below captures her experiences of discouragement.

JUNE: ... unlike my sisters, they didn’t really have college savings account for me. I had one as well but it was significantly less and less than my sisters’. ...they very much pushed my sisters and I saw that.... So like much of the conversation like what are you gonna do ...easy prep classes, do this and do that, I never got none of these...they never pushed me even into certain avenues of education like we want you to be a doctor or whatever. There was none about me at all. ...so, it is very much like I saw that and pushed myself....

The student participants had a positive inclination toward learning, which helped them succeed academically in the midst of educational demands. Despite challenges they experienced, they were determined to remain in regular schools or an inclusive school because of the opportunities. For instance, in high school, Rita was very sickly and absent, and some teachers recommended that she drop out of advanced placement classes. But she declined switching from AP and honor classes to regular classes so she could be provided with accommodations and tutors. She reported that teachers and students alike were less disciplined and passionate in the regular classes. At the end, she did better than
most peers, getting “better grades... B+ [and] C+ on the assignments,” and “Even after missing so many days I ended up 11 out of 450 kids....”

Despite their disabilities, all of the student participants were interested in learning and were highly invested in their education. They were cognizant of their capabilities and made appropriate decisions about learning needs and goals, regulated their learning environments, developed positive self-perspective and self-scheme, efficiently spent time and energy on achievable educational matters, and were goal-oriented for success. Rita liked math, Perry liked physics and linguistics, and June liked biology and chemistry. Hera described sciences such as organic chemistry courses, particularly working in the organic chemistry laboratory work as “a lot of fun”. Kim reported that he was determined to remain in the general education classroom despite his visual impairment and physical stature. Being legally blind, he mentioned, “I never wanted to be... left behind. I had a very high notion that was not going to hold me back, being visually impaired. I wanted to stay with my friends, I didn’t want to be held back.” As a result of the motivating drive, he mentioned that “it really helped out in my growth in education and just perseverance” and so “I’ve definitely been a rarity in how to teach myself and show others how to teach me.” In addition, Perry reported that he had “always been interested in learning and finding ways to make that a successful experience for me” and that his interest in linguistics happened when “in summer 2013 I took a summer course for high scholars.” Correspondingly, Rita shared, “My desire to learn was so intense. For me I just loved learning.” And as she grew up, she “always wanted to be a scientist but I didn’t know what kind of science it would be. Eventually, I developed interest in astronomy and then eventually I changed to biochemistry.” She also mentioned, “my
senior year I was home schooled or kind of taught myself because I had taken all senior classes and there was no college level tutor for me”. Hera reported scheduling afternoon classes because her medication made it difficult to get up in the morning. They considered themselves capable of succeeding in their academics and with that confidence, they controlled their education, which was guided by their persistence to attend college. Control of their education process involved organizing, executing, regulating approaches to academic stuff (tasks, assignments, tests, and projects), choosing tasks, dedicating time to accomplish the projects, and using their academic competence and established adaptive skills to balance those demands, which fed into their positive personal attributes and behaviors (e.g., perseverance and endurance). Mei reported, “really liking the classes in college [which were] ... smaller than my high school” and that “college has been good for my schedule”.

Individual inspirations contributed to participants’ positive educational outcomes. Participants mentioned that though they were impacted by a disability, recurring illnesses, pain, social exclusion, physical and psychological abuse, they never gave in and quit. Instead, they gathered inner strength that pushed them through the school system and into college. They never surrendered or turned back in spite of their tough circumstances. Inspirations empowered these students to succeed despite their individual challenges. They weathered personal problems such as health-related issues, disabilities, and guilt. They also maneuvered through school challenges such as bullying, neglects, isolation, as well as challenges at home such as tensions and misunderstandings with family, and limited emotional support. Therefore, they remained enrolled in school (P12) and focused on their learning processes, higher education, and career goals. Hera, June,
Mei, and Rita shared their self-motivation to succeed in school despite dealing with illnesses or disabilities that required medical attention such as surgery, hospitalization, and continuous medication. Self-motivation also helped participants focus on their studies, which involved spending an incredible amount of time on their academics rather than on social matters, and scheduling classes to fit their needs. For example, Hera reported feeling unpleasant in the mornings after taking “chemo” so she scheduled her classes later on in the afternoons. Kim reported teaching himself how to use computers after it was introduced to him in eighth grade. Due to its efficiency, he weaned himself of Braille. Rita reported that her interest in sciences such as chemistry contributed to her motivation, positive self-evaluation, and desire to attend college.

Participants were also determined to escape certain atmospheres that they foresaw as limiting their lifestyle and future aspirations. They therefore invested in their education. Various factors encouraged them to put more effort into their academic studies, which propelled them to graduate from high school and move on to college. These factors included distress and isolation, a need to expand their social network, fear of living with parents forever, and anger. In particular, the need to escape isolating and distressing school experiences drove Mei and June to work towards joining college with the self-conviction that college life would be good, of which Mei reported was satisfying while June was in the middle. Also, the urge to move on with education after failure to find medical solution to one’s health problems, fear of attending college when peers had graduated, and fear of living with parents forever, all contributed to participants investing in their education and college applications. These factors contributed to the participants’ desire to remain enrolled in school, persist in their education, invest in their academics to
maintain high GPAs, and to focus on their college and career goals. For instance, June reported that what “pushed me towards getting out of [hometown was] ... my fears that I was going to live with my parents forever.” Also she “had no friends, the few friends that I had in high school would not talk to me anymore because they were all magically gone to college and were now calling the big shots.” And finally, “It was so important for me to go to college when my peers ... were still in college. ...I jumped straight into it without giving it too much thought.” Likewise, Mei “hated the [high] school” life; it was “traumatic” because of the stigma attached to her blindness. She said: ...when people know you have a disability, they don't want to talk to you. I don't know why ....” And so she reported working hard on her academics to escape the traumatic high school life: “I just wanted to get out of school. ...I just hated the school. ... college is great.” Hera and Perry reported being encouraged by their parents to pursue a college education. Conversely, significant teachers encouraged June and so she worked harder to disapprove people that doubted her capabilities or had low opinions of her college goals. She also wanted to attend Savvy University Main Campus to escape living with her parents, and to start college before her age mates graduated.

Participants’ academic capabilities contributed to their self-determination, high expectations, setting of goals, and perseverance. For instance, June described her college life as very busy: “I never have time for fun. I’m very busy; my major is very hard.” But she was confident in her capabilities, and even though she walked slowly, which “people automatically think ... that I’m stupid”, she was “pretty sure my GPA is higher than [that of many students].” Participants also invested in their academic work to avoid looking incompetent in the public’s eye. They flexibly responded to problems with solutions, and
invested in their academics despite challenges in other realms of life which saw them move on with academic work. Additionally, they expressed strong interest and confidence in their academic capabilities irrespective of the year in college.

In college, participants determined their career direction based on their abilities, interests, and preferences. Some participants reported they made their career choice when in elementary school. June reported that she developed an interest in medicine when young, while Hera and Kim decided on their career paths when in high school. Hera wanted to pursue medicine, Kim wanted to become a computer expert, and Zeus wanted to pursue information technology. Kim reported that he developed an interest in computers after using it in elementary and high schools, and so he decided that would be his major in college. He mentioned, “…computer science was definitely a great option because I’ve already used computers so many years teaching people and myself and learning different technologies and always trying to be on the edge of finding something new to better my life experience.”

The student participants, though determined, were also rational about their disabilities. Most participants were in the STEM fields, however, they faced barriers in their pursuit of their majors because of illness, disabilities, instructors’ dissonance or misunderstandings, lack of accommodations, and also because of disabling cultural practices. They also reported knowing the barriers and how to circumvent them; thus, they prepared for different avenues should the obstacles be insurmountable (even though they were still fearful of the arduous task). Particularly in college, they came to appreciate that their disabilities placed some hurdles on their educational life, and that some barriers were beyond their control. So, they came up with plan B just in case their
plan A did not materialize. For example, June accepted that it might be challenging to move to medical school if medics were to consider her emotional issues. Also, her disability and frequent illness threatened her achievement of goals. So she had backup plans for “realistically I may not just be able physically to go that far”. She acknowledged that circumstances may dictate otherwise and so her “secondary thing … [would] be a biomedical engineer if I don’t make it to medical school”. Still, she was prepared “to go to a different country to do it [such as] … England … because it is more disability friendly in terms of accepting people in med school and their programs”.

June and Rita reported feeling that their disabilities could limit their pursuance of career dreams, and so they had back-up plans just in case they faced that barrier. In particular, though interested in medicine, June considered doctors as gatekeepers, and feared her medical condition may be the excuse to deny her admission to medical school. Besides, she was unsatisfied by the “ridiculously small… statistics… [of doctors with] visible disabilities.” She reported that she “found two doctors with CP [cerebral palsy] in the entire population of doctors” in Europe and North America. Nevertheless, she weighed various options including pursuing medicine in another friendly foreign country, or suing colleges even though this option was remote considering unfavorable court decisions. The excerpt below captured June’s assessments of her circumstances:

JUNE: ...I don’t care if I have to go to a different country to do it. That’s where I’m at. A lot of people with disabilities are now going to England to get their degrees because it is more disability friendly in terms of accepting people in med school and their programs. //...My picture is that, yes, I want to be a doctor more than anything else. But I don’t want to be limited to that, just to get my undergrad degree, just go to med school. ...because if that does not work out for me.... because it is a realistic thing, realistically I may not just be able physically to go that far; then I would start something that I would like to do with my life. This is my secondary
thing; I would be very happy to be a biomedical engineer if I don’t make it to medical school....

Participants were aware of their disabilities, abilities, and capabilities, and so they were rational and realistic in their approaches to life. Zeus, Mei, June, Kim, and Rita described assessing situations before committing to them. For instance, Kim reported that his assessment of his own knowledge and skills in computers guided him in choosing a computer science major in college. He mentioned that the “computer science was definitely a great option because I’ve already used computers so many years teaching people and myself and learning different technologies and always trying to be on the edge of finding something new to better my life experience.” And so, “it was the avenue I chose because it was the most interesting and it aligned with what I could do and what I can achieve more”. In the excerpt below, Kim described how he assessed his disabilities and then decided on his next course of action.

KIM: At a young age, I had no clue what I wanted to do. It was more of, what can I do. I had a disability—I look at a lot of what I do in life and what I can and can’t do. And all real respects, literally I can’t drive, so what do I have to do? I can’t see, so what do I have to do? Not in the fact that it can’t happen, just that I can’t do it in the usual way that everybody else does. So how do I get to it?

Rita described her “limited option for my research” due to the infrequent chronic migraines that she got weekly and lasted a while, which made planning difficult for instance laboratory work. She recognized that because of her migraines, it would be challenging to work in certain laboratory environments. Her unpredictable migraine headaches limited her output; it led to frequent absences that interfered with ongoing laboratory works and monitoring of projects. She mentioned that “working in the lab [was] diminished a lot” and that she could not guarantee being “there every day”. So it
would be “very difficult for me to keep up with the lab work”. This would likely mess up her experiments. This was the professor’s concern, and was also a source of tension between them. Nonetheless, she acknowledged the impact of her disability on her biochemistry major, and so she had back up plans. She reported, “So I ended picking up a math minor because you can do medical research with biology like a biological mathematical research.” Another option suggested by other people was to work in “a very specialized lab … [certain] materials and certain organisms”. She planned to pursue a masters in biochemistry although she reported being “on the fence between graduate school and med school”. Still, she understood where the career lines of the two options would lead her, which is captured in the following excerpt: “Usually if you have a med school degree you can work in a hospital or company and rank higher at the company. With the grad school degree, you can only go and work in a company or university.”

All of the participants described themselves as being persistent, resilient, and dedicated. Hugo was aware of the importance of passing his exams and so he used his academic time prudently to achieve his goals. He reported that when he took calculus and physics classes at a community college under the PSEO program, one of the instructors failed to deliver his exams at the disability services office. He persistently reminded the instructor each time he came across him. He delivered it during half of the semester forcing him to work on many academic tasks within a short period. He struggled with organizational issues; however, he managed to pass the exams even under demanding circumstances. He shared, “if I didn’t have proper time management and organizational skills, I would have probably failed that class because of that [instructor’s
“incompetence].” On the other hand, some participants (re)took different tests including college entry exams such as the American College Testing (ACT), Ohio Graduate Test (OGT), and Midwest Talent Search to boost their credentials and increase their possibilities of getting admission to most selective colleges. For example, Perry took ACT twice but did poorly in his second attempt. Also, participants were resilient. Hugo and June needed emotional support when in college but because of the frequent tensions at home with parents they often went without seeking support even in the face of challenges. For example, during the first semester of freshman year, June experienced many health-related problems, lost weight, was hospitalized several times, but she did not inform her parents about her circumstance out of fear of aggravating their worry. She reported that she “ended up in the hospital a lot ... [but]...I didn’t call them [parents] because ... they would be worried and they would try to get me to come home and I knew that after that I wouldn’t probably come back.”

**Education Goal-Related Factors**

Education and career goals also contributed to participants’ academic competences. The student participants’ P12 academic goals were to attend college and pursue a career of interest. Once in college, some participants worked toward realizing their career dreams. This involved changing majors or focus of their majors, or transferring from other colleges or universities to Savvy University.

**P12 Goals.** Education goals that participants set during P12 drove them to invest in their aspirations for a higher education. They were involved in learning processes that increased their knowledge and perfected their skills. Academic goals were common for all participants, and even those that experienced challenges or seemed to lack clear
academic goals or were more preoccupied with health or social issues still remained focused on attending college. Hera mentioned that she “always wanted to be a doctor.” This was her high school goal; it was endorsed by a nurse at the Lupus Foundation of America in Washington, DC, just a few months after her diagnosis. Rita shared “I always knew I [was going] to do science. ... During high school, I just knew I was going to college....” While high school was very “traumatic” for Mei, she worked hard, graduated, and had surgery before moving to college. Perry was just exploring various majors; but he was “always interested in learning and finding ways to make that a successful experience...”. Hera’s excerpt below captures most of the participants’ P12 educational goals and academic competence:

HERA: ... when I was at my sickest, I would wonder how I was going to get there; but the idea of getting there never changed. So once my family went on a trip to Washington D.C., and that’s where the Lupus Foundation of America is... They sent us a nurse to talk with me, and I remember her telling me, don’t change your goals because it might take you longer to get there, and it might be a lot more difficult to get there, but you can still get there. I really valued that conversation.

**College Goals.** In college, participants described having maintained their educational and career goals. For the most part, participants’ majors were guided by their disability, what they could do, and what might allow them to be productive citizens. Under STEM, participants had established a career path based on their abilities, interests, and preferences, with a majority pursuing STEM-related courses with the prospect of careers in STEM fields. For example, Hera’s goal was to become a pediatrician. She said, “I’m interested in pediatrics because I like working with children. And then within pediatrics, I’m interested in oncology ...and then I’m interested in rheumatology....” Similarly, June explained: “I feel like I always wanted to be a doctor....” Rita’s career
goal was to be a biomedical researcher, **Zeus** was specializing in “information systems … a cross between computer science and business”, while **Mei** switched her major from biology to psychology to better align her studies with her interest. **Kim** was focused on computer technologies because it aligned with his interest, preferences, and abilities.

Kim’s excerpt captures most of the participants’ college education and career goals:

**KIM:** …*Not only am I interested in it [computer science], but also it follows the lines of being very accommodating to my disability. I don’t think I could have picked a better major that could correlate and align with being able to assist with my disability and also push forth to more interest in what I want to do. ...//...I definitely like being on that cutting edge of learning something new and something else that can not only benefit myself, but maybe I could show somebody else how it could benefit their world and what they need.*

Not all of the student participants had concrete career goals by the end of the interviews. For example, **Hugo, June,** and **Perry** were still exploring their academic options. In particular, for **June**, limited information about careers in medicine made her worry that her disability might be a hindrance to becoming a doctor. Nevertheless, participants’ interests in STEM-related fields were evident in their coursework and majors, in neuroscience, exploration, physics, and linguistics, respectively. As shown in the excerpt below, **June’s** description captures most of the participants’ career direction.

**JUNE:** …*Ever since I was a little kid, I’ve known that I’ve wanted to do something in medicine, always. ...before I had my surgery, I wanted to be a dentist, just like my dad. And then ... after my surgery I wanted to be an orthopedic surgeon because it was like they made me walk. ... And as I got older, it just got unclear because there were so many things that were happening in my life. ...because I was just struggling to get through day-to-day, I didn’t really have time to think like this is what I legitimately really wanted to do with my life. ...For me it was like I wanted to do some kind of medical research. ... But that area is so broad... I didn’t know anything beyond that because I didn’t have any opportunity to figure it out. So, when I got here I told everyone that I want to be a biomedical researcher.... ... I came upon exploration ... not because I had no idea of what I wanted to do, it was just very much that I don’t specifically know*
where I want to be, to be doing. By that point, I felt that biomedical engineering was way too technical. ...I felt like medical school was too much of an unrealistic goal. And that they needed something in between but I did not know how to get there. ... At that point, to be a doctor is what I wanted to do in my life. I feel like I always wanted to be a doctor...

**Goal to Attend Savvy University.** Participant’s mobility from high school to Savvy University Main Campus showed their academic competency even though they took two different paths. Some participants moved from high school to Savvy University while others transferred from smaller colleges and universities. However, all shared the same goal for attending Savvy University. They explained that they invested in their academics to transfer to Savvy University so they could realize their full learning potential and future career dream.

Some participants were direct entry and others were transfer students from other colleges. The direct entries from high school to Savvy University were Hera, Kim, Mei, Perry and Rita while the transfer group was Hugo, June, and Zeus. For example, June took a year off to attend to her health needs and then attended a community college for some part of the first semester where she accumulated “8.63 credit hours” before transferring to Savvy University Main Campus. Mei “went to Clarisin Community College” directly from high school after having surgery on her left eye and then transferred “to Jupiter for one year, then to Pluto University for one year, and then ... [to Savvy University].” On the other hand, Hugo and Zeus started college under the PSEO Program. Hugo “took Post-Secondary Enrollment Options [PSEO] program in high school” and getting his “diploma [attended] the community college for one semester and then transferred here for my freshman year.” Zeus attended both regular schools and vocational school. He started in regular kindergarten, then moved to an elementary
through middle school, then to junior high school, then to vocational school for junior and senior year. After which he took classes at Moonlight University under the PSEO program. He then moved to Goodhope University for his freshman year, and after accumulating more than 30 credit hours, he transferred to Savvy University Main Campus. The academic routes are captured in the excerpt below.

ZEUS: ...in the summer [2012] I did PSEO at Moonlight University. And then after that...in August 2013 ...I went to Goodhope University for my freshman year in college. Over the summer of 2013, I took summer class at Moonlight University again. ...//... I basically started my college early and by summer I did more classes by the end, I had already 11 credit hours. ... [During] second semester, I kept all the classes and I ended up with 34 credit hours, and then I am here [Savvy University].

Institution-Related Factors.

School-related factors that contributed to participants’ academic competence included access to general education curricula and challenging learning environments.

*General Education Curricula.* Placements in regular schools or inclusive schools during the P12 education period afforded participants many opportunities that contributed to their successful involvement in learning processes and positive education outcomes. During P12 education, all of the participants were in different regular schools and/or inclusive learning environments, which afforded them diverse opportunities that contributed to academic competence and helped them to transition to college. General education classrooms or inclusive learning environments enhanced their interactions and relationships with understanding and caring teachers and peers, accessibility to general curricula and standardized tests, accessibility to different teaching practices, cultural practices, and accessibility to various support, resources, and services. In addition to sharing general classrooms with peers with- and without disabilities and taking general
curricula, all participants were exposed to high expectations, stringent social, and earning or classroom behaviors. Competition with peers without disabilities in all academic subjects nurtured their positive personal attributes (e.g., confidence). Some even outperformed their non-disability counterparts. Mei was in a gifted class from elementary through junior high. Attending regular school exposed Kim to different “sorts of assistance”; they also taught him collaboration with different adults—professionals and teachers. After Mei’s speech “got better” after receiving speech therapy in kindergarten, she was placed in the gifted class without accommodations. Though life was difficult, she said, “I did okay and I compensated very well. And I appreciate that because I have a very good drive for education now because I was held up to the same standards as everyone else....” Perry was schooled in both France (pre-kindergarten, “8th grade and first year of high school”) and the U.S. (kindergarten through seventh grade and then tenth to twelfth grade). He was exposed to different cultural orientations that informed his interests in both sciences and languages.

Mei and Rita who were in gifted and honor classes respectively credited their success to the rich learning environments that infused high goals, high expectations, responsive teachers and students, personal motivation, and optimum use of resources, support, and services. Rita shared, “The honors students are indebted in their academics, everyone else is like I’m in school because I’m mandated to be here”. Some participants like Hugo, June, and Zeus were in segregated environments some time during their P12 education, with insignificant effect on their academic competence. Hugo was segregated in fifth grade class just before he moved to an inclusive school for students with autism. Zeus was in a segregated environment in the fifth grade for a semester, and when he
attended a vocational school consisting of students with and without disabilities during his junior and senior years. Other than that, he was in a regular school throughout his P12 education. In the process, he was exposed to different cultural orientations and school practices that nurtured his academic competence. Similarly, June had “been through three to four different school systems” where she was exposed to different cultural practices, behaviors, and experiences. She “started … at Wellhope … our local school for children with some form of disabilities,” then “Scared Heart Preschool … and by the time I was five I was already going to school the whole day.” She was then placed in regular classroom from elementary school through high school.

**Prerequisite College Entry Courses.** Taking prerequisite college entry courses helped participants move forward to college. Students in high school can take many tracks leading to graduation but not all tracks lead to attending college directly upon graduation. Mobility to college requires that students meet certain criteria; they must take the prerequisite college entry courses and standardized tests for a particular degree or program. All of the participants took college prerequisite classes and standardized tests and because of their cognitive competence, they were able to proceed on to higher education. For example, Zeus took all of the college prerequisite classes in high school including English, Math (including algebra 1 and algebra 2, geometry, calculus), Science (physical science, biology, chemistry), History (one world history and problems of democracy), and a Psychology class (PS 110), which he took “without a coach.” He shared that some of the classes he took in high school and vocational school were aligned, “I took courses related to geographical information systems [GIS],” which turned out to be his major at college. Mei shared that she was in the gifted program
during P12 schooling period, which saw her “academically” prepared for college because “in high school they just focus on academics.” In college, Mei took “a survey course . . . [of] 1 credit hour” in which the professor just talked “about college, time management”, and so she was “academically prepared to transition to college”. She adjusted quickly to the academic demands at college. Rita was sickly during high school and during the second semester of her senior year. She “ended up not being able to complete all five classes [including] calculus... biology... statistics because teachers were like you have to be in class to learn but now you’re not in class we can’t send you the materials.” Nevertheless, because she was “smart”, she ended up home schooling herself in “English and government classes” which are required of students graduating from high school, and she “ended up getting A’s.” Later in the summer, she took all the AP and honors classes and “passed all of them”, which progressed her entry into Savvy University.

**Standardized Tests.** Taking college-qualifying exams helped participants’ entry into college. Participants took various tests in the course of their P12 schooling. Most high school students planning to attend college are required to take exams and/or standardized tests such as the American College Testing (ACT), Scholastic Assessment Test (SAT), Advanced Placement Exam (AP), Ohio Graduation Tests (OGT), or Midwest Talent Search (MTS). Generally, high-test scores increase one’s chances of attending the most selective four-year colleges and pursuing the best programs, while low test scores may not guarantee or qualify one to the most selective four-year colleges. Participants took different college qualifying exams such as the SAT, ACT, AP, OGT, or MTS during their P12 education. Some participants (re)took the tests to boost their credentials and
increase their chances of gaining admission to college. June mentioned that her “3.98 [GPA]” in high school and acing her English tests both in high school and community college led to her acceptance to Savvy University. She “sat for ACT as a freshman as part ... [of] Midwest Talent Search” but it did not count [because] they were so old Savvy University didn’t even want them”. On the other hand, Rita “had ... coming around ... AP exams which ... you take at the end of the academic year” but her surgery was scheduled in May [2012] “to fix the [brain] malformation”, which made it impossible for her to take the exams. But she “had to take it ... after surgery that ... summer ... before ... I started my first year in August [2012] at Savvy University....” Mei reported taking the ACT paper-based test, which she liked and did very well. She said the “paper-based [test was] ...great... amazing....” Perry took the ACT twice but did poorly on his second attempt but he was encouraged that he “did fairly well with no particular accommodations” the first test although it was “tiring.” As the excerpt below shows, though “bad at taking state standardized tests”, Zeus reported retaking the ACT, OGT, and scoring high points in the latter.

ZEUS: ... I took ACT. I didn’t do as well the first time. And then I took it again and I did even worse. ... I’m bad at taking state standardized tests ... I took OGT in my sophomore year, and failed science with one point. and took it again the following year, and passed it [with a] super highest honor.... it is 200 to pass and I ... got 230 out of 250. ...

As mentioned earlier, participants were self-determined and competent cognitively. They maintained a 3+ GPA and progression. For instance, Rita took AP exams in the summer after surgery to correct a brain malformation. After which she moved to college that fall. While tests or exams are one of the many criteria that colleges and universities use to select candidates for degree programs (i.e., to distinguish between
those who can handle the demands of college from those who cannot), students can take different paths to college. For instance, Zeus took a different route to attend good colleges by “getting [a] good ...GPA”.

**Safe Learning Environment.** Safe learning environments increased participants’ confidence for involving themselves in learning processes; thus, they invested in their academics without much distraction. Participants reported that schools arranged for safe successful learning environments by addressing their needs, which allowed them to focus on their academics. Perry mentioned that the school made “the evacuation plan in case of emergency” even though “most of the time they would just come up to me before the fire drill happened and tell me it would happen so I could get to the elevator before the alarm went off”. Rita mentioned that after she was diagnosed with brain tumor and just before she had the surgery, she was forced to stay home. So, she homeschooled herself that spring semester of her senior year because her high school decided it was safer for her and everyone. She mentioned, “The school was like we can’t take you anymore because of the possible injury; they didn’t want the liability of something, they didn’t want that with the insurance”. And after the “surgery in May [2012] ... to fix the [brain] malformation,” she took the AP exams in the summer and passed it; later in the fall, she joined Savvy University.

Overall, college-related factors that contributed to participants’ academic competences were taking college preparatory classes and entry exams while in high school, the PSEO program, and participating in STEM-related courses.

**Post-Secondary Enrollment Option (PSEO) Program.** Some high schools offer college classes; others allow students to enroll in the PSEO program, enabling them to
graduate from high school academically prepared for college. Students in the PSEO program learn to navigate college life, negotiate with their instructors, manage their time, make independent decisions, select and drop classes, take enough credit hours, handle frustration and failures, and be assertive. Thus, PSEO is a jumpstart for college education. Participants’ cognitive competence was initiative to register for the PSEO program, which allows high school students to earn college credits through enrollment in college and successful completion of college-level courses. Hugo took college courses as a twelfth grader during spring semester, and then in the summer semester he became a full-time student at Modern Community College before transferring to Savvy University in the fall semester as a freshman. He mentioned taking “Post-Secondary Enrollment Options program in high school. ... After I got my diploma, I [went] to the community college for one semester and then transferred here for my freshman year.” The PSEO program afforded Hugo the opportunity to take college courses at the community college, and to benefit from the social skill classes at his high school before he transferred to Savvy University. Likewise, Zeus was in the PSEO Program after completing required high school courses, which prepared him to start college early. During his senior year of high school as he attended college, he was “certified” in geographical information systems (GIS), which later became his major when he transferred to Savvy University.

Taking college preparatory courses while in high school enhanced participants’ cognitive and academic competences as well as their mobility through the school systems and transition to college. Zeus began college early because he took college-related courses while in vocational school, which made his switch to college much easier. “I basically started my college early and by summer I did more classes and by the end I had
already 11 credit hours. Freshman year [in the] … second semester… I ended up with 34 credit hours and then I am here.”

Science, Technology, Engineering, and Math (STEM). Taking STEM-related courses furthered participants’ academic interests and their competence. All of the participants described being satisfied with their majors because of academic competences. They explained that they had the capacity to manage the course as well as in-depth knowledge of their majors to continue with their studies. Hera liked her science classes, which she found thrilling. She described her major, “evolution and organismal biology”, as very exciting particularly working in the laboratory. Most of her courses consisted of “chemistry, biology … organic chemistry … physics … molecular genetics”.

In the excerpt below, Hera shared his love for lab coursework.

HERA: ... I love lab. ... The room itself is very cool looking. For organic chemistry, you work in an organic lab so you don’t actually have a desk. Instead, you have a chair in front of a hood, and then you pull up the fume hood, and you put your hands in and you pull it down a little. You have to work inside and look through a window and it’s complicated but you look really cool while you’re doing it. It’s a lot of fun, I like lab a lot.

Rita was very excited about her biochemistry major. She described her experience pursuing a master’s degree and career in the industry versus in the medical field. She was planning to pursue masters in biochemistry either in the medical school or graduate school, as indicated in the excerpt below:

RITA: ...if you go to medical school you may have to work in the hospital or medical school…. if you go to graduate school you may teach … you can go to a company, or I can go to grad school and end up working for the same company.

Most of the participants pursued STEM fields in college. Participants’ coursework involved lectures, recitations, and laboratory work. They described themselves as being
very competent academically to manage the courses, which were reflected in their high GPA scores, their commitment to classes and laboratory work, and their passion and interests. Hera was majoring in evolution and organismal biology, Hugo in neuroscience, Rita in mathematics with a focus in biochemistry. June had not decided on a specific academic path, but was very interested in becoming a doctor. Kim was majoring in computer and information science. In the excerpt below, Kim shared his interest in computer science.

KIM: ... I’m interested in computer science.... Not only am I interested in it, but also it follows the lines of being very accommodating to my disability. ...I don’t think I could have picked a better major that could correlate and align with being able to assist with my disability and also push forth to more interest in what I want to do.

Perry shared that he was interested in linguistics and physics because the fields focused on interactive forces of human beings and nature. In particular, he was interested in foreign languages because of his upbringing in a bilingual environment. In the excerpt below, he described his academic abilities, interests, and preferences for choosing his major:

PERRY: [I’m a] physics and linguistics, double major... [because of my] interest in the fundamental kind of building blocks of our experiences. ...our experiences as a whole are physics, where we come from, why are things the way they are. And then linguistics is the fundamental of how we interact, how we perceive each other, how we communicate. So, they are both part of the fundamental parts of their respective areas. ...and because I grew up in a bilingual environment, I have always been interested in foreign languages....

Of the eight participants, only two did not pursue STEM-related majors. Zeus was majoring in management and industry exploration, which involved computer courses, while Mei “started out as a biology major but [then]... switched to psychology.”
**Enough College Credits to Transfer.** Apart from taking college preparatory courses while in high school, participants that transferred from other colleges or universities invested in their education in different ways. They all had to meet the transfer prerequisites, which meant accumulating enough transfer credits. **Zeus** stated that to transfer to Savvy University he needed at least *“30 credit hours and a 3.0 [GPA]”* and 12 credit hours from Savvy University. To join the college of business, he also needed to take classes in *“business calculus ... finance, and ... college algebra.”* **June** stated that she aced virtually all subjects in high school. Besides acing English, her excellent performance at the community college also contributed to her admission to Savvy University Main Campus. **Mei** accumulated sufficient credits from another community college before he was able to transfer. She reported, *“I took part time classes at Clarisin Community College during my first year [and] so my credit [hours was] a bit longer.”*

Moving on to college sustained participants’ academic enthusiasm, inner strengths, and overall experiences in general. All of the participants were satisfied with their academic accomplishments. They felt confident in their abilities to succeed in higher education. College provided opportunities to realize their set educational and career goals. They controlled their academic destiny by organizing, executing, and regulating approaches to academic tasks, assignments, tests, and projects. For example, **June** was self-assured that she would become a doctor, a goal her dad thought was impossible. However, she was determined because she believed in her academic competence so she worked hard toward attending medical school. She explained:

**JUNE:** *…my dad wanted one of his kids to be a doctor; but that hasn’t worked out for him, and it is kind of ironic that the only kid he didn’t push into medicine is the one who wants to go to become a doctor. My dad has no idea that I want to be a doctor. I’m not gonna tell him until I get in….*
Institution-Community Partnerships. Communities provided ample resources and opportunities, and instilled positive practices that enhanced participants’ academic competence.

Community Resources. Communities provided many resources— institutions, cultural diversity, and employment. All of the participants were schooled in their community’s regular schools most of their P12 education period. This exposed them to various resources, cultures, behaviors, opportunities, and spaces to practice their experiences. These communities provided educational resources that helped participants to grow, develop, and succeed in school. It is well known that communities through participating opportunities, diverse cultures, group dynamics, values, and resources influence educational outcomes and students’ behaviors. All of the participants described benefiting from their community’s resources, culture, and opportunities in numerous ways. For example, June shared that she started school at the age of 18 months when her parents placed her in “our local school for children with ... disabilities.” At the school, she learned functional skills that would later help her manage her life from elementary school through college. The excerpt below captures the benefits that June received at the school.

JUNE: ... when I got diagnosed with CP [cerebral palsy], when I was 18 months old, my parents put me immediately into school. ...I started at ... Wellhope ... it is our local school for children with ... disabilities ... it is actually called Wellhope Industries. It’s a community... like once people at the high school had the option once they graduated to work for Wellhope Industries. So, it’s like all sorts of arts stuff that are sold. Some help these people pay living expenses.... So they work and get a paycheck.... ...as far as the school itself is concerned...it was below kindergarten up to high school. In high school, there would be like 10 people per class. I felt like the vast majority of my class when I was there had physical disabilities ... So many of my developmental milestones happened while I was at
Wellhope. ...I learned everything there, physically how to do things ... because when I got there I could not even move my head. I learned how to dip my head, how to walk, talk, I was potty trained....

Perry reported that he “had a job over the summer [2013].” Like the rest of the participants, Rita was living at college far away from her family and she reported that whenever she had a problem with the academics, she would call her mother over the issues, and her mother would contact the parent-peer relation who would address the problem. Rita shared the benefits of the parent-peer group.

RITA: ... if I have any issue I [would] call my mom, like I need to complain... tell me what to do and direct me to places.... And she turns to a parent group ... to figure out where to send the parent or how to contact the student to know where to go.... Last year, there was a teacher who believed that everybody was able to work on the assignment and turn it in on time and I wasn’t and I got a zero. My mom called the parent group over him ... they advocated for her....

The community also provided participants with space to practice their social and academic behaviors and interaction with others. That is, participants were afforded opportunities to practice their knowledge and skills in a realistic environment. During his senior year at the vocational school where he was studying geographical information systems (GIS) and computers, Zeus did a project in which he mapped in the quickest way the Republican Party voters contributed to the election of a politician. He mentioned that in his “junior and senior year... [he] took courses related to geographical information systems (GIS)” and that he had a “project where I took maps of Wick County Republican voters, and there was the fastest route ... and helped Shorten get elected (for the office).”

On campus, participants depended on parent support groups, which advocated for them. Also, virtual families on social media networks such as Facebook were sources of encouragement and inspiration. They provided information that helped participants
manage their disabilities, relations, and their education needs, in general. The availability of support mechanisms ensured that participants’ needs were addressed on time, and allowed them to focus on their education.

**Instructor-Related Factors**

Teacher-related factors that contributed to the student participants’ academic competence were inclusive practices, and teacher-parent collaborations.

During P12 education, participants reported that some teachers were inclusive in their practices, had positive attitudes towards them, and they networked with other teachers and collaborated with their parents.

**Inclusive Practices.** Teachers that adopted inclusive practices recognized, appreciated, and acknowledged the students. They provided a caring environment, accommodations, set welcoming and safe learning atmospheres, which promoted participants’ motivation and engagement with learning activities. Participants reported that healthy relationships with their teachers also contributed to their success in school. These teachers held high expectations in their abilities, and inspired them to work harder, which caused them to invest in their education to enhance their academic capabilities. Others helped them venture into academic areas of least interest by nurturing their knowledge of different subjects including science. **Rita** reported that some teachers recognized and appreciated her academic prowess. They provided opportunities for her to assist other struggling students, which helped her to develop cognitively. “I was always absent so I was the only one asking others for notes to catch up.” Because of her smartness, “teachers came to know me as the one who could answer their questions and the one who could assist others.” The recognition elevated her self-esteem and
perseverance; further helping her to invest in her own learning abilities and higher education. In high school, she was passionate about biochemistry, but she “hated biology”; however, she says, “One of my teachers forced me to learn it because I hated the class so much.” Thus, she was able to pursue biochemistry in college. Other participants’ wellbeing was affected by demands related to their disabilities and illnesses; however, some teachers were very understanding and friendly, and they gave appropriate support as needed. Perry reported that his teachers were very helpful particularly in high school, saying: “people were very responsive.”

The student participants benefitted from motivated and dedicated teachers who used different learning and teaching styles to address their individual learning needs, developed interest in their education, and provided opportunities for them to practice their skills to lead an independent life. Teachers also provided support to participants who did not have IEPs. Perry reported that his interest in sciences was nurtured when in middle school after some “good teachers” recognized his keen interest. These teachers afforded him opportunities to explore. Later in high school, his interest in sciences were reinforced by a teacher who provided research opportunities by working in the laboratories. He mentioned, “that got me used to a lab environment, and being accountable for my data, writing up a report at the end of the year.” Also, Mei reported that she had “a very good drive for education now because ... I was held up to the same standards as everyone else.”

Positive Attitudes. Special education and related services augmented the student participants’ academic skills. However, the provision of resources, services, and support depended on positive teacher attitude. Accommodations improved the educational
attainment of students with disabilities; however, positive attitudes contribute to the successful provision of accommodations that lead to learning outcomes. Participants reported that some teachers facilitated their education outcome by openly negotiating accommodations with them, or by learning from experts and other students on how to use assistive technologies and integrate them in their instructions to address their needs. Some teachers provided Hera with accommodations after she was diagnosed with lupus, even though she was ignorant of accommodations that would mitigate her condition. She shared, “I didn’t really know what accommodations were because no one had ever offered anything to me ... [but some teachers] were really accommodating.” They sent her “homework when I was in the hospital for an extended period of time”. This ensured that she was knowledgeable enough to move on with her studies at a relatively equal pace with the rest of the class. In the excerpt below, she explained her experiences with supportive teachers.

HERA: ... I was doing a research project at the time, so I would have to build tight structures and then get it approved by my teacher. But I wasn’t able to go in and show him the structure, so instead I would take a picture and email it to him. ...my science teacher was a really great research professor. ...the research science class was unique in itself because I didn’t need to be pouring a lot or....

Participants received different supports and convenient arrangements P12 through college from instructors that enhanced participants’ academic success. Some of Kim’s teachers were open to negotiation. He reported that while “they had never dealt with a visual impairment child ...they gave me the opportunity.” Teachers “were very supportive in what I needed.” He says, “the teaching of Braille was sort of integrated with my lessons. They brought in a specialist ... [and] an aid that ... helped me out, learned Braille, transcribed my Braille back into print for teachers.” Likewise, Rita had
some teachers that negotiated various learning activities including assignments, deadlines, and exams, which helped her focus on the most essential bits of education. Her assignments were “not [necessarily] similar to what everybody [else] handed in”, which helped her “complete the classes through the teachers’ assignments”. Moreover, she reported, “in high school there were some teachers who were very helpful” and that they “would send me the PowerPoint [presentation] of their classes and the things they did, [and] the class materials”. She participated in some courses such as English and Government “out of class”. Mei mentioned that monthly switching of sitting positions in the class sometimes placed her at the back where she strained to see the board. But in the French class, the teacher allowed her to keep her seating position throughout the year. While he could not “remember any teacher who was super unhelpful,” Zeus mentioned positively the support he received from the special education program manager during his P12 education.

**Teacher Collaboration.** Teachers’ networking to provide essential supports contributed to participants’ academic competence. They collaborated to create conducive learning environments and provided essential information and support mechanisms that led to positive education outcomes. These teacher collaborations enabled the students to navigate through the school systems, and to succeed in their education. June and Rita reported benefitting from the networking of some teachers who supported them in their mobility from high school to college. June shared that she was “emotionally and mentally ready” to graduate but it “was just the med stuff that was holding” her back. She was very sickly and she “could have been in the high school for two more years” had it not been the support she received from the “principal, and then my favorite high
school English teacher, his son, and then my principal’s wife... [who]... was my testing out for option in chemistry.” The collaborative trio along with other teachers “got very creative” and facilitated her classes and tests, and she “was the first student in my high school to test out of class”, which helped her graduate in time. She reported that she had “honors English 12” after the school “took part of the English AP test and ... gave me the grade that equated out to me.” For June, she considered the principal’s family “influential people for me in my high school ... [who] got me here [to college].” Kim reported collaborative efforts between teachers and Braille specialists to provide him with the needed services, support, and learning materials.

**Home-School Partnership.** Partnerships between teachers and parents enhanced efficiency of supports that participants’ received, which increased their academic competences. Participants reported home-school collaborations that helped attend to problems leading to solutions and positive learning outcomes. For instance, Rita reported that she “had a teacher who was not willing at all [to provide accommodation] and my mom went to the vice principal... and [he] then called her and made her follow the [school] rules” which “stated that if you are sick a day, you get time to make up the assignments.” Having the teacher follow the school rules pertaining to late assignments submitted by ill students, the school administrator proactively and objectively dealt with the emerging issue by creating a learning environment conducive to her and her parents, and the teachers.

In college, participants also reported that some academics were supportive; they developed reciprocal relationships, guided them, and provided directions, syllabus, and accommodations.
Supportive Academics. Academics or instructors built reciprocal relations that supported participants’ settlement and focus on academics. Their support helped them to flexibly become accustomed to academic demands, and adapt fairly well to college life. In particular, Hera reported that she received support from professors and that their acknowledgement of her disabilities helped her transition to college more smoothly. Some professors “try and work with me” to provide accommodations, while “some professors do what [the] disability services office tells them they have to”. Similarly, June reported that her instructors’ supports enhanced her academic success despite frequent illnesses interfering with her class and laboratory work. She struggled with learning activities such as completing assignments on time, however, her instructors were always supportive: “I had to see my TA. ‘I’m so, so sorry. I’m going to be late with the assignments.’ And they were very understanding, and his response was, ‘It’s Ok. Take it easy a bit.’”

All of the participants were registered with the disability services office, which communicated with the instructors about their needs and required accommodations. Nonetheless, some students reported sharing with instructors their information about disabilities and needs at the start of the semester (e.g., Hera, Kim, and Rita). For instance, Hera reported communicating with professors through emails and making face-to-face appointments where she explained her condition in detail. The intent was to inform the instructors so they would have a better understanding of her situation. Oftentimes, they do not get the holistic picture from the disabilities services office because of confidentiality requirements. The excerpt below captured Hera’s self-advocacy effort.
HERA: ...at the beginning of the semester ...I send all of my professors emails ...[telling] them I have lupus and some of the problems that might come up with it. I tell them I’m really good at adapting, and through experiences, I’ve come up with ways to get through classes very well, and it shouldn’t interrupt anything.”

Rita also emailed her professors in advance of the start of the semester to familiarize them with her situation. There were professors who were incredibly supportive while others created hurdles to the STEM classes. She reported that professors in the English and Math departments were more supportive than their counterparts in the sciences, particularly in the biology and chemistry classes. Professors in the “math department are really good. But the science department” was not because they were quick to label students so they could deny them opportunities of “taking my class”. Her math professors were very supportive, provided her with the notes when she missed a class, and were not punitive. Her English professors guided her with assignments and missed classes, and provided extra time and learning materials so she could catch up and improve on her grades. In particular, Rita described receiving support from the English and Math departments, as shown in the excerpt below:

RITA: ...My English professors ... they always show me these are the assignments, if you miss a lot I will work with you, have you do extra assignments to catch up, or if you miss a lecture, you have alternate assignments so that you do something so that it won’t pull down your grade. My math professors have been amazing... they are extremely helpful; and like my professor now, I had issues this semester and I’m missing his class; and it is that class if you miss one day it’s like you’ve missed the entire school year. And it was one of those classes I missed one day and he was like “Ok here are my notes, make a copy of them. I will give you everything you need that day that you missed, don’t worry about it. I will give you notes and then you can work on the assignments. And he would say ‘you will have full credits when you hand in the extra materials.’ Basically, he will be working with me until I answer the questions fully... He’s amazing, the math department is really good.
In case of impromptu learning issues that needed to be addressed, participants sought support from the disability services office for guidance and direction, or sought support from teachers or peers. For instance, **Zeus** reported talking to instructors whenever he needed support or accommodations with classes. He shared that the lecture hall to the macroeconomics class was inaccessible because of the curb, and the professor and teaching assistant (TA) helped lift him into the hall. After this incidence, the professor then had him take the same class with honors students in an accessible hall for the rest of the semester. He reported that the professor “*had me take the same class, I switched to the honors class just for that lecture.*” This helped him to meet new students and pass the course.

Professor-student interactions also changed participants’ perspectives about instructors. For example, **Perry** reported that he was reserved in elementary school through high school, and that he rarely approached teachers with issues. But he changed his behavior upon moving to college. He reported that he was in contact with professors in his programs and received required support, saying that professors “*have made it very clear that they are available to help in any way.*”

**Peer-Related Factors**

Peer-related factors that contributed to the student participants’ academic competences were inclusion in class projects, peers who were note-takers, and peers that shared same student academic organizations. Peers contributed to their academic competences P12 through college by including them in class projects, being their note-takers, and accepting them into academic organizations where they socialized and
discussed academics. In the excerpt below, Hera describes the contribution of peer-note
takers to her academic competence.

HERA:  ... best accommodation I have ... is the one when I’m really, really sick, my teachers will make accommodations so I will not have to come to class. They’ll be able to send me notes or instead, they’ll have a note-taker in class that will send me their notes.... If I didn’t have the accommodation or a way for the material to still get to me, I would be missing a day or two of class, which at this level—at university level—just isn’t possible. So, if I weren’t able to have that, I don’t think that I would have made it this far.

Family-Related Factors

Family-related factors that contributed to the student participants’ academic competences were related to wellness, finance, relations, academics, advocacy, and assistive technologies. Families contributed by assisting them with school work, providing financial and socio-emotional supports, and by reinforcing positive non-cognitive qualities and maintaining discipline. They were also advocates, role models, and supported the students during their path to college. Below I present how the individual cases of supports enhanced participants’ academic competence and contributed to their overall positive educational outcome.

Family Support Before and During P12

Academic Supports. Parents provided participants with support before schooling and during P12, which enhanced their academic competences. At a young age, parents introduced the students to learning materials and were their initial tutors, which helped them to jumpstart their learning process. Family support with academics enhanced their understanding of concepts, which increased their cognitive and non-cognitive competences. Participants shared that their parents helped them with their homework, projects, and assignments, which contributed to their competences and success in school.
Hera reported that when she got sick and had to school from home, her mother helped with subjects such as science experiments that needed manipulation of equipment: “So a lot I was able to do from home, [and] my mom was able to help me”. Likewise, Kim described his mother as being his second teacher who assisted with academic works and Braille, which is captured in the excerpt below.

KIM: My mom did not know Braille whatsoever; she couldn’t learn it whatsoever at all. ...what she would do is, I would have two copies of whatever I was working on, a Braille copy and a print copy, sort of go back and forth, and that was how she could help and support .... That’s how I learned Braille.

June shared that her parents’ level of education influenced her positive attitude towards college education when she was young. And that “it never even occurred to me that I wouldn’t go to college.” The excerpt below captured her parents’ influence on her drive and academic goal.

JUNE: ...when I was younger, I remember not talking about the possibility of going to college. That never even crossed my mind because between my parents they have six degrees from Savvy University. There are two things my parents preached in the house, education and healthcare. So, it never even occurred to me that I wouldn’t go to college.

Between her mother and father, Mei shared that her mother majorly supported her with “life issues” while her father majorly supported her with academics. “My dad and I are kind of a little bit different—he’s an engineer, he’s very analytical, I’m kind of very—the opposite. ...He’s kind of helped me with my homework.” Oppositely, Rita mentioned that her father was “a construction manager ... always out working on projects... out of town” while her mother was “a stay-home mom”, and so she had more influence on her education than her father did, which is captured in the excerpt below:

RITA: ...my mom is a stay-home mom, she spent a lot of time with us at school. ... So, my mom would be in the elementary school assisting teachers. so everybody knew who I was even before I started first grade.
Participants reported that their parents directly or indirectly contributed to resolutions of personal conflicts and positive self-constructs. They were involved in their schooling and provided guidance and motivation, which helped them focus on their academics. For example, Zeus described that his parents helped with the academics, they were his scribes with the homework. They nurtured his non-cognitive attributes (e.g., persistence), they encouraged him to adopt assistive technologies such as smartdrive, and they negotiated and advocated for him when it came to placements and access to services. Moreover, they collaborated with teachers in providing him with necessities that helped him meet the requirements. The excerpt below captured parents’ contribution to his educational outcome.

ZEUS: ... [My parents] were involved in making sure I get stuff when it was due and when I needed anything they would help, mainly they would help scribe for my homework... That happened several times [advocated for him] ... My parents they made that goal into all of these [success but I was also] persistent. ... Even with the smartdrive, I was very hesitant at first but now it is... not that big [of a] deal to move from place to place....

Parents also held high academic expectations for the students, monitored their academics, and maintained academic discipline. Parents’ high academic expectations helped participants invest in their effort particularly in the areas of strengths such as academics. Continuous monitoring helped them to remain on academic track, and discipline encouraged them to set goals and work toward achieving them. Participants reported that they lived with their parents during the P12 schooling period and after they moved to college. Their parents maintained contacts through various ways. The parents’ concerns and interests not only inculcated discipline but also provided emotional support, which helped participants manage rough times in school.
Advocacy. Parents advocated for their children’s wellbeing as they grew and developed. They advocated for participants’ access to regular schools; access to resources, services, and supports; and campaigned to improve learning environments so participants would function to their optimum to achieve academically. All of the participants reported that their families were their closest advocate from childhood to adulthood when they moved into college. Parents worked hard to have Hugo and June placed in regular schools where they could access optimum support and challenging learning experiences. For example, Hugo, June, Kim, and Zeus reported that at a young age their parents advocated to have them admitted in schools with resourceful environments for their needs. Attending schools in the community while living with families during P12 schooling period made their parents aware of their needs, the school norms, administrators, teachers, and students. They would contact the school to address issues or concerns whenever circumstances demanded. Parents either made office visits and met with the school staff in person, made phone calls, or wrote emails to address urgent issues.

Zeus shared that his parents “advocated a lot for me in high school”. While Hugo shared that he attempted to advocate for himself, but people were more trustworthy of his care providers than him because of his mental (cognitive) disability. His parents advocated for him most of the time, P12 through college. The excerpt below captured Hugo’s advocacy experiences.

HUGO: ...a lot of time I was not successful [in advocating for myself] ... and a lot of time I had to depend on other people to advocate for me simply because it didn’t work when I was self-advocating. Part of that is because of the nature of my disability... communication disability. But there is also the matter of ... people being more trusting of care providers of mine as well
as my friends, parents ... they would rather have them talk on my behalf instead of myself.

Parents also inculcated self-advocacy skills and optimism in their children. As captured in the excerpt below, Kim credited his parents for his self-advocacy skills.

KIM: ... I definitely could say that mom is definitely a big propeller of being a self-advocate. She definitely really helped out in saying no, if you need that, go do it. Don’t just sit back and wait, it’s not going to happen. It was a great help and probably why I’m so good at it now.

Likewise, June shared that her mother advocated for her from pre-kindergarten through high school. Moving to a private elementary school was the most challenging because “everyone on the school board was against me going there.” Then after admission, her mother fought for accessible infrastructure—ramps and bathrooms. The excerpt below captured her mother’s advocacy for her.

JUNE: ...when I got diagnosed with CP [Cerebral Palsy] when I was 18 months old, my parents put me immediately into school. ... So then, when I was in preschool ... my mom started fighting for me to go to the elementary school ... because it was a private Catholic elementary school that my sisters attended, and everyone on the school board was against me going there. They were not for it whatsoever. I think even the priest was like no ... he was adamantly against it. ... we ended up where my mom basically battled the school ... All the things that make the building accessible my mom fought for it and she got them. Apparently, the school funded it. She was trying to make the school accessible. Apparently, my mom finally started like getting the school an elevator ... it never came to be but other than the elevator thing, the school had much accessibility as it [could]. All the things my mom fought for, she got them....

Despite their disabilities, all of the participants began school in time or early, which improved their access of quantity and quality education. June started school at 18 months because of her mother’s advocacy: “When I was in pre-school, I went to Wellhope Preschool in the morning and Scared Heart Preschool in the afternoon. And by the time I was five, I was already going to school the whole day.” Ever since, she “has
always been in school”. June reported getting the IEP her sophomore year because her frequent sickness affected her school attendance. She mentioned that when she “was a sophomore”, her school got her an IEP; but she “didn’t want it whatsoever” because of the intelligence quotient (IQ) test. However, her parents managed to convince her that she would need the documentation of her disability when she moved to college. “My parents were like... you’ve got one chance now... to prepare for college.” So, she accepted the IQ test. Having her disability documented made it easier for her to register with the Disability Services Office at college for accommodation.

Parents intervened when teachers’ treated their children unfairly. Rita mentioned that her mother was her greatest advocate. She advocated for her all the time, negotiating with teachers about her placements, missing grades, and school absences. Her mother supported her and her older sister who also has a disability with bringing their issues to teachers’ attention. She and her sister “were so overwhelmed with our classes and our own illnesses” and she says, “mom would fight for us.” She mentioned that some teachers were unwilling to have her take AP and honors classes and receive accommodations at the same time. Others were interested in labeling her as truant because of her frequent absences. However, her mother negotiated with them on her behalf. She was frequently absent from school due to illness and she “was labeled truant” but her mother “showed up” and presented her “medical history” and her truancy label was purged. In the excerpt below, Rita described her mother’s advocacy.

RITA: ...I think if it wasn’t for my mom, I would have had a difficult time in school. ... She really fought very hard with any teacher I had an issue with. She was there. She wasn’t a helicopter mom; she wasn’t like every issue she was there; she would be there if I couldn’t handle it. ... If it wasn’t for her and her support, I probably wouldn’t be at Savvy University by August after my [high school] graduation. I would have
taken time off, I would have gone somewhere else and then I would have ended up here eventually. Like she never pushed me to go to college or pushed me to do anything. But she was always there when I needed her help. She would say, 'Ok tell me which teacher, what’s happening,' she would help and take care of that. //...If I have an issue then she would visit the school superintendent. She was always in the building. She would ask for a meeting.... So, she was in a position to know who exactly to go to. She could go to the person in charge of the curriculum, the person in charge of special needs... and sort out things.

While participants were removed from their families when they moved to college, they reported that some colleges had mechanisms of supporting them through family-support advocacy groups. Rita shared that her parents were members of the parents’ support group who provided support when she had problems with professors. As captured in the excerpt below, she mentioned that her mother resorted to the family support advocacy group that championed for her rights.

**RITA:** ... And she turns to a parent group ... there is group that if a student has an issue like parents can call that group to figure out where to send the parent or how to contact the student to know where to go... like parents’ relations. ...Last year, there was a teacher who believed that everybody was able to work on the assignment and turn it in on time. And I wasn’t. And I got a zero. My mom called the parent group over him, going like what do we do with this. And they advocated for her.... I ended up dropping that class. I had an F because he couldn't grade my assignments because it was late....

Rita reported that in case of unsolved problems, she engaged her mother or parents’ relations group. Her mother also advocated for her even in college. “... even now if I have any issue I call my mom, like I need to complain, ... I need you to tell me what to do and direct me to places....” The excerpt below captured her descriptions of the routes she took to advocate for herself.

**RITA:** ...the first time I would talk to the person about the issue and once they’re not willing to address the issue, I’m okay for someone else to do this for me. [But] it depends on the situation and the teacher... So for the teacher I usually email them, “Hey this is what’s happening in my class. What do
you recommend before I bring the teacher, my parent, or someone else to talk to you? ...But usually I use the resources available to me, I can go to [the] disability services office. But I use mom a lot. And she turns to a parent group, ... [it] is the group that if a student has an issue—parents can call ... to figure out where to send the parent or how to contact the student to know where to go.

Lack of dialogue in addressing emerging issues that affect education of students with disabilities is one of the challenges that teachers and families encounter. Yet, solving any differences creates a favorable learning environment whereas students with disabilities are provided supports to succeed in life.

**Financial Support.** All of the participants were dependent on their parents for financial support. Their parents paid for their tuition, upkeep, healthcare, insurance, and assistive technologies (e.g., phones, computers, and wheelchairs). Parents’ financial support helped the students to improve their academic competences. Placements in certain safe regular schools are factors that increased their functionality in learning environments, enhanced their focus on academics, and improved their relations with some peers and teachers. Moreover, parents financial support for provision of resources and services made it possible for participants to focus on their education. They were able to perform excellently in their academics, and get involved in school and home activities that enhanced their experiences. For example, Hera mentioned that her parents paid her tuition and upkeep. She worked but when she became ill, her parents relieved her of the job demands so she could recuperate and lead an active social life and focus on her studies.

**HERA:** It [college education] is really expensive, but my parents are wonderful and so they are able to pay for it. ...I have wonderful parents... they provide for all of my financial needs, thankfully.
Mei also shared that her parents were financially supportive. They paid her tuition while she paid for her maintenance. She had previously held summer jobs. On this particular semester when the interview was conducted, she reported that because she was taking many classes, her parents financed her tuition and maintenance so she could focus on her studies. “I’m taking six classes so my parents are like I don’t think you need a job. And I agreed. ... I pay for the meal plan and I pay for some of my housing, but they pay tuition.” Similarly, Zeus mentioned that his parents paid his tuition, his upkeep, and for assistive technologies (e.g., smartwatch, headphones, phone, laptop). Even though his insurance was responsible for maintaining his wheelchair, Zeus reported that his parents assisted whenever possible. Their assistance made it possible for him to do most of the activities independently, or with little assistance such as exploring his environment or attending classes. For example, he mentioned that he was “still on my mom’s insurance until I turn 26”, which made his life convenient. “Like my smart drive when it broke down, the insurance picked it up like in a week’s time but they only covered like 80 percent of the cost. In 2013, my parents had to come up with $2,000 co-pay” to repair the wheelchair. This ensured that his mobility around campus, particularly to classes, was not hampered.

Likewise, June mentioned that her parents paid her tuition and maintenance in college. She described herself as being fully dependent on her parents, and that she was not worried with things like loans because they always met her financial needs, as indicated in the excerpt below.

JUNE: ...I’m very dependable.... I never grew up with the sense of having to ... know how I am going to pay for this [college tuition]. ...whatever I need, whatever I wanted, my parents handled all that. And they still do, which makes it sure like money things, I don’t have to worry about that. ...I know
my tuition is going to be covered. I know that if I need any funding for my education … they are going to cover them. I don’t need to be working my job right now....

In particular, June mentioned that her parents’ support was critical particularly during her college transfer because Savvy University did not award her a scholarship. She mentioned, “I applied to six different schools and Savvy University was the only one that didn’t give me any money”. And because she settled on Savvy University, her parents had to pay the tuition to actualize the process. In the excerpt below, she described the challenges she faced during her college transfer.

JUNE: …if I had no financial resources that I had with my parents, and I was just like a middle income, wasn’t eligible for the loans and student loans, I don’t know how this could have been paid for now, because, yes, there is a lot of disability funding out there but I found out that when I started looking into it, most of them, they are extremely specific. You have to be a cancer survivor, or you have to have a learning disability or some classification that I just don’t meet....

**Emotional Support.** The emotional support that parents provided improved the student participants’ wellness, which increased their involvement in academics. As mentioned earlier, during P12, participants lived with their families who provided immediate support. In college, all were living away from parents and siblings; however, they maintained relations through media, and the emotional support helped them to remain focused on their studies. Participants described having good relationships with their families and they were in contact through emails, phone calls, social media (Facebook and Twitter), and occasional visits. By keeping in touch, they shared their concerns, joys, successes, which helped them to feel emotionally good. Kim shared that he derived his emotional stability from his close-knit supportive family. Likewise, Perry mentioned that he kept in touch with his family through the social media networks,
emails, and phone calls. And because he was living away from home and parents for the first time of his life, this made him feel settled and his parents worried less.

PERRY: We keep in touch [with the family]. They call me – I think it’s been every weekend—just to know what’s up. So they’re very interested in what I’m doing, how I’m succeeding, and how I’m facing all the challenges of being in a new environment and being on my own for the first time. Because even though they’ve always, I think trusted me to do my best, they’ve always been there to catch me if something goes wrong. So now that they’re not, I think they’re a little nervous about that. But, you know I just kind of treat new situations as you know, let’s just see what happens. And they [parents] know that I know what I’m capable of. So, I can apply that just like I would in many other situations. And if that falls short, I know who to go to. And I can always ask somebody if I need help because I’ve always done that.

Virtual families provided rich information and a social forum that helped enrich participants’ experiences, and counseled them in their management of their disabilities and education. Mei described depending on social media groups for support. She mentioned that she was born with a disorder that challenged her parents and because “they had no idea what it was” probably that made them not intervene proactively by having her undergo surgery on her blind eye. Through social media, she connected her with other families with stickler syndrome where she accessed rich information on the condition. She also got connected to support groups such as parents of children with stickler syndrome and individuals with the disorder.

MEI: ...now I’m on Facebook. There is a stickler syndrome support group, and now parents are talking [about] their own stuff. I mean that is great, maybe it is 10% bad because it ... scares a lot of parents. But generally, it is amazing because you can feel like my kid has this, should I get this, should I get a second opinion? Yes, do this.... I think my parents were alone and scared. I feel sorry for them. ... I love them very much. And I don’t know if I would do better in that situation. But I think they did what they thought was right at the time [not making the decision to have her blind eye taken out.]
**Nurture Positive Non-Cognitive Qualities.** Parents’ reinforced positive non-cognitive behaviors through encouragement, fair and equitable treatments, and tolerance of their children’s competencies. *Kim* described his family as “*very supportive parents, and an all-around supportive family*”. His family valued him, treated him well, and provided him with opportunities to succeed in life as they did to his siblings. They believed he had abilities to achieve, held high expectations of him, and encouraged him to work to his abilities. They inculcated positive attitudes that helped him work hard towards achieving his educational goals. His parents never let him use his disability as a crutch; therefore, he considered his disability not an intellectual barrier. In particular, his mother emphasized, “*Disability is not inability*” and instilled confidence in him. While his father complemented his efforts.

*KIM*: ... *My mom would never let me give up. She would never let me use my visual impairment as a crutch; she was very supportive. ... it definitely propelled me in the right direction to give me that tenacity to do what I want to do and not be put behind obstacles that aren’t really there. // [And about his father he said] ... great father figure. He helped me out in every way possible. I mean, I play soccer... even though I have a visual disability. I love to play soccer. While I couldn’t catch a ball because I just don’t have any depth perception what so ever, it was easier to play soccer. He loved to come out and be an assistant coach in that respect. And also just being very supportive. He’s the best guy I know; dad, father figure, friend. Very helpful and supportive—anything I need, he’d definitely do it. I can’t drive, but he definitely takes me anywhere that I want to go if need be, if he has the time. He took the time out after work every day, I had an internship over the summer—he’d pick me up and take me home.*

In general, all of the student participants mentioned being grateful to their families for the supports that led to their growth and development to succeed educationally. Apart from academic, financial, socio-emotional supports and advocacy, families were role models and mentors. They treated them fairly, and provided guidance
and directions with college applications and selections that helped them move onto college.

**Summary of Supports for Academic Success**

In spite of their disabilities, various factors contributed to the students’ academic competences. These affordances were categorized into factors related to individual, institution, instructor, peers, and families. They enabled the students to move through school systems, and to meet the expectations of teachers and parents and matriculation requirements. Individual-related factors that contributed to participants’ academic competences were cognitive and non-cognitive abilities and educational goals. As a result of these competences, students were able to engage in learning processes, meet the school requirements, and to set learning and career goals to attend college. They exhibited academic requisite through cognitive competence, which was presented in the high Grade Point Average (GPA) and good performance in standardized tests. Their personal, college, education, and career goals were aligned with their abilities, interests, and preferences. Institution-related factors such as access to regular schools, inclusive learning environments, and access to general education curricula made it possible for students to take prerequisite college entry courses and standardized tests. The students took college entry courses, passed standardized tests, and participated in the Post-Secondary Enrollment Option (PSEO) Program.

Access to college curricula exposed students to challenging learning materials that stimulated their high order thinking, attenuated their fears, and prepared them for college. Besides early exposure to academics, the students interacted with supportive teachers and environments that provided learning opportunities, which further motivated them to
invest in their education. School-community partnerships made it possible for students to gain access to resources and opportunities that enriched their learning experiences. Good family relations provided academic, socio-emotional, financial supports, and advocacy that helped students to remain focused on their education. Parents also developed home-school partnerships. Equally important is the role that their siblings played. The students were encouraged by their siblings in college, or those that had degrees already and were well employed.

These factors contributed to students’ positive personal attributes, and their possibility to meet college requirements, and to qualify to pursue various degree programs. Thus, they were able to pursue majors of interests and preferences. Six of the student participants were in the science, technology, engineering, and mathematics (STEM) related fields; one participant was in psychology, and another in business and information technology.
Figure 4. 2 Factors that Contributed to Academic Competences
Research Question 2

What critical factors helped students with disabilities to successfully navigate the social demands during P12 education to transition to college?

SOCIAL DOMAIN

The inclination of human beings to socialize is a natural survival instinct that allows individuals to meet their needs through relationships (Masten, 2006). These relations are built in social spheres, governed by norms, rules, and expectations, and shaped, redirected, and constrained by the social context in which the individual operates as s/he strives to achieve personal and group goals within a milieu (Bronfenbrenner, 1979). In the following section, I present social factors that afforded or hindered the student participants’ learning processes and transition to college. Participants’ learning processes and education outcomes were influenced by many factors related to the individual, family, institution, teachers and academics, peers, and the community.

Social Demands

Social demands refer to the requirements to relate with fellow humans in society by participating in communal events and collective activities that promote the existence of the community. In the context of the school, it is a requirement for students to exhibit social repertoires in their learning environments and interactions with adults (faculty and staff) and peers (students, friends, and acquaintances). Factors that contributed to participants’ social demands that adversely affected their socialization and education were related to the individual, institution, teachers and academics, peers, and family.
Individual-Related Factors

Individual-related factors that contributed to the students’ social demands included disability stigma, stereotyping because of disabilities and illnesses, guilt complex, liminality, struggle to meet social expectations, skewed relations, limited interpersonal skills, and lack of agency.

Individual Disabilities. Participants reported that their disability was the source of their experiences related to oppressive cultural practices such as disability stigma, prejudice, unfair treatment, low expectations, identity crisis, or liminality. Moreover, individual disabilities and illnesses hindered participants’ involvement in learning processes such as participation in classroom activities, group work, and school events. Disability stigma negatively affected participants’ relations with peers, adults, and access to quantity and quality learning. Hera, Hugo, June, Mei, and Rita reported enduring physical and psychological pain, feeling oppressed, isolated, devalued, invisible, and voiceless; feeling silenced, erased and depersonalized. Specifically, Mei reported that she “...started out with a lot of aspirations and then towards the end I was like I just need to get out of here”. Her “disability was very visible in school”, which exposed her to prejudices that made it difficult to interact constructively with peers and adults and to self-advocate. She described her disability as very conspicuous. “... I used to have [inaudible] a lot more pronounced with my left eye before I got it taken out when I turned 18. Before, if you've ever seen [a] detached eye, it was blue.” She reported that “K through 12 ... was kind of traumatic...” and that “[i]t has taken me 2-3 years removed from high school to finally get over that”. The excerpt below captures clearly Mie’s feeling of oppression.
MEI: ... I really tried very much not to draw any attention [by asking for accommodations because] ... when people know you have a disability, they don't wanna [want to] talk to you. ... I don't know why ... I felt very isolated. ...I just hated the school... My school was just weird. I mean high school is kind of rough ...especially ... towards the twelfth grade, I was like I am really not fitting in the school. I don’t know why. I really just need to get out of this place. ...

**June** and **Mei** reported that they had difficulties participating in gym classes without accommodations and adaptations of the activities. Limited participation in these classes added social demands and mental pressure that affected participants’ confidence, self-esteem, and engagements, and also reduced the number of opportunities available to them such as meeting new friends.

**Guilt Complex.** Participants described being stigmatized and made to feel guilty by their school community’s cultural processes that invalidated disability. They were critical of practices, actions, or support that made them look less normal. Hence, some were torn between acknowledging their disability identity and avoiding disability stigma, being forthright with their needs and accepting the abnormality label. For example, **June** reported that she wanted to be treated the same as normal students; but her illness and disability required support, which she appreciated. However, she was consciously aware that it placed her in the disability box. She was frequently late with assignments due to bouts of illnesses but the fear of being viewed as unreliable left her feeling guilty. She reported feeling guilty for turning in her assignments late or having to ask for extension dates: “I felt incredibly guilty because...I don’t want the reputation of being unreliable.” Also, **June** was critical of entitlements within the disability community. She reported, “I feel like people with disabilities feel entitled to the best treatment because they’re at a disadvantage because of their disability. For me, it’s like I don’t feel entitled to anything.
The world owes me nothing. ” She also reported benefiting from her disability with late assignments, for instance: “I had two lab courses that were due three weeks ago which by now should have got me a zero. But I’m still going to turn it in with full points; in terms of time, that really makes me terribly guilty.” June’s limbo situation was captured in the excerpt below:

JUNE: ...So I guess I am caught in between now, how I should be treated. I want to be treated exactly, completely normal, like deal with consequences of abnormality. I’m not normal so maybe there are consequences. I don’t want to be singled out, treated different. ... I want to be recognized like I did things that I can get some assistance on that.... I'm in the middle ground.

June and Rita shared that their disabilities made them uncomfortable. They avoided situations that called attention to them. In the process, they were torn between pleasing themselves or peers, and torn between asking for accommodations and escaping attention. June mentioned that “because I walk slowly people automatically think I know nothing, that I’m stupid” and so “when I have a medical problem in the middle of a lecture, it’s like, okay, well this may be a problem right now, but I’m not going to leave right now because everyone would be watching.” Rita described that “The high school recognized that I was sick but didn’t recognize that I was sick [enough] to be labeled disabled because I was smart enough to be out of the disabled spectrum” and having been “considered normal” she denied her disability identity until she turned age 18 when she realized “‘disabled fits me.’”

Fear of disability stigma pushed participants into isolation, denial, and sometimes, into wanting to be normal, which was a hindrance to leading a stress-free life. Having been conditioned to be sensitive about their disability, June and Mei avoided things that would make them become the center of attention. Thus, they never pushed for
accommodations or modification of classroom environments during their P12 education. Disability stigma for Kim caused him not to embrace the white cane because it called attention that he strived to avoid. As shown in the excerpt below, Kim quipped:

**KIM:** *I never wanted to use a white cane—as far as being a visual compensation—just never was something I wanted to do, it seemed like extra stuff that I had to carry around. ... I’m sure if I walked around with a bright light or a cane that most people would understand that I’m visually impaired, and more than most people have told me that I should. But I didn’t want to carry it around; that thing is too much. I was like this thing, I don’t know what it is, but I’m going to leave it somewhere. It’s more of a pain in the ass than [inaudible] ....*

**Liminality.** Participants reported being in between in many situations. Liminality is the condition of being in between (Turner, 1969), and individuals in liminal state are the threshold or state of confusion in dealing with issues (p. 359). Liminality added pressure, which caused participants to struggle with relations. Also, some participants struggled with disability entitlements because of liminality. Although they accepted their disability as they matured or moved through grades/schools, participants struggled reconciling disability entitlements with their disability identities, which pushed some into the liminal zone. For example, June was critical of disability entitlements yet she was the beneficiary of the same. She was the recipient of accommodations and understandings because of her disabilities. She felt guilty for instructors having to provide her with more time and award her full points for late assignments because of her illness. She reported, “I... felt incredibly guilty because like I don’t want the reputation of being unreliable.” The excerpt below captured June’s liminality when it comes to disability identity and disability entitlements.

**JUNE:** *...for a long time I have wanted to be treated equally like someone else because I wanted to be like everyone else, I wanted to be normal. I didn’t accept that I have issues. But that was denying so much who I am....*
Although I want to be treated like someone else, in some ways, I want to be recognized not because that’s what makes me, but that’s what makes me different from all disabilities.... I’m not very much aware of special treatments at all because I don’t feel I’m entitled to anything at all, like the world owes me anything because the world has taken things away from me, in that sense. ...it’s confusing at the same time. Like I don’t want special treatments but sometimes I want people to understand like, “Oh this didn’t get done because I was dealing with things that most people don’t have to”. So, it is a very double-edged sword like well I want to be treated just like someone else but I’m also asking for understanding of my situation....

June struggled with disability entitlement and her critical view of colleagues that felt the world owed them, which limited her awareness, socialization, and relations with peers with and without disabilities. She was critical of peers with disabilities or colleagues who used their disability to ask for disability entitlements: “I feel like people with disabilities feel entitled to the best treatment because they’re at a disadvantage because of their disability. ... For me ... the world owes me nothing.”

Families provided affordances that helped participants navigate systems successfully to transition to college. But at the same time, some participants were occasionally caught in the state of liminality, which affected them emotionally. They reported that they needed to be treated equitably without disparaging their disabilities, or recognizing its consequences made it difficult for them to develop positive relations with peers with and without disabilities. The need to conduct oneself as if they had no disability limited their acknowledgements of reality of the impact of disability on their lives and relations with others. For example, Mei was torn between supporting and condemning her parents for not making the decision to remove her blind eye. Her blind eye was the source of disability stigma that weighed her down. Also, June was torn between appreciating her parents’ effort in helping her move to college. She explained
that her parents were concerned with her health, and were initially not for her going to college. Without her personal initiative, she would not have moved to college. Hugo was torn between taking sides for or against his father whose advice led to many social challenges he experienced. He reported that because of his mental disability, his parents were his “legal guardian” despite his age and competency to lead an independent life, make self-determined decisions, and self-account for his actions. The states of being independent and dependent at the same time made life difficult for Hugo. Liminality sometimes interfered with his decision-making and particularly with issues requiring social participation such as going out to late parties. In the excerpt below, Hugo described his liminality:

HUGO: ... The law does not really specify for people like me. I mean, either you’re completely independent like an adult or you’re completely dependent.... So anything in between is like a gray area, it doesn’t specify what you should do.... I can’t be completely independent and I can’t be completely dependent, either. And I’m more independent that not. I live in my own dorm room, I walk around to places by myself all the time. I know how to shower by myself, I know how to make food for myself.... The only thing I have trouble with is time management and a little of social skills.

June reported wanting her disability recognized, but not as a hindrance. She was capable of doing many things (e.g., scoring a high GPA) and despite her frequent illness, she was much better than some sophomores who were stressed out by exams. She worked hard to win over recognition and she avoided entitlements to things because of her disability. The need to maintain good relationships with others is critical for students with disabilities. She was aware that appealing for help and avoiding harm to others was beneficial to one’s survival, and strived to understand everyone particularly her instructors. The excerpt below captured her intents to build reciprocal relationships with instructors.
JUNE: ...I give people the picture that I tried, I showed up to class, ... I asked questions. I don’t like teachers to wonder ‘Who are you?’ So I guess I am caught in between now, how I should be treated. I want to be treated exactly, completely normal, and deal with consequences of abnormality. I’m not normal so maybe there are consequences. I don’t want to be singled out, treated different. ... I want to be recognized, like I did things, that I can get some assistance on that.... I’m in the middle ground.

**Inability to Meet Social Expectations.** The inability of participants to meet social expectations due to miscommunications also created social demands for them. Miscommunication was one of the sources of misunderstanding, misjudgment, and demeaning treatment that the students experienced. Hugo described communication as a fundamental tool for interactions but also breakdown in communication leads to tension and misunderstandings. Thus, communicating one’s needs becomes ineffective when faced with social and physical challenges. Hugo shared being uninvolved in different social activities and indifferent to others, and sometimes being optimistic and recalcitrant in his interactions with peers, teachers, and adults because of previous miscommunications, misunderstandings, and disparaging treatments. Having dealt with individuals who misjudged his thoughts, Hugo was also ambivalent in his interaction with people. He feared being accused of lying about his disability so he struggled to meet different people’s expectations, which further isolated him from social interactions.

Hugo’s excerpt elaborates on his frustrations with communication issues.

HUGO:  *It is a hard balancing act when it comes to communication, you know. Like, I mean, people say that... actions speak louder than words. But they forget that some actions are purely symbolic and they harm, they cause though not real, sometimes physical harm to people... not necessarily physical, like violence necessary... something like ... there are consequences, like the reputation, or things like that. Words do have power... some body languages and some actions, even though they are purely symbolic, what they are actually, they can still have a lot of impact on how people actually act, you know, after that....*
**Over-Dependence and Lack of Agency.** Some participants over-depended on others for support, which denied them agency. It also limited their exploration of their environments, their negotiation of issues, their socialization, their traveling, and development of experiences, in general. For example, Perry depended on adults to rescue him from the buildings during fire drills. Often he interacted with them and not peers, which distanced their relations. Likewise, Zeus’s disability made him dependent on people (e.g., personal assistant) or those around him, which limited his agency, engagements, and interactions. He described two experiences of dependence, one at Savvy University and the other when he was visiting Europe that captured his limited agency and equal engagement. When in Hungary visiting family and friends, he depended on friends to carry him and his wheelchair up and down a flight of stairs, something he acknowledged, “For everyday situations that would not be possible.” As described in the excerpt below, Zeus recognized his reliance on people on campus and how that was limiting.

ZEUS: ...like Independent Hall, this isn’t very accessible even when you go around the building. I talked to my teacher and she talked to my TA [teaching assistant], and he helped lift me in.... There is a door down there but I can’t get in because there is basically a curb in front of it. //...as far as like getting around here on campus during the day when people are walking to class, people are around most of the time so if you need something you can ask someone to help you. But ... for everyday situations it gonna [it’s going] be impossible. ... On Friday, I was going down the ramp.... I don’t know what I was doing but I flipped over... and hurt myself. I was lying there for some minutes and I couldn’t move. And finally, these two people [cleaners] came and helped me up, and got me in the wheelchair.

**Institution-Related Factors**

School-related factors that contributed to the student participants’ social demands included normalcy, non-inclusive schoolwide culture, lack of belongingness, stressful
learning environments, lack of mentors and role models, and simulated learning environments. During their P12 education period, participants experienced social demands that negatively affected their relations. Behaviors were related to communication difficulties, social insensitivity, problems with prosocial conducts, and temperaments, which led to limited interactions, misunderstandings, miscommunications, and sensitivity to issues.

**Non-Inclusive Schoolwide Culture.** Culture influences how human beings interact and treat each other. Similarly, knowledge and practice of disability culture helps recognize individuals with disabilities as important members of the community. All humans have natural social inclinations irrespective of their traits. Thus, participants were stressed by not belonging. Sources of tension included insensitiveness, intolerance, and indifferent teachers and peers, bullying, disability stigma, and unrepresentative learning materials (i.e., classroom literature that omitted or muted disability). *Mei* was frustrated by the omission of disability in the high school literature and monthly switching of seats that pushed her to the back of the class where she struggled to see the chalkboard. Isolations and frustrations created school demands that denied her peaceful mind and good relationships. As shown in the excerpt below capturing *Mei’s* frustration with high school, she blamed the handicapping experiences on negative cultural practices that consider students with disabilities to be broken or abnormal.

*MEI: ...able-bodied normative. That’s what is important. I mean there is no question in my mind ... that there is anything else besides disabled bodied people. I mean just having class to talk about different people and different things. I mean, like the holocaust, from the fourth grade to twelfth grade, every year it happened. ... I mean we’re talking about something that millions and millions of people live with. And it is like a cursed thing. I don’t know. I feel strong about it.*
Some participants struggled to have their disability recognized and appreciated in school. For instance, Hera mentioned “… what makes most sense for me is having my disability acknowledged and then being given accommodations that make things fair. But when your disability isn’t even being acknowledged, it’s really not fair.” June shared the same sentiment stating that respect, recognition, and appreciation is what she needed but lacked.

JUNE: ... “I don’t mean recognized in terms of how we recognize athletes... I just mean—appreciation.... There doesn’t need to be public appreciation at all, just some appreciation, some respect. Like okay, you go through this and I don’t, so I definitely respect you for that. But we definitely don’t get it.”

Normalcy. Participants mentioned that normalcy contributed to the social challenges they experienced in school. They reported being bothered by the normalcy embraced by people without disabilities. Thus, the fear of disability stigma drove them to live in denial. Mei reported that normalcy saw their disability position them outside the community: “…able-bodied normative. That’s what is important. I mean there is no question in my mind ... that there is anything else besides disabled bodied people”. Rita never accepted her disability identity until age 18 years old when she was moving to college. June shared, “when still in high school I still had the mindset that I wanted to be like everyone else”. Moreover, June explained that she had no “problem talking to people” even though she “had had experiences of people not talking to me... [because they] thought I was contagious …. ” She reported that people ignored or infantilized her by wanting to know about her disabilities and that she was bothered when “I meet people and they are like ‘what did you do, what’s wrong with you?’ …who says such a thing that
anything is wrong with me. I get terrible the way the standards of what is right and wrong is.”

Feelings of not belonging harmed the student participants socio-emotionally and academically. Mei attended a school that ran from kindergarten to high school so it was difficult to come across students with disabilities, an experience that was devastating. However, there was an alternative school for children with disabilities. Mei described negative cultural practices that promoted normal/abnormal and able/disable binary as institutionalized in her school. As shown in the excerpt below, Mei explained that there were two categories of schools, one for “normal” students and the other for “abnormal” students.

MEI: …considering the 3,000 population of the school, how come there were few students with disabilities …I know because they ship them off. … I know we had three or four developmentally disabled people. They would be in a group and you would never see them again. … [if] you were like moderately disabled or intellectually disabled, they would have you in special classes. Otherwise, there is an alternative school. …There is a main high school and alternative school, which is small... they just send them there. I don’t know. It was brutish. …I was ... not being surrounded by anyone with a disability ... I was like some person on an island over here... I mean from age 4 ...from kindergarten all the way up to 12th grade, I saw one person in a wheelchair, and that was [it]...she was in 5th grade when I was in 1st grade. And there was this other kid in my sister’s grade and he was blind. And he eventually transferred to ... [the] school for the Blind. But otherwise, I knew no one with a disability ...at least a visible disability because we all know invisible ones exist. I mean that was pretty difficult. I mean knowing that you’re different and not seeing anyone else like that. ...I was so raged getting out there. Obviously I didn’t do my best my junior and senior year grade wise, I was like I wanted to get out of there.

The student participants also felt like outcasts and guilty because of the cultural practices that devalue persons with disabilities. They also experienced pressure in schools that was directly connected to the community’s cultures. In particular, Mei shared that
she “felt very isolated” at high school because “when people know you have a disability, they don’t wanna [want to] talk to you.” She also felt guilty of her situation and believed she was “going to be normal” and although she was struggling with “seeing... I didn't want to draw any more attention to myself than I already had” by asking for accommodations. She mentioned feeling tormented and her sister feeling less confident because of the school practices that overrate individuals (i.e., considers them ‘supercrip’).

She reported attending “a really rude school” with “very strict teachers”. So she had a distant relationship with most teachers because they were very unapproachable and disrespectful, which made it difficult for her to trust and confide in them or seek their support. She reported that her high school teachers were bullies and very strict: “one of my science teachers actually made my friend cry in class.” In the excerpt below, Mei connects the schoolwide cultural practices to the community’s orientations that invalidated persons with disabilities or individuals.

MEI: ...the community I grew up in was like ... male-dominated White middle class; the football team is great. ...if you look at ... America ... they are pushing you to study more. ...people would brag about their GPA... I remember my sister would end up crying sometimes in high school because it was just like 'my GPA is low, my friends' GPA are ... [high]....'

The student participants described societal intolerance to persons with disabilities as a barrier to realizing their dreams. They lacked role models and therefore worried if they could achieve their goals. For instance, June who had cerebral palsy (CP) wanted to be a doctor but she was worried that doctors as gatekeepers may use her disability to disqualify her. She described the statistics of doctors with disabilities as negligible to the entire population of doctors, and that “there aren’t many in relation to the number of doctors that have CP.” She added that “when I Googled ‘doctors with physical
During their college education period, participants experienced social demands related to disability and illnesses, normality, lack of role models and mentors, lack of social participation in certain events, and prejudiced academics.

**Disabilities and Illnesses.** Participants’ socializations were adversely impacted by disability and illnesses. June was so isolated from other students with disabilities that it limited her socialization and acceptance of her disability identity. Police restraint further limited her socialization with students with disabilities in college. Zeus too was detached from colleagues with disabilities in high school, and when he moved to Goodhope University before transferring to Savvy University. He never took the initiative to get to know peers with disabilities. He shared that one Friday evening when he was coming from class, his wheelchair flipped on the ramp, which is on the back of a building where few people walk by. He laid there helpless for some time until cleaning workers saw him and lifted him back into the wheelchair. Such experiences made him fearful of venturing out on his own where there were few people to provide support. He feared getting stranded in snow or other unfriendly environments.

Participants mentioned that there were many more social opportunities in colleges than during their P12 period. Though academically well prepared to manage college education, participants shared that they struggled to deal with social demands. Their social demands emanated from disability stigma; uncaring, unfriendly, and unreliable instructors and peers; and lack of or limited infrastructure and facilities. All of these social demands reduced their interactions and further heightened their handicaps.
were also stressed by trying to maneuver structural barriers related to people’s expectations and personal needs. Some continued to experience social demands after moving to college because of their disability, illness, or unsuccessful programs in high school that failed to prepare them for college life. Hugo described his school as “a social safety” that failed to expose him to “realistic social environments” and so his academic demands emanated from social challenges; because of limited interpersonal skills, he struggled to connect with peers to work on academic tasks. Zeus reported wanting “to party on Sundays because I only have one class on Mondays”. But he faced many hurdles related to class schedules, accessibility, disability, and age. At Savvy University Main Campus, most students partied on Friday evenings and weekends especially during events and activities such as football. But he had classes late Friday, which made it difficult for him to participate, especially when he had due assignments. Also, he was underage, not yet 21, and could not drink alcohol according to the laws of the state. He also used a wheelchair and some of the social venues such as bars and restaurants were internally inaccessible.

June experienced social problems as she transitioned. She described her college social life as daunting. She struggled to relate with peers with and without disabilities, which left her feeling like a small island in the vast ocean. She shared, “I had a rough couple of months the first semester, not academically though, that wasn’t an issue”. She was overwhelmed with her disability, health, job, and academics because “I never had time for fun. I’m very busy; my major is very hard.” She also struggled to reconcile her experiences with that of peers, her “upper classmen” who she considered immature. She described being “in a classroom with freshmen who did not understand why we’re
warning that she “feels so bad for some of these college kids because they have no idea [t]hey haven’t been in the real world at all [and that college life was] a bubble.” She reported having “learned not to rely on people...” from past experiences in the real world. Besides, her disability limited her from partaking in some of the college-wide events and activities like jumping into the mirror lake, a ritual that happened during football season late in November. June wished she could do it in the summer, but she faced too many hurdles. One, she could not do it in November because of the frigid cold water, which she explained would make her susceptible to pneumonia. Two, night time is often crowded and messy, and so, she could be trampled on by the large crowd. And in case of injuries, she would have no recourse. Three, she would look weird if she were to do it alone in the summer. And four, it was against the university’s policy and therefore one could face disciplinary charges. There were other social events on campus such as the Savvy University Mascot Experience but they required peer nomination; but her social circle was too small to even be considered. The excerpt below expands on June’s experiences of social demands.

JUNE: ...Savvy University is doing its own version [of Mascot Make A Wish and] ... students can nominate other students for one reason ... to get their wishes. ... I know for me if that was an option, I would have told them [to] let me go and make the mirror lake jump. ...Because I really want to do that. ...get some fun out there, as they do during the Savvy University-Michigan game. But for me that is so dangerous on so many levels. I can’t do that when it is that cold. I would get myself pneumonia flat out because there are so many people jumping. ... Plus there is [too] many people... probably somebody would trample on me. ... I would like to jump in the mirror lake during the summer.... But I know that if I were to jump in tomorrow that would get me arrested....
While college offered more social opportunities than high school, starting over with their social life, they faced difficulties in making friends with peers, which weighed them down.

**Instructor-Related Factors**

Teacher-related factors that contributed to participants’ social demands were professional dissonance, low expectations, stigma, and instructors’ over-generalized perceptions of disability.

*Professional Dissonance.* Teachers’ low expectations, lack of recognition and appreciation, along with their uncaring, unfriendly, and inflexible behaviors contributed to social demands that participants experienced. Both at P12 and college, the students dealt with prejudiced teachers and academics that made equitable learning and socialization difficult. Some teachers were less interested in providing support or accommodations, which hindered participants’ socialization and academic pursuits. Disinterest in the students and unfair treatments caused emotional stress that affected participants’ relations with peers and adults. Some teachers failed to provide support, accommodations, or modifications to address participants’ needs and instead referred them for special education. **Rita** reported that some teachers were less willing to accommodate her needs because she had no individualized education plan (IEP). **Rita** described interacting with prejudiced P12 teachers who treated her unkindly and unfairly than other peers, and would not provide her with accommodations. In college, students described interacting with prejudiced academics that caused academic and social demands. Some of the difficult professor-student relationships were caused by the students’ disability and illness. For instance, when **Rita** explained to one professor that
she was registered with the disability services office and qualified for “note-taking assistant ... [and] test accommodations,” the instructor who was “smiling tackily as I was talking to her [suddenly] ... her face fell... shrugged when I mentioned the test and being disabled.” The excerpt below captures Rita experiences with an unfriendly and biased instructor.

RITA: ... The first few days of class she was ... not friendly ... she would respond to my questions but she was very curt with them. It’s like she didn’t want to answer my questions .... Once she realized that I was actually smart because I was the one mostly answering the questions in the class, I get 100% in my homework, like I knew my materials, now she turned around like ‘Ok, so you’re not like the disabled person, someone with a disability who sits in the corner and drools all the time. So you are just capable of doing the material.”

Rita also reported struggling to convince instructors to understand her chronic migraine headaches, and to provide a safe and appropriate learning environment so she could pursue biochemistry. Some chemistry professors advised her to re-focus her preferences in biochemistry since her chronic migraines made her miss classes and interfered with laboratory testing tasks; most tests on yeasts and cells depended on their growth, which happened at their own pace under optimum conducive conditions.

Unconcerned Teachers. The students dealt with indifferent, uninterested, disinterested, uncaring, and unconcerned teachers. They shared interacting with apathetic teachers that expressed unwarranted sympathy, provided unchallenging tasks, snubbed them, singled them out, or punished them disproportionately. For instance, Mei described some teachers as unconcerned with her education. She reported “in high school ... I had very strict teachers. I heard one of my science teachers actually made my friend cry in class. I went to a really rude school.” Rita mentioned that one teacher was adamant that she did not deserve accommodations for her disabilities, and told her that “...sick
students should drop out of school because they are too sick to study ... [and that] one student ended up dropping out." Kim also reported that some teachers questioned his disability and refused to provide him with accommodations. In another instance, there were teachers that were less interested in learning new ways of integrating Braille in their instructions to make the curriculum accessible. Then, there were others who would not listen to him unless another teacher communicated his need, which was a pain to deal with considering uncoordination between departments. This made receiving support and learning materials in time to support his learning processes difficult, and added more tension to an already stressful environment.

Students reported being treated unfairly by some teachers who lacked respect and abused their positions, depriving them of equal learning opportunities in the process. Hera reported many conflicts with math and literature teachers because they would not provide her with accommodations. She explained that some teachers would not provide her with accommodations despite presenting her case to them. Mei mentioned that she was “so sick of ... the amount of pressure teachers put on us... my junior and senior year”. She had no trustworthy staff she could confide in for support. Hugo described dealing with high school teachers’ condescending behaviors, and teachers that never used age-appropriate behaviors in their interaction with students with autism. He mentioned one particular teacher who treated him like a young child, and childishly and unfairly commanded students with autism in the company of peers without disabilities. Apart from uncaring and insensitive teachers who never bothered to support the students, others were not keen to collaborate with other teachers to support them either. June also shared that some teachers singled her out and never provided appropriate learning support.
JUNE: ...I don’t think it is right for students with disabilities to be singled out even in a positive or negative way; maybe in a positive way a little bit. But like I definitely had teachers in the past, who ... singled me out or shuffled me in the corner because [of my disability]. I don’t want to work with you thing, so let’s go that way. No. But at the same time, I don’t feel entitled...

**Over-generalized Perceptions of Disability.** The cultural, physical, and social capitals influence treatment that students with disabilities experience in school. Students described enduring negative cultural practices that affected their self-esteem and hindered their relations. They reported being bothered by the over-generalized perceptions of disability stigma. **Hugo** and **June** attributed the challenges they experienced to the dictates in their communities that were less diverse and intolerant. **Hugo** described prejudicial behaviors against wheelchair users as culturally processed; it allowed invalidation of wheelchair users as seen in the term ‘wheelchair bound.’ **June** described coming from “a very small hometown with very small-minded people who were very much, like, because you’re slow, you must be stupid”. She further mentioned that because “minority population is very small ... there was no...other people to pick on” and so “it was let’s pick on her; who else are we going to.” Similarly, **Mei** reported that how students with disabilities were invalidated was reflected in how communities invalidated veterans with disabilities.

**MEI:** “How they treat veterans ... if you lose a limb ... something dramatic happens to you like brain injury, people ... don’t wanna [want to] talk to you. It is just an overarching disability. Even if you served our country, you’re still disabled.”

The students also shared that they were not considered valued members of the community; teachers and some adults in the community were blind to their academic potentials. **Kim** described people telling him that attending Savvy University would be “daunting” for him because of his blindness. So they were like “why in the world would
you want to be visually impaired walking all over Saint City?” June mentioned that although “everyone is getting more ideas of disabilities right now” and that “more students are moving to college now in comparison to the 1950s when people were stuck in institutions” deficit views of students with disabilities still persist. She said that is why “everyone including my parents thought that I would never go to college. ‘You would never go to college, why prepare you for that, we don’t know what you [want to] do but that’s not likely.’” She added, “When I graduated from high school… nobody even asked ‘where is your college friends?’ … Nobody asked because what everyone could see was impossibility.”

**Peer-Related Factors**

Peer-related factors that contributed to the student participants’ social and academic demands were disability, illnesses, and hospitalizations.

**Disability and Illness.** Disability and illnesses had a negative impact on the students’ social life, which alienated them from beneficial peer relations. It contributed to disability stigma, fear, and self-guilt, which caused students to struggle with networking opportunities and making social connections. Hospitalization, poor interpersonal skills, unawareness or lack of information, and lack of facilities are other factors that hindered participants’ involvement, sharing, contributions, and associations in their academic environment. All of the participants mentioned that they were isolated for reasons related to their disabilities and illness. Hera, June, Mei, and Rita shared that the fear of contagion contributed to their isolation. June mentioned, “Some people think cerebral palsy is contagious.” At one point, she told her “friend that I’m sick … but I’m not contagious sick”. Mei re-counted how “kids would make fun of me” when she held
books close to her eyes to read. Also, after she came back from the hospital, Hera mentioned that classmates felt uneasy around her, an experience captured in the excerpt below:

**HERA:** *For some reason, seeing a person in a medical mask is very scary even though I’m protecting myself against them. For some reason, they don’t take it that way; they think that there’s something highly contagious about me. So, they don’t want to sit next to me or talk to me.*

*June, Mei*, and *Rita* also reported their disabilities were not recognized and that their experiences or presence were not appreciated in the schools. *June* and *Zeus* shared that demanding course work, lack of appropriate time to participate in social events and activities, and inaccessible social places, all were a hindrance to their inclusion. For instance, in fourth grade, *Zeus* broke his leg and had to use a wheelchair for a while, but that reduced him to a patient and most classmates limited their friendly relationships. Likewise, in high school, *June* reported using a wheelchair after breaking her ankle; but instead of receiving empathy from classmates, some spread rumors that she “*had brain surgery for attention*”, which further alienated her relations.

Similarly, *Rita* had two close friends from the gifted program between third and sixth grade; then they parted after transitioning to high school. Once again, she was lonely as most of her former classmates would not associate with her because of her frequent illness, absences, and fear of contagion. When she became sick, she was “*known less as the kid who was always sick and the weird girl.*” She says, “*I felt awkward but I had no people I could turn to*” and “*so there were few people who wouldn’t want to talk to me because they were afraid they would get whatever I had*”. The excerpt below captured *Rita’s* dire loneliness when she started homeschooling:
RITA: ...I had two friends from the gifted program whom I was close with, we were known as the three musketeers actually. No matter what, we’re always the three of us ... So we didn’t interact much with anyone outside our gifted program, and we very much interacted among the three of us. ... Everyone was smart in the [gifted] class but the three of us had bad social skills. Everyone else was considered to have normal social skills, but ours was very diminished. So, we kind of liked to calm each other because we didn’t have anyone else willing to tolerate us because we had very little social skills. But then come high school, I started getting sick and we started taking different classes and so I didn’t have them around anymore. And it came to the point where I didn’t have any other friends, apart from the three of us. So, I knew people in my classes and could get notes from them but I couldn’t do anything else. I didn’t hang out with anyone, or ask someone to go and hang out with them. During my senior year, I was homeschooled and I was always at home alone all the time....

Hera, June, Mei, Rita, and Zeus mentioned loss of self-esteem during P12, which made it difficult to build long-lasting relationships with peers. The feeling of insignificance coupled with illness also challenged Hera and June to befriend and maintain friends. For example, Hera’s involvement in the learning activities and events was compromised by lack of accommodation and her ignorance of available accommodations. “I didn’t know what accommodations to ask for because I didn’t know what accommodations existed.”

Change of States. Some families moved often, which made it difficult for the students to build reliable relationships with peers. Continuous change of schools as parents moved from one state to another alienated the students and made them strangers, that is, it limited their socialization and building of intimate relationships. For instance, Hera and Hugo’s families moved from state to state during their P12 education, making it hard to maintain long-lasting friendships. Hera’s parents moved a lot until she got into high school. As Hera stated, “So I didn’t have a lot of time... to give them a good impression because I changed high schools....” It was not until she “lived ... for 8 years”
in one state that she “made friends and then started developing as a person.” Still, illness made it difficult to develop substantial friendships. She mentioned that by the time she “was in the process of making friends and kind of establishing myself in this new environment and I got really sick and didn’t see them for two months” thus heightening her alienation. The excerpt below captured the negative effects of disability/illness on Hera’s socialization.

HERA: … I was placed in a group of people that didn’t know me at all, and then they had about a year with me until I got really sick and left school for a bit and came back and looked really awful. ...// ... I didn’t have most of my hair and I was only like 75 pounds and I had to wear a medical mask to school every day for a while because I had the rash here so bad [points at the face], and they didn’t want it to get infected. So then, the people that I relied on were my really, really good friends that I had made and they would sit with me at lunch and talk with me and stuff, but other people wouldn’t. ... Even though I’m protecting myself against them, for some reason they don’t take it that way; they think that there’s something highly contagious about me.... //... So some of the problems that I have mostly, right now anyway, is that I have a lot of joint pains because the tissues in my joints get really inflamed and they will all hurt. And then I have like skin problems, sometimes. I can’t be in the sun because the sun triggers lupus. So, if I’m in the sun for more than 20 minutes, I’ll get a really bad rash on my face.

It was socially challenging for June as she moved through the grades and from a smaller private elementary school to a larger public junior high school (from seventh to twelfth grade); she had few friends and classmates to interact with. She reported, “I had no friend [after her] elementary school class friend ... [went] to [a] different school district.” She added, “...the rest of my class we got to junior high and they were off to their athletic social pursuit that I was not part of.” The excerpt below elaborates on June’s feelings about junior high.

JUNE: ...I hated junior high, I got there but like a month or two I was like I hate this, I hate this. I hate this so much that my high school guidance
counselor was bribing me with candy to make the list of things that I didn’t hate in a week....

Moving from elementary school to public junior high school exposed June to negative attitudes that excluded her, they looked down upon her. She even met at Savvy University one former high schoolmate who “went around and told everybody that I had my brain surgery for attention.” She was not interested in her at all. June described her feelings for the girl, “She was not a nice girl and I think she was very much freaking out because I saw her as stupid ...I'm like, 'there is nothing honorable at all about you.”

**Lack of Belongingness.** Lack of belonging in school and gym classes added to the social challenges that students experienced in schools. Some participants felt vulnerable in their schools without seeing other students with disabilities. Participants dealt with disability stigmas and stereotypes that affected their relations with peers. Both June and Mei described their high school peers as less forgiving, less accepting, and intolerant, and so their disabilities were negated; they were snubbed and even bullied, which made school life even more frustrating. Specifically, when June broke her ankle and had to use a wheelchair, she described “one girl in my class that went around and told everybody that... I was permanently in a wheelchair ... [and] that I had my brain surgery for attention.” Zeus mentioned “There was one kid [with disability] in high school ... he was two years older than me... when I was a sophomore he was a senior, I knew him but we did not really have a close relationship....” As mentioned earlier, Mei shared her frustration of not seeing any one of her kind in school. Her school had few students with disabilities and the schoolwide culture was unfriendly to them. Having a visible disability compounded her problems, and she became sensitive to her surroundings and the mistreatments, which made her live in denial, lose confidence in
asking for accommodations, and she was excluded from some physical education classes and class activities. The excerpt below captures her experiences.

MEI: ...not being surrounded by anyone with a disability, I thought I was like some person on an island over here... I didn’t want to draw any more attention to myself than I already had. And I was like I’m going to be normal. No thank you [to accommodation]. Yeah. In the gym class for doucheball ... I do not know about Kenya; but in America, we like to play douche ball for some reason. And I had always to sit out. And I mean that was, like, not fun. And I didn’t want to wrestle with kids in my classes...and I was like I’m going to really try that hard [to excel]. It is only been the past two years that it is now okay for me to do this [self-advocate]. I was in my little bubble [in high school]. It was draining. //...I feel like it should be way more commonplace to see them [students with disabilities] in an academic setting. I mean from age 4—from kindergarten all the way up to 12th grade, I saw one person in a wheelchair, and that was—she was in 5th grade when I was in 1st grade. And there was this other kid in my sister’s grade and he was blind and he eventually transferred to State School for the Blind. But otherwise, I knew no one with a disability—at least a visible disability because we all know invisible ones exist. I mean that was pretty difficult. I mean knowing that you’re different and not seeing anyone else like that.

Limited Interpersonal Skills. Interpersonal skills help with the building of relations. However, participants’ limited interpersonal skills also contributed to their social demands. In college, other participants were bothered by ‘little’ issues, or making too much of a minor issue. They were over-reactive, exhibiting histrionic behaviors that further frustrated their relationships with peers. Hugo and June struggled to fit in the college community. The reprieve was below their expectation and so they fathomed otherwise about their interactions with peers and adults. Hugo was frustrated and irritated by people who mispronounced his name. I have used pseudonyms for all participants; however, Hugo’s original name phonetically the noun started with /ha-/ while the verb started with /her-/. And so, people that mispronounced his name even after correcting them peeved Hugo. He felt people that mispronounced his name had no interest in him.
HUGO: ...when I hang out, people keep on calling me Judo instead Hugo. It’s ridiculous, it’s like they have a mental deficit that prevents them from receiving what I’m saying. ...I told them exactly how to pronounce the name stressing the difference but they told me they couldn’t hear the difference. // People are usually stupid when it comes to pronouncing names. I don’t understand it. ...Why is it that people have trouble learning foreign names while kids in fifth grade have no problem learning foreign language? //...It doesn’t take any much effort here... it is a matter of saying it. ...I think the problem is that I’m thinking too much about it ... it is not worth thinking about it....

Zeus reported that “The reason why I went to Goodhope University is ... they parade themselves as highly friendly for people with disabilities”; but then he encountered unfriendly experiences with peers with disabilities. While the population of students with disabilities at Goodhope University was relatively larger than that of Savvy University, Zeus reported being “on my own because lots of individuals [with disabilities] were close-minded as far as what they can do...”.

While Rita’s illness caused her to infrequently attend school, teachers recognized her academic prowess. They invited her to assist weaker students. She reported being “in the gifted program [and] in the senior year I took [more] honors and AP classes than everyone in my grade”. But her assisting struggling peers isolated her from peers, as she explained in the excerpt below.

RITA: ... So teachers came to know me as the one who could answer their questions and the one who could assist others. And so everyone treated me as you’re the one teachers go to and not us. And it was that awkward to think about... so it was more of we don’t [want to] wanna hang out with you because you just don’t fit in with us.

Histrionic Behaviors. Some of the students may have been perceived as over-analytical and over-reactive because of misplaced empathy, misplaced actions, and disability stigmas and stereotypes, which adversely affected their relations with peers. Some participants felt that their peers pried into their personal matters too much. That
feeling of offensive inquisitiveness about their disability caused participants to be over-analytical and over-sensitive, which damaged their relations with peers. Also, participants described themselves as critical thinkers and demonstrated critical thinking skills. Hugo described his frustration with colleagues who mispronounced others’ names. He was vexed by them. June was also critical of colleagues who she considered accepted her superficially. She mentioned that in her high school “they accept you but they don’t accept you.” She struggled to intuitively sense when people were being nice to her, or whether they were treating her as a charity case. She was worried that people may take advantage of the situation as opposed to being kind from the heart. Her struggle or misunderstandings of the intent of peers without disabilities made her wrestle with their actions, inactions, and perceptions. She wondered whether the support that people offered was genuine or whether it was to extend camaraderie or to caricature her. Her fear was to be caricatured or caged unable to control her destiny through help. She said, “I would rather have one really good friend than ten that aren’t actually real.” The excerpt below captures June’s feelings about peers without disabilities.

JUNE: ...Don’t feel sorry for me ...I don’t need people to feel sorry for me. ...I hate feeling like a charity case. I really do. And I know that’s something I struggle with because sometimes, I can’t tell the difference between if you’re trying to be nice and helpful, or whether I’m your charity piece....

In college, for instance, June reported being troubled by “over helpful” friends or those who wanted to connect with her situation. Due to her suspicions coupled with disability stigma, she struggled to impress peers and to maintain relationships. She also shared her distrust of peers without disabilities, which is captured in the following excerpt.
JUNE: …some of my friends, I know that the difference would be helpful, but sometimes I just feel really trivialized, like I’m a caricature. I know you’re trying to help, but you’re actually making me feel worse about the entire situation. …like I have homework due at midnight but my arms are stuck behind my back, or I just had a seizure or, whatever it is. Sometimes it’s like I could use a little help to get this done right now. Sometimes, some of my friends right now, like I’ll look away and look back and they’ll have just done it for me. It’s like, I don’t need you to do it for me. I appreciate the help, but sometimes there’s a line between you helping me, and asking me what I need you to help with. I get that—sometimes when they’re just trying to be helpful, they’re over-helpful. I don’t need that much help. // I definitely appreciate but…like sometimes, I do feel like they kind of realize because I’m like yeah, I have these problems, and they’ll just start going on. I know they’re trying to connect, like when you’re comparing…let me give you an example…someone is like, ‘Oh! I just had a rough night, my boyfriend broke up with me.’ It’s like, ‘Oh! I just had a rough night because I just had a seizure and I may or may not have just missed a midterm because of it.’ It’s kind of like that. I understand that you’re trying to connect, but in some ways, especially the way that you’re saying it, it sounds a little trivialized. As far as the caricature goes, sometimes I just feel really stereotyped.

**Vulnerability to Peer Manipulation.** Parents’ advices adversely affected the relations between the students and their peers. Some participants struggled with the generalization of concepts. Misinterpretation of good deeds or intents can cause misunderstandings or conflicts. For example, Hugo mentioned that he was trapped by his father’s two advices: “Believe what you are told and do what you’re told,” and “that anybody else who is not mentally disabled is an authority figure for me because I should follow their example”. He felt caged, he struggled to socialize with other peers and in most cases, he felt guilty of his actions or they easily manipulated him. As shown in the excerpt below, his diminished agency and self-esteem made him vulnerable to manipulation and behavioral problems.

HUGO: …if you combine those two concepts then basically it creates the idea that I should believe what I’m told by everyone and do what I’m told by everyone. … So, I tried to be what he told me. In high school, I was caught in a completely different scenario, even my self-concept, my self-esteem. I
became completely very dependent on what other people thought of me. //...So when I was in high school ... there was one time I was helping people too much...but I didn’t understand to let them help themselves. And they told me "you shouldn’t try to help people without their permission." ... So, I didn’t open doors for people. So I was thinking it must be rude to help open doors for other people if they can easily open it for themselves. ...

It is not always true and I didn’t realize that. So there were many times I didn’t open doors for many people because I thought it would be rude for me to do that. And the impression I was creating in people was that this person is just mean, this person is obnoxious, this person is a bad person. And like I wasn’t even noticing it any of that. I wasn’t even aware they were thinking of that. Why would I be? ....

Skewed Relationships. Participants also reported skewed relationships in favor of the non-disabled in their interactions with peers and adults without disabilities. They bore the burden of communication breakdowns. With communication barriers, when they occur between persons with and without disabilities, the blame is shifted to the former.

Hugo, Kim, and June reported having skewed relationships and communication barriers with peers and adults without disabilities, and lack of objective and respectful interactions and communication. They reported that in the case of a breakdown in communication they were often accused of dishonesty, lying, ignorance, or to be mentally unfit. Hugo shared that because of his Asperger’s syndrome and anxiety, he experienced communication problems. Therefore, people around him were quick to misjudge him, to “make up their own mind of what they think I mean... and if they don’t get it they just accuse me of being dishonest about it.” He depended on significant others for support with communication of his needs. Hugo struggled to find his footing out of the mental quagmire of his father’s advice that he “believe in what you’re told and do what you’re told”. He described feeling caged and so he struggled to find his personhood, to trust himself and others, to build his confidence, and to gain his agency. “I am trying to walk myself out of it but it is like, it has really been a difficult long process”. Also,
Zeus mentioned that low expectation and negative “perception of most people if you’re in a wheelchair you have a mental disability” also hindered reciprocal interactions.

Fear of the Unknown. Because of their disabilities, the students were considered broken bodies. Disability contributed to their disfigurement, devaluation, and depersonalization. The disability stigma negatively affected relationships between the students, adults, peers, and the larger community. June reported that fear of the unknown was one of the sources of disability stigma. She pointed out that Americans are less forgiving towards persons with disabilities and that their perception is “subtle and obnoxious. It is like they believe they are invincible. It’s like they say, ‘stay away from me. I don’t want it. Leave me alone. Go away.’” June and Mei reported attending less diverse schools. They were the minorities because of their visible disabilities. But instead of winning over allies, they were pariahs; their disabilities attracted condescending behaviors.

Discourses of Connection or Alienation. Students struggled with school discourses after hospitalization or absenteeism. This disconnected them from peers. Hera reported that discourses in her milieu influenced her inclusion/exclusion in the classroom. After she came back from the hospital, her discourse was mostly medical-related while that of peers was school discourses, which “really made things different as peers were disinterested or uninterested in medical discourses. She had to invest in her time to catch up with the current school discourse. The excerpt below captures her experiences.

HERA: ... so, being in a hospital almost more than I was in my regular high school setting, takes a lot away from the development of a regular high school student. So I noticed that when I came back, the conversations that the students were having with each other—I had to work a little bit harder to get into because I wasn’t used to talking about movies or music, I was
used to talking about treatments and when my next doctor’s appointment was going to be.

After June graduated from high school, all of her friends or classmates had moved to college. As such, they were communicating in college discourses, which made it difficult to maintain a relationship. She also mentioned that if she “had no financial resources that I had with my parents and I was just like a middle income, wasn’t eligible for the loans and student loans,” she might not have made it to Savvy University because most disability funding sources “are extremely specific. For like you have to be a cancer survivor, or you have to have a learning disability or some classification that I just don’t meet....”

**Lack of Allies and Heterogeneity of Disability.** Heterogeneity of disability made it difficult for participants to develop allies with colleagues. Some because of disability stigmas, fear of entitlements, or a guilt complex made it difficult to develop relationships. Despite the collective identity of disability, bringing together different categories of disabilities, visible and invisible, students described resisting the generalized perception that all persons with disabilities have some form of mental deficit. They resisted any link of their disability to mental disabilities and so they created binaries between physical and mental disabilities. For instance, in delineating his disability as not affecting his cognitive competence, Zeus reported, “the perceptions of most people if you are in a wheelchair you have a mental disability.” Likewise, June was critical of doctors who identified her health problems as psychological. Also, she shared, “All of the accommodations I have are for my body, not my brain. I don’t have any learning disabilities.” Specifically, she appreciated the disability awareness created by the autism movement: “the autism push has brought in all kinds of learning disabilities which is very important and should be
shown.” But also, she was critical of it for creating the general perception that any person with a disability has mental problems. As captured in the excerpt below, June described her opposition and frustration.

**JUNE**: …*I believe... strongly that everyone has the right to education. But one thing that makes me sick with the autism push is ... like we have no push on physical or motor disabilities. ... in some way, the autism awareness could spread so many other things, and because everyone knows about disability now, they are like “learning disabilities,” there is that connection, and then there is the assumption that if you have a disability then you must also have a learning disability. I’m like no, that’s not how that works.*

June was concerned that persons with physical disabilities are currently getting raw deals on various issues because the focus is on other forms of disabilities. She was critical of the autism movement, which has been active in the education of students with disabilities for many reasons. One, that the movement has led to poor judgment about persons with physical disabilities and it has made disability synonymous with mental disabilities; two, it has led to a shift in resource allocation, making it harder for people with physical disabilities to receive support. She held similar views on people with learning disabilities (LD), which she viewed as being a small percentage of the population of persons with disabilities (even though national statistics puts LD as the biggest population of people with disabilities). She also believed that people with “physical disabilities are under-represented or they are under-reported especially if you get out to the rural areas”. She felt that their experiences were muted; muting their existence was unfair.

**Disparate Expectations and Mistrust.** Some students had unpleasant experiences with service providers, which affected their trust of adults and socialization in general. Because of distrust, they became reclusive. Also, disparate participants-professionals or
teachers’ expectations pushed students to the periphery, which left them in limbo and not knowing where to seek support. For example, June was placed on a dose “to reset my brain and to make it stop…dystonia, my arms twisting behind my back.” [But] “I barely even knew my name, it was awful, and it didn’t help. My arms still freaked out.” And so, she was “antidrug” after botched medications. Her cynicism of medics is captured in the excerpt below:

JUNE: They took me out of the whole messy medical thing. ...I was in Michigan seeing the doctor and he was more interested in lecturing me how I need to be in college than solving my medical history or my medical problem. Okay, how do you expect me to go to college if I can’t even keep my hands in front of me?

**Family-Related Factors**

Family-related factors that contributed to the student participants’ social demands were tense family relationships, comparison to siblings, parents’ fear for their child’s future, disabled family members, parents’ over-expectations, parents being hard on their children.

**Tense Family Relationships.** Family relationships were affected by various factors that added to social and academic demands experienced by the students. Disability in the family caused tensions that affected parent-child relations, and tense family relations sometimes contributed to students’ socio-emotional struggles that later affected their relations with peers and adults. They reported having different relationships with their parents and siblings, which negatively affected their interactions in and out of home and school. Some students were frustrated by their parents comparing them to their able-bodied siblings (e.g., Mei), others had tense relationships with their parents (e.g., Hugo and June) or siblings (e.g., June and Mei) which added to their socio-emotional
stress. In particular, Mei shared that her comparison with her able-bodied sister was stressful as she was forced to explain and qualify her circumstances particularly when she struggled with issues of driving at age 16.

**MEI:** *It’s kind of odd to have one disabled child and one completely healthy child because I think you kind of compare them. It’s like why don’t you drive, or why don’t you do this stuff, your sister’s doing this stuff. And I’m like well my sister can also see out of both her eyes. ... just small things like that generally are frustrating.*

Mei reported having a frosty relationship with her younger sister as they were growing up, particularly during their high school years. However, their relationship improved when they both moved to college. Of her relations with her younger sister, Mei shared, “...when I was in high school, I didn’t want anything to do with her... when she was in high school, she didn’t want anything to do with me... now that we’re both in college, it’s gotten a lot better.”

Disabilities in the families also contributed to tense relationships between parents and children. There were anxieties, worries, fears, quarrels, and struggles that restricted students’ reliance on their parents for socio-emotional support in particular. Hugo explained that the abuses he experienced especially when he was at home was because his “family has mentally disabled people.” He mentioned that his father “…has Asperger’s syndrome ... [his mother] ... has compulsive obsessive disorder ...and ... might have ADHD [Attention deficit hyperactivity disorder] ... my other sister has severe anxiety disorder and PDD [pervasive developmental disorders] ... and my twin sister has ADHD....”

Of particular is how his father’s disability contributed to social problems he experienced at school and home. The tug-of-war kind of relationship that Hugo had with
his father in particular left him socially and emotionally vulnerable. While his father
never wanted him to have the same experiences he had, in the process of training him
how to survive in the world that is harsh for persons with disabilities, he became
“abusive” and over-controlling. Thus, the intervention and trainings he initiated for him
to grow up into a responsible person affected his schooling and socialization negatively.

Hugo described his father as anxious and having “communication” and “anger
management problems” because of his “Asperger’s syndrome and obsessive compulsive
disorder”. He described his father “trying to fix me…. His entire goal was to teach me
everything I needed to know, to make sure I am able to live safely and be able to survive
in the world.” He was frustrated and stressed with him because he “was very
discouraging … [resigned and frustrated sighs],” “very verbally abusive … [and] a
control freak” so he held him “hostage” at home with no avenue to escape even though
he once ran away. He was “afraid for my well-being”, he was “obsessive”, and so “… he
saw himself in me and tried to control me and tried to make it so I wouldn’t make the
same mistakes he did” but that “kind of backfired because I’m not him”. The excerpt
below captures his frustration with his father.

HUGO: ... [He told me] “I’m going to train you to be what you need to be.” But
... the real problem was he was sort of kind of trying to simulate a work
environment for me... in our own home. You can imagine how stressful
that would be. I mean because I don’t have anywhere to escape. But on top
of that, the guy is also a pessimist. He expects to be the boss.... But the
problem with that is if you treat someone like that in their own home, they
can’t get out of home to escape from the abuse. You basically hold them
hostage....

Likewise, as reported earlier under academic demands, June had occasional tense
relations with her parents who were apprehensive and over-concerned with her health and
ability to attend college. She reported not talking to her father for a month when he suggested that she forgo college and stay at home so they could take care of her.

**Parents Hard on Participants.** Parents were hard on the students in an attempt to prepare them for the real world experience, which they fathomed as harsh for those with disabilities. Parents being hard on them caused students to become over-sensitive, over-conscious, and over-cautious. They were sensitive to how peers reacted to their disabilities, they were over-analytical of what others said about them, and sensitive to peers’ gestures. Participants described negative cultural practices as contributing to the challenges they experienced with education. They explained that an element of deficit was entwined in parents’ behaviors, which limited their interactions. While Hugo described his father as over-controlling and blamed him for the social problems he experienced, he traced his poor relationship with his father to stigma and paternalistic cultural orientation that caused him to live in denial. He reported that his grandfather’s behaviors oppositely influenced his father’s behavior: “*His father was really hands-off I guess and neglected him. So on the other side, my father was really controlling of me and being the overseer.*” He also mentioned that his father was influenced by the paternalistic cultural orientation and so “...he still does have a little element of the man-of-the-house.” June also shared that her parents were hard on her because “*they realize[d] the world gonna [was going to] be hard on me. So let’s prepare her for that, let’s be hard on her too.*” As a result, “*A lot of the time, I was fighting for myself because I hate to be a burden on other people.*” She reported being “*very self-sufficient, I’m very independent, ...I stand up for myself very well.*” Although it nurtured her positive non-cognitive abilities, limited interactions meant growing up with little support in terms of seeking
social and emotional support from them. So, she struggled in school without them knowing to provide support.

**Fear for Participant’s Future Life.** Fear for the students’ future wellbeing caused emotional insecurity. Some participants perceived their parents as overprotective. Being overprotective limited students’ socialization and self-actualization. In some situations, parents’ fear for their child’s future turned them into emotional supporters, which further burdened them. They became concerned of their parents’ welfare, thus reversing the parent-child role. June shared that because she provided emotional support to her parents, she had few people to rely on for emotional support herself. She reported that her parents were “my last to call because ... when I call, they get really worried.” June had a police report against another student during the interview but her parents didn’t “know anything about that because I haven’t told them. And I’m not going to because all that happens is that they will get really worried.... I’m already worrying about them, why do I need to share the worry with them.”

Some parents’ behaviors diminished students’ self-reliance and confidence, causing them to live in fear, feel guilty, and become reclusive. June described her family as “closed button ... we don’t talk about our feelings”, which made it difficult to share her emotional feelings and get emotional support from her parents. She mentioned that she did not share her problems “because my parents just can’t handle it.” Also, her mother would “start blaming herself”, and often she would send her to a therapist: “she would be like please go and find a therapist”. About her father, June reported that she “don’t have great relationship with him... [because he] ... don’t get emotionally upset, he just gets
ridiculously distant.” She added that she “represents all things that my dad regrets in his life.” The excerpt below captures June’s experiences with her father.

JUNE: … I like birthdays and I celebrate birthdays. I feel like my birthday [is not good] …because I go home and my dad ends up commiserating about everything that happened badly in his life after I was born. … He regrets so much and I know that because he talks about them a lot. … he wanted this portrait picture perfect family…and like that’s not really what he got with me.…

June shared that because of culture, “my parents desperately wanted a normal child and that is not what they got with me.” So “they were …hard on me,” and the pressure to satisfy their expectations and her personal needs further burdened her. She also “came from a very small hometown with very small minded people who were very much like because you’re slow, you must be stupid” so “my parents were mostly concerned with me walking.” She received no support with college applications. She stated that “going into my senior they were like “we don’t know if you are going to graduate on time.” Because her parents struggled to accept her disability, she “just learned how to hide the fact that this seems really bizarre.” She described a time in preschool when she struggled to tie her shoelaces because of reduced gross motor skills, and her mother grieved for a long time and she had to console her. The excerpt below elaborates on her feelings.

JUNE: … my parents desperately wanted a normal child and that is not what they got with me. And still they desperately wanted that and so I desperately tried to give them that. A lot of the time I was like fighting for myself because I hate to be a burden on other people. …a lot of the time I had issues [and] … I would hide them from everyone. …no one would know about them because sometimes it just bothered me because no one would get it right… even my mom wouldn't get it. When I was a little kid, I came from preschool and I couldn't tie my shoes, I didn't have enough gross motor at the time to tie my shoelaces. I remember I got home and she sat there and she cried and cried and cried. …I spent a considerable amount
of time as a little kid, like consoling my mom for my issues when probably it should have been the other way round.

June’s parents wanted her to attend a community college where they could monitor her progress and provide support easily and quickly. She was against it, but was forced to accept the challenge and offer after her preferred university did not award her a scholarship. Attending Savvy University meant relying on her parents’ finances. She therefore agreed to her parents’ suggestion to move to the community college only if proving her ability to live independently and manage college education would lead to her transfer to Savvy University. Nevertheless, she reported being “miserable because it was like my dreams are going to die”. She mentioned that she wanted get out of her hometown because of the disability prejudice and the “fears that I was going to live with my parents forever”. Besides, the pressure of loneliness was eating into her as she shared in the excerpt below:

JUNE: ...I had no friends. The few friends that I had in high school would not talk to me anymore because they all had magically gone to college and were now calling the big shots and here I was still in Jamestown, still the sick chic here.

Parents’ over-concern with their children’s health limited participants’ socialization. June explained that she had no friends after she graduated from high school. Peers would not keep in touch because most of her classmates had moved to college and never wanted anything to do with her.

Negative Consequence of Parents’ Advice. Parents’ advices had adverse effects on some of the student’s relationships. Hugo struggled with his father’s two advices that elevated ‘normal’ people’s thoughts and actions above those of ‘abnormal’ people. He lacked confidence, lived in fear, and was guilty of his actions, real or imagined. Hugo
explained that his father’s advice, “Believe what you are told and do what you’re told”, left him confused. It affected his “self-concept... self-esteem [and] became completely very dependent on what other people thought of me. ...it came to the point that I didn’t trust even my own perception of what action words were unless someone else told me about it.” Additionally, he was worried that people would “notice my micro-expressions in a weird situation ... and jump to a conclusion that could ruin my life even if it is not real or there is no actual evidence for the assertion”. Furthermore, Hugo explained that he felt guilty and kept “doubting myself beyond reason”. His father’s advice of ‘don’t trust your own judgment’ and guilt complex affected his relationships with peers. Hugo mentioned that he had “trouble with ... social skills... because of the "don’t trust your own judgment” so he struggled with socio-emotional issues that negatively influenced his education.

Hugo and June reported that their guilt and fear emanated from the mistreatments, misunderstandings, or misconceptions of their behaviors. Hugo mentioned that his father treated him as the source of problems at home: “… they act like I am the problem person, and they treat me like I am the cause of everything that goes wrong.” The combination of blameful attitudes and his disability left him vulnerable to social manipulation, which is captured in the excerpt below.

HUGO: ...my sisters are an exception... he [Hugo's father] kept [blaming] for everything that went wrong in the house.... So I mean... you combine that with my social anxiety ... social...mental disability... fear of being misunderstood... it caused me to have a guilt complex...

Hugo felt “at fault even if there is no reason for me to be”. His mind envisioned other people as cynic and their actions as ominous. He was also concerned with micro-expressions, that people would notice and misjudge his attitude: “someone will notice my
micro-expressions in a weird situation ... and jump to a conclusion that could ruin my life even if it is not real or there is no actual evidence for the assertion....” He added, “It actually caused me to be pulled out of a line in an airport because I was nervous for no reason.”

**Summary of Social Demands**

The student participants’ P12 through college education was adversely affected by social demands, which were related to individual, institutions, instructors, peers, and family factors, as illustrated in Figure 3 below. Individual-related factors made it difficult for the students to socialize successfully with peers, teachers, and family members. Stigma and stereotypes, as a result of disability and illnesses, contributed to their social challenges and exclusions that limited their involvement in learning. Thus, the students struggled with self-reconciliation, liminality, and identity issues. They also experienced challenges in meeting others’ social expectations, which contributed to their histrionic behaviors, further affecting their social relationships and opportunities to develop interpersonal and social skills. Disability and illness led to invalidation, guilt, and feelings of insignificance. Invalidation also contributed to skewed relations which favored those without disabilities, making it difficult for students to develop trust in others and confidence in themselves. Deficient relations led to misunderstandings and disparate expectations that again made interactions difficult. The institution also contributed to social demands experienced by the students. Non-inclusive schoolwide culture increased social hurdles created by disability stigma, illnesses, and lack of role models. In some schools, students with disabilities were taken to a different school, which made those with a less physical disability feel insecure.
There was limited literature on disability, some classes such as gym class were inaccessible, and other school environments were simulated. Some of the instructors were rude, prejudiced, disinterested, had an over-generalized perception of disability, and held low expectations of the student’s learning abilities. Most of the students had limited interactions with peers because of the aforementioned reasons. Disability, illnesses, and hospitalization led to exclusion, or caused students to become removed from the school environment. This alienated them from their peers, and because of disparate discourses (e.g., teen discourse of fun things versus participants’ discourse of doctors’ appointments), peer relations faced difficulty. Disability stigma, stereotypes, and prejudice led to discriminations, bullying, and unfair treatments. The students also experienced difficulties in developing relationships with other students with disabilities because of ingrained beliefs or orientation. Therefore, they struggled to navigate their social milieu. In addition, other members with disabilities, comparison to siblings, and over-expectations led to tense relations in the family, which limited sharing of ideas and often limited much needed socio-emotional support.

The non-inclusive practices reduced student’s sense of belonging whereas they felt normalcy overrode a sense of diversity and inclusion. The students felt robbed of their humanity. Their internal and external struggles with negative cultural practices caused them to deal with physical, psychological, and emotional mistreatments that affected their individuality and confidence. They were distrustful of others, lacked assertiveness, and were easily frustrated. Disability, ill health, and medications also contributed to them being unreliable partners in class projects; hence less likely to be chosen by peers, and because of their low socialization, they dealt with fears and
anxieties and communication problems. Moreover, they struggled to take advantage of social opportunities, particularly during their P12 education period. Because of limited interactions, misunderstandings, miscommunication, and sensitivity to issues, the students experienced numerous challenges in their learning processes, in their home, and school communities.
Figure 4. 3 Factors that Contributed to Social Demands.

**Peer-Related Factors**
- Disability & illnesses—disability stigma, fear, exclusion
- Hospitalizations, alienation, fear of contagious disability; Discourse of dis/connection, change of statuses & alienation, lack of belongingness
- Heterogeneity of disability; lack of allies
- Histrionic behaviors
- over-reactive, over-analytical
- Skewed relations in favor of non-disabled
- Negative impact of parents’ advices

**Instructor-Related Factors**
- Professional dissonance: prejudiced, unconcerned, uncaring, unsupportive, low expectations, over-generalized perception of disability

**Institution-Related Factors**
- Non-inclusive schoolwide culture
- Stressful learning milieu
- Inaccessible gym classes
- Segregation of students with disabilities, literature omits disability, lack of belongingness
- Simulated special education program
- Social hurdles caused by disability, illnesses, age, inaccessible social places, normalcy, guilt complex, fear of the unknown, lack of mentors and role models

**Family-Related Factors**
- Tense family relationships, comparison to siblings, frustration, over-expectations, hard on the child, over-concerned about the child’s health and safety, fear for the child’s future causes anxiety, over-controlling, apprehensive
- Consequence of parents’ advice—low self-esteem, under-indulgence, over-cautious, over-analytical
- Limited emotional support
- Adverse effect of parents’ emotional insecurity

**Individual-Related Factors**
- Disabilities, illnesses, disability stigma, stereotypes
- Lack of individual’s self-reconciliation, liminality, disability awareness, struggle to meet expectations, histrionic behaviors—e.g., over-cautious, over analytical, & lack of agency; Guilt complex, fear, anxiety, low self-esteem, self-doubt, mistrust, limited interpersonal skills, skewed relations
- Disparate expectations and distrust of service providers
Social Competence

Social competence refers to “the ability of an individual to thrive in his or her social environment” (Stump, Ratliff, Wu, & Hawley, 2009, p. 28). In a school context, social competence is a student’s ability to know and understand the acceptable social repertoires in the community, to adapt to the expectations of the community at each developmental stage, and to determine appropriate behaviors to use in a given educational milieu (Vaughn & Hogan, 1990). The student participants in this study shared that their social competence derived from individual initiatives, their families, peers, teachers, and community. Their home and school environments provided them with opportunities to learn and conform to the appropriate behaviors expected in their communities. Factors that contributed to the students’ social competences were related to individual, institution, teachers and academics, peers, and family members.

Individual-Related Factors

Individual Abilities. As mentioned earlier, non-cognitive abilities contributed to participants’ competences and successful navigation of systems and eventually transition to college. A non-cognitive ability that contributed to participants’ successful navigation of their social environment was self-awareness.

Self-awareness. Self-awareness refers to knowing one’s abilities (i.e., strengths and weaknesses), skills (e.g., self-determination), knowledge (e.g. about rights and responsibilities, services, career), and feelings and desires (e.g., of friendly), while awareness of others involves knowledge about the society and its compositions (e.g., families, friends, educators, teachers, specialists), their roles, values, attitudes, cultures, and language (Field & Hoffman, 1994; Lewis, 1990). Self-awareness and awareness of
others influence socialization and learning processes (Field & Hoffman, 1994). Individual students that are aware of their circumstances and others’ situations are able to control their lives, to advocate for themselves, to navigate different (school) systems carefully, identify problems and provide solutions to the problems, and to plan and set realistic goals for their education and career development (Webster, 2004).

All of the students accepted their condition and identified with it. For the most part, they had a positive attitude of themselves despite their disabilities and illnesses. They took their disabilities positively after getting diagnosed or as they matured, which helped them strive to lead meaningful lives without getting bogged down by their conditions. The students ended up achieving in their academics in the face of demands. They described embracing their disabilities/illnesses and accepting the lived reality, that it affected their daily life. They attached value on positive behaviors they exhibited or claimed, viewing themselves beyond the frame of disability that influenced the external interpretations; that is, how they were seen and defined by others. They were well informed about their disabilities and health issues. They described their disabilities and/or illnesses as congenital disorders although for others the condition manifested later in life while in high school. They reported being aware of self; they described self as separate and distinct from peers with and without disabilities. They were also knowledgeable about their circumstances and disabilities, as well as the influences they had on their own behaviors and the behaviors of people in their home and school environment. They were aware of the onset of their disabilities; the effects of their disabilities on themselves and others, how it affected their relations with family members, peers, teachers, academics, and their communities. They knew their disabilities, they
knew the circumstances under which their disabilities influenced their behaviors and that of other people. They were aware of the causal factors of their disabilities, surgeries they had, the type of medications they were on, interventions they received, and the assistive technologies they used to mitigate their conditions. The students shared the effects of their condition on their social and education life, their relationships with parents, peers, friends, and teachers, and the decisions or actions they take to ensure their successful education, future careers, and interactions with people.

Hera, Hugo, June, Kim, and Rita shared that they experienced monumental challenges in school; however, they had the conviction that they could manage the demands, with and without support and accommodations. Their strong convictions contributed to their tenacity and investment in their education, which saw them succeed. June reported that she was positive even in the face of challenges and although life was rough during her freshman years of high school and college, her awareness of her potentials helped her weather difficult circumstances. A social life was difficult for June but being aware of her capabilities (e.g., to play music instruments) she joined many student organizations including school band, which tamed her loneliness after meeting genuine friends who supported her in her school journey. Also, Rita reported that she “was a very involved student ... [and] at some point I felt like ‘you have more student organizations than most of the kids.’ Like I kept busy [knowing that] getting out here ... [I would be] in need of all these things.” She had a positive attitude of herself and the drive to go to college of which she was convinced “life is going to be so much better.”

With time, the students came to appreciate their disabilities; they became masters of their conditions to the extent that they taught others about it. June and Mei reported
being very positive about their disabilities particularly after moving to college and so they engaged in awareness and advocacy of their disabilities, illness, and circumstances. In the excerpts below, Mei and Rita described their disabilities and effects on their lives, and why they believed they were the authority of their condition.

MEI: ... [my condition] is called Stickler syndrome. ...it’s a rare genetic disorder, it’s a mutation in the collagen gene CO1A, CO2A, CO3A, CO4A. I found it in the dictionary or the encyclopedia because I have to actually educate my doctors about it, but it causes a lot of things from eye issues, like glaucoma. There is a non-ocular type though. There are four types. I have Type 1. Type 2 is non-ocular. Types 3 and 4 aren’t commonly seen at all. ...they cause eye problems, ear problems. I had a lot of ear infections, it can cause premature hearing loss, and joint issues because the cartilage in your joints break down. I have arthritis already at 21. //... I think it is a cool perception about Stickler syndrome. I mean ... not that everything is cool. But I think it is ...I think it is awesome that I have to educate my doctors on the stuff... because then they can't tell you that you're wrong...

RITA: ...It is not clear ... [whether] the brain malformation was there since I was born.... ... the [brain] malformation it is ... that the pressure is built up in the spinal cord where ... there is a hole in your spine basically that is connected to your brain. That hole is very small; it just allows your spinal cord in, like allow the blood veins to go in, and different organs go through but not big enough like to allow the brain to force through it. ... So the malformation is basically pressure build up in that area that forces the brain through that hole which ends up blocking the spinal fluid, blocking the blood flow, which causes a variety of symptoms. ...Mine was ... like a hole larger than normal. That is why I was hurt severely.... And then with chronic migraines, no one knows when they occur. It starts mainly like in teenage years. So, they occur during high school. They are chemical imbalances that occur like during teenage puberty....

This knowledge of self helped the students manage their conditions and relations with others. They knew they were not contagious or risky to others, and being in public was not a threat to the public. This was the source of their confidence.

Some students even found their diagnosis to be a relief to self and to the whole family for it helped them identify with the anomaly. Diagnosis of their disabilities and
illnesses helped Hera, Hugo, and Rita for example, to use appropriate medications or interventions to mitigate their pain. It also helped them engage in awareness and activism. Hera described that before age 16, she wanted to know her ailment. After being diagnosed with systemic lupus, she and the whole family were relieved. They accepted her condition, and became involved in lupus awareness especially after she moved to college. She described the diagnosis, “they said, ‘You have lupus’ ... I was ... really happy that there was some sort of name to it.” Similarly, Rita shared that it was a relief after she was finally diagnosed with brain malformation. The excerpt below captured her feelings.

RITA: ...So that was a fine experience after we found that out. I had surgery my senior year of high school so most of my high school I was in depression that I had Tourette with severe migraines. Come my senior year it was like no this isn’t Tourette; it is brain malformation; you need surgery....

The students identified with the collective or communal characteristics based on shared dis/abilities, race, origin, feelings, happenings, and experiences (e.g., bullying, discrimination, struggles, or isolation). For example, Kim described that he had grown up with visual disability identity: “…I can’t remember a time when I was not visually impaired or relatively shorter than the rest of my community. It’s just been my life ... to find ways around it and to deal with it.” Also, Rita’s journey to acceptance of her disability identity after years of living in denial was convoluted. It took a lot of introspections to accept that disability was one of her qualities. She described her struggle with illness, then her indignant denial of the disability identity before she turned 18, and finally, her embrace of disability identity as she was exiting high school and moving to college. The excerpt below captured her journey to accepting disability identity:
RITA: ...The high school recognized that I was sick but didn’t recognize that I was sick enough to be labeled disabled because I was smart enough to be out of the disabled spectrum even though intelligence is not related to disability.... I was treated like anybody else. It didn’t matter if I was sick... I was considered normal.... If you would have asked at 14 if I was someone who had a disability, I would have said no. I’m totally fine, even at 17. I always said I’m sick but not someone with a disability. Come 18, I was 'disabled fits me'. So, when I came to college at 18, I identified with the disabled. I’m definitely not a normal person.... I’m a normal person but not the stereotypical normal college student....

While the students recognized their individual, unique qualities, they embraced collective characteristics. They identified with their specific disability group such as autism, cerebral palsy, blindness, and lupus. They described how shared disabilities or experiences connected them with other community members. For instance, June shared that in high school, she and another friend with a disability saw the same doctors for their illnesses. Their friendship blossomed as a result, and they socialized and supported each other emotionally even after graduating. Their families also came to know each other, which resulted in a larger reciprocal group. She mentioned, “My best friend in that program that I still talk to, she and I were like two complicated cases they got to handle. They had no idea what do to with us.” She did not “get to see her so much” now because she lived in California but maintained contact through Skype. Her friend was “so sick now she bounces in and out of the ICU”. Mei also reported that as she matured, she got connected with virtual families that provided encouragement and significant information about managing stickler syndrome. Also, Hera has an association with families with systemic lupus who were very supportive socioemotionally. The opportunities to identify with other individuals with disabilities provided assurances that helped them navigate successfully the social realm.
While the students found pride in their unique disability qualities as they matured, they struggled to accept some of the shared disability qualities. They resisted some of stigmatized perceptions they received from others; to them, they did not fit well with their own perceptions, which made it difficult for them to develop relations with peers and adults without disabilities. At the same time, it was learning experiences that helped them navigate their social milieu without causing serious conflicts. All of the participants, except Hugo who was diagnosed with Asperger’s syndrome, delineated their physical disabilities from mental disabilities with the intent of displaying their cognitive competences to manage academic demands. Students with physical disabilities described their disabilities by underlining that it did not affect their intellect, which is a stigmatized perception. June shared her distaste of peers who rumored that she had a mental disability when she was in the wheelchair after breaking her ankle. She was critical of connections of mental disability and learning disability with physical disability, and was worried that being considered having emotional problems could hinder her pursuit of medical school. She was also critical of doctors who identified her health problems as psychological. To her, people that tried to link her cerebral palsy condition with mental or psychological issues were horrible. She reported that “people are horrible” after “one girl in my class ... went around and told everybody that ... I was permanently in a wheelchair ... [and] that I had my brain surgery for attention.” Also, she mentioned that she saw a “doctor [who]...was more interested in lecturing me how I need to be in college than solving my medical history or my medical problem”.

Although both Kim and Rita had brain tumors, they pointed out that they were not mentally disabled. Mei described her problems with speech early in elementary
school, “I had a difficult time speaking naturally as most people do because I had a physical barrier ... not mental”. Zeus described himself as physically disabled but not mentally disabled, “the perception of most people if you’re in a wheelchair is you have a mental disability”. Kim stated in relation to his disability that he was mentally fit to manage academics at all educational levels given the right resources and support, the “right avenue to accommodate the learning and the independence”, which is captured in the excerpt below:

KIM: I believe within myself that it’s [visual impairment and short stature] not an intellectual barrier at all. //...Disability at its heart is a visual disability, and that’s pretty much all it is. I believe within myself that it’s not an intellectual barrier at all [his visual impairment and short stature].

While all of the students embraced their disability qualities, the majority of them were uncomfortable being interviewed in the presence of colleagues despite the fact they shared disability services, classes or dorms. Guilt and stigma influenced their disability identities and relationships. At one time during my interview with Hugo, he requested that a colleague with a disability who had walked into the interview room leave before he would continue with the discussion of his experiences. Also, at one point during the interview with June, she changed her personal topic to a general topic when a colleague walked into the interview room.

All of the students were aware of their intelligences and believed they were academically competent to manage coursework, and to meet the expectations of teachers and peers. They stated that they were smarter than most of their classmates, and that disabilities and frequent sickness cost them academically and socially. Awareness of self-abilities helped participants confidently navigate their social milieu. They reported that they were less intimidated by the social challenges; however, it was a learning and social
opportunity that propelled them forward with their education. Placements in inclusive learning environments exposed them to different learning and social opportunities that nurtured their non-cognitive abilities such as confidence and perseverance. They were also able to compare their behaviors and performances with peers and form relations with some empathetic individuals, and through interactions, they learned to manage themselves in the school and public. For example, Mei and Rita were in the gifted programs, and although they experienced social isolation, they competed fairly well with peers without disabilities. Also, Hera, June, and Rita were frequently bogged down with illnesses or injuries that caused them to miss school for several weeks; nevertheless, they were self-determined to succeed in their educational pursuits. Regardless of their situation, they maintained good academic grades, which earned them respect from peers. Their abilities to outperform their peers in course work were the source of pride and encouragement that pushed them forward with their education. They believed in themselves and persevered.

Belief in one’s own capabilities motivated students to work hard in school despite the internal and external challenges they experienced. They believed their performances were not reflective of their true potentials, and that with appropriate support and accommodations, they could do much better. June reported that although she graduated from high school in time, her academic ranking was unreflective of her abilities because of sickness. She reported that she “graduated twelfth in my class of about 120” which was way below her number one ties in her sophomore year: “It was frustrating to lose that one” because “my performance was always way above par.” Similarly, Rita reported that when she graduated from high school, her actual class rank did not reflect
her potential. She reported, “I felt like I have those capabilities to go to college.” She also reported that in her “elementary school... there were three different groups” of students, categorized into tiers in all subjects, “the higher level kids, the middle level kids, and lower level kids [but] I was the only one in the highest level groups in everything.”

Moreover, Rita was home-schooled after the magnetic resonance imaging test (MRI) revealed brain malformation. Rita reported homeschooling herself under the recommendation of the school that she was a health risk: “the school was like ... if this an insurance risk factor you've got to stay home for its safe for everyone.” She was aware of her capabilities to manage high order concepts. She considered herself advanced academically. She also had taken all the required classes to graduate. She mentioned that “I had all As and Bs my whole school career while in high school. // ...I was like why wouldn’t I go to college.” So, she resisted teachers’ attempts to push her to switch from advanced placement (AP) and honor classes to regular classes to be provided with tutors. The classes were less challenging, less motivating, and teachers held low expectation of their students. She declined the offer to avoid being academically stifled. She reported, “Half of my senior year, I was home schooled or kind of taught myself because I had taken all senior classes and there was no college level tutor for me”. She managed to meet the school requirements to graduate, which helped her move to college. Also, Perry reported that he was “fairly capable so I want to touch the limits of what I can and I can’t do”. As such, knowing one’s own capabilities helped him advocate for himself and seek support with accommodations as needed.

Students were keenly aware of how their disabilities and illnesses positioned them in the social realm. They described being conscious of their disabilities and its effect on
their relationships. They were familiar with triggers of their behaviors such as anxieties or migraine headaches, and so they took precautions to reduce negative behaviors. The students’ own knowledge and awareness helped them explain their situation to peers and adults, and because of that some of them were empathetic and friendly. For example, Hugo, Mei, and Rita reported choosing to live in single rooms on campus residence halls because some factors such as noise, lights, or smells predisposed them to certain behaviors that could make their roommates uncomfortable. Living alone allowed them to control their room environments and academic schedules. Rita reported that her migraines were easily triggered by changes in the environment such as noise, light, and weight; thus, living alone gave her the flexibility to schedule her sleeping and waking time, and to manage the noise and lights. Hugo mentioned that his fear or anxieties were easily triggered by certain words (e.g., come here) or actions (e.g., clapping). Hera also reported that direct sunrays triggered lupus and fatigue: “if I’m in the sun for more than 20 minutes, I’ll get a really bad rash on my face … [and lupus] causes … really bad fatigue.” She took precaution whenever she was outside in the sun. The students’ experiences helped them navigate their environments and to maintain their positive view of self.

The need to build a social network outside the home motivated some of the students to work toward attending college. Knowledge of their learning capabilities stimulated them to initiate activities such as submitting college applications. They were resolute in their decisions, which was based on their judgments of their capabilities to manage college tasks. June resisted the deficit views of her parents; instead, she wanted to construct a ‘college identity’ just as her former schoolmate had done. She diligently
prepared and submitted the college applications confident that she could pursue a higher education. After admission, she participated in a campus visit even though it tired her out. During the first semester of her freshman year, though sickly, she never informed her parents out of fear that they would take her home and never allow her back (because they worried of her health).

Students’ awareness of their social milieu helped them navigate the systems. They became familiar with the dynamics in schools and classes, and how their relations with teachers and peers affected their access to quality and quantity learning. They maneuvered through challenges to enhance their learning and success in their environment. They embraced factors that motivated them to overcome obstacles. Hugo shared that teachers in comparison to his peers without disabilities valued students with disabilities less in his school. However, at one point, he and his colleagues contested disparaging teacher behaviors. Likewise, Mei described being cognizant of the sources of disability stigma as people with disabilities not fitting in the “White male normative.” She believed in making personal decisions that assisted with her productivity. She reported that she was aware of the impediments her disability had on her academics, but she “appreciated” her placement in the gifted class. Limited support and accommodations coupled with the need to escape a traumatic high school environment inspired her to invest in her academics. In the gifted class, she was forced to compensate. She mentioned, “I compensated very well [her disabilities] ...because [that] I have a very good drive for education now because I was held up to the same standards as everyone else.” Rita was cognizant of the law, her rights, and her own learning capabilities. Rita reported that although the high school denied her tutors for AP and
honor classes and even though she did not to push for the tutors, she was informed of the law that required schools to provide students with tutors irrespective of the classes they took. She mentioned “the law requires that the school pays for the tutor when a student requires one…. But I didn’t need the tutor as much as the other people did, otherwise I would have demanded it.”

Participants reported being aware of their social environments, which helped them perceive the social circumstances rationally. Their perceptions of real situations helped them maintain an objective demeanor in the face of a stressful or emotional state. They knew their illnesses and disabilities, and the need to stay physically healthy in order to pursue academic work and lead a healthy social life. They were conscious of taking care of their health by eating healthy, taking medications, or attending medical checkups. Also, they were aware of health services, family doctor, and were acquainted with the risks associated with smoking, drinking, using drugs, pregnancy, or sexually transmitted diseases. Those on medication such as Hera, June, Zeus, Rita, and Hugo knew the name and dosage of their prescription medications, the reason for the medication, and their potential side effects, and so they adhered to their doctor’s orders. Others who were allergic to some foods avoided it altogether. Some students knew where to seek help when they experienced depression. Some sought the counsel of their counselors from the disability services office. Some took measures by themselves (e.g., June’s police restraint).

The students shared having limited engagement with peers and teachers during their P12 period because of disability stigma, misunderstandings, alienation, fear, and being cautious, which cost them valuable learning and social opportunities. But when
they moved to college, the students invested in building social relations to the best of their abilities. They participated in college events and activities, some organized by student organizations and clubs. Most of the students made personal behavioral changes to improve their relations with peers. They developed more self-assurance and confidence, which led to more social interactions and a positive college life. For example, Perry shared, “I am kind of naturally shy. So I didn’t meet a lot of people.” Hera reported that in “high school, I was much more timid than I am now.” Perry and Hera were very involved college activities. Perry reported that in college he was involved in the student organizations and retreats they organized from where he “connected with other people” through “team-building activities”, which challenged him physically. June shared that her social isolation and frustrations was because of the struggle with disability stigma; she felt she was caricatured because of her wobbly walk that did not fit the normal human gait. However, her source of strength and confidence was the conviction that her academic performances were much better than that of her peers. She reported of people that think she is stupid: “because I walk slowly… that I’m stupid…. No, I’m pretty sure my GPA is higher than yours.”

Institution-Related Factors

Institution-related factors that facilitated students’ social competence were placement in regular schools or inclusive schools, student organizations and clubs, opportunities related to learning, working, and socialization, and institution-community partnerships.

Regular Schools and Inclusive Learning Environments. Regular schools and inclusive learning environments provided a rich social environment for peer learning.
General and inclusive learning environments exposed the students to a myriad of social behaviors. All of the participants described schooling in a regular or inclusive school most of their P12 education period, except during the transition period to college or when some were sent learning materials in the hospital or were home schooled due to illness. Mei was in regular school from kindergarten to high school with a 3,000-student population. While Rita attended regular school the most part of her P12 education time, she home-schooled herself during the second semester of her senior year after being diagnosed with brain malformation. Likewise, Hera was in regular school until her illness manifested, and she was hospitalized intermittently most of her junior year of high school. From kindergarten to sometime in fifth grade, Hugo was in regular school before moving to an inclusive school for children with and without Asperger’s syndrome. On the other hand, Zeus attended regular school most of the P12 education period, but he was segregated in fifth grade for a semester and then he attended an inclusive vocational school during his junior and senior years. He reported that “the only time I was segregated was ... in the 5th grade ... they had me spend a lot of time in almost a specialized room.”

Student Organizations and Clubs. Participants reported belonging to student organizations and clubs, which helped them break social barriers. They reported that their disabilities and illnesses made them vulnerable to social stigma. However, involvement in student organizations and clubs attenuated some of the social isolations, and kept them busy. The students and their peers were involved in various programs, which helped them feel like a significant part of the school community. Other social activities that helped participants socialize included watching football, and involvement in extra-curricular
activities. For instance, Mei was initially a member of some clubs in the “first two years of high school”. She mentioned belonging to “dance classes, jazz dancing classes... Disney club. And in junior and senior year, I did ... the French club.” The students also met peers and developed friendships with others. A number of them had steady friends and reliable classmates who treated them with respect, and helped them navigate the rough terrain in school. In high school, Perry described joining friends to watch school football, although he was not involved in extracurricular activities. Also, Zeus reported that he was not very much involved in the school’s extra-curricular activities “until my sophomore year that I went places. I got more involved in the school, I went to football games, I went to basketball games...I then joined what was called the photo club...in the junior year.” In junior high school when life was rough, June reported that her “parents forced me to join the marching band.” Even though she “was not happy about it, I didn’t want to do this” it turned out to be a big blessing as she “was a very involved student ... at some point I felt like you have more student organizations than most of the kids.” She said of parent’s encouragement and her experiences: “If it wasn’t for them, I probably would have had an even harder time making friends because at the end of that dance, which is typically the second or third month of the school, I was pretty bubbly to the people for five days of the week.

Furthermore, while elementary and high school was challenging for some of the students, most of them found college life amenable. Involvement in institution events and activities exposed participants to peers with and without disabilities. Through interactions, they were challenged to reflect on their own behaviors, and to interrogate disability stereotypes.
In college, the following factors contributed to participants’ social competences: spaces for learning, training, and social opportunities; providing mentors, role models and supporters, student organizations and clubs, spaces for re-imagination and healing.

**Socialization Opportunities in College.** Most of the student participants reported college life as very satisfying. It offered more socialization opportunities than P12. The students were very happy with their environment; they had friends that were more intimate, were in control of their schedules, and managed their own disabilities. College life also exposed them to international students. For example, Hera had a boyfriend from another country. Rita was taught by international graduate assistants who exposed her to different cultures and accents of spoken English. Mei first attended Clarisin Community College (CCC) and liked the classes even though she needed to adjust socially. She was more satisfied with Savvy University Main Campus than Clarisin College and her high school. Even though “Some people told me that it’s daunting [Savvy University], why in the world would you want to be visually impaired walking all over Saint City.” Kim was happy with the choice he made because he “loved Lumbusco City... and Savvy University ...because you can walk to everything or bus to everything”. Also, Zeus found Savvy University Main Campus very lively in comparison to Goodhope University where he did his freshman year, and Greenbow Ling University where he took summer classes in 2013. Zeus reported “Goodhope University is more of a commuter school. ...on weekends everyone was like dead”.

**Spaces for Re-imagination and Healing.** Colleges provided spaces for re-imagination and healing. While high school was socially challenging for Hera, Hugo, June, Mei, and Rita, college offered them a different platform to start over and establish
a new social life. Mei first attended a community college immediately after her surgery to take out the blind eye, and then she transferred to Savvy University Main Campus. In all instances, she described her college life as being much better than her high school life. As captured in the excerpt below, she described coming to college as “amazing” for it offered her healing opportunities after a traumatic high school experience.

MEI: ...Coming to the university has been amazing because I got to meet so many different people.... I was in my little bubble [in high school]. It was draining. ... Everyday ... college has been good for my schedule. // It has taken me 2-3 years removed from high school to finally get over that. I don’t want to sound dramatic; but K through 12 ... was kind of traumatic, honestly....

After having led a passive life in high school, now as a freshman in college, Perry reported turning his life around by becoming actively involved in various social activities organized by student organizations. He was a member of an organization of out-of-state students and through their events, activities, and retreats, he met culturally diverse students from all over the world. The excerpt below captures his positive experiences.

PERRY: ... So one of the things we did earlier in the semester we had a weekend retreat to this large quarry ... in the middle of nowhere, and we did team-building activities like physical challenges. So, that was fun. And we connected with other people. It challenged me a lot, because there was a lot of a physical activity involved. A lot of things I had never done before, like we had one part that we had to swing across the rope from one end to the other over a little quarry. And I just tried it, you know, to see if it works. I did it.

Both June and Perry were maturing in their social behaviors, and college life provided them the opportunities to exploit their potentials. Their self-determination to turn around their experiences for the better was a goal they worked to achieve by deriving
personal rewards for every attempt and involvement in activities and events that college offered.

**Experiential Spaces.** College provided the students with spaces for learning, training, and economic opportunities as well as opportunities such as study abroad, scholarships, and jobs. With employment, students earned income and learned work ethic. They received exposure to a variety of other students, behaviors, and cultures, which enriched their experiences. For instance, Kim worked at the front desk of the disability services office, while June, Mei, and Rita worked as Resident Hall Office Student Assistants. Through these opportunities, the students practiced and acquired work ethics, and they earned money for personal use. For instance, June was planning to participate in the study abroad program during summer 2015 and to pay for the cost by herself. She said of the cost of the program, “...it is like paying tuition it ... something between $5,000 and $6,000 ... I am $500 short right now. ...I wanted to pay for the study abroad trip all by myself so that’s why I am doing ... [the job].” On the other hand, Mei paid a portion of her tuition herself after having “summer jobs ... last year [and worked] as an office assistant here [at Savvy University]”. June and Zeus reported that they were interested in participating in a study abroad program over the summer of 2015.

**Spaces for Practicing Independent Living and Self-Help Skills.** College life provided the students with opportunities to live away from home, and to practice independent living skills. It helped them develop their own personalities, self-determination and confidence, which are essential skills for socialization. Participants reported they were satisfied with their college placement and education because they were in better control of their lives; they developed adaptive skills, chose tasks, and
dedicated time and effort to accomplishing their personal goals, which motivated them into leading a responsible ‘adult’ life. Specifically, Perry was living away from his parents for the first time; making independent decisions that he was accountable to, which was encouraging and inspiring. He reported that college made him more independent and normal, that he “felt very normal like I kind of like having to do things by myself.” Also, Hugo did many independent living activities on his own despite “The only thing I have trouble with is time management and a little of social skills.” He reported that he was “more independent than not. I live in my own dorm room, I walk around to places by myself all the time. I know how to shower by myself, I know how to make food for myself.” Likewise, Perry reported that in case of an issue “I know who to go to, and I know people would respond. So, I know my interaction with the university. Before I came here, people were very helpful and people were very ready to listen. So I knew it was a positive environment.”

**Instructor-Related Factors**

Teacher-related factors that contributed to the student participants’ competences were teachers’ as social partners who provided social opportunities.

**Social Partners and Opportunity Providers.** Students learn many things from teachers through formal and informal interactions, both in the school and outside school. Teacher-student communications allow for both learning social and academic repertoires that have long-term effects on students. Healthy teacher-student interactions play a pivotal role in influencing their educational outcomes. June reported that she missed a lot of school days because of illness and that no one expected her to graduate that year. She reported that she got “back in the school ... [in] late February... [and that] because of
cerebral palsy ... [she] missed seven consecutive months of my senior year.” Her parents and teachers “were not even sure if I’m going to graduate.” However, she says that her “principal ... and his entire family loved me, and some teachers loved me so much”. They provided essential support that allowed her to graduate from high school. She mentioned, “I still got out of high school in time with honors.” She also shared that her English teacher “was really, really a good person [and] he was my emotional supporter.” Moreover, she reported that even after she joined college, she maintained a close relationship with some high school teachers who wished her well in her endeavors. They continued to motivate her in her education journey so she could achieve educational and career goals. After moving to college, “a lot of them [teachers] are really happy where I ended up.” She reported receiving continued support, guidance, and motivation from her English teacher even after she graduated from high school: “...after I graduated ... my high school English teacher, he was still like ‘okay, so what's your plan, how are you getting to college, what are you gonna [going to] do, where are you applying.’ ... ‘I need to proofread your college application.’”

**Caring Teachers.** Caring teachers made students feel valued and helped them belong. The students reported interacting with caring teachers who supported them emotionally and helped them focus on their educational needs. Some of the teachers nurtured their self-esteem, self-confidence, and self-assurance. June reported that some teachers provided support that made it possible for her to take tests out of class and to graduate. She reported that “when I was in my sophomore year of high school, people would respond to me like throw me into the trash cans, like I was everyone’s punching bag.” But some teachers would take action against the bullies. She shared an instance
when a teacher noticed that she had bruises and rushed to the principal for consultation: “One of the teachers saw the bruises I had and after that class period she was down in the office”. Moreover, June reported receiving social and emotional support from teachers, which helped her value herself and invest in her education. She shared that she was overwhelmed with sickness but the “English teacher was there during the dark moments of my life”. He helped her feel worthy. She mentioned that equally “it was very important for him [the principal] on a personal level to see me graduate from high school on time.” As shown in the excerpt below, June described the principal’s reaction (recognition, pride, and acknowledgement) of her success as invigorating.

JUNE: …in my high school, during graduation ceremony people go on stage, they announce your name, like what you did in school. …with mine, I got up there...like 30 seconds pause because he couldn’t manage to say my name because he was trying not to cry, because it was so important to him... their whole family came to my graduation party. It was...such a big thing....

Some teachers made socialization difficult while others made it easy. For example, Rita described a situation where the school administrator stepped in to solve her problem with another teacher over a late assignment. Rita shared that one teacher would not provide accommodation with a late assignment, and the school administration stepped in and helped solve the issue in her favor. The excerpt below captures her experience.

RITA: … I had a teacher who was not willing at all [to provide accommodation] and my mom went to the vice principal … and said ‘what’s going on?’ And the vice principal then called her and made her follow the rules, because she wasn’t willing to even follow the school rules. … the school rule basically stated that if you are sick a day, you get time to make up the assignments. And the teacher, her point basically was that my assignment wasn’t turned in even when it was assigned while I was sick. So if it was an assignment given out on Monday and it was due Wednesday and I was in class on Wednesday I had to turn it in even if I didn’t know about it.
The students also reported that in college, some academics were social and supportive and that they collaborated with the disability services office (DSO) staff to create enabling learning environments.

**Peer-Related Factors**

Peers, friends, and confidants contributed to the student participants’ competences by creating amiable and enabling environments.

**Confidants and Comrades.** Students shared that their social life was challenging particularly at the high school level; nevertheless, they had confidants and comrades that helped them to relieve social stress. Confidants and friends inculcated peer relations and were protectors and supporters who contributed to students’ academic, social, and emotional competences. Their encouragements and interests in what they were doing helped them become settled and remain focused on their educational goals. **June** reported having a “best friend growing up” who never asked “what is wrong with you” but instead he was very supportive emotionally. **Mei** reported having “one good friend, best friend from third grade through high school, very much to tenth grade”. While **Perry** reported that he was “naturally shy”, but his peers treated him fairly. He could not “remember anytime of bullying or something like that.” **Rita** shared that she had two reliable friends in elementary and middle school “[b]ut then come high school, I started getting sick and we started taking different classes and so I didn’t have them around anymore”. Still, she “knew people in my classes and could get notes from them”. **Hera** reported having a “really good friend ... that I tell most of my stories to”. Even after moving to college, they kept in contact. In the excerpts below, **Hera** describes the benefits of her friendship:
HERA: ... it’s been really helpful to have him and to just be able to have someone to talk to. ...he’s really supportive and just really helpful. ...So when I tell him stories, like frustrating stories like maybe my doctor messed up something or someone said something I didn’t like, it feels like I can give it to him and I don’t have it any more. So then, I don’t have to carry it with me anywhere. And that helps me focus more.

**Friends cushioned the students from social demands.** While schools did little to prepare them for social life, friends provided social support and orientations that helped them navigate their milieu successfully. June and Mei reported difficulties with social school life. However, they had friends that supported them in times of difficulty, filled voids of loneliness, and helped them develop coping skills. Hera, June, and Mei were not prepared to face the social challenges in P12 and college. Mei reported that she “had one good friend, best friend from third grade through high school [who] ...was great.”

Likewise, in middle school and then to college, June faced many social problems including bullying and loneliness, most of which occurred during junior and senior years of high school and the initial part of her freshman year in college. But her friends saw her personhood before her disability; they were very positive in their interactions, recognized her abilities, and provided emotional support as she navigated the social demands, which helped mitigate some of the problems. In high school, she reported having a high school friend with disabilities and when they ended up in the same class, it was a connection of old buddies. She said of her: “And so my high school best friend ended up in the same place I was. So we ended up taking classes together which was great.”

Friends also had them engage actively in certain school activities and in the process, they gained social skills to interact with peers and adults. Additionally, participants reported getting connected with reliable peers who stood up for them when they were oppressed. June reported having struggled to fit in socially in high school and
college but she had a few friends who encouraged and brightened her day. She described moments in which her friends acknowledged her and helped her remain on the academic track when the social demands and health issues made life difficult. Specifically, she described one of her friends to have “helped me keep my sanity so much. It is like I would never have made it through that year without him at all.” Also, in high school, she reported having friends in the same band that she counted on for inspiration and protection. Among her allies was a boy who stood up to a bully to protect her. One time, a classmate “started to make fun of me, to call me ‘leap-master 3000’... it is to say I was like all limp.” She took it lightly but her friend confronted the classmate, which “almost got [him] detention.” Nevertheless, June felt valued and encouraged when a friend stood up for her against a prejudicial peer.

**Positive Peer Relations.** The interaction that students had with a few of their friends assisted with developing interpersonal skills and learning about peer relationships. They reported using their personality to nurture reciprocal relationships with peers. While they recognized that their disabilities attracted unwarranted attention they tried not to be submerged in distracting issues, rather they focused on what helped them achieve what they needed help with. Peer-to-peer relationships created intellectual, supportive and dependable groups, and provided scenarios unavailable from adults. Peers filled gaps caused by lack of shared interests between children and adults who were disengaged from participants’ lives, or held different perspectives about the child (e.g., deficit perception June could not pursue college education or Hugo could not make friends or make independent appropriate decisions). Kim reported that disability stigma “might bother some other people” but he made “make fun of my disability more than most. ... I laugh at
the fact that I can’t see a lot of things” and so “words did not hurt me”. This removed the burden of dealing with disability stigma and stereotypes and “made it really easy to not only just laugh and know what you are and what you can and can’t do.” This also helped him talk about his issues and needs: “It’s all about communication ... More people need to not be so afraid of what other people think of their disability because more or less, if you want help, you need to ask for it.” (In fact, throughout the interviews, he made fun of his disability, the fact that he was short, something that endeared him to peers without disabilities). Perry reported peers respectfully working with him and understanding his situation during activities. The excerpt below captures Perry’s experiences:

PERRY: Sometimes they would realize that I couldn’t do some things but ... in such situations, I was always clear that I can’t go down that hill ... and let’s get some help.... So, they didn’t treat me clearly differently because I was in a wheelchair. I cannot remember anytime of bullying or something like that.

**Role Models and Mentors.** Students met with mentors, role models, and supporters that helped them transition into college, and provided support when they were at the edge of a breakdown. All of the students had reliable friends that assisted them with social and academic activities. People with and without disabilities often struggle with how to acknowledge others without demeaning them. Some of the students had friends who helped them stay emotionally stable, which helped them to remain focused on their academic work. For example, Hera and Perry had friends whom they visited places, or with whom they took part in activities such as cookouts or attending a football game. Hera had football tickets and occasionally she watched the games with friends. She reported on the week of the interview that “this weekend, tonight I am going to
dinner with my friends, and then tomorrow my boyfriend and I are going to our friend’s house because they’re having a cookout”.

In high school, June reported having a role model teacher who supported her in her journey to college. Without her, she would have not graduated and moved to college. Becoming a doctor has been June’s childhood dream, but sometimes she doubted whether she could achieve it, considering the competing factors she faced mostly related to her disabilities. Then, having a role model who shared her goals was itself an energizer. June thus remained on track under the conviction that everything is possible.

In addition, in college, June had a resident advisor as a role model. He guided her with her college dreams and helped her reconcile her body and mind. He helped her focus on her dreams even when she was distraught and in despair. The excerpt below captures the positive impact that the resident advisor (RA) had on June.

JUNE: …I feel like I always wanted to be a doctor … I don’t know how I would get there; it is going to be ridiculously hard…. It wasn’t until last time I spent with my RA last year that I started figuring it out for myself because he was like the best role model for that because pretty much everything that I wanted to be so much he was or he was on his way to becoming. So during early this year, he was like ‘okay you did this, yeah I want to do that. I want you to present it in the office to me and tell me what you think about it.’ What I only had to do is to say ‘yes, I agree with you or no I don’t.’ So being with him was like I want to go to the med school, yes I want to do that too. Or I want to do that and I’m like "oh no I don’t want to do that.” He was very helpful because we’ve known each other for a while and we’re in sync about things. He was incredibly helpful.

June reported being “lonely especially the first two months. I didn’t have any friends at all.” Then the support from the resident advisor (RA) helped her navigate the milieu in time of need, and she said, “I wouldn’t have made it last year [2013] without him [the RA]” and that she “would have gone home”. The advisor was very dependable in that she said, “...I had my RA which I will always be grateful for because he is one of
my closest friends ... I can call him any time about anything and I really know he will always be there.” He was “a good person” who validated her and helped her reconcile herself: “…he was a type of guy ...he would see me on campus and he would start yelling my name... just to say ‘Hi.’ ...Like, “How is your day.” “It’s Okay.” “Just Okay. Okidoki.” She also mentioned that the advisor was “incredible...he actually ended up getting award like RA of the year.” Their friendship blossomed to the extent that she participated in his birthday celebrations: “... He’s my big brother right now and I love him so much. Actually. it's his birthday today and I went on Sunday and helped his girlfriend make a birthday dinner for him.” As shown in the excerpt below, June described the benefits of her friendship with the advisor:

JUNE: ...He’s in the med school here now. ...he was such a nice person; he was pushing me to work harder...just...even when I would be...down he would always be proud of me. ...prompting me to grow but not expecting me to move mountains. ...He always wanted to see the happy side of me and I wasn’t ready to let him down. ...he very much helped reconcile... you know I have issues, the whole ... body and mind thing. ... He was the big emotional support last year.

Disability stigma was one of the sources of June’s social isolation in P12. Therefore, she yearned for recognition and appreciation. While her gait remained the source of unwarranted looks, she mentioned that some peers who could recognize her in a crowd connected with her. In the excerpt below, she described her interactions with friendly peers at college.

JUNE: ...I know that my legs are the first thing that people notice, but I never really realized how much until the last couple of weeks when I’ve been out late at night and people would be like, ‘Oh! Hi! ...like, it’s completely dark outside you couldn’t have known it was me if you didn’t know my walk. But it was really funny because one night I was walking back from somewhere, and from behind me, I heard some coworkers call me and they had all these cupcakes. I was just like; it’s pitch black outside, that’s pretty interesting. ...// Last year, my roommate’s brother picked me out of
a crowd of, like, 6,000 people. I know my walk is a little funny, but I didn’t realize that it was that recognizable.

**Family-Related Factors**

Family-related factors that contributed to the students’ social competence included family acceptance of child’s disability and provision of supports, friendly home environments that sustained participants’ wellbeing, parents as role models, sibling effect, parents support with college transition.

**Family Supports during P12 Education Period**

*Secure Home Environment.* Stable home environments contributed to reciprocal relationships in the family, which supported students’ endeavors. The wellbeing of families made it possible for parents and siblings to provide social supports that enhanced students’ competences. The composition of their families made it possible for them to access material and immaterial things that enhanced their success. Hera’s family consisted of her mother, father, and older sister. Hugo’s family consisted of his mother and father, an older sister and a twin. June’s family consisted of her mother, father, and two older sisters. Kim’s family consisted of his mother, father, and two sisters. Mei’s family consisted of her mother, father, and a younger sister. Perry’s family consisted of his mother, father, and older sister. Rita’s family consisted of her father, mother, and older sister. Zeus was the only child to his father and mother. Some students had family members with some type of disability. Hugo described his family as consisting of people with mental disabilities, Rita and Kim mentioned they had sisters with dyslexia.

Students shared that they had caring and supportive parents. For example, Kim described his relationship with his father as productive; he supported him in all ways as captured in the excerpt below:
KIM: ... A close-knit family and a supportive family was definitely a helpful support in education. I don’t know if I would have had any less of an education or passion to go any further into secondary education if I didn’t have a close-knit family because I didn’t have that experience. But I could definitely say that the support and the help and being together with them were definitely a nice thing to fall back on if need be. ...The youngest [sister] is ... very supportive, very helpful... Ah, my mom would never let me give up. She would never let me use my visual impairment as a crutch... [My father is] ... the best guy I know; dad, father figure, friend. Very helpful and supportive ... anything I need, he’d definitely do it. I can’t drive, but he definitely takes me anywhere that I want to go if need be, if he has the time. ... I had an internship over the summer [and] ... he would pick me up and take me home.

Likewise, Mei described her relationship with parents and sister as close despite being the only one with “a genetic disorder”. She was grateful that her “parents are still together and they’re living at home”. She mentioned the family relationship was “pretty good”, and that her father “helped me with my homework but life issues are more of my mom’s specialty.” Similarly, June described her mother as supportive, and “that one of the big reasons she became a teacher was because she wanted to make sure I would have health insurance.” She was “very grateful” of that because she “definitely needed to see doctors.” Now she never worries “about how I’m going to pay for some things [such as] ... student loans”. June also described her relationship with her father as tensile. While she reported that she received little support from her parents with transition to college, she recognized that it was their worry for her health that sometimes made them indifferent. The excerpt below captures the moment her father accompanied her to Savvy University Main Campus after she was accepted.

JUNE: ...I know he [dad] loves me. I’m very much sure he thinks ... I would crumble under the pressure. //...I was like I am going to Savvy University Main Campus. ...When I got the admission he got kind of excited, like we came over one weekend [because] he wanted to show me around ...the campus..., which was very funny though. Everything he wanted to show
me no longer existed...like they have been [torn down], renamed, or moved. I'm like 'well this has been interesting. Thank you.'

Overall, the students described their families as homogenous and that each member of the family was valued even though some differences within families existed. Because of stability in the homes, students received emotional, financial, or social supports during P12 schooling, when transitioning to college, and after moving to college. The supports relieved them from many challenges and contributed to their competences and eventual success in school. Hence, availability of family support was itself an assurance that inculcated confidence to explore the milieu to their abilities.

Accepting Child’s Disability. Families accepted their children’s disability and helped build their identities. All of the students shared that their parents strived to help them identify and appreciate their disabilities. Their parents invested in resources and time to find information about their illnesses or unusual traits. As such, their missions and effort led to identification of their conditions, early interventions, provision of support, services, and resources. These contributed to their increased awareness of their disability condition, environment, learning potential, and improved self-esteem. Parents’ acceptance of their disabilities helped consolidate their love and care, and opening up reciprocal relationships further motivated the students to positively view their lives. For example, after she was diagnosed with systemic lupus, Hera’s family accepted her condition and provided essential support and advocacy. They also helped build her confidence, motivation, and establish a positive view of her life. Likewise, Kim described that at a young age his mother suspected that he was not growing or developing normally or doing right with tasks. Therefore, she took him to the doctor who identified his visual issues and stunted growth. Kim described that when his mother took him to the
hospital, doctors “found the brain tumor” and from there he was on “chemotherapy” which improved his condition. Even Hugo, June, and Mei who described difficult experiences with parents recognized their families’ acceptance of their disabilities and provision of support that assisted them in persevering and developing resilience.

**Social Support.** All of the students reported that their parents still lived together, which provided them with the necessary support to succeed in school and life. Their family’s social support geared them towards the right direction in life, and the tenacity to proceed on that direction and contributed to individual competence. For example, Perry described that because of the well relationship with his family he was very assured of support from all of his family members, which influenced his positive attitude toward life. He mentioned that his parents have modeled him to care for himself as well as others in need. Therefore, he never experienced as much social challenges as June, Hugo, and Mei. Also, awareness that his parents knew his strengths and weaknesses, what he could accomplish and what he could not, and knowing they were ever present to support him in situations of difficulties, was itself encouraging, it made him approach the world with a lot of confidence. The excerpt below captures Perry’s family’s positive influence on him.

**PERRY:** We get along pretty well [in the family] and they’ve always been really helpful because they know everything that I need and they know my limitations, physically. So they definitely—especially my parents—have always tried to have me do everything that I can. And to definitely have the drive to push myself that I know that if I can’t do something, they’ve always made it clear that that’s okay. Don’t go too far. ...//Probably all of them [be]cause they’ve definitely modeled how to be helpful to those that need it and how to be aware of your own strengths and your own limitations, especially my parents, for those things. But just in terms of, you know, they’ve always been there to help me. So I’ve been taught through that I always need to be there to help other people and to ask for help when they need it. So all of them.
Similarly, Kim shared that his parents supported him and his sisters equally, which nurtured in him positive attitudes (care and resilience). The excerpt below captures their family’s close relationship.

KIM: ...I have two parents and younger sister siblings. ... They gave me all the support I needed. //... So I have a younger sister that is just now going into college, and she has dyslexia. My parents were very supportive of both of us. Just being able to do whatever we want to do and just trying to help us out as much as possible. The youngest is now a freshman in high school…but very supportive, very helpful...

Likewise, Hera reported that the relationship with her parents was close, that her father would expect her to do most things on her own while her mother would want to assist her in every thing. Overall, she noted that their approach balanced out facilitating her growth and development into a hard working person. The excerpt below captures her relationship with her parents.

HERA: ... My parents balance each other out very well. So they’re kind of like these two areas of thought when it comes to disability that most non-disabled people have. It’s either they help you so much because you’re disabled and they want to do everything for you and they need to give you as much help as they can. Or they want to treat you completely normal like there’s no disability that they need to pay attention to. So my mom is very helpful, and she wants to do everything for me, even things that I can completely do by myself, and then my dad is the opposite, where he thinks that I can do everything by myself. So together, they work very well and I get a lot of what I need but also get treated in a way that I’m okay with....

Families also provided support with social participation helping the students to expand their social network by integrating them in their extended families and community activities. The students shared that parents sponsored their involvement in family vacations and community events, which further exposed and prepared them for diversity. The extended families played a crucial role in the stability of children with disabilities and their family. Students shared that good relationships between them and
their parents, siblings, and the extended families ensured their involvement in various types of events. For instance, Zeus stated that his ties with extended families and friends in Europe made it easy for him to visit them. He was exposed to rich information about visas, accessibility, infrastructure, and geographies of Hungary, Austria, Germany, Italy and their towns after the tours to Europe. He therefore understood life conditions of some Europeans, for example, the lives of Roma (i.e., Gypsies), their culture and language.

Kim shared that he received support from his immediate family and extended family; grandparents, aunts, and uncles were “were very supportive”. Rita described her extended family to be large and that events such as Thanksgiving brought together “my parents and grandparents and first cousins, it is like 40 plus people”. Children with disabilities often face exclusion due to cultural perspectives that devalue them; thus, having extended families value them opens doors for the community to accept them. When extended families provide support, families of the children with disabilities can find reprieve from chores, and time to adjust or adapt to circumstances.

In addition, parents sponsored participants for vacations, social events and activities. While disability, health, time, season, workload, infrastructure, and cultural orientation are some factors that limit socialization of students with disabilities, participants described their parents’ awareness of the social struggles particularly in building and maintaining friendships. So they supported their socialization by sponsoring events, touring foreign countries, attending schools in foreign countries, hosting foreign students, attending football matches, going on family vacation, visiting on weekends, and maintaining contacts through phone calls and emails. Through these activity channels, the students were able to meet different people, build upon, and expand their social circle.
For example, Zeus mentioned that his parents hosted international students, which exposed him to culturally diverse friendships with different families. Zeus mentioned that he had a friend from Thailand who visited them during summer and showed up in a coat “because like 70 [Fahrenheit] is their winter.” In addition to his family hosting foreign students, they also attended social events together. For instance, a week after the interview, they attended a football match at the stadium: “So this Saturday my parents are coming and I will go with them to watch the game”. Hera mentioned that she frequently went on “family vacations” and visited relatives in Central America. Perry shared that he lived with his family in France and got the opportunity to attend schools, which exposed him to different cultural orientations and experiences. He learned French and developed interest in linguistics, one of the areas he pursued in college, after living in France. In the excerpt below, Perry describes the benefits of living in France:

PERRY: ... I lived here [in the U.S.] for most of my life, but I have spent four years abroad in France... two different times, two years each, with my parents as they worked over there. //... the first time I was three at the beginning at first, and second time I was 13 at the beginning. [I attended a] French high school and French pre-school. Obviously not in that order. //...And because I kind of grew up in a bilingual environment, I have always been interested in foreign languages....

The students also shared that their parents took them to social events such as amusement parks. June attended various social activities with her family. She specifically mentioned that when she was age 15, her parents took her and her sister to a bungee diving: “The closest I have done is like strapped in this skeptic thing with my sister and we got ... pulled up and then they dropped us down 70 feet”.

Students reported that vacations, foreign tours, and social participation exposed them to new cultures, environments, and experiences. Both Perry and Zeus who visited
Europe while in high school were more informed about different cultures, infrastructures, and education systems; they were also confident in their interactions with diverse groups of people. Moreover, they were interested in explorations through traveling. The students reported that they learned new things in foreign countries through interactions, socializations, and connections. They increased their social network, acquired new knowledge of the host country, learned about the environment, its infrastructure, people and culture and their behaviors/attitudes. At a personal level, they acquired or developed personal skills of independence in the process. Trips abroad helped Zeus become realistic about his disability. He acknowledged that his disability was equally limiting as the environment, and that he was dependent on others although there was a limit to dependency. Moreover, limitations imposed by the environment taught him to self-advocate and to strive for independence.

**Social Support in College.** The students shared that they continued to receive parents’ social support as they moved to college, and after they began classes. This was critical because most of them felt socially unprepared for college even though they were academically fit to pursue higher education degrees. Mei reported that she was prepared academically but not socially: “*Academically yes; but socially, no. ... I think in high school they just focus on academics. ...it is actually sugarcoated. It is like can I just move you on ...to college ...is not all that difficult....*”

**Individual Autonomy.** Parents supported the students in developing independent skills and decision-making skills so they could lead an independent life in college. The students shared their parents prepared them for self-control, autonomy, and guided them through dependence into independence. Parents provided support and advocacy, but also
they provided them with opportunities to exercise independence. For example, Perry and Rita shared that their parents never pushed them toward a certain career or academic field; but instead they were encouraged to exercise their rights and skills to decide what they were passionate about and what they wanted. In the excerpts below, Perry mentioned that his parents understood his situation and always encouraged his independence while Rita shared that her parents supported her independent decision-making as long as it was productive as the excerpt below reveals.

PERRY: ...my parents ...have always tried to have me do everything that I can. And to definitely have the drive to push myself that I know that if I can’t do something, they’ve always made it clear that that’s okay. …And they know that I know what I’m capable of; so I can apply that just like I would many other situations. And if that falls short, I know who to go to, and I can always ask somebody if I need help because I’ve always done that.

RITA: ... So my parents never pushed me to anything. They were like whatever you want to do you can do it. Even now, I decide on my own the course load; if I want to change my major they would be like 'Okay'... They really don’t care as long as I am doing something other than watching movies the whole day....

**Nurture non-cognitive skills.** Parents also supported the students’ development of interpersonal skills, which helped them make friends in college. In particular, college application processes were about negotiations, distance from home, autonomy, access to resources and support, university academic rank, and participations in campus visits and college orientations. Parents provided guidance with college application processes. All of the students made an independent choice of colleges to attend although parents’ input influenced their final decisions. Negotiation of possible college choices helped them make appropriate selections. It also improved their negotiation skills, whereas they learned decision-making and compromising, skills necessary in socialization and advocacy and seeking for accommodations in colleges. Kim mentioned that his “parents
did not have any knowledge of Savvy University Main Campus” and they “pretty much supported any place that I wanted to go to and were very supportive in my choices”.

Moreover, during campus orientation his father accompanied him.

Likewise, Perry shared that his parents, who taught at an out-of-state university, encouraged him to make independent decisions about his college choice. As shown in the excerpt below, Perry described his parents’ support.

**PERRY:** They [parents] always made it clear that I should go wherever I wanted to. Just because they worked at Named Tore University didn’t mean I had to go to Named Tore. Certainly, it would have been beneficial financially. I get free tuition there. …When I told them I wanted to come here, they were very supportive of that … they were very proud of me making my own decision and going where my heart told me I wanted to go.

Likewise, Rita stated that her “parents never forced me that you have to go to college. No. For I was, like, after high school you go to college.” So, she decided on Savvy University Main Campus because of academics, scholarships, and nearness to home. She mentioned that her parents did not force her to choose her major in college but rather she “liked biochemistry.” She also mentioned, “So being in science wasn’t forced upon me but was promoted as an acceptable thing for me to do”. The excerpt below captures Rita’s description of her mother’s input in her college choice.

**RITA:** …Before orientation, I was hesitant to come here but my mom forced me to apply to Savvy University just after I had chosen [the] school, which happened to be a state school. …I knew that I basically was for Savvy University… in terms of strong academics… [and] it’s a big university… I was planning to go to Purdue in Indiana and my mom would say… “Okay, let’s get this right, it is six hours’ drive to get to you… it is out of state and they don’t even give you much financial aid either.’ And she was like ‘six hours to get there…’ and she was like ‘if you get sick, you've just had brain surgery and I have to drive seven hours to get to you. Savvy University is two hours [drive], you are going to Savvy University.’ At that point, it was like you’re going to Savvy University or you’re taking a year off. That’s the only time she gave me two options….
Negotiations also created understandings between parent and child. June described that she was distraught, she was “miserable because it was like my dreams were going to die” when her parents insisted that she attend a community college near home or a disabled friendly college closer to home where they could provide her with support. Her parents feared that she was not healthy enough to pursue college education far away from home yet she wanted to attend Savvy University Main Campus to escape living with them: “It was like one of the place you have to leave, you’ve to get out of there. Otherwise, you’re never going to leave.” They reached a compromise to attend the community college to prove that she could lead an independent life in college: “That’s great if that was going to work my way to college. And I went to a community college.”

Nevertheless, during the first semester after her health improved slightly, she worked on a transfer to Savvy University, which her parents funded after she moved. June reported that after she received acceptance, she visited Savvy University Main Campus with her father who was thrilled to show her old buildings. Moreover, during the campus orientation day, she came with her mother who encouraged her throughout the process. The excerpt below captures June’s happy moment about her father who was worried about her attending college.

JUNE: When I got the admission, he got kind of excited, like we came over one weekend, he wanted to show me around … the campus …, which was very funny though. Everything he wanted to show me no longer existed … like they have been [torn down], renamed, or moved. ‘I’m like ‘well this has been interesting. Thank you.’

Role Models and Mentors. Parents were role models, which encouraged students to invest in their education. They shared that their parents were educated and had a reliable income to provide support for their education (financial, social, and emotional).
All of the students’ parents had at least a college degree and were either professionals, businessmen, educators, or professors. Hera’s mother was a physiotherapist and her father worked with the government. Hugo’s father was an ophthalmologist and his mother a psychiatrist. June’s mother was a teacher and her father a dentist. Mei’s mother was a teacher and her father a civil engineer. Perry’s father was a professor and his mother a coordinator of a community-based learning program for college students. Rita’s father was a construction manager and her mother stayed at home. Zeus’s father was a businessman (he owned a convenient store) while his mother was a professor.

**Family Support on the Path to College**

Families supported the students on their path to college, which helped them maintain academic competence. Families provided academic, social, economic, and emotional support that helped participants manage the educational demands and changes. They also provided guidance and correct information, particularly to those whose individualized education plans (IEPs) and 504 Plans were deficient or incomprehensively addressed transition to college. The following were various ways parents influenced students’ competences and transition to college.

**Maintaining the Momentum.** Parents helped students to maintain academic momentum. Maintaining the momentum after high school graduation is important for students planning to attend college. Living productively between high school graduation and attending college helps students with disabilities be prepared for switching to college, which allows them to settle in quickly to focus on academics. Students shared that their parents supported them to live actively throughout as they waited to begin college classes; they were involved in different activities. For example, Hugo took summer
classes at a community college before starting classes at Savvy University in the fall. **Hera, June, Mei,** and **Rita** sought treatment for their medical conditions so they could pursue their education uninterrupted. After surgery to correct her brain tumor, **Rita** took AP exams out of class in late summer, which allowed her to start classes at Savvy University in the fall. **Zeus** went to Europe and then he moved to college. Both **Kim** and **Perry** had summer jobs, which helped them gain work ethics, discipline, and extra income. **Perry** mentioned that “between high school and college ... *[he]* was with my family and ... had a job over the summer”.

**College Application Process.** Parents provided support with the college application processes that finally helped participants gain access to college. Information about colleges and application processes is critical for students transitioning from high school to college. The students’ parents had college degrees, and they were great role models and mentors. They possessed social and cultural capitals needed to guide students with the college application processes. Also, participants described varied skills and extensive knowledge of events, support and services, disabilities, medical procedures and treatments they accumulated through interactions with families, teachers, peers, and doctors in the hospitals, schools, home, and the wider community. These skills and knowledge helped them meet academic, social, and personal needs and navigate home environments and school systems.

The students experienced many barriers in their journey to college, some related to their disabilities, others externally caused. Schools did not provide much support with transition to college. Instead, parents provided supports that helped participants transition to college. Lack of appropriate guidance and support and limited and untimely
information about colleges and areas of interest to develop based on their preferences hindered participants from making informed decisions about college choice, selection of majors and fields, and settling down once they had transitioned to college. Failure of IEP teams to explicitly address their disability needs denied them essential support and information about colleges. Even though some high schools provided classes or information about college, students described that their strategies focused on one area, which left out other critical and informative areas. Perry reported he was provided with little support: “...transition wise, there was not a lot offered. They gave me some information like what to think about managing your workload, managing your time schedule. But other than that there wasn’t anything formal offered.” Rita shared that when it came to transition, her “school didn’t help that much.” In addition, June was interested in medicine but she lacked enough information about the fields. She therefore kept changing her interests, which affected her choice of major when she finally moved into college. About her focus in medicine, she mentioned that as she “got older it just got unclear because there were so many things that were happening in my life.” She shifted her interests from orthopedic surgeon to a biomedical researcher to biomedical engineering to a doctor. She also mentioned, “So when I came here in the university, I came upon exploration... not because I had no idea of what I wanted to do.” Her struggle with illnesses and relations, coupled with lack of appropriate support and guidance further left her confused about what track in medicine to pursue. They distracted her from making informed decisions about college choice: “My whole socialization as I got into high school was completely skewed because I was just struggling to get through day-to-
day.” Still, her parents provided support that helped her move to college even though her direction with her education was not precisely determined.

Campus Visits. Families provided participants with supports that helped them gather information about colleges and universities. With the information gathered during campus visits, participants made right college choices. In general, they considered:
college location and proximity to home where they depended on parents’ support; college academic ranks, programs; accessibility, disability services or accommodations; cost and availability of scholarships. Overall, participants gathered information through negotiation with families and talking to significant people in the community, campus visits, involvement in orientation, and online searches. Information included college programs, disability services, scholarships, accessibility, and proximity to family support.

For example, Hera’s “big factor” in college choice was the “level of help” provided by the disability services office. Perry wanted a big university that ranked well in academics. When he was a senior in high school, his parents sponsored him to partake in the summer program at Savvy University, an experience that attenuated his fears that the campus was too vast for him. He reported, “In summer 2013, I took a summer course for high school scholars”. He had the chance to explore the environment and “realized that it is fairly manageable”. During college orientation, he finally “came with my family for the honors admission day, for the prospective student’s day.” June made application to six colleges; she considered “the services, the academics, [and] the other things that are important”. All the six applications were successful and five of the colleges offered her scholarships. Still, she chose Savvy University even though it did not provide her with any scholarship. She forewent “Goodhope University … one of the most friendly
“disability schools in the country... [because its] academics are very low.” Also, she forewent another college for its limited disability services despite the fact that they awarded her a substantial scholarship: “‘Okay, you might give me $20,000 in grants per year even though the tuition is $50,000 but that’s not enough, would it be okay if there are no services to offer me at all.’”

Rita settled for Savvy University Main Campus precisely because of its education program. She visited a cousin at another college and found their education program to be lacking particularly in the area of her interest. In addition, Kim chose Savvy University Main Campus because of its good disability services, transportation network, and because he wanted to be an in-state student so he could be close to an already established social network, particularly his family who provided transportation support. Besides good education at this campus, he wanted to have a ‘true’ good college experience with little restrictions based on other people’s perceptions. He ruled out going to “...some rural campus with no way to get anywhere”. Instead he “narrowed it down to—I liked Savvy University Main Campus.” Hugo considered the cost and availability of scholarships. He was swayed by the availability of a scholarship to choose Savvy University although he found its big population overwhelming and unfriendly. Zeus considered the tuition, academic rank of college, and accessibility when choosing colleges. He was motivated by DeVry University’s excellent business program; but he forewent it because of its high cost as an out-state student and its limited disability services. He mentioned, “...one of the best business programs in the country. [But] ...comparing the price ranges and stuff like that I couldn’t afford; that wouldn’t have been ... the best for my situation.” He then settled for Savvy University Main Campus because of its business program; he worked
hard in his education to meet the transfer requirement. He needed “30 credit hours and 3.0 [GPA]... to apply to College of Business ... take business calculus ... personal finance ... college algebra ... [and also] 12 credit hours [from Savvy University].”

**College Orientations.** College orientation is supposed to ease the movement of students into the college community. Students learn about various programs, lifestyles, and expectations of faculty, staff, and students. Thus, it helps students’ transition flexibly; students start college life knowing the academic and social opportunities, and the expectations from the whole university community.

Families supported participants in their involvement in college orientations, which helped them to acclimatize themselves with college life. For instance, **June** described participating in the campus orientation, which exposed her to the campus history and culture: “They give a night tour ... [telling] interesting ghost stories about Savvy University.” **Rita** described that after she got admission and paid tuition, she came for orientation from which she learned about her classes, which were “already divided into different parts based on the major.” She was recuperating from surgery, and participating in orientation brought awareness to her abilities to manage college demands. She reported that she was in pain and “had very limited energy supply, I tended to get tired very fast and I couldn’t walk very far because of that.” Orientation also helped her become familiar with accessibility of the campus and the available support. Awareness made her enroll for fall classes “instead of taking a year off”. In the excerpt below **Rita** describes the support she received during orientation that convinced her to enroll for classes in the fall.

**RITA:** ...when I came, they wanted to make sure how I can get to class. I ended up using the handivan during the orientation. So during orientation, I was
like 'hey I have limited walking abilities and I use the cane' and they were like 'okay we will get you a handivan, we will schedule you a handivan.' Everyone I interacted with during orientation was very open to helping and open to assisting me with anything. ...once I got through orientation I just realized how accessible [Savvy University] was because they did have the handivan, people were willing to open the door for you. ... I did come in August instead of taking a year off.

**Mei** took a class on how to manage college education; it was a “survey course ... 1 credit hour ... [course on] ... about college, time management, and stuff.”

**Advocacy.** Families continued with supports that helped participants maintain and/or acquire competences that are more academic. Participants reported that parents made decisions and controlled many aspects of their academic, health, social, or economic statuses. For example, **Hugo** mentioned that his parents were in contact with him through phone calls, or visited during weekends to check on him or replenish his medication.

**Positive Sibling Effect.** Most of the students described their siblings as having a positive effect on their behaviors. They mentioned comparing themselves with their older successful siblings and decided to invest in their own education. For example, **Hugo** described that he had an older sister who had a degree in philosophy and a twin sister who was also in college. **June** reported she had two older sisters with college degrees and were fully employed. She reported that her parents did not prepare her for college as they did with her older sisters; she lacked the appropriate college information. Still she “knew a little bit [information] because I have my sisters who have been to college.” She was aware they had college degrees and that college education was essential, and attending college was possible for her. She was motivated to work towards moving to college. Equally, she described that she was planning to participate in a study abroad program
during summer 2015. Her interest to visit England was influenced by her sister who visited Asian countries while in college: “My sister studied abroad ... a semester of sea ... she was on a cruise ship.... she did 11 countries in 100 days.... a lot of Asia ... they started in Hawaii. ...it was all different cultures.”

Kim mentioned that she had two sisters, one a freshman in college and the youngest a freshman in high school. Mei had a younger sister in college. Perry had an older sister in college who was pursuing philosophy. Rita had an older sister in college; but because of her disability, she struggled with academics. “She never had the academic capabilities I have, so she was in regular classes.” While her sister was “really good in history...when she got sick she had to go to an online program”. Oppositely, she succeeded in her academics despite chronic illness that forced her out of school for weeks. Besides, the experience Rita had when she visited a cousin at Wittenberg University changed her life, and so she chose Savvy University finally: “looking at what they offered, their academics lacked what I was looking for”. She also shared that she visited a cousin at Wittenberg University and after comparing their programs with that at Savvy University, she settled for the latter for its good academic programs.

Social behaviors they learned from their siblings through imitation and copycat behaviors was an impetus that drove them to invest in their education. Hera mentioned that having an older sibling with a college degree and fully employed was encouraging. In general, all of the students mentioned that their families supported them on their paths to college, which led them to establish and claim their equitable place in college.
Summary of Social Competences

A variety of factors contributed to the student participants’ social competences and their successful navigation of social milieus to graduate from high school and transition to college. These factors were related to the individuals themselves, their family members, institutions, instructors, and peers. Self-awareness and awareness of their environment contributed to their abilities to navigate various pressures in their communities. Institution-related factors such as placement in regular schools or inclusive schools and involvement in student organizations and clubs all exposed participants to various behaviors and experiences from which they learned social or interpersonal skills. In particular, college life provided spaces for learning, maturing, training, and socialization. It also provided opportunities for social participation, growth and development that helped participants re-imagine themselves and find healing.

The institution-community partnerships created spaces for practicing knowledge and skills learned in school and home, and also offered spaces for learning ethics and sharing norms, values, and general essential cultural orientations that prepared them to establish themselves in society. Moreover, some instructors were social partners who provided social opportunities that enhanced participants’ social competences. They were role models and instilled positive personalities through their caring, supportive, and understanding deeds and attitudes. Equally important were peers who were role models, mentors, roommates, and members of student organizations. They helped participants to acclimate themselves in the midst of social challenges; they recognized and appreciated participants and supported them in their social and academic endeavors. They protected them from bullies, they invited them to various social events, and engaged them
positively in various activities. The interactive opportunities led to connections with role models, finding of comrades and confidants that supported them and helped them flexibly transition to college, ready to pursue their education and career goals.

Moreover, families contributed to participants’ social competences through socio-emotional, academic, and financial supports. They accepted their children’s conditions and helped them develop self-awareness and some independence. Families provided stable home environments, consolidated reciprocal relations, and involved them in different social events and activities such as family vacations, and tours of foreign countries. These social opportunities particularly sponsorships to visit various places allowed them meet culturally diverse people, expand their social networks, and through social participation, they nurtured their positive non-cognitive abilities. They also learned independent living skills and social skills essential to lead a semi-independent life in college. Families supported their children on their paths to college. They were their socio-emotional and financial supporters that guided and directed them, helped with partaking in campus visits, college selection, involvement in college orientations, and settle into the college life. Families also maintained social relations once participants moved to college through regular communications and physical visits. These supports helped the students to remain focused on their education and career goals, and worry less about their disability.
Figure 4. 4 Factors that Contributed to Social Competences

Family-Related Factors
- Parents’ supports: Financial, socio-emotional, academic, advocacy
- Social participations—tours, vacations, social events and activities, nurture non-cognitive abilities; Individual autonomy & agency; Accepting child’s disability; nurture non-cognitive abilities—awareness, determination
- Role models and mentors, sibling effect
- Family support to & in college: Maintaining momentum, college applications-college choice, campus visits, college orientation

Individual-Related Factors
Self-awareness & awareness of others

Instructor-Related Factors
- Teachers: Social partners & opportunity providers, Caring teachers support their belonging
- Academics: Supportive instructors collaborated with disability services office staff

Institution-Related Factors
P12: Regular school & inclusive schools & exposure to varied experiences, student organizations & clubs
College: Spaces—learning, training, & socializing, working (ethics & income), re-imagination & healing, practicing independent living skills & self-help skills, Experiential spaces, more social opportunities, Role models
Institution-community partnership: Opportunities to practice knowledge and skills; access to norms, values, personalities, general cultural orientations

Peer-Related Factors
P12: Comrades and confidants
College: Role models, mentors, international students; roommates, same student organizations
Research Question 3

What kinds of accommodations provided to students with disabilities during their P12 education helped them navigate the transition to university, given the demands of their disability?

Accommodations

Adaptations consist of accommodation and modification; they are changes done to the curricular so that students with disabilities can benefit from learning processes. The Individuals with Disabilities Education Act (IDEA) of 2004 requires students identified as having a disability that affects their education to receive special education and related services. Included are the identification and assessment of the child before, during, and after provision of services. The Individualized Education Program (IEP) details the essential resources, services, and support that will be provided based on the child’s abilities, interests, and preferences. The IEP team made of teachers, school administrators, professionals, parents/guardians, the student, and or other significant persons in the child’s circle, plan and implement the program based on holistic approach to address the child’s needs. Thus, accommodations are changes of material and immaterial learning things (i.e., resources, services, and support, practices, procedures) provided to students with disabilities to access equitable education and engage in productive learning processes (Byrnes, 2008; Ciccantelli, 2011; Corcoran, 2010; Garrison-Wade, 2004; Getzel & Wehman, 2005; Hunt, 2012; Shaw, Madaus, & Dukes, 2010).

Before presenting how accommodations influenced the student participants’ education in this study, first the definitions of the individual with a disability, special
education, related services, and assistive technology. In summary, the individual with a disability is any person who has a physical or mental impairment, which substantially limits one or more major life activities, has a record of such an impairment, or is regarded as having such an impairment (U.S. Department of Education; as cited in Kampsen, 2009). Special Education is a “Specially designed instruction, at no cost to parents, to meet the unique needs of a child with a disability” (U.S. Department of Education). It includes special remedial academic support provided to prepare students for readiness for academics; but excludes placement in classes purposely to provide services such as counseling, physiotherapy, speech therapy, and hearing aids. Related Services are provisions to enable a child with disabilities to receive a free appropriate public education in the least restrictive environment so they can benefit from special education. Services include early identification and assessment of disabling conditions, developmental, corrective, and other supportive services (e.g., recreation and counseling), and provision of means of transportation. (20 U.S.C. Section 1401(26)). Assistive technology is a device, item, or a piece of equipment, or product system used by students with disabilities to enhance their functional capabilities and learning. Generally, students with disabilities are provided with resources, services, and support designed to meet their needs (Gerber, 2005). (For detailed definition of the terms, please see Appendix A.)

In this section, I present the impact of accommodations on the students’ education outcomes. I focus on how access to resources, services, support, and assistive technologies within or without the Individualized Education Plan and the 504 Plan influenced students with disabilities education outcome and mobility to college. I also
present how knowledge of accommodations influenced their college choices and performances in college.

*Access to accommodations.* Participants’ competences and positive educational outcome and transition to college were influenced by the access to special education and related services, provision of assistive technologies, and supports of the disability services office.

*Special Education.* All of the participants were certified to have a disability or illnesses that negatively affected their learning processes. Some participants had IEPs while others had 504 plans. They shared that provision of special education contributed to their competences. As mentioned earlier, participants had either IEPs or 504 Plans. Hugo, June, Kim, Perry, and Zeus had IEPs while Hera, Mei, and Rita had 504 Plans. While not perfectly executed, having IEPs and 504 Plans contributed to access to resources, services, and support that further contributed to their positive learning outcomes.

Participants also shared that they were actively engaged in their planning and implementation, which influenced the levels of services and support they received. They reported that they were provided by different accommodations, support, and services that made learning possible and efficient. For example, Perry reported that he first received his IEP when young, and “... at the beginning of the year we would talk about it and then [prepare for] ... the next year.” He reported he “would be involved in” in the meetings although his parents made decisions for him at the time but later he would be proactive: “Earlier on, I wouldn’t be so actively involved, I just kind of listened to what they said. But as I got older, I started voicing what I needed. ...I was respected very well.” As a result of his involvement, the team addressed all of his needs in depth, and because “the
meetings were very thorough … we were able to come up with all the needs at the time.”

All of the accommodations he received were described in the IEP, which included “extra time on test” and “extra time to get to and from classes”. This extra time was to allow him get to and from classes because of crowded hallways. There was also an evacuation plan in case of fire; some teachers were accessible to chair lift device they would use to carry him down the stairs. However, as he progressed with school, the IEP meetings were “a matter of formality”. In the excerpt below, Perry explains how his disability minimally inconvenienced him.

PERRY: ...what I mentioned about the lab tables ... they realized I could get off on the stool ... not a turn of accommodations over there. Earlier in my schooling days, they would give me extra time on the test. Eventually, they realized I didn’t need that so we dropped that out. Extra time to get to and from classes was always a feature that I always had but if I needed; but most of the time, I managed the crowded hallways....

Likewise, Zeus described that he had an IEP throughout P12 period, and he “met with them [the IEP team] like three times [a year].” Later on, his IEP meetings were a formality that ensured all teachers were on the same page regarding his needs. He also mentioned that he received various accommodations that facilitated his competences, such as “a scribe who would show up with me and do all the writing stuff, like take notes and take tests”. He described that “in K to 12, I got ... extended time, scribe that was probably the main thing... if the test was one and a half hours, I got double time, I took the test in a different room.” He also reported getting a “scribe ...[that] would take [his] notes...in regular class”. Hugo reported that he had IEP, which detailed his training in social skills and management of his ADHD secondary behaviors such as anxiety. June shared that she attended different schools that provided her with different opportunities
and different levels of accommodations: “I have been through three to four different school systems, and I have had different accommodations in all of them”.

JUNE: ...when I got diagnosed with CP [cerebral palsy] when I was 18 months old my parents put me immediately into school. I started at Wellhope... our local school for children with...disabilities...so I was there from 18 months old up to and including pre-school. ...[When] all the other kids had naptime but [teachers] pulled five or six of us out of the class and they made us go do education enrichment things like counting bears.... So many of my developmental milestones happened while I was at Wellhope. ...I learned everything there, physically how to do things ... because when I got there I could not even move my head. I learned how to dip my head, how to walk, talk, I was potty trained. ... There were two teachers per classroom.

She had a 504 Plan in middle school and junior high school. She reported that her 504 plan was to relieve her from the stresses of the gym class by determining the types of activities she could or could not do and her degree of involvement: “the extent of my 504 plan was to make gym class accessible.” Then she had IEP during her sophomore year in high school, which excused her from the gym classes (which she described as stressful), and from being labeled “truant” because of her frequent absences from school due to illnesses. Although June was opposed to the IEP because of the intelligence quotient (IQ) test requirement, which she detested, getting the IEP enabled her claim to accommodations in college.

Hera was in high school when her illness manifested, and often she took time off from school, and sometimes she was hospitalized. She reported that teachers provided her with different accommodations, which included sending her learning materials in the hospital, adapting her assignments to allow her to take part in learning (e.g., group activities were adapted for an individual). Some teachers also adapted her science assignments and projects; they allowed her to take pictures of her projects and email to
them for grading. And because of lupus flares, she did not need to pour chemicals in
tubes during research science classes. After she was discharged from the hospital, the
school allowed her to re-schedule later in the day classes. In the excerpt below, Hera
describes her accommodations.

HERA: ...I had problems all throughout junior year and I was probably at my
sickest at the beginning of senior year, so I took two months of medical
leave from the school, so I just didn’t go to school for two months because
I was in the hospital. I stayed in the hospital and was treated there. ...they
[teachers] would send me work. ... [After discharge] I scheduled my
classes so that I didn’t have a morning class, which was more of an
accommodation I made for myself. ...because I take chemo, sometimes
getting up in the morning is especially unpleasant.

Rita mentioned that her 504 plans only recognized that she was sick a lot and
absent from school frequently. Nevertheless, it protected her from being considered a
truant. Some teachers also modified her assignments/tests, others provided extended
deadline, while others were lenient with some things, provided her with PowerPoint of
classes and class materials. She home-schooled during the second semester of her senior
year of high school and although she was not provided with tutors for her AP and honors
classes, the English and Government classes’ teachers provided her with learning
materials, sending her notes and PowerPoint (PPT) slides. As she was recuperating from
surgery to correct brain malformation, the school had Rita take the AP exams out of class
in the summer before college started, which allowed her to transition to Savvy
University. In the excerpt below, Rita described accommodations that facilitated her
academic competence.

RITA: ...my teachers would send me the PPT of their classes and the things they
did, the class materials, 'here are what we're reading in class.' With
English basically, 'Here is what we are reading, here is the key points you
should write for in this paper.' As so, I did my English out of class.... And
for the government class, 'Here are the notes, here is what is going on, do
this, take these assignments.' And that was my government. So it was not necessarily similar to what everybody handed in, their assignments, but I did complete the classes through the teachers’ assignments.

Related Services. In addition, related services enhanced participants’ competences. Participants reported receiving various related services that facilitated their education. For example, Mei mentioned that she was able to read by age three or four after having tracheotomy and surgery for her cleft palate; still, her “language was kind of inhibited,” for which she received speech therapy. She reported that in kindergarten teachers “put me in a class where they had a speech therapist. So, that was their solution to my speech problem. ...it got better.” The therapist provided the services humanely making it look “cool” for students with and without disabilities. She described the benefits of speech therapy: “When I was in kindergarten ... it was like everyone was over here and she spent 10 minutes with you over in the corner. ...it was like twice a week. It was helpful.... I am not exceptionally bad at talking.”

Moreover, provision of special education through adaptation of the learning environment and accommodations mitigated the negative effects of disabilities. For example, Perry reported receiving different accommodations in high school that attenuated his safety concerns and because of the conviction that the staff would assist in case of a fire, he was able to focus on his studies even when on the upper floors. Apart from a safe learning environment, he received support with transitioning from class to class, and accommodations for the tests. As captured in the excerpt below, the accommodations helped him to adjust well in his environment to function fairly well with minimal inconveniences.

PERRY: ...one of the main things they would have for me was the evacuation plan in case of emergency. So, when we had a fire drill, the idea was that
they would take me down the stairs like a chair lift device. ... I got the hinge set so that people knew how to operate it. We did have time to practice ... a few times, most of the time they would just come up to me before the fire drill happened and tell me it would happen so I could get to the elevator before the alarm went off. So, they kind of cut a corner there but we did use it a few times. So, I was confident, not enough though, that people knew what they were doing.

The Bureau of Vocational Rehabilitation (BVR) provides varied services mostly related to career goals to students with disabilities. Zeus described that as dispensers of government funds, they helped buy him a new wheelchair even though “it took them a year to approve me for a new one.”

Assistive Technologies (ATs). The participants shared that they benefitted from using assistive technologies, which enhanced their competences to manage education P12 through college. They were able to lead a productive life, collaborate with parents, teachers, and specialists, and nurture reciprocal relationships. They became experts in using ATs and taught others; their involvement in learning processes encouraged them and led to growth of non-cognitive abilities. Moreover, they reported that ATs created a pool of teachers and professionals who coordinated efforts and formulated transition programs. Kim mentioned that during P12 period, his accommodations included large calculators, e-calculators, magnifiers, computers, Braille, and extended time for tests, scribe and readers. He described that using ATs in middle school encouraged being inquisitive and productive. He mentioned that he was proficient in both Braille and computers. Computers were introduced to him in eighth grade, and because he was not completely blind, he found computers much more efficient than Braille. He became proficient to the level that he taught “others to teach” him. This made him differentiate the efficiencies of Braille and computers, and decide on the most appropriate and
convenient to him. He chose the computers when he transitioned into high school for it made his learning quite easier and efficient. After discovering that computers were ideal for him, he invested time into learning how to operate them, and in the process he became efficient. His interest and curiosity led to developing an interest in pursuing computer science in college. The excerpt below captures the benefits of assistive technology to Kim and people that supported him.

KIM: ... The realm of visual education or visual disability and trying to accommodate with education—ah, our first approach was Braille. I used Braille academically for all my classes through eighth grade, and that’s when the technology started to pick up and visual programs such as Zoomtext or other magnification software started becoming more rampant and improving. ...It was probably the most advantageous thing that has ever happened in my educational career. The use of a computer, and that’s when I started to get really savvy with technology because I can’t see everything, I memorize a lot. So while I can’t see the letters and numbers on a keyboard, I know where they’re all at. I knew how to move around and do whatever because I had to stay still at the level of kids in my class. //The teaching of Braille was sort of integrated with my lessons. They brought in a specialist from the Cincinnati Association for the Blind. We worked with them for many years and they brought in an aid that came in and just helped me out, learned Braille, transcribed my Braille back into print for teachers. And that was most of my learning of Braille and where I came from. My mom did not know Braille whatsoever; she couldn’t learn it whatsoever at all. What she would do is I would have two copies of whatever I was working on, a Braille copy and a print copy, sort of go back and forth, and that was how she could help and support as well as teachers or as a sport figure could help or an aid could help. That’s how I learned Braille.

Moreover, Kim described that he used Braille for the most part of his elementary school but embraced computers from eighth grade on, which he found more efficient and helped him learn better: “the communication and information is much easier with a computer than Braille.” And so after seven years he “probably lost a bit of it [Braille skills], but I could still probably use it if I had to.” In the excerpt below Kim described the benefits of computers over Braille.
KIM: ...the communication and information is much easier with a computer than Braille. Whereas ...with Braille you’ve got this cumbersome sheet of dots and one, you can’t let those dots get squished because you lose some of it. It’s very cumbersome and it takes a lot of effort to just get a little piece of information with Braille. Rather with computers, I not only have to carry around a small, tiny Smartphone that has unlimited information, I can use it to not only read stuff on the phone, but use it as a magnifier of some sorts to read other things. ...Braille for myself, because I’m not completely blind, was more of a limiting factor. ...//...the technology to Braille is ... the ability to take information from it easier and at much greater lengths.

Also, participants mentioned that assistive technology made learning possible and efficient. For example, Kim described that he was provided with a person to read to him, as well as PDFs, computers, and e-calculators, and “with large prints that are formatted into an electronic format where I can view it on a computer screen or type my answers or highlight my answers”. He also mentioned that he integrated smartphones in his life, which he described as “amazing” for he could “do many things.... I can make larger, smaller, whatever I need to do.” Likewise, Zeus described benefitting from a smartphone, headphone, laptop, and watch that were synchronized with Bluetooth, making manipulation and communication easier, efficient, and effective for him, considering his limitation with mobility. Zeus mentioned, “This is one of the reasons why I like smartphone.”

ZEUS: ...my phone, microphone, and watch ... they all have Bluetooth. //... [My watch] has Bluetooth so it connects to my phone and you can catch emails and stuff like that. ...And then you can call on the watch.... I like it because my phone is normally in my bag and I can’t easily reach it sometimes when it rings... and then the watch also has, like it lights, when I move it lights and displays time. ...it’s called Samsung Galaxy Gear 2 Neo...

In addition, Zeus shared that he avoided the power wheelchair hoping to reduce the rate at which he lost his muscle strength. This, despite his condition, made him weaker every day. Still, his manual wheelchair had a smart drive attached to it, which
allowed him to push himself a long distance. In fact, during the first week of school, he used the smartdrive to familiarize himself with the campus and its surroundings. He preferred manual wheelchair in order to keep his strength even though a power wheelchair is more stable, easier to manipulate, and it offers greater mobility for persons with weakened physical capacity. The excerpt below captured his reasons.

ZEUS: ...I never really used a power chair because I just do not choose to. But I have used a scooter; but I don’t use it that much, like last year I only used it three times. I would rather use a manual chair [and] keep the [muscle] strengths. And with the smartdrive, I can control it. ... Lately, I’ve been going to Subway, Buffalo Wild Wings ...just by myself. I just wanted to know more the area last night....

While accommodations and modifications of curricular contributed to participants’ competences, still, some experienced educational demands caused by lack or limited assistive technologies, inaccessible learning environments and curricula, and dilemma with disability labels. Some participants described that they were inactively involved in the planning and implementation of IEPs or 504 Plans while others described their IEP or 504 Plans’ goals as inadequate or inappropriate or unchallenging enough. Participants’ limited involvement in the planning and implementation of IEPs limited adoption of most helpful practices or provision of adequate resources. For example, Hera, June, and Rita reported they had a 504 Plan in high school after their disabilities manifested; but they considered the accommodations they received inadequate to mitigate their educational demands. June described her P12 accommodations as limited because her parents never pushed for comprehensive support. When she finally had a 504 Plan and IEP, it was to excuse her from the gym classes and to protect the family from truancy
charges because of her frequent school absences. In the excerpt below, June described the contents of her IEP and 504 Plan.

JUNE: ...So when I was in the elementary school I didn’t really have ... accommodations at all. Like that’s the worst thing because my parents were still in that “we still want a normal child” thing. They never pushed for any [accommodation]. I never had any; it never really came up for a while. Apparently, I had a 504 plan. But like the extent of my 504 plans was to make the gym class accessible. To me it was like I can be excused out of this, things of that nature. None of it was like extra time, academic accommodations, none of that. I didn’t have any accommodation.... It was literally a 504 plan for the gym class.

Accommodations have an impact on learning and teaching of students with disabilities. Participants shared that limited or lack of accommodations and modifications increased the educational demands they experienced particularly during P12 period and negatively impacted their educational outcome. It also led to an unbalanced lifestyle, caused social problems, ill health, demotivation, frustrations, and failures, which weighed them down. Mei and Rita described compensating their disabilities by spending more time and energy working on the area of deficit at the expense of maximizing their potentials all around. In particular, Hera described that not having IEP increased the academic demands as teachers provided wrong interventions. Her literature and math teachers would not provide her with accommodations. She reported that her math teacher would not provide her with accommodations such as provide extra time to take long written exams particularly when she felt pain because of flare-ups. Therefore, she often performed poorly in the coursework and tests because she never finished them even though she understood the concepts. In the excerpt below Hera explains some of her experiences with a math teacher.

HERA: I remember once telling my math teacher that—we had a quiz and it was a written quiz and it was really long and my hands hurt a lot. And I told
her, I can take the quiz now and my handwriting is going to be really bad. and I’m not sure I’m going to be able to finish in the right amount of time, because it will take a lot of effort. Or I can take the quiz tomorrow and maybe my hands will be a little bit better. She said, take the quiz now. So I took the quiz … and my handwriting was awful and I didn’t get to finish....

In addition, she described her “… literature teacher … [as] awful” for denying her accommodations because her husband with lupus was managing just fine. She mentioned that the teacher “told me that she wasn’t planning on doing anything because she thought… my husband has been fine, so you can do it.”

Likewise, June described she “didn’t get accommodations until I was a …junior in high school”. After she got the IEP, it focused on relieving her stresses in the gym (physical education) classes rather than stresses on her academics. She also described in high school she broke her ankle and was forced to use a wheelchair is when she “found out how inaccessible my school was … in a science class… the tables are right here [gestures her face level]. I couldn’t even see the board.” The excerpt below captured June’s dissatisfaction with the IEP accommodations.

JUNE: …so finally when I had my IEP I can still… there were no academic accommodations. They were all set like getting managing class, being okay that I was missing school…. I really had a hard time getting things that I wanted. //… I remember by sixth grade I hated gym class. I was so miserable. ...I remember like going to play kickball and kids would be like kicking it and they would be like [whistling when I kicked the ball]. And I would kick it and it moves like a foot. I spent a lot of time on that kicking … I just ran out of the gym class... I hated it and I was like why are you making me do this. It was awful.

Similarly, Mei described experiencing many demands including reading and social problems throughout her P12 period; but she “didn’t even qualify for an IEP” and “had absolutely no accommodations in any of my schooling”. She reported, “They tested me in first grade or kindergarten and even though I was blind in one eye and I had a lot
of speech difficulties, they said that I didn’t need an IEP”. Her placement in kindergarten with a speech therapist “was their solution to my speech problem.” She “compensated very well” and “did okay” in her academics, which convinced teachers that she was coping well and doing fine, yet “reading was difficult” and she “couldn’t finish” math tests because it is a timed test. In addition, she shared that her social demands outweighed her academic demands particularly in high school, yet she received no accommodations to alleviate them. She described that while she developed self-drive that saw her succeed academically, accommodations could have lessened her traumatic social experience. Also she wished she had accommodations such as “larger print texts” during P12 period. The excerpt below captured her academic challenges without accommodations.

MEI: ...in the elementary school my eyes used to be worse than they are right now... I remember in elementary school we were reading books and I literally held the book to here, close to my face and kids would make fun of me. But ... I can’t see. ...reading was difficult. And the other thing I can think of was math. ... And math is always a time test. And though I understand it I couldn't finish it....

Rita mentioned, “The high school recognized that I was sick but didn’t recognize that I was sick enough to be labeled disabled because I was smart enough to be out of the disabled spectrum.” Therefore, some teachers who never recognized her disabilities would not provide support even when she needed it because of migraines. Others were rigid with the assignments even when she missed the deadline because she was hospitalized. She reported that when it came to assignments when she needed flexibility with deadlines, one teacher’s answer on late assignment was, “… it doesn’t count if you have a disability, you’re a student you should be able to do what everyone is able to do in class”. She also mentioned that “one teacher would not allow me to go to the honors math class” because of her frequent absences. Rita also mentioned that some teachers
who were unwilling to provide her with accommodations “because you’re not documented” wanted her to switch from honors class to regular class which offered less motivating, less stimulating, and had less depth learning materials, besides teachers and students are undisciplined and less responsive. In the excerpt below, she described her experiences with some teachers.

RITA: ... I had a teacher who was not willing at all [to provide accommodation] //...in high school, one teacher would not allow me to go to the honors math class. I went with my mom and she was like ‘you go to the other class.’ There was no option. ‘You’re only to take the class that I have assigned you to, you’re only allowed to take that.’ ‘But I really want to be in the honors class.’ And she is like ‘Okay. If you’re in the honors class, you can’t do the other class.’ Like my teacher had to fill up paper work.

Learning placements determine students with disabilities access to services, support, and resources that eventually influence education outcome. Participants were in regular schools or inclusive schools; however, the assumption that students with disabilities placed in general or gifted or honors classes have the abilities to manage the academic demands without provision of accommodations and modifications harmed their learning. For example, Hera, Mei, and Rita described that not having IEPs left them vulnerable to educational demands even though teachers felt they compensated their disabilities very well. Both Mei and Rita were in the gifted program; but they both reported they were not provided with appropriate support on the guise that they were performing above average. They reported maintaining excellent academic scores; but, it was a façade. It guised their social and academic demands. Thus, the resultant misinterpretation of circumstances caused more harm for they were denied opportunities, services, and support that could have mitigated their situation. Mei described that her placement in the gifted program denied her an IEP and reduced her parents bargaining
power: “my mom would talk to some teachers and some teachers would be like, oh she is really very smart. And they would say... she is compensating perfectly well. ...she is fine.” Mei also mentioned that her mother was a teacher but she was not conversant with the provisions of accommodations.

In addition, Rita described she “was kind of labeled special education in the first grade but in the gifted spectrum.” She took advanced placement classes and honors classes in high school. Therefore, she had a 504 Plan although she wished she had the IEP. She reported that she never got IEP because it “came down to my school had a lot of students with IEPs and 504 Plans.” She considered her 504 Plan less helpful: “I had a 504 [plan]. It basically said this person is gifted and this person is sick often... she’s basically sick and she misses class often.” She never got IEP equivalent accommodations and had to endure a negative impact of her disability on her education. She became sick and started missing classes, and later she was forced to homeschool after she was diagnosed with brain malformation. Her school refused to provide her with tutors unless she dropped to regular classes. She reported that teachers commented: “People who need the assistance don’t take the honors class.” When she requested tutors for “AP Government, AP English, AP calculus, honors class, physics, and chemistry ... the person looked at me going ‘we don’t have a tutor for that.’” Because she was listed in the gifted program and taking “all ... higher classes” the school refused to enlist the services of college professors: “... you’re listed as gifted and all you’re taking is AP or honors. We have to call a college professor to tutor you. We are not doing that.” Therefore, she homeschooled with little input from teachers because they were not obliged to provide tutoring to an advanced student who was almost done with the classes and about to
graduate. She reported that her high school did not have any certified AP/honors class tutors on their list. These caused academic and social demands and reduced her chances of earning more college equivalent credits while in high school. The excerpt below captures the negative impact of lack of accommodations on her academics.

RITA: ...I fell off my grade, I failed one semester because I missed every single day of that class because it was the a.m. class and I didn’t start school until 9 a.m. because ... it just couldn’t just work for me ... so that’s the only F I got. Otherwise, my lowest grade was always a B.

Without accommodations and modifications, inaccessible learning environments increased demands that interfered with participants’ learning processes. Although disability may influence an individual’s learning, it is the environment, which usually limits the success of students with disabilities. Participants who were short (e.g., Kim) or used wheelchairs (e.g., June, Zeus, Perry) or had eye impairments (e.g., Mei) described that inaccessible learning environments such as high tables in laboratories hindered their involvement in learning activities. Barriers were punitive; they demotivated them by excluding them from the rest of the class. Perry reported managing to navigate through the hurdles fairly well: “the lab tables were of the right height. Eventually I learned that I could transfer from my wheelchair to a stool at the lab table. ... And once I was up everything was ... manageable.” Nevertheless, he dealt with crowded hallways and busy elevators, which affected the time it took to switch classes. Zeus similarly experienced hurdles in some inaccessible classrooms because of curbs or limited spaces to maneuver his wheelchair. In addition, June described that because of injuries, illnesses, or bad weather (e.g., heavy snow) she infrequently used a wheelchair. She used a wheelchair for four months during her freshman year in high school when she broke her ankle and in the fall and spring semesters of her sophomore year in college. As shown in the excerpt
below in which she described her high school experience with barriers, she reported that each time exposed her to new challenges with accessibility and attitude.

**JUNE:** *People broke the disabilities doors ... so much ... they just locked it. So, when I’m in my wheelchair I had to call the main desk to send somebody down to open the door... It was not the most accommodating place. //...It [the school] was not a very welcoming, accommodating, or friendly place whatsoever. So I was very out of place.*

Limited accommodations made curricula inaccessible or challenging. Participants reported that standardized tests were another source of academic demands. Exams and tests were a challenge mostly because of lack of accommodation or lack of appropriate timely information. Hera, Hugo, June, Mei, and Rita described that they struggled with some timed tests because of their disabilities and ill health. For instance, Perry and Zeus reported that they retook the American College Testing (ACT) and Ohio Graduation Tests (OGT) respectively after performing poorly in the first test. In particular, Zeus was critical of standardized tests; he blamed his poor performance on political manipulation of the curriculum. Although he was rational about tests in general, he saw political agenda in their design and administration, views captured in the excerpt below.

**ZEUS:** *What I figured is how technically the test [OGT] was designed. The first time I felt like, in 2012 because most of the questions were on the global warming ... I figured that Democrats kind of wanted to push their agenda. Even the second time the test was more geared toward environment and stuff, we learned the previous years. It was not the stuff that we were presently learning.... It was supposed to be taken during junior year and when I took it, it had stuff that I learned in eighth grade. The first time I took it I had no idea because I never learned of any stuff. ...When exams make sense for political reasons, they do tend to do that sometimes.... It’s not fair but on the other side, it is trying to push its agenda.... I don’t agree with OGT, ACT ... tests on English, math, science, social studies ... if you don’t pass those tests you’re basically screwed up because tests decide everything. With OGT, however, there is a loophole and you can get around it. And that is how I got in. But if there wasn’t that option, there is no way I would be here today.*
In addition, inaccessible gym classes added to the academic and social demands participants experienced in school. Despite the importance of physical education classes, participants described gym classes very frustrating, stressful, and isolating. Lack of accommodations and adaptations of activities coupled with disability stigma and teachers’ uncaring attitude made life in gym classes difficult. Both June and Mei disliked their gym classes and so they avoided them whenever they could. Mei reported that her socialization was limited because “In the gym classes I was definitely pitied.” Likewise, June reported that one time she “ran out of class crying...” because teachers “…were not completely supportive.” Also, she was not a favorite mate when choosing players for the kickball team because peers wanted to win; because of the pressure to win “when picking teams, I was the girl that was picked last; but I would never be somebody’s first pick”.

The excerpt below captures June’s frustrations.

JUNE: ...by 6th grade, I hated gym class, I was so miserable. ...I remember like going to play kickball and kids would be like kicking it and they would be like {whistling}. And I would kick it and it moves like a foot. I spent a lot of time.... I just ran out of the gym class.... I hated it and I was like why are you making me do this. It was this is awful.

In addition, during the second semester after Rita was diagnosed with brain malformation, just before she had surgery, she was forced to home school the rest of the semester because the school thought she was an insurance risk. She reported, “…because of the possible injury [the school] didn’t want the liability.” Nevertheless, the school would not provide her with tutors for advanced placement classes, which costed her academically as shown in the excerpt below:

RITA: ...I was at home and you can’t teach yourself [AP] calculus without someone sitting in front of you. It is difficult to teach yourself. It’s doable but it’s hard especially what we were learning then... some series that I couldn’t teach myself. So I ended up getting incomplete in my calculus, my
biology, my statistics because the teachers were like you have to be in class to learn but now you’re not in class we can’t send you the materials.

All of the participants with IEPs or 504 Plans were dissatisfied with the special education services, and attributed to some academic demands to poorly executed support. For example, **Kim** described that his blindness made him dependent on assistive technology for learning. In the initial years of schooling, he faced many academic challenges due to unavailability of assistive technologies (ATs) and later on, the unwillingness of general education teachers to learn Braille or to accept computers in their classes once the ATs were introduced in his education life. He was introduced to Braille in the elementary school and then computers in junior high school; but teachers were reluctant to embrace and integrate them in their instruction and so he had to teach himself or depend on a few specialists for support. Besides, he became fluent in Braille but because he was not totally blind, it was limiting. Consequently, he embraced computers; but he continued to experience resistance from teachers. In the excerpt below **Kim** described his challenges with AT.

**KIM:** *I was probably the only kid or child to ever go through my school system with Braille. ...So, I had to pretty much wage my own path through that. ...with Braille, you’ve got this cumbersome sheet of dots and ... you can’t let those dots be squished because you lose some of it. ...it takes a lot of effort to just get a little piece of information with Braille. ... I think Braille for myself, because I’m not completely blind, was more of a limiting factor. ...And situations where I can’t read 50 pages a night out of this textbook because not only one, I can’t do it in Braille because it’s not able to, and then I can’t do it with print because my eyes will just get tired after a certain point. Where you’re seeing a full page and reading text, I’m seeing like a fourth of the page [enlarged] to the sides....*

Likewise, **Hera** reported that her invisible disability made learning difficult, that bureaucracy made it difficult to have her disability documented so she could receive IEP. This increased educational demands as it made it difficult for her to get appropriate
services and support for her academic needs: “...in high school, even after I was diagnosed, it was a really long process to get the disability form done, so I just didn’t. So for junior and senior year, I had no accommodations.”

Moreover, while the efficiency of assistive technologies mitigated disabilities and decreased educational demands, they also caused academic demands for participants. **Kim** and **Mei** had visual impairment. They described that while they embraced technologies it was fatiguing to read on a computer. **Mei** shared that having learning materials online made college life much easier but it also created demands because she strains herself by looking at computer screens for too long.

Some participants were in dilemma over being labeled because of disability stigma, and so they were reluctant to accept that they disability identity, which led to lack of accommodations and contributed to social and academic demands. Participants’ disability stigma, resistance to disability identity, or fear of disability labeling, self-guilt, sensitivity to one’s condition, limited knowledge to request available accommodations, and the need to be normal and treated equally, all contributed to their challenging educational experiences. Whether to accept one’s disability identity, secure accommodations, and deal with disability stigma as one’s disability is mitigated as factors that leave many families and individuals with disabilities in dilemma. Habitually, families find themselves caught in the dilemma of accepting or not accepting labeling while seeking accommodation for their child with disabilities because of disability stigma. However, fear to acknowledge disability may deny students from receiving much needed accommodations. In particular, **June**, **Kim**, **Mei**, and **Rita** described living in denial of disability identity particularly in their early years for fear that labels would
make them the “other” and so they did not advocate much for accommodations in elementary and high schools. As already mentioned under identity, Rita accepted her disability identity at age 18 years. All along she considered herself “sick but not someone with a disability;” but “come 18, I was ‘disabled fits me.’”

June mentioned that she wanted to be ‘normal’ and treated like peers without disabilities and so she never “pushed” for accommodations even though she needed them. This is captured in the excerpt below.

JUNE: …I really had a hard time getting things that I wanted. You know when still in high school I still had the mindset that I wanted to be like everyone else. So, I never pushed for like special anything else. So, I never pushed for any of that [accommodations]. I was like yeah I can play along.

Mei reported that she was not provided with accommodations because “...my mom would talk to some teachers and some teachers would be like, oh she is really very smart. ...she is compensating perfectly well.” In addition, she was the only student with a visible disability in her high school, and experienced disability stigma. She never wanted to call more attention to herself; she never pushed for accommodations, and so she got none in elementary school through high school. She avoided drawing any attention by advocating for accommodations because already in some classes such as gym classes she dealt with pity and isolation. The excerpt below captures her experiences:

MEI: ...first of all, not being surrounded by anyone with a disability I thought I was like some person on an island over here... I didn’t want to draw any more attention to myself than I already had [by asking for accommodation]. And I was like I'm going to be normal. ...//I feel like it [accommodation] would have magnified it ... [her disability].

Likewise, Kim described that he was very sensitive to disability stigma and he never wanted to use the white cane. Even though it would have made his mobility easy
and safe, particularly when changing classes or walking in the busy school hallways. The excerpt below captures Kim’s feelings:

**KIM:** *I never wanted to use white cane—as far as being a visual compensation—just never was something I wanted to do, it seemed like extra stuff that I had to carry around. ...I didn’t want to carry it around; that thing is too much. I was like this thing, I don’t know what it is, but I’m going to leave it somewhere. It’s more of a pain in the ass than [inaudible]. ... More or less, people are going to be like, what are you doing?*

Irrespective of the affordances and challenges of having or not having accommodations, the IEPs and 504 Plans participants had in high school made it possible for them to register with the disability services office (DSO) once they moved to college. After moving to college, participants had their disabilities documented by the disability services office (DSO), which qualified them for college services, support, and an accessible environment. And so they were able to receive accommodations that facilitated their participation in learning processes and social life, hence their flexible transition. All of the participants were registered with the disability services office, which provided most of the support and services that facilitated their learning. They also reported that most of the accommodations and support they received were provided in liaison with other departments, for example the DSO in conjunction with the department of mathematics. **Rita** reported that the DSO played a critical role in her transition to college: She found “*the disability services office services incredible*”; the services they provided to her were “*never ... aesthetic [but made] ...learning possible.*” She mentioned that besides provision of disability services, the DSO promoted disability identity. In the excerpt below, **Rita** mentioned how the DSO contributed to her self-awareness through provision of accommodations.
RITA: ... So the ability to come here and disability services office says, “Yes we can assist you” was encouraging. When I had my meeting with my counselor, I wasn’t sure what my diagnoses would say because of my brain issues; what is it, how is that related to learning besides just taking medicine. Because I had a brain surgery, the disability services office said, in case something happened I would have medical proof through recognized Savvy University’s office once I join. Once I joined, they were like your disability issues qualifies you for these, here are your accommodations. And I was not ready for them. I didn’t know that I would get time and a half on a test, I didn’t realize I could get a note taker, I would get somebody to take notes because I have difficulties doing that. My other accommodations that are normally given with my diagnoses but ....my diagnosis has a variety of symptoms. So, one of my diagnosis symptoms is abnormal and it says I have weighting distractions... if I carry ... something very heavy for me I usually end up getting a migraine. So, I usually carry a small pass/purse that most people consider as my backpack because it’s big enough to hold my notebook, pens, and my iPad, and my phone. I can’t carry anything else. I can’t carry textbooks because they’re too heavy.... So one of my accommodations is if I buy a textbook and I prove I bought the textbook, the online version, it can be made available to me in PDF... through the disability services office. ...just because the textbooks are heavy they are like ‘Okay, this is a reasonable case, we can give this to you and this service.’

The students shared that they managed their coursework despite disability and health issues because they were smart, made wise choices, and benefited from the accommodations offered to them by various university services. They also described receiving accommodations from instructors that enabled their competences. For example, Hera attributed her success in college to the provision of accommodations, which ensured that she received learning materials even when she could not attend class because of illness. She shared that when she is “really, really sick” her “teachers ... make accommodations so [she does] not have to come to class” which ensured she moved at the pace of the class with learning. Teachers would “send me notes or instead, they’ll have a note-taker in class that will send me their notes”.

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June shared that her disability/illnesses made learning difficult, especially working on her assignments. Nevertheless, accommodations helped to mitigate the difficulties. For instance, she mentioned that instructors were understanding and provided extensions with deadlines, which enabled her to get good grades. She received various accommodations including double time for tests, taking tests in different rooms, and assistive technologies such as PDF books, and transportation. In the excerpt below, she describes how her disabilities were accommodated.

JUNE: ...I know my IEP made it possible to get accommodations when I came here [Savvy University]; because even though I never used my IEP, it was written like I could have extra time, because my body doesn’t like to settle. ... I was pretty much given what I have now, like a range of assistive technologies.... ...after having very unpositive experiences with my exams, with time, I got double time. ...now I have access to PDF books. Mostly, I use my computer or my tablet. It is just that my phone is small that makes it harder to manipulate especially when my hands aren’t working... //... I get ready to work on [assignments] and then something comes up. Like...last week, I literally tried to do my lab report while apparently I had a seizure.... So last time I was on my computer doing the assignment but nothing I worked on was saved apparently. So, I had to start over. And then I had another problem last night. I didn’t have anything done. I felt very dull doing the lab. I had to see my TAs: “I’m so, so sorry. I’m going to be late with the assignments.” And they were very understanding, and his response was, “It’s Okay. Take it easy a bit.”

Rita reported that her disability was documented when she moved to college, which qualified her for services and support from the disability services office, even though it took the university some time to confirm her disability status. She received time extensions with the exams, transportation, and living in a single room on campus. In the excerpt below, Rita described her first interaction with the disability services office.

RITA: I never had any assistance in high school or below.... Then I came here after my surgery and at that point I needed some accommodations because the recovery time of surgery is like five years, and so I’m still recovering... my first accommodations was in October 2012.... I was trying to get the
disability services office but the doctor was still stalling it. I don’t know why; they didn’t tell me the reason.

Moreover, Rita mentioned that she seeks the support of peers as note takers, which ensured she kept abreast with learning materials in her classes. Note takers are “someone who takes good notes and is ready to share them.” They are volunteers chosen by the disability services office and linked with students with disabilities. Rita described the benefits of note takers.

RITA: ... in a class of 1,000 kids, someone volunteers [to be a note taker] ... So if someone who takes good notes is ready to share them, they just take their notes anyway and I just use their copies. They can either take a picture or scan and email them to me. I don’t have to worry about taking the notes.... I just focus on one thing and that also helps me not worry to write but focus on what they [professors] are saying. I have difficulty listening and writing at the same time. And taking the notes in the class is difficult... but like with P Chem [physical chemistry] I really need the notes to see what happened after actual class, to know what’s going on, like ‘what is going on’.... For that reason, the accommodations are very useful.

Mei shared that the college-learning environment suited her needs and was adapting to it flexibly because of the many available alternatives, such as reading on the computer or printing out hard copies. In the excerpt below, Mei describes her accommodations.

MEI: ...in college, a lot of work is computer based like Carmen. All my classes are online.... all the stuff is there. But I don’t like staring at the computer like hours and hours a day... I may use a hard copy.... And now coming here, I’m like, I can ‘t process math faster like other people... you need 1 1/2 time and I’m like thank you. I feel that it is better [in college].

Counseling services also provided students with information that enhanced their knowledge and abilities to successfully maneuver the college system. Perry had no major concerns with the accommodations because his learning environment was not challenging. He reported that he “talked with my disability services counselor” about
accommodations on the first day of school. He also, through discovery, found the
environment, classrooms and infrastructure to be accessible. The excerpt below captures
his poise of dealing with the challenges.

PERRY: ...I talked with my disability services counselor about ...lab tables. I
haven’t run into any issue because our lab is cum lecture for physics. So,
the tables are actually the same. And I don’t think I have to take chemistry
class or biology class. So I shouldn’t run into the issue there. And I just go
with past experiences; I know that like in general I can transition to a
different chair if I need to. ... 

All of the participants also benefitted from various assistive technologies provided
at college. Hera described using Livescribe Echo Smartpen in college, which she found
beneficial in helping her be attentive in class without losing the notes. In the excerpt
below Hera described why she used the recording pen.

HERA: So why I like it [Livescribe Echo Smartpen] the most is sometimes they
write so much on the board that I don’t have enough time to write and
listen to what they’re saying. So I write really fast and then record, and
then when I go home, I’ll type what I wrote, and I’ll be able to listen to
everything that they said.

June used a range of assistive technologies including PDF books, computers and
tablets. In the excerpt below, she described the benefits of assistive technologies in
making learning materials accessible.

JUNE: ...now I have access to PDF books. Ironically, that was the hardest
accommodation for me to get ... it is very useful. For me, I have a hard
time to read regular books just because my hands don’t always like me.
And yeah another fact about me in high school, my right hand was
inexpressibly numb for five years. I could not figure it out at all. I was in
the marching band. I played ... the percussion; I would tilt the cymbals ...
with my hand. It turned out I had trouble.... I had the surgery going into
my senior year and then my hand was not what it should be ... what it was
earlier ... Because of that ...especially with my dystonia. Like, if I had no
workable hands, how do you expect me to open the books? ...apparently,
... I can’t carry heavy textbooks.... So, I’m glad it [PDF books] makes my
life so much easier... for me. Now I just carry a tablet with books on it.
Like for me, when I have dystonia with my hands, I do a lot with voice
commands... I can search a PDF for certain texts and email.... Mostly I use my computer or my tablet. It is just that my phone is small that makes it harder to manipulate especially when my hands aren’t working... Like when my hand gets stuck I ... go through this process, I have to get my phone on my chin, like I move my chin around to hit the button on my phone to call [the dispatcher] to get me rides that I need. I am actually thinking ... getting a smartwatch ... would be helpful.

Beyond the accommodations in their IEPs, participants also accessed new accommodations provided by the college and university, which included living on campus in accessible single rooms or adapted shared rooms, meal plans, accessible transportation, adapted recreational facilities and services. Most of the participants lived on campus residential halls. These were convenient for a number of reasons. They were easily accessible to classes, dining halls, libraries, and recreational facilities. Besides, living on campus was also safer and easier to travel from one location of campus to another even in the winter because paths were regularly cleared of snow. On campus life also made it easier to explore the environment because it was easier to schedule transportation services with the university paratransit services (accessible vans).

Specifically, Rita lived in a single apartment, which made it easier for her to control the environment such as noise, lights, and other demands that triggered chronic migraines. Nevertheless, by staying alone, she was able to manage these triggers for the most part. Also, staying on campus made it easy to work as a hall student assistant. Likewise, Zeus reported that living on campus perfectly enhanced his learning and socialization because it was accessible; he lived in an accessible room, had a student meal plan, and he could conveniently travel to many off-campus restaurants.

ZEUS: One thing I like about living on campus is you are nearby everything. //...it's [his apartment] spacious in that I can roll into the shower in my wheelchair. ... [I had] a traditional one [student meal plan].
Others lived off-campus, which offered accessible residential places, a variety of eateries, restaurants, bars, and other entertainment joints, factors that contributed to making college life convenient.

Participants that transferred from other colleges came to learn that different colleges offered different services to students with disabilities. **Zeus**, after switching to Savvy University, found the services far much better than those offered at Goodhope University even though the latter is well known for its accessibility. **Zeus** attended Goodhope University for freshman year but the university did not provide appropriate assistive technology that matched his needs. This impacted his learning and on one occasion he had to drop a class.

**ZEUS:** ...*Goodhope University...it is accessible; the problem really wasn’t accessibility, the problem is I have difficulties with writing and there are, like the tech people aren’t savvy. I don’t know how to tell, like they don’t hire people who have the knowledge [expertise to work with students with disabilities]. Like most of the time ... I get a writer’s person for writing the test or have note taking, like in one of my calculus classes or one of those where you sort of have to have knowledge in order to comprehend it. For instance, the note taker for that class [calculus] was a social work major or something. ...she wasn’t [conversant with the subject] and interested and so she wouldn’t take all the needed notes. //... I ended up dropping the class for other reasons but.... In basic math, my note taker was an English major. Here [at Savvy University] I’ve been told if you schedule a class early enough you would get somebody at least who has background in the class you’re taking or note taking ... a note taker is a person in the class.
<table>
<thead>
<tr>
<th>Participant</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hera</strong></td>
<td>Sent notes &amp; homework when in the hospital or home, adapted assignments, quizzes, or projects. Adapted assignments; research project to build tight structures and then get it approved by my teacher. However, I was not able to go in, show him the structure, so instead I would take a picture, and email it to him. …The research science class—I did not need to be pouring a lot....</td>
</tr>
<tr>
<td><strong>Hugo</strong></td>
<td>IEP—training in social skills, management of ADHD secondary behaviors such as anxiety.</td>
</tr>
<tr>
<td><strong>June</strong></td>
<td>504 Plan—excused from gym classes IEP—very sick frequently, excused from truancy charges. Did chemistry out of class.</td>
</tr>
<tr>
<td><strong>Kim</strong></td>
<td>Calculators that are larger than most, magnifiers, a laptop, Braille, extended time for tests, transcriber and readers. The teaching of Braille was integrated with my lessons. A specialist from the Mars Association for the Blind brought in an aid that came in and just helped me out, learned Braille, transcribed my Braille back into print for teachers. Opportunity to use a laptop for school.</td>
</tr>
</tbody>
</table>

Registered with the disability services office (DSO): counselors, advocacy. I take my test somewhere, received 1 1/2-time extension for tests. AT: computers, smartphone, and Live Scribe echo smartpen. Send me notes or instead, they’ll have a note-taker in class that will send me their notes, transportation, personal assistant that drove her to class.

Registered with the disability services office (DSO): counselors, advocacy. Received 1 1/2-time extension for tests. AT: iPhone and computers Single apartment on campus

Registered with the disability services office (DSO): counselors, advocacy. Received 1 1/2-time extension for tests; taking tests in different rooms, a range of assistive technologies, PDF books, computer and tablets, transportation. Shared an apartment on campus with a roommate.

Registered with the disability services office (DSO): counselors, advocacy. Received 1 1/2-time extension for tests. Large-print, Braille, scribe and readers, learning materials in different formats (e.g., PDF), technology (e.g., computers), extended time, and e-calculators. Transportation

*Table 4. 1 Accommodations and modifications.*
<table>
<thead>
<tr>
<th>Name</th>
<th>Services and Accommodations</th>
<th>DSO Services and Accommodations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mei</td>
<td>Speech therapy</td>
<td>Registered with the disability services office (DSO): counselors, advocacy. Transportation, received 1 1/2-time extension for tests. Single apartment on campus</td>
</tr>
<tr>
<td>Perry</td>
<td>Evacuation plan in case of fire, down the stairs like chair lift device, extra time on test. Extra time to get to and from classes because of crowded hallways.</td>
<td>Registered with the disability services office (DSO): counselors, advocacy. Transportation, received 1 1/2-time extension for tests. Shared an apartment on campus with a roommate.</td>
</tr>
<tr>
<td>Rita</td>
<td>Support from teachers with English and Government classes during home-schooling period. AP and honors exams after surgery. Did English out of class; modified assignments; teachers provided extended deadline, leniency in some things, provide PowerPoint of classes and class materials, modified assignments/tests.</td>
<td>DSO counselors; received 1 1/2-time extension for tests. If my stress level increases I get migraines, and exams are more stressful. Note taker, transportation, single room on campus residence hall, PDF books (online materials or e-book), taking tests in a different location, transportation. Single apartment on campus.</td>
</tr>
<tr>
<td>Zeus</td>
<td>Had a scribe that wrote his notes and take tests, extended time—double time, take tests in a different room.</td>
<td>Registered with the disability services office (DSO): counselors, advocacy. Note taker, someone to write for me, received 1 1/2-time extension for tests, transportation., Disability accessible single apartment on campus.</td>
</tr>
</tbody>
</table>

AP—Advanced Placement Class; AT—Assistive Technology; DSO—disability services office.
Summary of Accommodations

As shown in Figure 5 below, both availability and unavailability of accommodations influenced the student participants’ education outcome including their transition to college. Inadequate special education, related services, and support negatively affected participants’ functionalities and social and academic performances. They created educational demands that weighed them down. Students had individualized education plan (IEPs) or 504 plans; but their limited input in their planning and implementation led to exclusion of their interests and preferences. Due to their limited involvement, the plans were often inadequate and inappropriate. The interventions were sometimes wrong, which further made the curricula inaccessible, as in the case of inaccessible gym classes, and lack of a universal design in the laboratories. The plans did not reflect students’ abilities and potentials; thus, they functioned below their potentials. Some students, due to the nature of their disabilities, expected IEPs instead of 504 Plans. And because they unqualified for IEPs, they received limited supports since the 504 plan only detailed information such as excuses from certain classes or tolerance with absences. In particular, the assumption by teachers that those placed in gifted classes, advanced placement (AP) and honor classes could do without accommodations further made quality learning challenging, and caused social strain and mental stress that affected students’ relations with peers, teachers, and service providers. The feeling that they were not provided with adequate accommodations further caused the students to struggle with the dilemma over labeling. They wanted to be considered normal, which limited their advocacy for accommodations, making the inaccessible learning environments more challenging.
Unavailability of assistive technologies (ATs) in the classrooms for students to use made curricula inaccessible and learning environments unfavorable. They accentuated students’ disabilities and exposed them to disability stigma. On the other hand, though students were able to access some of the assistive technologies, it did not allow them to accomplish much. It is challenging for those who are blind to read voluminous work on computers or with Braille. Some teachers resisted having blind students use computers and magnified calculators in their lessons while others resisted integrating ATs in their pedagogy. Equally challenging was having parents who were incompetent in ATs such as Braille. Inaccessible accommodations contributed to strain in the family and school, and also contributed to stress and mental fatigue that the students experienced. For example, Mei read books by holding them up close to her eyes, which added strain to reading, and also exposed her to ridicule from peers. Also, while Perry could switch from his wheelchair to a stool in the laboratories, he was vulnerable to falling and injuring himself or others, and destroying property or equipment. Sympathetic students were afraid to interact with him as a result.
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**LEARNING PROCESSES, SOCIAL PARTICIPATION, EDUCATION OUTCOME AND TRANSITION TO COLLEGE**

**INACCESSIBLE ACCOMMODATIONS**
Inadequate special education & related services
- Limited input in planning & implementation of IEPs & 504 Plans; wrong interventions; limits potential abilities; inadequate, inappropriate, unchallenging goals
- Dilemma over labeling
Inaccessible learning environments, curricula & unadapted gym classes; high tables in the laboratories
- Unqualified for IEPs & limited supports;
- Placement in gifted classes without support;
- Lack of assistive technologies; Reading difficulties; Teachers resistance to ATs; Parents incompetence with ATs.

**ACCESSIBLE ACCOMMODATIONS**
- P12: Special education; IEPs & 504 Plans; accommodations tailored to one’s needs; sick leaves, nurture non-cognitive behaviors; safe & welcoming learning environments; related services.
  Assistive technologies (ATs) enhanced learning, mobility, access to learning environment; aesthetic or more friendly.
- College: Accessible infrastructure, Disability Services Office (DSO)—registration, advocacy, peer note takers, AT laboratory
  ATs distributed across the campus; related services.

*Figure 4. 5 The Impact of Availability or Unavailability of Accommodations*
Conversely, access to accommodations enhanced students’ functionalities, socializations, and competences, which contributed to a positive education outcome and eventual transfer to college. Special education services enhanced their abilities including their cognitive and academic competence, social participation; it mitigated their disabilities and pain, and enhanced their confidence. As mentioned above, some of the students had IEPs while others had 504 plans. Different schools provided a variety of accommodations that were tailored to individual needs. Students with IEPs accessed special education and related services that enhanced their academic competences. Some teachers provided accommodations, which involved adapting learning materials and adapting learning settings to make them safe and welcoming. In some situations, students were actively involved in the planning and implementation of their IEPs and 504 Plans, which helped them develop non-cognitive skills such as decision-making, self-awareness, and self-determination.

While some students struggled with disability stigma, awareness that documentation of their disabilities would make give them access to needed accommodations in college finally convinced them to accept their disability qualities. Provisions of IEPs helped to make students ready for college. The 504 plan documentation of students’ disabilities and illnesses, allowance for sick leave, and proper management of their absenteeism all contributed to emotional stability and confidence, as well as improve their trust in certain peers and adults. The students were able to access related services such as transportation, therapy, and social services provided by the Bureau of Vocational Rehabilitation. These services led to acquisition of assistive technologies (ATs), their ability to explore their environment, and as a result of wider
interactions, they managed to expand their educational experiences. Assistive technologies enhanced learning, mobility, and access to wider learning environments. Universal ATs such as the iPhone or smartphone were aesthetic or more friendly, which enhanced participants’ image and self-esteem. In college, participants were on an accessible campus with good infrastructure. They also accessed services provided by the disability services office upon registration. Resources and services included AT laboratory advocacy and peer note takers. Some ATs were distributed across the campus laboratories and libraries. The students were able to access related services such as counseling services and transportation that were provided by complementary departments. These resources, services, and supports enabled students to take control of their lives. As a result, they were able to develop positive qualities and behaviors needed to lead a valued life. Their knowledge and skills include independent living skills, self-advocacy skills, interpersonal relationships, communication skills, leadership skills, and self-attributes such as self-determination.

Accommodations such as extended time, integration of assistive technologies such as PDF books, computers, and special or related services, note takers/scribes, therapy, and accessible transportation bridged the students’ personal and environmental demands, enhanced their competences, helped them to invest in their education and to meet the school requirements. They succeeded and proceeded to subsequent educational levels, made academic adjustments and endeavored in their academic work even though all of the students did not perform to their potential.
Summary of Academic, Social, and Accommodation Domain Findings

Figure 6 below shows the interactions of academic, social, accommodation domains during participants’ schooling, P12 through college. In different capacities, different variables hindered and facilitated participants’ access to quality and quantity education and their eventual transitioning to college. The academic, social, and accommodation domains acted together in ways that influenced the students’ learning processes, education outcome, and eventual transition to college. Interlinking of demands related to academic, social, and accommodations created barriers that made learning environments less inclusive and supportive of participants’ access to quality education, ability to form reliable supportive large social networks; thus, adversely affecting their overall growth and development. Conversely, the interactions of affordances related to academic, social, and accommodations facilitated students’ access to resources, services, and support, and in the process they contributed to their acquisition and development of competences that resulted in successful learning outcomes and eventual transition to college. As a result of the affordances, students managed their demands and barriers to successfully navigate their home, school, and education systems to gain a higher education.

Interactions of barriers and affordances created a pool of experiences and behaviors that directed students in their education. Barriers that revolved around their disability and illnesses were negative cultural practices that resulted in disability stigma, non-inclusive practices, and lack or limited action in making learning spaces and materials accessible. Conversely, students’ successful mobility P12 through college depended on their cognitive, non-cognitive, and psychomotor behaviors and attributes;
affordances of schools and college placements, and the opportunities in the communities; resources, services, and support provided by instructors, peers, friends, and families. Specifically, disability positively and negatively affected students’ access to education, their functioning, and relations with people in their milieu. While disability and illnesses created educational demands, they were also sources of individual experiences that resulted into development of competences that pushed them to succeed in school. Students developed various strategies that helped them cope with disability stigma, and invest in their education and social participation. These strategies included positive thinking that disability was just a part of the whole of them; trying new things such as assistive technology; seeking the support of trusted people and/or developing close relationships with specific teachers who provided support during the transition process; setting higher personal goals than the goals described in the transition plans; and working harder to disprove the low expectations of teachers, peers, and parents. Therefore, some students compensated for their disabilities, which allowed them to move across grades, to graduate from high school, and transition to higher education institutions.
Figure 4.6 Conceptual Model for P12-College Education and Transitions
CHAPTER 5

DISCUSSION OF FINDINGS AND IMPLICATIONS

In this chapter, the study and its purpose are summarized. This is followed by the conceptual framework, and an in-depth discussion of the findings as it relates to the literature in chapter two. The subsequent segment addresses the implications, limitations of this inquiry, and recommendations for future research. The final section gives an overall conclusion to the study.

Summary of the Study and Its Purpose

This dissertation focused on transition experiences of students with disabilities in a mid-western research one university. This research study incorporated perspectives of students on their transition experiences to complement findings on programs, practices, policies, and teachers’ perspectives. The goal was to capture transition moments in students’ educational lives that could illuminate individual and systemic efficiencies or inefficiencies that will enable stakeholders to address factors that would lead to an increased number of students with disabilities transitioning to colleges and universities.

The purpose of this dissertation was to identify affordances, barriers, and behaviors, and describe factors that influenced undergraduate students with disabilities’ successful navigation of systems P12 through college from their perspectives, in order to gain a deeper understanding of their transition experiences that will inform transition programs.

Specific research objectives were: (1) To identify experiences of students with disabilities during P12 education that contributed to their social, emotional, and cognitive
competences to attend college; (2) To identify experiences of students with disabilities during P12 education that hindered their actualization of academic goals; and (3) To identify areas of school life that students with disabilities invested in during P12 education to succeed academically.

Responses to these inquiries were based on the thematic content analysis of data collected through face-to-face interviews with eight undergraduate students with disabilities, whose major disabilities included systemic lupus, Asperger’s syndrome, Stickler syndrome, cerebral palsy, spina bifida, visual impairment, brain malformation, and fragile ataxia and hydroptic cardiomyopathy. This section also includes a comparison of the findings with the literature review. Also, pertinent research findings from literature not reviewed in Chapter 2 are discussed to further validate the themes and the framework.

**Conceptual Framework: Disability Studies in Education**

Disability Studies in Education (DSE) “is an intellectual and practical tradition intersecting disability studies and education research, creating a general orientation to disabilities as social and political phenomena within activities of education, schooling, and learning” (Danforth & Gabel, 2006, pp. 4-5). It investigates the meaning of disability, its interpretation, enactment, and how it is resisted across individuals and groups within communities and their cultures (Baglieri et al., 2011). It offers counter-discourses/practices; and from this new window, students with disabilities are viewed as individuals whose circumstantial factors have conferred to qualify and justify their marginalization (Danforth & Gabel, 2006).
The core tenets of disability studies in education include: (1) placing persons with disabilities central to theories of disability; (2) privileging knowledge derived from the lived experience of persons with disabilities; (3) working with persons with disabilities as informed students or co-researchers; (4) valuing disability as a natural part of human diversity, rather than a dysfunction; and (5) supporting students with disabilities in the development of a positive disability identity (Connor, Gabel, Gallagher, & Morton, 2008; Connor, 2012). With this broad approach to disability, disability studies in education provide a rich and strong theoretical basis for examining complex aspects of disability and education (Baglieri et al., 2011; Taylor, 2006;).

The general picture of disability as a handicap that limits individual intellectualization and socialization pervade the academic sphere. However, disability studies in education locate students with disabilities’ strengths in personal traits and agency. Access and inclusion is a major theme for evaluating equity and equality; fair treatment and representation of persons with disabilities are the basis for judging systems and institutions, practices and processes. In judgment of students with disabilities’ potentialities, the disability studies in education provides the litmus from which educators and society come to understand individual’s disability versus their functionality in the milieu. Accordingly, students with disabilities’ personal experiences provide ideas that heals, corrects, sensitize, and afford dialogue and counter-discursive on education and disability stigma (Siebers, 2008). By “[p]roviding a wide variety of self-narrated accounts can support teachers and children by revealing and discrediting the deceiving “neatness” of disability “diagnoses”” (Baglieri et al., 2011, p. 273).

Synopsis of Findings
Mobility of students with disabilities P12 through college is influenced by many factors as discussed in Chapters 2 and 4. Compatibly, attending college is a good measure of the efficacy of education programs and students’ behaviors and abilities (Horn et al., 1999). The undergraduate students without disabilities\textsuperscript{3} went through change of state and place as they transitioned P12 through college. However, these changes differed with each student because of differences in age, gender, dis/ability, personalities, access to schools and colleges, access to curricula, years in school and year of high school graduation, differences of families, and the state of their communities, and which affected their access, retention, progression, and transitions. Intersection of these factors also affected students differently depending on the visibility or invisibility of their disabilities.

While change in age is linear, other changes are less linear, and so students experienced both exciting and intimidating moments as they moved through grades, schools, and colleges. Challenges were testing moments but they also inculcated behaviors such as perseverance that pushed them through difficult times. In particular, high school was a challenging period for most students because of the awareness of their rights, needs, discernment of the relationships they had with adults and peers, and because of limited supports. In contrast college was a healing and re-imagination period that inculcated confidence and responsibility and accountability.

\textsuperscript{3} In this Chapter 5, undergraduate students with disabilities are hereby referred to as student participants for readability purposes. Also, herein the student participant is unanimously used to refer to both a child with disability and a youth with disability unless designated to differentiate students, for example students with disabilities, children with disabilities, and children or students without disabilities. However, singularity and plurality is contextualized.
In order to facilitate understanding the transition experiences of undergraduate students with disabilities, this chapter discusses the interaction of findings to the research questions, the current body of literature, and the advanced concepts and arguments of empirical and theoretical relevant emergent researches and analyses on students with disabilities’ education experiences. These are entwined with the disability studies in education (DSE) to help understand their experiences relative to disability, milieu, culture, and language, and institutions. The affordances and barriers related to the individual student and the environments are discussed based on academic, social, and accommodation domains. However, the research categories intersected, overlapped, and in some cases, the differences between the academic and social categories blurred. But all were considered based on the intent of the discourse or deed and their weight in answering the research questions and achieving the purpose of the dissertation. For example, during circle time, Mei was forced to pull the book close to her face to read the blurry images with one correct eye (non-blind eye). The act of reading the story book facilitated the acquisition of academic knowledge from the story; and at the same time, the act of reading the story in turn or sequence was a social process geared toward allowing input of all students in the class. The discussion below is organized based on the research questions to show how the findings are consistent with other research and practices, and to provide an in-depth and detailed representation of the perceptions and experiences of students regarding P12 and college education and transition programs; but first, a summary of the student participants’ disabilities.
Research Question 1

What critical factors helped students with disabilities to successfully navigate the academic demands during P12 education to transition to college?

ACADEMIC DOMAIN

The academic domain focuses on factors that affected students’ education relative to academic demands and academic competences. Academic demands are education activities or tasks, curricula based course related work required of students to perform at school or home that enhance their education adjustment in a subject area to move to the next academic level. The requirements are related to computation and communication (e.g., listening, reading, speaking, writing, and calculation); classroom practices that focus on thinking, understanding, and presentation of knowledge and skills; and competing expectations and goals of stakeholders in education (e.g., the expectations of individual and groups of students, teachers, educators, administrators, policy makers, families, community, and governments) (Ames, 1992; Meece, Anderman, & Anderman, 2006). Besides requirements and expectations, environmental risks (e.g., school bullies) and personal traits (e.g., disability and age), and goals (e.g., educational, personal, academic) can be sources of academic demands. On the other hand, competence is a collection of related behaviors, attitudes, abilities, knowledge, skills, and dedications that allow the student to manipulate one’s environment to realize an objective (Kampsen, 2009). Thus, academic competence is a collection of qualities that enable students to act effectively in any learning setting (Horton, 2000). Then, academically competent students capably engage in learning processes to meet academic requirements, expectations, and
objectives to exhibit education outcomes; they flexibly cope with the education demands in learning settings to succeed academically (TENCompetence Learning Network).

As presented in Chapter 4, different factors that contributed to students with disabilities’ academic demands and academic competences were related to interactive variables of individual, institutional, instructor, peer, and family circumstances.

**Individual-Related Factors.** The individual-related factors contributed to both academic demands and competences as students navigated through the education systems to transition to college. They experienced academic demands related to physical and physiological disabilities, illness, pain, injuries, medical regimen, infrequent hospitalization, surgery, medication and their side effects, guilt and fear, and unsatisfactory accommodations because of teachers’ lack of emotion or enthusiasm to provide supports, or lack or limited accommodations because of late diagnosis in high school, which meant attending school without adequate support. These factors made involvement in learning processes challenging, and caused students to put in extra efforts to catch up academically and socially. These individual-related factors also contributed to school absences, interfered with academic interactions, and increased the time students spent on schoolwork including involvement in laboratory, gym activities, and group projects. Disability and frequent illnesses were also sources of fears. Some students were worried that their disabilities would limit their achievement of education and career goals. For instance, in high school June was worried she would not meet the school requirements to graduate with a diploma on time to transition to college. and upon exiting high school, she again experienced many illness-related difficulties that pushed her into worries that she would not attend college at all or when her peers were still in schooling.
Again, after admission to college, she was worried her cerebral palsy condition could be the basis of her missing admission into the medical school. Moreover, illnesses interfered with some students’ high school graduation plans, made their management of changes difficult, or caused some students to postpone or delay their switch to college. Once in college, illnesses made pursuits of academic interests and career choices difficult since some students were required to be in the laboratory even when sick in order to collect correct data or results. Besides, medications caused lowered cognitive functioning and limited their executive skills that made students struggle with learning and organization of studies. It was difficult for some students to take or attend morning classes because the medicines left that drowsy. For others, medications caused fluctuation of moods and temperaments that affected their relations with peers and teachers. Then other medicines were less effective, which left students in pain, exhausted, drained, and unable to focus on their personal studies, or to socialize. In particular, those students that used sleeping pills to manage insomnia experienced fatigue and dizziness that made involvement in learning processes difficult.

On the other hand, students’ cognitive and non-cognitive competences, positive inclination to learning, and educational goals led to their academic competences that contributed to academic successes and transition to college. They exhibited cognitive competences, they were intellectually high functioning, and so they capably managed academics despite illnesses and limited supports. They used their cognitive abilities to make learning possible, which included making appropriate changes on their learning schedules to progress with education, they invested in their areas of strengths, and geared effort toward getting high grades and achieving own set education goals. Moreover, they
involved in class activities, completed learning tasks, solved problems, met school expectations, and maintained three plus GPAs that got them admitted in programs of interest at Savvy University. As a result of their academic competences, they were satisfied with the academic preparations at high school level, which they attributed to contribute to their academic progress at college.

That individual-related factors were some of the sources of student participants’ academic demands is similar to Connor’s (2012) findings. His study with three college students with learning disabilities (LD) on their transition experiences showed that disability might have serious consequences on student’s academic work, self-esteem, aspirations, socialization, integration, and participation in university activities. While students identified their disabilities as contributing to academic demands, the disability scholars argue that the entwinement of disability and negative cultural practices hinder provision of resources, services, and supports essential to mitigate disabilities and environmental barriers (Danforth & Gabel, 2006; Davis, 1995; Siebers, 2008). They argue that treating all students equitably requires creating enabling learning environments that nurture reciprocal relations. Through reciprocal relations teachers, peers, families, and students with disabilities come to understand one another, and through supports, students with disabilities feel belonging, which further stimulates their innate abilities, nurtures positive qualities, and lead to academic success. However, disability is the source of fear, stigma, and stereotypes, and oftentimes, it is the perversions of fear of disability that make it difficult for teachers, administrators, peers, and even students with disabilities themselves to create inclusive schoolwide culture (Baglieri et al., 2011; Liparini, 2008; Megivern et al., 2003; Mowbray, Bybee, & Collins, 2001). Quackenbush
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(2008) observed that the fascination with glamour, fear of illness and pain often turn disability into a distasteful experience that leads to war on diseases, turning disability into an invasive alien thing. This way, individuals with disabilities are turned into public enemies, which again indorse the disability mythologies and stigma. These negative perceptions continue to qualify discriminations, invalidations, and exclusion of students with disabilities from general education settings. Accordingly, although students recognized that their disabilities negatively affected their access to education, they may be unaware of how others or systems create barriers that cause them to self-blame, or how fear of disability entwined with other cultural practices predisposes them to academic and social risks, and or add pressures. That barriers are externally caused rather than emanating from the individual student trait, is also supported by Banks (2013) findings. In her study with three college African American with learning disabilities, Banks found that most barriers her students experienced emanated from teachers, peers, or parents rather than their own disabilities. The only source of individual-related barrier was lack of disclosure because of disability stigma which made it difficult for them to seek accommodations. Other scholars have also identified students from minority groups to be reluctant in seeking supports because of stigma. Durodoye et al. (2004) found that African American students with disabilities in their attempt to escape from stigma and stereotypes associated with race and disabilities rarely seek for services and resources that may mitigate their problems. McDonald, Keys, and Balcazar (2007) found that college students with disabilities of African American or Latino ethnicity concealed their learning disabilities because of stereotypes, denying themselves services and resources that may mitigate their problems. McDonald, Keys, and Balcazar (2007) found that college students with disabilities of African American or Latino ethnicity concealed their learning disabilities because of stereotypes, denying themselves services and resources that may mitigate their problems. McDonald, Keys, and Balcazar (2007) found that college students with disabilities of African American or Latino ethnicity concealed their learning disabilities because of stereotypes, denying themselves services and resources that may mitigate their problems.
social construct supported by cultural practices that devalue disabled bodies and value able-bodied bodies (Barton, 1993; Brantlinger, 1997; Goffman, 1963; Oliver, 1992, 1993; Siebers, 2008).

Cognitive competence and non-cognitive competences (e.g., self-determination and self-awareness) were individual-related factors that contributed to student participants’ academic competences and success were. Discussions on the definitions, commonalities, and differences of mind, brain, intellect, and cognition is beyond the scope of this dissertation because of the different school of thoughts—philosophers, psychologists, neurophysiologists, that champion certain orientations of their understandings (see the works of Perry, 1912, Whitehead, 1925; John Locke, etc.). Nonetheless, in this dissertation, cognitive competence is the ability to perform and manage academic or knowledge-related complex grade level tasks considered essential for school progress. Cognitively competent students have learning repertoires that allow them to creatively and analytically manipulate content in subject areas (Kampsen, 2009). Elements of cognitive competences include language abilities and communication skills (e.g., listening, reading, speaking, and writing abilities for success), metacognition, memory ability, mental stress mitigation ability, good study habits (e.g., appropriate use of time—sleeping time), interests, and self-monitoring strategies (Piaget, 1977; Sun & Hui, 2006, 2012; Vygotsky, 1978). While non-cognitive competences are behaviors, attitudes, emotions, abilities, personalities, attributes, characteristics, traits, skills or feelings that enable students to effectively function in the learning settings (Sien, 2014, p. 20). The definition, identification, classification, and assessment criteria of non-cognitive behaviors or self-constructs in education are fluid; however, they are a mixture of
behaviors that distinguish an individual from others. Non-cognitive competences are the product of nature and nurture; they are innate (genetic or inherited), or acquired through interactions with one’s milieu or exposure to cultural orientations and education. They are also static and dynamic, and they affect learning outcomes differently (Garcia, 2014).

Students’ academic competences, education outcome, and successful transition to college were as a result of their cognitive and non-cognitive competences—self-determination and self-awareness (which I discuss under Research Question 2). Intrinsic characteristics are qualities that define the individual relative to physical, social, emotional, and cognitive constructs such as resilience, awareness, and determination (Carter et al., 2008; Linnenbrink-Garcia et al., 2008; Maehr & Zusho, 2009; Walker & Test, 2011). Deficiency in these qualities predisposes students with disabilities to failure (Connor, 2012, 2013). Before the enactment of EAHCA 1975 mandating schools to make education accessible to all students with disabilities, understanding of learning development was based on competing learning theories such as behaviorism, cognitive theory, cognitive-behavioral theory and constructivism. These behavioral, and psychological models of Jean Piaget, B.F. Skinner, and John Dewey linked learning behaviors and cognitive development (DeVries, 2000). Consequently, students with disabilities were deficient cognitively by the fact that their growth never fitted the ‘normal’ growth and development pattern ascribed to children without disabilities (DeVries, 2000). Besides, emergence of these competing theories of learning processes made it difficult to consolidate support among educators on children with disabilities’ education albeit learning theory explains individual behaviors through the notion of learning (Danforth, 2009). Nonetheless, with the passage of EAHCA, earlier and
emerging environmental-related learning theories such as sociocultural theory (Vygotsky, 1978, 1986) emphasized importance of milieus in the growth and development of children’s competences. Vygotsky (ibid) considered social interactions as the basis for growth and development, and so children with disabilities could learn when provided with rich social settings. The three elements of sociocultural theory are social, cultural, and historical. The cultural element focuses on people’s way of life, their interactions mediated through shared beliefs, symbols, and interpretations of artifacts and activities in a social environment (Charlton, 1998; Pollock, 2008). Through social interactions, individuals are able to propagate customs, rituals, mythology, signs and symbols, and also they are able to make them interact with history, politics, power, economics, and nature in ways that allow for their institutionalization in the systems and operation of life. This ability of cultural practices to manipulate individuals and situations make it important influential learning component. Hence, the argument that all children can maximize their potential through interaction with more competent persons and through appropriation of learning tools (Rogoff, 1990). As discussed later in the chapter, this argument has influenced inclusive education scholars who argue that segregating children based on their abilities, race, orientations, and other human differences is counterproductive and an injustice (Danforth & Gabel, 2006; Ferri, 2011; McCabe, 1997).

In addition, students’ self-determination contributed to their academic excellence and transition to college. Self-determination is the exhibition of personal agency (Martin & Marshall, 1995), “the ability to define and achieve goals based on a foundation of knowing and valuing oneself” (Field & Hoffman, 1994, p. 164; as cited in Ankeny &
Lehmann, 2011, p. 280). Based on Field and Hoffman’s (1994) model, Ankeny and Lehmann (ibid) identify elements of self-determination as knowing oneself, valuing oneself, planning, acting and experiencing action, and learning from the action. Therefore, individuals with self-determination qualities value self, understand their potentials and limitations, needs, interests, and preferences well enough to evaluate options, to set goals based on what they can achieve or accomplish, to act on plans that lead to new experiences and re-learning, and to control and decide a clear vision for their future (Ankeny & Lehmann, 2011; Cobb et al., 2009; Field & Hoffman, 1994).

Accordingly, self-determined students set genuine long-term goals guided by their own abilities to institute measures that enable them to function in their learning settings (Thoma & Getzel, 2005; Thoma & Wehmeyer, 2005; Wehmeyer & Shogren, 2008). Self-determination skill is an essential constituent of individualized education programs (IEP) particularly for students with disabilities moving to college since changes of statuses require them to disclose their disability and to take responsibility in accessing accommodations (Ankeny & Lehmann, 2011; Bremer, Kachgal, & Schoeller, 2003; Grigal, Neubert, Moon, & Graham, 2003). Specifically, Ankeny and Lehmann (2011) found that self-determination skills were critical for students with disabilities transitioning to college. They found that environments and personal experiences fostered self-determination thus contributing to their investments in their education. However, not all students possess self-determination skills, and so they need external supports from parents, peers, or teachers (Ankeny & Lehmann, 2011; Banks, 2013). Moreover, teaching and institutionalization of self-determination is realized when systems support student’s self-acceptance so they can appreciate their qualities (Williams, 2009, p. 90).
Besides cognitive competence and self-determination, student participants exhibited positive inclinations toward education including their propensity to pursue a higher education. They were interested in learning, thus, they partook in learning activities, and maintained good standing in their academics P12 through college. Their strong interests in schooling witnessed them be on the top of what they were doing, and because of self-control they managed academic affairs with little to no supervision and accomplished learning outcomes at each academic level to meet academic expectations and education goals. They also navigated the academic, social, and emotional/personal realms to fulfill school requirements that aided their transition to college. Their education inclination inculcated confidence in their academic capabilities, which helped them develop adaptive skills and avoid destructive behaviors that degraded their knowledge. They flexibly responded to problems with solutions, made sound judgments after inferences, cogitation, analysis, selection, and appraisal of issues. They managed academic demands by adopting academic regimens such as choosing specific learning activities, and dedicating time to them, which helped them accomplish tasks that otherwise would have been restricted due to their disabilities and illnesses. These helped them develop alternatives to issues that shielded them from unwarranted inherent and environmental challenges facilitating their upward mobility. They also compensated for their disabilities in the absence of accommodations and supports, even when needed. For instance, Mei was able to compensate blindness in one eye by holding books close to her face, while Perry switched from the wheelchair to a stool that allowed him to work on the high laboratory tables.
Students’ academic interests and values contributed to their positive education outcome; they engaged with learning activities, formed positive relations, had self-drive, self-knowledge, and the ability to communicate their needs. They also believed in their own capabilities, and because of their internal attributions, they planned, set goals, persisted, and executed decisions despite challenges of illnesses, limited supports, and difficult relations. These findings are similar to findings by Ankeny & Lehmann (2011) and Connor (2012) that revealed that limited support stimulated students’ intrinsic qualities that contributed to their competences and academic success. Academic values are student’s desire, preference, or want of certain academic goals and outcomes while academic interests are the individual’s power or curiosity to work and achieve certain specific academic outcome (McGrew, 2008). Some attributes such as patience, resilience, persistence, creativity, sociality, and desires to succeed encourage students to set achievable goals and to develop mechanisms and measures to deal with challenging situations within or without, which leads to academic success (Gerber, et al., 1992).

Equally, student participants succeeded in their education because of the high education and career goals that also saw them value themselves and develop positive attitude about life as they went through education systems. They set appropriate, realistic, high short- and long-term academic goals, which were much higher than that of some parents and teachers’ expectations. Their belief in own capabilities helped them control their educational life by planning and regulating academic approaches, social participation, and personal needs. They were passionate with their education and career goals, which were based on their abilities, interests, preferences, and later in high school, the desire to attend Savvy University. As a result, they invested in their education, and
engaged in different learning processes that enhanced their competences, which led to success in academics; they worked hard to realize, maintain, and actualize the education goals as they moved P12 through college. They developed positive perspectives and self-schemes that helped them to prioritize and monitor their progress by directing their attention and effort toward goal-relevant activities, and away from goal-irrelevant activities. They also initiated measures to address issues and barriers caused by their disability, illness, isolation, or limited accommodations. Measures involved efficient use of their study time, effective work on assignments and projects, pragmatic decisions, training self to use assistive technologies to increase one’s skills and cognitive competences. And so they managed challenges to remain enrolled in school and to maintain high GPAs. They persisted even in the face of difficulties addressing emerging issues and guiding their education progression, which helped them to direct their attention, effort, and energy into productive activities that opened up more education opportunities. So they were able to outperform peers in the academics, which inculcated confidence. Also, their diligent involvement in learning activities won them support from a few teachers and peers who mentored and guided them, and helped them maneuver through the education systems and to control important aspects of their lives, which led to realization of desired academic outcomes and switching to college to pursue programs of interest. College education and career goals were intertwined with their experiences; some students’ majors were informed by their disabilities/illnesses, learning capabilities, and the need to lead a productive life outside of their parent’s home. For instance, June and Hera’s goals to pursue medicine were informed by their disabilities/illnesses, and the feeling that medics were uninterested in addressing their health issues.
Students are more likely to perform better in academics when they have education goals, specifically, personal best goals (Martin, 2012). Martin (ibid) defined “personal best goals … as specific, challenging, competitively self-referenced targets towards which students strive” (p. 91). In a study conducted by Martin (ibid) with students with and without attention deficit hyperactivity disorder (ADHD) revealed that “personal best goals contributed to all students’ personal growth and personal development and academic achievement; students were committed in doing relevant tasks that led to self-efficacy and self-motivation. He also reported findings of previous studies that showed that students with personal best goals improved in their academic, adaptive behavioral engagement, and it also provided direction that helped students to focus on certain outcome. Besides, students with personal best goals were more likely to be committed to their work and to persevere changing situations; they are more likely to invest in their schoolwork and assignments, which contribute to positive education outcome (Martin, 2006, 2011; Martin & Liem, 2010; cited in Martin, 2012, p. 91). Also, Webster (2004) found that students with disabilities were intuitive and knew what they wanted to pursue after high school. This knowledge translated in setting goals, taking risks, working hard, having positive attitude towards self, and determining their journey to college for those that aimed at pursuing postsecondary education. Similarly, Garner’s (2008) qualitative study with college graduates with learning disability (LD) revealed that those who set their own education goals were motivated and confident, and so they strived to improve relations with peers, teachers, and parents to access support, services, and resources.

Institution-Related Factors. Also, institutional related factors contributed to students’ academic demands and competences. Students experienced academic demands
related to stressful learning environments due to unfavorable settings, inaccessible
classes, inaccessible curricula, uncoordinated programs, and high student-teacher ratio.
Besides, non-inclusive cultures exposed students to discriminations and harassments that
made learning settings unpleasant, limited their academic interactions, and caused social
pressures. Some schools rejected students because of limited resources to manage their
disabilities. In particular, Hugo was enrolled in public schools that provided insufficient
learning opportunities until his family moved to another state and had him admitted to an
inclusive school for children with and without autism. Also, June's parents had to push
for her to be enrolled at the elementary school that her sisters were attending at the
opposition of the school board. Students registered such experiences as schools treating
them differently because of their disabilities. At various periods of their P12 schooling,
students’ involvement in learning processes was limited by unfavorable and unfriendly
learning settings and inadequate support, which made them struggle with changing
classes, struggle with learning activities, involvement in physical education classes, and
taking of high-stake tests/standardized tests. Moreover, they were in general education
classes which meant high teacher-student ratio, and because of the large student
population, they had limited interactions with their teachers. While school environments
critically contributed to academic pressures, other school circumstances also enhanced
their competences.

Conversely, student participants’ academic competences were nurtured by their
access to regular schools and inclusive schools provided challenging but safe learning
environments and made general education curricula accessible. Academic preparedness
helped students with disabilities to flexibly adapt to college life after switching from high
school, and even those that transferred from other colleges to Savvy University had enough college credits to join programs of interest. Their placements in regular schools or inclusive schools provided academic and social opportunities that facilitated their cognitive and non-cognitive competences. They were also encouraged to invest in their education, which helped them earn qualifying grades to advance to college. Some were in gifted classes, college prep (CP) level classes, advanced placement (AP) classes, honors classes, and the international baccalaureate program while others were enrolled in the Postsecondary Enrollment Options (PSEO) program. These classes and programs exposed them to challenging competitive learning settings where they were held at high academic expectations and were forced to showcase their understanding of learning by completing tasks, projects, assignments, and tests. They also accessed general education curricula and took college prerequisite college entry courses that prepared them for standardized tests and other college qualifying exams such as the American College Testing (ACT), Scholastic Assessment Test (SAT), Advanced Placement Exam (AP), or Ohio Graduation Tests (OGT). They interacted with diverse teachers and peers that exposed them to different behaviors from friends and bullies from whom they learned a variety of experiences and coping skills that later nurtured their perseverance, self-determination, and self-awareness. The opportunities to compete and compare their abilities, performances, and personalities with that of peers inculcated positive attitudes that supported their positive adjustment of their perceptions toward colleagues and education. Thus, they were able to control their own lives; they developed positive self-perspectives and self-schemes instead of self-handicapping behaviors, which helped them address their education and personal issues, make independent decisions, and set
achievable goals. Still, cooperation from different teachers, service providers, and families led joint efforts that exposed them to different experiences early on that facilitated their competences.

Taking college preparatory classes also enhanced their competences and mobility through the systems to advance to college. Some high schools offered college preparatory courses that majorly helped students with disabilities take Science, Technology, Engineering, and Math (STEM) courses and the PSEO program whereas students with disabilities earned college credits after successful completion of college-level courses. These opportunities enabled them to graduate from high school academically prepared for college, to jumpstart their college education, and to be exposed to college academics and disability services. They were knowledgeable about their course requirements for their majors, and took courses that aligned to career prospects, which helped transfer students to accumulate credits. They also understood different expectations and requirements, and learned to navigate college life early relative to negotiation with academics, management of time, independent decision-making, selection and dropping of classes, managing difficulties and failures, which attenuated their fears. They were also motivated by the prospect of becoming full-fledged college students upon high school graduation.

People’s life revolves around culture (Banks & Banks, 2004; Pollock, 2008), which consists of shared beliefs, symbols, and interpretations (McDermott & Varenne, 1985). Though culture is dynamic, it influences how individuals relate, interpret, use, and perceive artifacts, or learn (Lam, 2010; Rogoff, 2009). So it determines individual’s behaviors; and depending on culture and context, an individual or group of people can be
included or excluded in the community. Cultural practices about disability have mostly
created normal-abnormal binary allowing for the development of stigmas and stereotypes
that invalidate individuals with disabilities and justify their exclusion (Baglieri et al.,
2011; Barton, 1993; Davis, 1995, 1997; Oliver, 1992, 1993; Siebers, 2008). Thus,
inclusion of students with disabilities in general education spaces requires adoption of
inclusive schoolwide culture (Danforth & Gabel, 2006; Ferri, 2011).

Inclusive education is achieved when the classroom functions as a community of
learners; when reciprocal relations accelerate learning processes, when inclusive practices
make it possible for all students to access learning materials, and when students are
provided with authentic and emotional supports (Mallory & New, 1994, pp. 329-333).
Brantlinger (2003), Danforth and Gabel (2006), and Ferri (2011) among other inclusive
education scholars argue that inclusive education recognizes that individual differences
are important element in diversity and inclusion of institution, and that it benefits all
children when carefully and systematically implemented. Inclusive schoolwide culture
embraces diversity and inclusion, respect and equitable treatments, and promotes a
positive orientation that supports development of communities of learners to recognize
and appreciate differences and commonalities (Sell, 2005). It also promotes inclusive
learning practices that invest in resources, services, and supports to make education
accessible to all students. It encourages pedagogical practices that tap into each student’s
abilities and promotes their holistic growth and development, as well as reciprocal
relations of all school communities. Besides, Garner’s (2008) study showed that access to
general education spaces created possibilities of students accessing general curriculum,
having explicit academic goals, and accepting their disability identity, and boosted their
self-esteem and self-advocacy. She also found that students that took general education curriculum were exposed to rigorous classes that helped them set own goals and work hard to achieve them. Moreover, students with transition goals approached their learning with confidence, and because of the motivation, they cooperated with teachers and parents, and were proactive in requesting for accommodations and supports. Moreover, inclusion of students with disabilities in general education classrooms is linked to high social, emotional, and academic competence (Allensworth & Easton, 2007; Gwynne et al., 2009; Jones, 2008; Kettler et al., 2006; Palmer et al., 2004; Raue & Lewis, 2011; Willford, 2009), resilience, self-determination, and high ambitions (Cleary et al., 2008; Hetherington et al., 2010; Rumberger, 2004), increased transition to college and work (Bottoms & Timberlake, 2007; Smith, 2006), and transition programs impact on students with disabilities (Allen, 2005).

As a result of the benefits of placements in general education classrooms, there is increased adoption of whole child approach rather than seeing their deficit or disability first (Gerber, 2005). By 2013 many of the students with disabilities spent over 80 percent of their school day in general education classrooms than in segregated classrooms (Snyder & Dillow, 2013). Still, debates continue on the most beneficial instructional settings and practices for students with disabilities — general education classes or segregated classes (Baglieri et al., 2011; Brantlinger, 1997; Connor et al., 2008; Danforth & Gabel, 2006; Fuchs & Fuchs, 1994; Kanter & Ferri, 2013; Kauffman & Hallahan, 1995). While increased education opportunities for students with disabilities have been linked to special education, some of its practices have contributed to disability-based segregations and disability stigmas and stereotypes. These shortfalls have led to calls to
change methods for students’ identification and placements (Artiles & Harry, 2004; Salend & Duhaney, 2005). The ongoing reforms of special education is moving it away from the initial medical, behavioral, and psychological models of Piaget, Skinner, and Dewey that linked learning behaviors and cognitive development (DeVries, 2000) and led to perceptions of disability as a deficit in all these areas. Instead there is appreciation that students’ experiences and competences, and the recognition that settings determine their growth and development (Bronfenbrenner, 1979; Masten, 2003; Moll et al., 1992; Vygotsky, 1978).

Communities are reservoirs of cultural, physical, economic, and social capitals that determine individual’s access to education, engagement in learning processes and successes (Williamson, 2003). Also, schools are microcosms of society. By itself, schools not only reflect societal ways of living but they are responsible for inculcating behaviors that help students grow and develop into productive society members through aforementioned communities’ capitals. Learning environments that are less of microcosm of society are limiting in that they deny students’ exposure to social and cultural capitals in the community; they limit their access to norms and practices of their society. Social capital enables information-sharing networks while cultural capital inculcates the value of college education (Oesterreich & Knight, 2008). Then, placement of students with disabilities in the settings unrepresentative of the community environment denies them a reciprocal social learning environment that can stimulate their social, cultural, physical, psychological, and cognitive growth; widens opportunity gaps for both children with and without disabilities; and creates barriers and affirms misconceptions (Ankeny & Lehmann, 2011; Brantlinger, 1997; Hanline & Daley, 2002). These lead to
misunderstandings and tensions. Unfamiliarity with other people’s cultures lead to tensions between groups because of misconceptions and misunderstanding (Banks & Banks, 2004; McDermott & Varence, 1995; Moll et al., 1992). Besides, a non-inclusive schoolwide cultures make students with disabilities invisible and/or hypervisible, stigmatized, and feeling as if they do not belong. Non-inclusiveness makes teacher collaborations, home-school partnerships, communications, and coordination of programs difficult. Lack of coordination of disability programs together with demands of the rigorous curricula and the need for accountability, pushes teachers to teach to the test, and to discriminate against students deemed to be in lower school grades (Heubert & Hauser, 1999; Kohn, 1999; Ohanian, 1999; Peterson et al., 2002; Popham, 2001; Thurlow, 2000; Townsend, 2000). Even though disability laws are supposed to protect students from misjudgments, they have not managed to tame cultural and attitudinal malpractices thus exposing students with disabilities to continual prejudices (U.S. Department of Education; as seen in the Office of Civil Rights [OCR] 2002 and 2015 reports). Prejudices adversely affect students’ effort, access to resources, involvement in learning processes, self-perceptions, and confidence when they feel neglected and have limited options for recourse (Banks, 2013; Hetherington et al., 2010; Pellegrino et al., 2011).

As revealed in this dissertation, placements of students in the general education or inclusive education settings increased their access to challenging learning settings and general education curriculum that enhanced their competences and possibilities of earning high credits to move to college. There is a relationship between placement of students with disabilities in general education classrooms and improved to high social, emotional, and academic competence (Allensworth & Easton, 2007; Brantlinger, 2003;
Gwynne et al., 2009; Jones, 2008; Kettler et al., 2006; Palmer et al., 2004; Willford, 2009), resilience, self-determination, and high ambitions (Cleary et al., 2008; Rumberger, 2004; Wagner, 1991), increased transition to college and work (Bottoms & Timberlake, 2007; Smith, 2006), and effective impacts of transition programs on students with disabilities (Allen, 2005; Ainscow, 2006; Baer et al., 2011; Dixon & Verenikina, 2007; Wagner et al., 1993). Inclusive learning environments are challenging and stimulates students’ social and cognitive development; they provide appropriate learning opportunities for all children to maximize their potentials (Lam, 2010). Inclusive education concentrates at creating a personalized learning that nurtures a community of learners and builds a collaborative workforce that serves the best interest of all children by strengthening family-school-community-government relationships (Ainscow, 2006; Dixon & Verenikina, 2007). Then, access to general education classrooms exposes students with and without disabilities to natural experiences and behaviors of the society, and it increases their competences and performances and chances of transitioning to college (Baer et al., 2011). Besides exposing all students to different cultural orientations, students become aware of different individuals and circumstances, which helps them appreciate differentness and develop symbiotic relations that benefits everyone through socializations (Getzel, 2005; Vakil et al., 2003).

Garner (2008) found critical factors that determine students with disabilities’ transition to college as access to general education curricula, setting explicit academic goals, and awareness of self. General education curricula exposed students with disabilities to rigorous classes that helped them set high goals, and nurtured their confidence and effort to invest in their education to realize those goals. The general
education setting enhanced students’ self-esteem, self-identification, and self-advocacy whereas they were able to request accommodations to enhance their functionality. It also encouraged cooperation of teachers and parents in supporting students with disabilities to actualize their dreams. Butler’s (2011) research with students with learning disabilities regarding their perceptions on transition to college found that the following elements influenced their education outcome: “academic challenges, interpersonal challenges, services and supports received in school, affiliation with school, and enjoyment at school” (p. 86). Butler also found that about 85% of students with learning disabilities were satisfied with their high school experiences, and that support and services they received enhanced their performance. The NTLS2 (2008) study on perceptions of youths with disabilities exiting high school revealed that nearly half of the sampled population were very satisfied with their high school life experiences. They had positive views of the support, resources, and services they received in high school, and felt well prepared academically to pursue post-secondary education.

While student participants managed to transition to college, they experienced barriers that made their education experiences difficult. Challenges students with disabilities experience in institutions have been reported by the Office for Civil Rights (OCR) which enforces Section 504 and Title II that prohibit disability-based discriminations. Schutz’s (2002) review of literature on transition from secondary to postsecondary education for students with disabilities showed that between 1998-1999 OCR identified major complaints that students with disabilities raised against universities. The complaints were related to admission applications, procedural requirements, auxiliary aids, academic adjustments, test/exam issues, retaliation,
harassment, physical accessibility, and program accessibility. Again, the OCR 2015 report showed increased complaints by students with disabilities against institutions. The top five number of disability-related complaints were about Free Appropriate Public Education (3,770), retaliation (2,850), different treatment/exclusion/denial of benefits (1,746), lack of academic adjustments (1,285), and disability harassment (1,112) (U.S. Department of Education). While some of the complaints were unverified or were still under the OCR investigation, their occurrences may indicate challenges of institutions adapting to the needs of students with disabilities and/or vice-versa. The purpose of the Federal Laws on disability (i.e., ADA, Rehabilitation Act of 1973, and IDEIA) was to protect students with disabilities from unfair treatments by institutions receiving federal funds. With the disability laws in place, the expectation is that all institutions have adopted practices that treat all students equitably. Though not yet achieved, availing education opportunities to students with disabilities at P12 is necessary for their successful transition to college. This requires positive schoolwide culture that promotes provision of services, supports and assistive technologies, and elimination of physical, social, cultural, and economic barriers (Sell, 2005).

Access to general education curriculum and passing of high-stake tests are necessary for students with disabilities planning to attend college. This because colleges admit students based on their college-bound courses and college-entry standardized tests. Students planning to pursue a degree program must take specific courses in high school, which are: English, mathematics, history and geography, laboratory science, foreign language, visual and performing arts, and challenging electives (e.g., psychology, computer science) (Williams, 2009). Williams (2009) identified criteria necessary for
students to transfer from high school to college as involving taking appropriate college entry courses and qualifying examinations, getting support letters from teachers, knowing the application processes such as procedures, deadline and expectations, type of college and programs offered. Thus, placement in general education classroom exposes students with disabilities to rigorous classes that prepare them for college (Garner, 2008). While the topic on the efficacy of tests is beyond the scope of this dissertation, it is worth noting that exams are a predictor of the individual’s ability to pursue a college education (Garner, 2008; Peterson et al., 2002; Popham, 2001; Thurlow, 2000; Townsend, 2000), and so they determine student’s life course. This makes preparing students with disabilities for standardized tests essential. In general, high grades increase students’ chances of attending the most selective four-year colleges and pursuing the best programs of preference while low grades may not guarantee or qualify one to attend the most selective four-year colleges.

Still, students with disabilities can start by attending community colleges and then making transfers to universities to complete their degree programs. College transfers are beneficial for students with disabilities because it allows them to learn and benefit from diverse learning environments (Decoet, McCloy, Liu, & Hu, 2011). Switching from high school to college is challenging for unprepared students due to fear of the unknown. However, community colleges provide avenues for fearful students with disabilities to assess their needs vis-à-vis that of the college by experiencing college life before they can move to expand their education and careers in a four-year university. The opportunity to acclimatize to college life makes community colleges popular for students with disabilities (Liparini, 2008; Savukinas, 2003). Furthermore, students live in the
community and through institution-community partnerships they access community resources, cultures, opportunities, and spaces that enable them to practice their experiences (Bronfenbrenner, 1979; Masten, 2003). Thus, encouraging students with disabilities to attend community colleges and then transfer to universities can increase the rate of those switching to college.

**Instructor-Related Factors.** Other sources of academic demands and competences were due to student participants’ interactions with instructors. Instructors contributed to their academic demands through their non-inclusive practices and attitudes. Some instructors held deficit perceptions which saw them less committed in coordinating disability programs and collaborating and communicating with other teachers and service providers to make learning settings and processes accessible and efficient. Apathy and indifference to students’ disabilities led to infantilization of students with intellectual disability that limited their access to learning activities, support, and accommodations; others erroneously considered students with disabilities in general education settings competent to manage academics without accommodations and support. Others were discouraging, less accessible, unsupportive, and unwilling to provide support outside of class or to extend assistance outside the described accommodations provided by the disability services office.

Still, there were instructors that contributed to student participants’ academic competences through their inclusive practices, collaborations with other teachers, and partnerships with parents. Some significant teachers acknowledged students’ disabilities and nurtured their positive behaviors that helped them to belong. The instructors recognized the students’ needs and potentials and made education accessible through
their academic support, networking with service providers, home-school partnerships, provision of guidance, directions, accommodations and support, and creation of safe and welcoming learning settings that allowed them engage in learning processes to develop capacities to manage education activities. The instructors also maintained reciprocal relations and provided socio-emotional supports that helped them to belong. Their positive attitudes allowed them to create a supportive team that created enabling learning settings that facilitated students with disabilities involvement in learning processes to grow and develop academically, which led to realization of education goals, and transition to college. Open ongoing communication and collaborations of a few teachers facilitated home-school partnerships, coordination of disability programs, and provision of support and accommodations, which facilitated their academic competences. Even in college, students with disabilities had some instructors that developed and maintained reciprocal relationships, provided guidance, and directions that enabled them to navigate through the systems. These instructors shared information with the class that made students aware of the disability services. They were accessible and offered accommodations beyond the ones described by the disability services offices, and provided prompt and reliable feedback that helped students respond to their needs. Some instructors were very cooperative, supportive, helpful, and inspiring, and they structured the curriculum to support students’ involvement in learning processes, which involved provision of syllabuses and necessary learning materials and information in time, which helped them plan and prepare for the term and classes.

Some student participants experienced difficulties with some instructors whose obstructive practices made course structures difficult. This is similar to the findings of
Ankeny and Lehmann (2011), Banks (2013), Hetherington et al. (2010), and Pellegrino et al. (2011) that revealed that teachers’ lack of support, bias, or deficit ideologies adversely affected teacher-student relations, which also adversely affected student’s confidence, their self-advocacy, their belonging, their access to quality education, and academic performance. Weak relation between teachers and minority students with disabilities is because of the confluence of disability and ethnicity/race. Banks (2013) and Pellegrino et al. (2011) found some teachers’ prejudices especially low expectations limited academic excellence of African American students with disabilities. Pellegrino et al. (2011) found that African American students with disabilities faced challenges to secure evaluation documentation for postsecondary accommodations because teachers perceived them academically weak. Teachers with negative perception of students with disabilities put little or no effort in helping them grow or develop. For instance, these teachers may not implement intervention programs indicated in the IEP. Pellegrino et al.’s (2011) study signalizes salient nature of prejudice that follows labeled students even though the findings cannot be generalized. Besides, instructors’ ignorance and malpractices denies students access to correct information and access to education opportunities to meet their transition goals (Banks, 2013; Collins & Mowbray, 2005; Hetherington et al., 2010). Equally, Hetherington et al. (2010) found that teachers were less supportive of students with disabilities and their families as they prepared to exit high school. Their study revealed students and parents’ dissatisfaction with the transition planning process. Parents and students viewed school curriculum inadequate; transition goals either irrelevant or immeasurable; teachers’ adamant, unsupportive and unprepared to direct transition program and to provide right information on time to guide students with career
planning. Also, parents found rigors of transition process, misinformation and miscommunication, confusing, a problem that was compounded by their superficial treatment and they bureaucracies.

Similarly, Collins and Mowbray’s (2005) study on academics’ attitudes toward students with disabilities revealed that they had a neutral to positive attitude. However, an earlier study showed that academics created barriers by treating students with disabilities biasedly and denying them accommodations, and that others believed students with disabilities less belonged to college (Eudaly, 2002). Lee (2011) also reported that inclusion of students with disabilities in STEM classes was hampered by teachers’ low expectations while Rule et al. (2009) observed that teachers’ inexperience to include students with disabilities made it difficult for them to participate in math and science classes (Rule et al., 2009). Accordingly, students with disabilities are not encouraged to take courses in STEM areas (Alston & Hampton, 2000; National Science Foundation, 2002) or provided with appropriate information and counseling (Alston, Bell, & Hampton, 2002) to pursue STEM related careers. Likewise, Milsom and Hartley (2005) found that there were some significant people such as teachers and counselors that discouraged students with disabilities from pursing college education. Earlier study by Hitchings et al. (2001) showed that teachers and/or school counselors discouraged 20 of the 97 college students with learning disabilities from pursuing college.

Moreover, students with cognitive disabilities receive less academic support because of the cultural orientations and fears linked to it. Earlier studies found that most general education teachers and school administrators had little competence in working with students with cognitive disabilities, and therefore they were less supportive which
negatively affected students with disabilities’ overall academics (e.g., Mowbray et al., 2002; Wagner et al., 2006). Conversely, a study done by Liparini (2008) found that general education teachers had positive relations with students with psychiatric disabilities. Williams’s (2009) study revealed that most teachers that included students with learning disabilities in their classes were in favor of inclusion in theory but not in practice, and so they put less effort into providing accommodations, and in adapting and modifying learning materials and settings to support their needs. This is consistent with earlier research findings that revealed that general education teachers while they may believe in inclusive education (Hobbs & Westling, 1998) have reticent but oppositional views of including students with disabilities (Martin et al., 2003). Often students with disabilities in general education classrooms are assumed capable of managing education activities and events and so they are expected to perform at their peers’ pace without accommodations, which again encourages teachers to place no or little emphasis in mitigating disabilities or environmental-caused barriers thus limiting their positive education outcome (Mastropieri & Scruggs, 2004; Williams, 2009).

In general, teachers are essential partners in education because of their roles as mentors, guides, advocates, supporters, and coaches. They are duty bound and responsible for nurturing students in a safe learning environment by providing resources, support, and guidance so they can navigate school systems to grow and develop into responsible adults. Timely provision of services and support increases chances of students making successful transitions. This requires planning, evaluation, and sustenance of transition programs, which depends on effective coordination of programs, which also depends on the collaborations of teachers and partnerships of school and home. In this
dissertation, as also reported by Ankeny and Lehmann (2011) and Banks (2013), teachers can be sources of academic demands or academic competences. Banks (ibid) found that students performed fairly well in academics with the support of teachers. Also, Liparini (2008) found that teachers’ support enabled students with psychiatric disabilities to succeed in their education and develop personal skills that helped them manage content subjects, challenging circumstances, and barriers. Students with disabilities need allies to challenge disability-based deficit orientations and prejudices. Thus, instructors’ perspectives in supporting cultural practices that promote either a disability culture or co-existence or exclusive practices is important.

This contradictory information on teachers’ behaviors toward disability points to the influence of culture on individual teacher orientation, and students with disabilities’ vulnerability to instructors’ whims. Instructors and service providers’ behaviors not only affect their relations with students with disabilities but also affect their learning behaviors, access to quality education and right information that determine their education outcome. Any instructors’ dissonance betrays trust and lead to malpractices that create barriers. As presented in Chapter 4, students participants felt that they deserved positive recognition from teachers and the institutions. Thus, they emphasized the need for equitable treatment and unbiased relations. Their insight was valuable to addressing instructors’ non-inclusive practices that lead to misconceptions, misunderstandings, and alienations.

Attitudes (i.e., individual’s beliefs and feelings and values and dispositions) affect how individuals relate (Ankeny & Lehmann, 2011; Banks, 2013; Hetherington et al., 2010). Thus, teacher’s attitudes affect their relations with students and student’s
education outcome. Teachers’ implicit or explicit biases create cultural conflicts that lead to students’ fear, aversions, rejections, resistances, or rejection or school drop out. Thus, building an inclusive schoolwide culture that embraces diversity and inclusion requires matching cultures that recognize and appreciate individual differences and commonalities and promote acceptance. People’s behaviors determine and are determined by what they value; and so how they relate or respond to one another is value laden. Accordingly, it is essential that the school community, majorly teachers and students maintain a fundamental level of consciousness of values that encourage creation of spaces that accessible to every one. In general, making schools amiable requires adoption of inclusive schoolwide practices that creates awareness of disability rights, and enabling learning settings that value and treat all students equitably. An inclusive schoolwide culture protects all students from stigmatized prejudices, and turns teachers into role models that molds and inspires all students to work toward achieving their education goals. As recommended by Ankeny and Lehmann (2011), teachers need to create a welcoming setting where students’ strengths are distinguished and appreciated.

Peer-Related Factors. Peers were also sources of academic demands and competences. Peers created stressful learning environments through their isolation, fear, and avoidance, which caused limited academic interactions, peer pressure, and mental fatigue. Disabilities and illnesses were sources of disability stigma that limited peer-to-peer academic interactions and relations in and outside classrooms, and so they made it difficult for students with disabilities to access learning materials, which adversely affected their overall education experience. While some peers created difficult conditions for student participants, others were academically supportive. P12 through college, some
peers provided both material and immaterial support that helped them educationally and socio-emotionally. Others were role models, motivators, protectors, and scribes, members of the same organizations and clubs, empathizers and sympathizers that provided physical and socio-emotional supports that mitigated some social, academic, and personal problems and allowed them to lead optimistic lives. They came to understand student participants’ world, to learn about their lives, relations, experiences, skills, and attitudes through socialization, which allowed them to form partnerships. Through social participation, challenges, and negotiations, students with disabilities developed their skills, tolerance to tasks, risk-taking, and setting of high education goals. They also learned to cooperate with others and to meet their expectations. Moreover, peers made them accountable to their actions, and so they learned to trust, to care, to be friendly to others particularly to those that mattered to them. They created reciprocal atmospheres that valued and accepted others and in the process learned about others’ issues and through negotiations, they learned about opportunities in their communities. They were exposed to opportunities, hurdles, and ways to overcome barriers, experiences that helped them to grow and develop into confident and hard-working individuals, which again prepared them for independent life at college.

Peers influence each other’s behaviors positively and negatively (Banks, 2013; Buhs & Ladd, 2001; Cheney et al., 2000; Geenen, Powers, & Lopez-Vasquez, 2001; Gerdes & Mallinckrodt, 1994; Liparini, 2008; Zea, Jarama, & Bianchi, 1995). Peer supports that inculcate perseverance help students with disabilities to cope with changing circumstances (Cheney et al., 2000; Liparini, 2008). Williamson (2003) found that peers just like parents, provided a supportive and caring environment that helped students with
hearing impairments invest in their education at high school and college levels. Peers were mentors and they provided support in areas where parents failed to; for instance, some parents were less competent in sign language but peers were talking partners that helped colleagues socialize and access different information about education life. Also, Liparini (2008) found that peers contributed positively to the success of students with psychiatric disabilities in different ways. They provided socio-emotional support, and held each other in high expectations, which motivated them to work hard in their education. Peers guided and supported them with the college application process, and they protected them from bullies and advocated for them. While peers’ support may help students with disabilities gain confidence and value self to navigate their milieu, they can also cause harm as presented under academic and social demands. Then again, Liparini (2008) found that peers could influence each other negatively into acts such as abuse of substances or role model others into becoming bullies. Hence, inclusive education settings are paramount in challenging misconceptions about disability that hinders creation of inclusive reciprocal learning relations, and development of a positive schoolwide culture that embraces diversity and inclusion (Brantlinger, 1997; Brantlinger, 2003; Danforth & Gabel, 2006; Hanline & Daley, 2002).

**Family-Related Factors.** Other key players in student participants’ academic demands and competences were families. Parents’ lack or limited appropriate information about the child’s needs, fear for the child’s future, overprotection, low expectations, and apprehensive parent-child relations limited interactions, consultations, and support particularly during their transition period which contributed to students’ academic demands. Misunderstandings between the child and parent were due to low expectations
and disparate expectations; some parents were over-concerned with their children’s health, were misinformed of their abilities, education, career, and life goals. However, students were confident in their own learning capabilities, and so they worried about their parents’ intent, which caused frictions. It also added pressure to prove that they were capable of achieving educationally. On the other hand, families contributed to students’ academic competences were parents’ supports through provision of resources and services. Families addressed students with disabilities’ education needs by providing financial, social, emotional, and education supports. They treated them fairly and equitably. They were advisers, advocates, role models, and socio-emotional supporters, which facilitated students’ functionality, academic competence, and social acceptance. 

They helped them with academics and assistances included coaching, scribing, reading, and organizing and assignments; they influenced their involvement in learning processes by providing motivation and guidance and monitoring their academic progress, and instilling academic discipline. They advocated for their children’s placement in inclusive or regular schools where they accessed general education curricula, special education, and related services.

Moreover, family members were involved in the IEP programs and negotiated with teachers on students’ behalf. They provided financial supports including payment of tuition and investment in efficient assistive technologies. All of the parents had at least a college degree; thus, they were role models and mentors that nurtured their children’s self-determination, confidences, perseverance, and self-awareness. They helped students with disabilities face challenges positively and come up with solutions to the challenges. They also held them in high academic expectations and so students with disabilities were
expected to attend college like every one else in the family for the most part. Sibling effect also led to academic competences. Students with disabilities were challenged by their siblings’ education attainments, and so they invested positively in their own aspirations to achieve their goals of attending college. Family supports enhanced students with disabilities’ access to quality education that eventually led to their transition to college. Accordingly, students’ credited their families for academic success and eventual transitioning to college, and even those that sporadically expressed mixed perceptions about their relations acknowledged that parents contributed to their overall well-being.

Families are critical players in the education and transition of students through their provision of resources, accommodations, services, and supports that make education accessible and transition possible (Ankeny & Lehmann, 2011; Banks, 2014; Geenen et al., 2001; Hetherington et al., 2010). Realization of education and transition goals depends on student’s personal initiatives and awareness, but also supports from significant others, more so parents and peers than teachers (Ankeny & Lehmann, 2011; Banks, 2013; Hetherington et al., 2010). Previous research (Trainor, 2005; Zhang, 2005; Zhang et al., 2005) like Ankeny and Lehmann’s (2011) study found that families were some of the most significant individuals in student’s education life that inculcated positive qualities (i.e., self-determination, perseverance) that enhanced their academic success and transition to college and finally to work. Also, Williamson (2003) found that families contributed to education success of students with hearing impairments by providing financial and socio-emotional supports, and by involving themselves in school meetings, events, and activities where they learned more about their child’s education. They also provided protection, care, and support. They maintained mutual relationships,
open dialogues, ongoing communication, provided challenging education experiences, nurtured positive attitudes, and behaviors such as resiliency. She also found that sibling effect contributed to reciprocal relations and belongingness of students with hearing impairment that led to their success. Interactions of hearing and hearing impaired siblings created a mutual atmosphere that supported their communication and learning. In general, less informed and less educated parents are less likely to provide essential support needed to help students with disabilities achieve their goals. Moreover, Williamson (ibid) found that one of the students with a hearing impairment had a parent who was not competent in sign language; a communication barrier limited parental support, which adversely affected their relationship. The child-parent relationships determine access to resources, services, and support, which again determine access to quality and quantity learning.

Moreover, parents influence their children’s education outcome and personalities through relationships and involvement in the design and implementation of school-wide programs, re-structuring of schools and settings of appropriate practices that improve home-school relations that supports students’ access to quality education (Williams, 2009). They guide them through the bureaucracy of educational systems (Neece et al., 2009). Close parent-child relationships lead to growth and development that contributes to academic, social, and personal accomplishments, and development of high self-esteem, self-determination, motivation, academic persistence, and high grades, while distant relationships leads to low levels of involvement in the child’s education, which predisposes the child to failures (Finn & Rock, 1997; Kenny & Donaldson, 1991; Moss & St.-Laurent, 2001). Close parent-child relationships enable open communication (Finn, 1989), understanding of the child’s needs and abilities, provision of appropriate supports
and accommodations, and through their support and advice, they complement others’ input, which lead to holistic support that promotes the child’s overall well-being (Gil, 2007; Liparini, 2008; Mowbray et al., 2002). As discussed in Chapter 4, parents’ recognition and appreciation of the child’s disability helps the child find his/her inner strength to work hard on his/her education to achieve realistic goals. Reciprocal parent-child relationships inculcate discipline, diligence, and self-motivation. Parents’ involvement in children’s school life through activities such as parent-teacher association meetings create a favorable learning atmosphere that motivates and stabilizes their socio-emotional state (Ankeny & Lehmann, 2011). A caring feeling encourages children to lead a proactive life, to develop personal initiatives, and to communicate their needs with peers and adults, which lead to academic accomplishments and other goal-oriented tasks.

**Research Question 2**

*What critical factors helped students with disabilities to successfully navigate the social demands during P12 education to transition to college?*

**SOCIAL DOMAIN**

Social domain focuses on factors that impacted students’ relations and social participation, and how these influenced their education and transition to college. Human beings are social; they relate and form co-dependent relations, which allows them to co-exist in communities where they engage in social activities that provide support to one another. Relations involve commitment to build and stay connected with individuals or groups in the community. This helps the individual to understand and to master how to maneuver within their milieus. Social participation consists of wide-ranging activities.
performed by the individual to live his/her own way of life, to make personal achievements, and to contribute to the community. The social domain is divided into social demands and social competences.

Social demands refer to the requirements to relate with fellow humans in the milieu by participating in communal events and collective activities that promote the existence of the community. The individual is required to develop mutual relations with other community members, to participate in shared and collective processes that promote coexistence of the community, and to contribute to its overall well-being and welfare. Individuals who meet the social demands are accepted as valued members of the community. Contextually, a school is a community where students are cared for, validated, supported, and nurtured in the right ways that value humanity, a place where they are exposed to opportunities and prepared to exploit their potentials to lead a productive life (Peterson & Hittie, 2010, p. 188). Still, for most student participants, school was unforgiving and limiting because of factors related to the individual, institution, instructors, peers, and families as discussed later. Social competence refers to “the ability of an individual to thrive in his or her social environment” (Stump, Ratliff, Wu, & Hawley, 2009, p. 28), and the ability to use appropriate social behaviors in every aspect of life in order to get along with other people in the milieu (Ruegg, n.d.). In the school context, social competence is student’s ability to know and understand acceptable social behaviors in the community, to adapt to the expectations of the community at each developmental stage, and to determine appropriate behaviors to use in a given milieu (Vaughn & Hogan, 1990). Thus, socially competent students use a social repertoire of
behaviors to meet expectations of school communities (e.g., peers, teachers, staff, or ethnic groups).

Humans are social species whose behaviors are influenced by individual traits and input from outside; and so they are co-dependent and co-regulate each other’s’ behaviors (Masten, 2006). That is, the processes of learning social behaviors are both external and internal, and occurs consciously or unconsciously in formal or informal settings when individuals observe, emulate, or copy, and act and react to other people’s behaviors (Piaget, 1977; Vygotsky, 1978). Appropriation of other people’s behaviors depends on the individual’s initiative and willingness, and ability to access and evaluate relevant behaviors. Informal learning is less structured for teaching social behaviors, and learning processes are randomly self-generated. In the formal settings such as institutions, students acquire social behaviors through instructions which are complemented by rewards and punishments based on established norms, rules, and procedures. Oftentimes, learning of social behaviors occurs in the informal settings such as when individuals interact in outside community areas, libraries, church functions, family events, restaurants, shopping malls, travel stations, airports, and so forth.

Individual, institutional, instructor, peer, and family related factors contributed to student participants’ social demands and social competences.

**Individual-Related Factors.** Similar to academic demands, students’ disability, pain, adverse effects of medication, erratic illnesses, and hospitalizations led to school absences, limited interactions, and strained relations, which adversely affected their access to quality education. Disability and illnesses was an emblem that caused students with disabilities to be distinct and vulnerable to discriminations and harassment. They
experienced disability stigma, prejudice, stereotypes, unfair treatment, low expectations, and identity crisis, while others felt helpless in the presence of peers, which made social participation difficult. Disability stigma shaped their difficult relations with peers, teachers, and academics, which again led to limited support and accommodations. They also struggled to reconcile with self because of disability stigma that kept them at the threshold of accepting their disability qualities. Other salient traits made them over-conscious in their interactions, whereas others were self-stigmatized and over-sensitive to other people’s attention and comments. Fear of trading between spectacular and glamour with freak or broken, disfigured, and dull bodies made it difficult for them to develop reciprocal relationships with peers and adults. They wanted to be normal so they could be treated fairly like their peers without disabilities, which limited their relations, feeling of belonging, and denied them access to quality education. Those with visible disabilities felt invalidated: June felt she was caricatured because of her gait, Kim avoided the stigmatizing white cane for an iPhone to enhance an aesthetic look even though the latter provided much safety. Mei bemoaned her situation; she had her blind left eye removed after she turned 18 when she could sign the consent form so she could improve on her aesthetic look. Others with invisible disabilities preferred to pass when situations allowed, for instance, when she was not in pain, Hera preferred to pass as normal. Others were dependent on peers or personal assistants, which diminished their social opportunities, agency, explorations, and formation of constructive relationships.

Hospitalization disconnected some students from their peers; it removed them from the regular learning environments leading to othering and fear of disability, which entrapped them and left them vulnerable to prejudices, which again hindered
development of self-confidence. These factors affected students’ affective, social, or interpersonal behaviors, contributed to misconceptions, miscommunication, and misunderstandings, which contributed to misconstructions of students’ behaviors, fears, prejudices, and poor relationships. In the process, it led to a cyclic problem of in/sensitivities to students’ issues, which further adversely affected their education and relations with community members. Physical and psychological pain limited their involvement in-group and social activities. Medication changed their temperament and moods, and made it difficult for them to develop strong bonds with peers. Some lacked appropriate and reliable peers and friends that could positively influence their psychological and emotional adjustment; they felt treated unfairly, less recognized and appreciated, which caused frustrations that adversely affected them physiologically, socio-emotionally, and behaviorally. Weak relations with peers led to low self-esteem and frustration with the school community and so they developed distrust of peers and teachers, which further strained their relations and made it difficult for them to interact and to learn social repertoires. They struggled to meet the criteria of whole person and were agonized by their inability to meet the prototype of a high school girl or boy. They were stressed by self-deprecation and concerns, and worries about how others perceived them, and felt less belonging particularly at high school.

Others struggled with adjustments of social roles and expectations during changes in schools. Other sources of social demands were the struggle to meet adults, peers, and parents’ expectations for their future. Some parents demanded much and over-controlled their children which caused students with disabilities to exhibit histrionic behaviors—oversensitive, over-concerned, over-cautious, over-analytical, over-reactive, and overly-
dependent on others—that interfered with their agency, made them develop a guilt complex, self-guilt, fears, and anxieties, which again limited their social participation, relations, and development of interpersonal skills. Struggle with interpersonal skills further increased their self-doubt and feeling of insignificance and invalidation, which led to mistrust of others, less confidence, miscommunication, and misconceptions that further contributed to disparate expectations that harmed their belonging, and relations. In college, some students with disabilities juggled disability/illnesses, academics, and jobs, which left them exhausted and with limited time to work effectively on their academics and to socialize well with peers.

Whereas students experienced social demands because of their disabilities, illnesses, isolations, and limited supports, their self-awareness, awareness of others, and interpersonal skills contributed to their social competences and education successes. Self-awareness consists of two parts, awareness of self and awareness of one’s social milieu. Thus, self-awareness refers to knowledge of self—one’s abilities, knowledge, skills, feelings, and desires (Field & Hoffman, 1994). It consists of, but is not limited to, knowledge of one’s strengths and weaknesses in reading and attention; knowledge of rights and responsibilities; knowledge of available resources, services, and support; knowledge of education and career goals; and knowledge of one’s temperament, anger, concerns, and pride. Then again, awareness of others is knowledge of the social system, its compositions, practices and norms; awareness of roles, responsibilities, and rights of others such as families, teachers, peers, service providers, and social network (Liparini, 2008; Webster, 2004).
Students were guided by awareness of self and their settings in managing academic and social demands. Students controlled their lives, managed situations to integrate, built relations, and made commitment to their academics, work, and health. They derived social competences from own initiatives and interactions with their families, peers, teachers, and the larger community who provided enabling learning opportunities for them to conform to expected behaviors in their milieus. They were aware of their wishes, wants, and needs, their roles and responsibilities, their experiential realities; they acknowledged their varied qualities, which brought out their self-human aspects, their vulnerability to human inflictions (e.g., to disability stigma and prejudices), and the influence of personal behaviors in their life. Knowledge of their own capabilities helped them manage their workload as they matured and succeeded academically, which helped them invest in their education and remain enrolled in school and college. They learned to lead an independent life and to make critical decisions. They were resilient and dedicated, which enabled them to manage difficult circumstances, and so they exhibited high motivation and interest in learning. They worked to improve their overall well-being by managing their disabilities and illnesses to pursue academics, to lead a healthy social life, and to lead a meaningful life. Knowledge of their own disability and illness helped them to become involved in supportive events and processes, manage health issues, monitor their education progress, and take measures to enhance their skills, cognizance, development of capacities, performances, realization of goals, and improvement of their own wellbeing. They stayed healthy by taking care of their individual issues, which included eating a specific diet, taking medicine as prescribed, attending medical checkups, avoiding a risky lifestyle such as smoking. Most of the students were on
medication to manage health issues such as pain and insomnia, and they were aware of their purpose and effects. The students were familiar with their needs, the kind of support and services they required and where to get them, and so they stayed connected to their health service providers.

Importantly, they knew the dynamics within their milieu and how their relations in schools and home affected their access to quality and quantity learning. From this awareness, they learned to successfully navigate their environment, which involved embracing affordances and avoiding obstacles. Through social participation, they developed social repertoires that helped them form close relations with a few teachers, peers, and family members that provided supports and nurtured their positive beliefs, and so they managed negative cultural practices that placed them at risk of difficult behaviors or isolation, hopelessness, demotivation, and depression. They evaluated situations, selected the best options, and acted on issues, adjusted their lives and reconciled matters compatible to their settings. Reconciliation of abilities and expectations and goals led to (re)conceptualization and in some situations re-imagination and healing and improvement of their education circumstances. They learned to value themselves, expected humane treatment, and desired to be seen through prism differences and commonalities rather than as a deficit so they could access quality education. This was the source of their academic impetus; they challenged deficit perceptions to maintain their self-worth, adopted an appropriate self-starting attitude, communicated their needs and desires and made intimate friends, which allowed them to initiate dialogues to correct stereotypes of disability. They therefore remained optimistic in deference to challenges, and avoided immersing themselves in the ability-disability or normal-abnormal binary that qualified
their disability and invalidated them as capable individuals. Thus, cognizance of self and others helped them tame histrionic behaviors, improve on their interpersonal skills and maintain reciprocal relations with others, which helped them make appropriate decisions and manage challenging predisposing factors that eventually led to positive academic and social experiences.

Students that are aware of their abilities and aware of their milieus are well placed to negotiate for their interests and to manage their situations when faced with isolation and disability stigmas (Connor, 2012, 2013; Webster, 2004). Conversely, those that are less aware of themselves are more likely to experience isolation because of stigma and to find campuses inimical, less intimate, and daunting (Banks, 2013). Students may or may not know their disability, or the impact of their disability on education, or the benefits of special education and related services, others may or may not know how to access accommodations (Ankeny & Lehmann, 2011; Banks, 2013). According to the National Organization on Disability (1998) report, a third of students with disabilities faced key barriers in finding desirable education and training due to their inability to identify own disabilities, unfamiliarity of postsecondary education opportunities and requirements, and lack of support to meet postsecondary education requirements (National Council on Disability, 2000; Smith, 1992). Moreover, disability stigma makes it hard for students to relate with others, and to self-disclose to seek needed accommodations and support (Liparini, 2008; Webster, 2004). Students feel depersonalized, impersonalized, and oppressed by negative cultural practices. Connor (2013) found that even though disability may affect students’ education, those with invisible disabilities often consider their disability inconsequential or insignificant, and because of stigma they too prefer to
pass rather than associate with colleagues with physical disabilities. Negative representation of disability harms students-teachers-parents’ relations, hinders access to education (Williams, 2009), harms students’ motivations and confidence, and turns them into rarities, fearful of self and others (Blacklock et al., 2003). They also inculcate paranoia into peers and adults without disabilities, which leads to exclusion from learning spaces and activities. Confluence of racial identity (Durodoye et al., 2004; Green, 2006), social class (Rojewski & Kim, 2003), and disability status may have deleterious psychological consequences for postsecondary students with learning disabilities (Connor, 2009), particularly for students with disabilities of color (Banks, 2013; McDonald et al., 2007; Petersen, 2009). Durodoye et al. (2004) and McDonald et al. (2007) found that students with disabilities of African American or Latino ethnicity in their attempt to escape from stigma and stereotypes associated with race and disabilities rarely sought for accommodations and supports to mitigate their problems, thus exposing themselves to failures. By and large, socio-emotional well-being leads to a healthy life. Socio-emotionally stable students are less susceptible to illness, easily integrate into their school and home communities, and engage in productive activities, while vulnerable students develop emotional problems that affect their attitudes, temperament, and relations (Snow, 2001).

There is an interrelation between self-awareness and positive academic outcomes. Self-aware students with disabilities develop positive personalities that allow them succeed in their milieus. Webster’s (2004) research study on postsecondary experiences of students with disabilities at a four-year institution found that self-awareness and awareness of others are important for successful transition. Also, Williamson’s (2003)
study revealed that African-American undergraduate students with hearing impairment succeeded in their schooling because of resilience, and that demographic characteristics such as “poverty, minority status, and single parent status” which are known to impact education outcome negatively had a diminutive effect on their success (p. 234). Students with disabilities that are pre-occupied with beliefs of handicap, or are unaware of their own dis/abilities are less informed of the impact of different factors on their education, and so they may be less likely to correct barriers by seeking right accommodations and as a result they may experience academic failures. However, self-awareness helps students with disabilities break through the mental barriers that limits them to disclose their disabilities and invest in their potentials, instead it helps them reconcile their mind and body and their circumstances to push themselves forward (Banks, 2014).

Students with disabilities often deal with negative cultural practices such as stigma that construct them as physically or mentally unfit, which not only discredits them but also qualify their invalidation and exclusion (Coleman, 2011; Goffman, 1963). The resultant normal-abnormal binary (Finger, 1998; Gilson & Depoy, 2000; Shapiro, 1993; Siebers, 2008) empowers teachers and peers without disabilities while it disempowers students with disabilities, which increases the gap between them, negates students with disabilities’ personhood and adversely affects their behaviors and access to quality education. However, students with disabilities that recognize their abilities in a social context are able to locate and understand their positions in society, and therefore they are able to find ways to contribute to and promote their success (Dowick, Getzel, & Briel, 2004). Students who are aware of their disabilities are competent in managing cultural biases and its effects (Beale, 2005; Connor, 2012, 2013; Mooney, 2008; Mortimore &
Crozier, 2006). Thus, self-aware students are more likely to develop positive qualities that allow them to develop reciprocal relations, and because they understand the essentiality of co-dependence, they manage their interactions by decreasing social-emotional harms and by increasing social satisfaction. They also perceive their strengths positively, which has a profound effect on their lives. They are able to advocate for themselves, identify problems and seek solutions, plan and set realistic education and career goals as they navigate systems. Thus, they are likely to challenge ableism and other deprecating circumstances that would hinder their progress.

Self-disclosure is linked to success in education and improved personalities (Banks, 2013; Beale, 2005; Connor, 2012, 2013). Critical for students with disabilities is knowledge of self and their milieus and how interactions of the two impact their lives, and knowledge of disability laws, particularly for students seeking accommodations and those preparing to move to postsecondary life (Getzel, 2005). A study by Connor’s (2012) with college students with LD looked at their transition experiences and strategies they used to navigate education demands. It revealed that self-disclosure was necessary for them to receive right supports and accommodations. And so they maintained proactive life in school; they registered with the office of student support, and were involved in social activities, which helped them develop academic, social, emotional skills. In another study with two students with LD, Connor (2013) found that they were aware of their disabilities and considered their strengths in meeting their needs. They weighed their potentials against the challenges before making academic decision and used different strategies to compensate their deficiencies. Some compensatory strategies included investing more time in academic work and less time in socialization, choosing
courses that they were likely pass, seeking support and services before experiencing academic failures. They sought early enough tutoring, extended time, private rooms, and assistive technology when they realized they needed them to succeed in their academics.

The disability laws postulates that the naturalness of disability and the need to provide educational opportunities to children with disabilities (Friend & Bursuck, 2006; Garner, 2008; Gerber, 2005). However, the disability laws also differ markedly in their enforcements of rights. In particular, under ADA, for students with disabilities in postsecondary institutions, it is their responsibility to disclose and to seek accommodations (Eckes & Ochoa, 2005; Getzel, 2005; Oesterreich & Knight, 2008). The shifts of expectations in duties and responsibilities that come with change of institutions and age requires students with disabilities to be upfront in seeking needed support (Ekpone & Bogucki, 2003; Gil, 2007; Hadley 2007; Liparini, 2008; Oesterreich & Knight, 2008; Wolf, 2001). Therefore, students must be reevaluated at their own expense in case of lack or obsolete documentation (Kravets 2006; Madaus & Shaw, 2006). Those that forego accommodations are at risk for failure, disengagement, demotivation, and frustration; they spend more effort to compensate the deficiency, to live in denial, to hide conspicuous condition, and/ or to avoid colleagues (Banks, 2013; Moreno, 2013; Webster, 2004). Garner (2008) found that students that were aware of their disabilities self-advocated, and were very proactive in requesting needed accommodations. Also, Liparini (2008) found that students with disabilities’ agency and well-being improved with their self-disclosure, self-advocacy, and involvement in college and community events and activities. Students that led an active life worked to achieve socially and academically by investing in every opportunity that enhanced their positive life
experiences. In the process, they widened their social circle, increased their experiences and positive perceptions that helped them counter stigmatizing experiences. Acceptance of one’s disability identity (i.e., LD label) helps students manage stigma and stereotypes and frustrations connected to the label (Mooney, 2008; Mortimore & Crozier, 2006). In contrast, students with disabilities are at risk when they fail to disclose or accept their disability qualities. Banks’ (2013) study with three African American students with learning disabilities revealed that some of them knew their disabilities; but because of stigma, they never self-identified themselves as having a disability and never sought help in time or at all. And so experienced (academic) failures despite availability of resources.

Student participants were in between in many situations because of their disability and change of settings or statuses. Some struggled with relations and others found new settings thrilling; others struggled with disability ‘disability entitlements’, others struggled with self-reconciliation, disability identities. And so they were occasionally in the liminal zone. The concept of liminality is mostly attributed to the works of Victor Turner (1969) who defined it as the condition of being in between. Human beings undergo many changes or transitions, birth through death; these processes of change of statuses involve rites of passage that are marked by “separation, margin (or threshold), … and aggregation” (p. 359). The separation phase involves the individual detaching himself or herself from earlier “fixed point in the social structure, [or] from a set of cultural condition;” in the liminal phase the individual is at the threshold or state of confusion or ambiguity in dealing with issues; and finally in the aggregation phase the individual regains his or her stable state (p. 359). Transition or rite of passage are happenstances students with disabilities experience as they change statuses or places or
because of time. Particularly those transitioning to post-secondary life, are faced with two hallmarks—indepenence and interdependent or even dependence. The need for independence demands that they take control of their lives, which involves making decisions, determining own actions, and being accountable to them. When an individual is familiar with his/her own disability and rights, they are able to respond to cultural practices that devalue them, to articulate their rights, needs, and abilities (Connor, 2013; Cunningham, 2001; Proctor et al. 2006). Overall, self-determination and self-awareness skills influence academic performances, relationships, and other personal attributes such as confidence, and so they are critical for students with disabilities transitioning from high school to college (Field & Hoffman, 1994; Rothstein et al., 2008). Therefore, self-determination and self-awareness are essential skills for students with disabilities moving to college where they are required to disclose their disabilities in order to receive appropriate accommodations and supports (Getzel, 2005; Gil, 2007; Hadley 2007; Oesterreich & Knight, 2008).

Furthermore, interpersonal skills helped them navigate their social milieu and form relations with a few friends and peers that inculcated confidence and willpowers and supported their academic and social development. They developed mutual relations with some peers and teachers and learned the power dynamics, which also helped them maintain decorum in the face of divergent opinions as they negotiated issues with parents, teachers, friends, peers, and service providers. Social repertoires are majorly learned through interactions that allows students to learn social norms, values, and opportunities. Students with disabilities require social, affective, and interpersonal competences to develop reciprocal relations. However, some students with disabilities may lack these
skills because of isolation, which makes enriching social repertoires through specific courses on management, advocacy, and determination critical in bridging the shortfalls (Foley, 2006). Social behaviors determine teacher-student relations, levels of interactions and shared information, and effectiveness of learning process, which again influence growth of other necessary personal traits such as assertiveness and study habits such as management of time and respectful relation with peers in and outside their groups.

Interactions create awareness of own and others’ needs and behaviors, which enables critical self-reflections and unselfish concern for others’ welfare. The altruistic image respect helps individuals strive to promote their own rights and that of others. In the process, they develop mutual relations, which are built when open ongoing communications create enabling environments where individuals share information to understand circumstances, individual roles, norms, and power dynamics to mature harmonious relations and promote others’ standing in the social milieu.

Personal attributes such as self-determination and self-awareness and personal skills such communication skills, interpersonal skills, independent and self-help skills allowed students to present their cases to be treated fairly and to gain access to accommodations. They also had positive self-conceptions to manage, adapt, or adopt survival tactics that helped them maneuver challenging situations, and also choose from different options to ensure success in self-selected goals. They self-assessed situations to provide solutions to emerging problems, making necessary changes to engage with learning processes that facilitated a positive education outcome (Agran & Hughes, 2005; Thoma & Getzel, 2005; Wehmeyer & Powers, 2007; Williams, 2009). Individual initiatives and supports from families, institutions, and communities helped them become
aware of their situations to take challenges positively and to invest in their education to successfully transition to college (Williamson, 2003).

**Institution-Related Factors.** Institution-related factors that also contributed to student participants’ social demands and social competences. During P12 education period sources of social demands were non-inclusive schoolwide culture, disability stigma, unfavorable learning environment, and unfriendly physical education classes. These factors invalidated and alienated students with disabilities from their peers. School programs and lack of support also limited students with disabilities’ access to certain classes. For instance, inaccessible gym classes limited some students from being involved in group activities and increased their feeling of alienation. Others were in simulated special education programs that fell short of preparing them for real life experiences. Students with disabilities faced normalcy, and struggled to navigate through societal standards of right and wrong, which warped in guilt complex and fear of the unknown, which further hindered their confidences, interactions, access to mentors and role models, and exposure to social repertoires.

Non-inclusive schoolwide cultures exacerbated negative practices that made students with disabilities’ school life difficult. Disability stigma, skewed relationships in favor of students without disabilities, alienation, lack of allies, disparate expectations and mistrust were causes of negative practices or normalcy that limited their involvement in learning processes. Biased teacher and peer cultural orientations made learning settings, curricula, and accommodations inaccessible, and also limited teacher interactions and support that led to their low academic performance. Uncoordination of programs also contributed to misunderstandings and distrust, which interfered with student-teacher-
service providers’ relations. Students were additionally stressed by the feeling of not belonging because they infrequently came across peers with visual disabilities. Also, the literature omitted issues of disability. For instance, Mei was in a high school where she rarely saw other students with disabilities, and learning materials muted disability issues or topics. Some students experienced social hurdles in college because of disability, illnesses, age, and inaccessible social places on and off-campus. College life was less amicable to some students and they struggled to fit into the university’s social environment.

Oppositely, institution-related factors during P12 education period also contributed to student participants’ social competences. These were placements in regular school and inclusive schools and involvement in student organizations and clubs that exposed them to varied experiences and behaviors of teachers, students, role models, and the expanded social networks. Students with disabilities considered their inclusion important for their overall growth and development for inclusive learning spaces, which supported students’ integration and promoted co-existence despite the demands. They were exposed to academic and social challenges and opportunities that helped them develop social behaviors and positive perceptions. Access to general education curricula, competition with peers, exposure to friends and bullies inculcated positive attitude and confidence that encouraged them to invest in their education.

Non-inclusive schoolwide practices limited social avenues and social networks for most students thus making their social lives difficult. Then again, student organizations and school clubs exposed them to different behaviors and opportunities from which they built relationships and increased their chances of success in school and
life. They were avenues for interactions and making friends and learning reciprocal norms and awareness of opportunities. Students participated in extracurricular activities that broke social barriers, attenuated social isolations, kept them occupied, made them feel significant, and helped them belong.

Findings of this dissertation pertaining students’ experiences in college is similar to other research (e.g., Ankeny & Lehmann, 2011) that showed that some students found college experiences empowering while others found it challenging. In general, student participants found relief in college after a difficult high school experiences. In particular, college offered more social opportunities that enhanced their social networks and social skills. It afforded them spaces for learning, training, re-assessment, re-imagination, re-establishment, healing, and re-discovery; it offered experiential spaces for practicing independent living and self-help skills. They also accessed role models and mentors who provided social supports when they were on the brink of failure or at the edge of breakdown, and also interacted with different peers with and without disabilities in the class, dorms, and workstations where they made income and learned ethics. These avenues further exposed them to different behaviors, opportunities; they were able to learn and introspect themselves vis-à-vis their school communities. As it was with during P12 education period, student organizations and clubs were spaces for connections, self-awareness, accountability, and responsibility to members. Living away from families provided opportunities to experiment and practice independent living, which helped them to grow and develop into responsible young adults. College life also provided scholarships and jobs that relieved their parents of financial burdens, and increased their interactions with peers and staff. Furthermore, institution-community partnerships
provided opportunities to practice knowledge and skills learned in school and home; it connected them to the wider community, and trained students in the norms, values, personalities, ethics, and general cultural orientations essential in the larger society. They provided jobs and social networks that influenced their perceptions, and so they were able to locate themselves in the school versus the wider community.

The education process is a communal affair that involves sharing of information through pedagogy, mentorship, research, narratives, negotiation, and trial and error. This leads to sharing of experiences, behaviors, attitudes, rituals, values, beliefs, knowledge, and skills. Consequently, institutional settings impact students with disabilities’ academics and socialization (Kampsen, 2009). Schools provide them with a social structure in which they interact with other community members, and in the process they assess their abilities, become aware of the programs and practices that influence their behaviors and experiences. Institutional cultures inform and is informed by faculty and students’ behaviors. Therefore, how students with disabilities are treated reflect society and individual’s practices toward disability (McDermott & Varenne, 1995). Non-inclusive practices contribute to fear of the unknown and fear of difference, and situates students with disabilities as an ominous thing to be avoided. In the process, the disability cultural frame invites stigma that continues to justify and qualify students with disabilities’ invalidation. Hence, school systems and individuals fail students with disabilities with their ongoing non-inclusive practices (Cobb & Alwell, 2009). Banks’s (2013) study on transition experiences of undergraduate African-American students with disabilities revealed that they encountered social, cultural, physical, and academic barriers in their quest for quality education because of the confluence of race and
disability. These barriers originated from teachers, parents, and peers rather than from the students’ disability. Non-inclusive schoolwide cultures contribute to the perception that disability is an unnatural human experience and justifies the deficit and victim views that invalidate students with disabilities. Such perceptions limit development of reciprocal relationships, access to support, and accommodations. Fostering a positive schoolwide culture is vital to restoring students with disabilities’ dignity. This involves making classrooms safe, and nurturing an equitable community of learners. Equally important is nurturing all students’ social repertoires and respect.

Schools are microcosms of society. As such, schools are responsible for inculcating behaviors that help students grow and develop into productive society members. To achieve this goal, communities provide cultural, physical, economic, and social capitals that determine access to education and learning outcomes (Williamson, 2003). Educators, teachers, and parents’ norms, orientations, and perceptions are influenced by the community’s culture. Thus, how students with disabilities are treated in school reflect how society perceives disability (McDermott & Varenne, 1995). Individual’s behaviors are influenced by social settings, and the development of appropriate social skills. Schools as social settings impact students and teachers’ behaviors and through interactions they develop perspectives of one another, which become the basis of judgments and relationships, which influences students with disabilities’ access to learning spaces and their overall learning success (Flowers et al., 2004; Howard, 2003; Moore, 2006; Williams, 2009).

Inclusive education scholars (e.g., Brantlinger, 2003; Danforth & Gabel, 2006; Ferri, 2011; McCaleb, 1997) have advocated for the placement of students with
disabilities in general classroom because an inclusive environment is a microcosm of society where didactics (McCaleb, 1997; Pollock, 2008) related to societies’ practices (Rogoff, 2009) occur under guided participation (Lave & Wenger, 1991). Students with disabilities need to develop social repertoires and understand the norms that govern relations in the school and community. And so their placements in general education classes is critical as equally as their participation in the community. This is achieved by connecting them to institution and community resources where they can be exposed, trained, and encouraged to navigate various spaces. Community resources allows them to learn acceptable norms and repertoires necessary for adult roles especially when they are involved in community affairs that challenge deficit concepts. It also helps them practice their learned skills and knowledge, and to market themselves as central community members to learn about empowering or disempowering cultural orientations. Liparini (2008) found that religious communities helped students with psychiatric disabilities and their families connect and belong. Also, it provided role models and nurtured their self-identity. Recognition and appreciation of students with disabilities help with healing and self-awareness (Banks, 2013; Kogan, Luo, McBride Murry, & Brody, 2005). Williams’s (2009) study found that students with disabilities preferred inclusive learning environments to segregated learning environments. Still, others had reservations about their placement in general classrooms without adequate support. Regular schools or inclusive learning settings create opportunities that help students with disabilities form academic self-concept and to compare their performances and behaviors with their peers (Byrne, 2002). Students develop beliefs that are consistent with the school through interaction with the school community. From that, they learn to match their commitment
to the institutional environment; they get challenged and are motivated to persist with their educational attainments (John Bean, 1990; Vincent Tinto, 1975, 1987, as cited in Hagedorn, 2012).

Rich learning environments are accessible, natural, stimulating, humane, and inclusive. Students with disabilities can be placed in a variety of learning settings to optimize their quality of learning. Disability studies in education scholars consider general education classrooms to be the least restrictive environment (LRE) because they are a microcosm of society (Danforth & Gabel, 2006). Unlike segregated classes or special education classes whose settings are simulated (Ankeny & Lehmann, 2011), general education classrooms provide a much-diversified learning setting that exposes students to challenging learning opportunities that support social and academic development and prepares them to manage different situations; it also exposes students to a wider, more diverse population, behaviors, and treatments and therefore a variety of experiences, cultures, and practices. Moreover, general education spaces nurture social skills, interpersonal skills, communication skills, and behaviors to build reciprocal relationships, and prepares them for adult roles. It also stimulates their social, cultural, physical, psychological, and cognitive growth and development, and provides favorable combinations of circumstances that help narrow opportunity gaps between children with and without disabilities, remove barriers, and affirm conceptions of equity and equality.

Institutions are social spaces with different norms, rules, and procedures, whose social structures support interactions between different community members. But they can be isolating for students with disabilities because of malpractices such as disability-based prejudices (Ekpone & Bogucki, 2003; Straw, 2003). Thus, inclusion of students
with disabilities requires adoption of inclusive learning environments, which encourages fairness, justice, and co-dependence. Exposure to real life experiences helps them understand the environment around them, and helps to develop their own adaptive skills. Support students can build their own small communities within the larger community where they can meet with like-minded individuals that share common interests and create opportunities for one another. Also, the social connections can help students with disabilities manage their social world. Liparini (2008) found that students with psychiatric disabilities depended on each other for social and emotional support, which helped them navigate their milieu despite disability stigma. Also, Blacklock and colleagues (2003) found that disability-based social connections were important for reducing barriers in colleges and universities. However, this dissertation also found that stigma and divergent views on disability entitlement limited relationships between students with disabilities.

Higher education institutions are both a place of intellectualization and socialization; it provides students opportunities to acquire knowledge and skills and to make friends as they pursue their education and future career goals. College spaces allow students with disabilities to revise their goals, directions, and identities and to deal with different issues and learn from them (Liparini, 2008; Mowbray et al., 2006). Still, students require certain knowledge, skills, and attitudes for them to flexibly and successfully navigate the milieu since they impact their relations, learning, and well-being (Madaus & Shaw, 2006; Webster, 2004). In this research study, one student with autism struggled with socialization and was critical of Savvy University for its vastness. Liparini (2008) found that college students with psychiatric disabilities struggled with
social and personal-emotional adjustments at college. Their disabilities adversely
impacted their well-being and socialization.

**Instructor-Related Factors.** Instructors were again sources of social demands
and social competences. They majorly contributed to social demands through their
professional dissonance. Some instructors were unfair, unconcerned, uncaring, and
unsupportive, and others held low expectations of the students and had overgeneralized
perceptions of disability that harmed their relations. Difficult relations between teachers
and students caused social and academic demands. As discussed in Chapter 4, student
participants were keenly aware of differential treatment that was skewed in favor of
peers. Some teachers were less supportive of their course of actions and so they were less
advised and guided in their educational course. In situations where teachers lacked
personal commitment to the whole class and failed to acknowledge their disability, the
students were vulnerable to mistreatment, which alienated them and made it difficult to
build positive relations. Some students resigned to fate and withdrew into their ‘comfort
zones’ since they distrusted adults whom viewed as a social-emotional burden. The
students also reported that instructors harmed their relations through their biases, and less
appreciative and supportive behaviors. Some instructors lacked demeanor, knowledge,
and skills to include students in their classes, others were discourteous, others were
ignorant of students’ needs and accommodations, and others distrusted students and
invested little in nurturing positive relations, which made it difficult for students to
mediate their social milieu. Some students with disabilities felt that their learning needs,
interests, rights, and potentials were less considered in the development of inclusion
programs.
Students dealt with two categories of instructors—supportive and unsupportive. Supportive instructors facilitated student participants’ social competences were through their inclusive practices. They were interested in students and so they nurtured mutual relationships with caring and respectful attitudes, maintained open communications, and made learning settings friendly and accommodating. They also involved them in meaningful learning processes, held them to high expectations despite their disabilities, inspired them to work hard, helped them develop interests in education, and aided them in their growth toward independency. They were committed in educating inclusive learning settings to help students to grow socially, academically, and emotionally. They facilitated learning by using different approaches to support students’ academic progression, and guided their studies in achieving the academic goals. They encouraged them to invest in their education to show their academic capabilities. They helped them venture into academic areas of least interest, including sciences. They created research opportunities, encouraged students to explore their interests to their potentials. They also appreciated, recognized, and acknowledged students’ competences thus elevating them equally among peers. These instructors’ caring attitude stimulated students’ self-drive, improved their self-esteem, and helped them affirm their beliefs in their cognitive competency and investment in their education. The instructors’ social and moral support encouraged and helped students belong even as they experienced social demands.

Besides, supportive teachers partnered with administrators, parents, and service providers to gain resources, services, and supports to help students with schooling. They worked with specialists to train themselves how to integrate technologies in their instructions in order to make teaching and learning effective. They learned from experts
and students, and integrated new skills in their teaching strategies to address the student participants’ needs. They also trained students how to use assistive technologies.

Furthermore, supportive teachers guided students with college applications; they directed them as they transitioned to college, and even after they moved to college, encouraging them to remain focused on their education and career goals. In college, some instructors inspired students with disabilities in their academic journey and made learning materials accessible in time by providing syllabuses and necessary information that enabled them receive textbooks and support in time. These supports enhanced students’ positive academic behaviors and helped them to flexibly become accustomed to college life. Their positive interactions led to positive education outcome at all levels of learning. Some teachers developed healthy long-term teacher-student relationships that focused on supporting students with disabilities to achieve their education and career goals. Others networked to foster home-school partnerships, and provided emotional support and accommodations. Some instructors were social partners and opportunity providers, and were caring and helped students to feel like they belonged. Also, in college, some instructors provided support that enhanced students’ inclusion by collaborating with the disability services office (DSO) to provide accommodations that improved student’s functionalities and relations in the classrooms.

Cultures create disability-based binaries of normal/abnormal and able/disable (Davis, 1995) from which preconceived perceptions of disability shape the interactions in the school. Oftentimes, disability turns an individual’s body into a devalued one, and allows negative stereotyping that leads to insensitivities and indifference, and creates barriers in the development of relationships and provision of accommodations and
support. Teachers’ deficit ideologies contribute to limiting students’ success (Banks, 2014). Williamson (2003) identified obstacles to successful transition of African-American deaf and hard of hearing students: lack of teacher support, lack of appropriate information about college options, and insensitivity to African-American culture and Deaf culture. Prejudicial treatments push students with disabilities away from teachers and service providers, and demotivates them in their pursuit of education (Williams, 2009). Individuals bear the burden when disability is pushed into the private realm, it intensifies problems while it absolves burden causers. Thus, respectful treatments of all students is necessary in nurturing reciprocal relationships and professionalism in which adults are morally obligated to building an inclusive schoolwide culture.

“Teachers are ultimately the bridge between the student’s world, theirs and their family’s funds of knowledge, and the classroom experience” (Moll et al., 1992, p. 137), which make their locus in children’s life important. Students with disabilities too have individual cultural backgrounds and experiences valuable and informative to teachers and peers. Understanding the uniqueness of every student is important in building a reciprocal school-wide culture. Knowledge of students with disabilities’ funds of knowledge can help teachers develop reciprocal relationships with them and their families, and integrate practices in their teaching to support the whole class (Moll, 1992). Teachers’ failure to provide support to students with disabilities forces them to seek parents, peers, and others’ support (Banks, 2013; Hetherington et al., 2010). Research reveal students find peers and families supportive in decision-making than teachers (Ankeny & Lehmann, 2011; Banks, 2013; Geenen et al., 2001). Specifically, Liparini (2008) found that in situations where students with disabilities did not receive formal support from teachers,
some received support from significant adults through informal contacts (not obligated in the IEPs). This makes healthy teacher-student relationships key to students’ overall well-being and success in school. Students work harder in their education when they believe teachers care for them and support them in their academic endeavors. Also, emotional support from teachers can help students gain self-confidence and trust in adults to improve in their relationships and motivation that leads to successful learning outcomes and higher education attainment.

**Peer-Related Factors.** Peers were again sources of social demands and social competences. Some peers had limited interactions with student participants because of fear of ‘contagious’ disability and illnesses and disability stigma, which again contributed to strained relations and isolation. Students’ illnesses and frequent hospitalizations led to absences and limited interactions and led to alienation, which contributed to disparate discourses that disconnected them from their peers. Thus, students with disabilities and their peers struggled to sync their experiences. Oftentimes, students with disabilities’ discourses revolved around medical issues while their peer discourses were about opportunities and entertainments. After high school graduation, some students with disabilities took time off to address medical needs but those who had moved on to college did not keep in touch because of different statuses. Students’ social circle continued to reduce, which further contributed to their feelings of not belonging. Then there are others who changed schools often because their parents moved frequently with their jobs, or wanted them to have access to schools that would address their need, and so they struggled to develop long lasting friendships. Some students also struggled to relate with colleagues with a disability; the heterogeneity of disability not only limited relations but
also led to limited allies. Skewed relations in favor of students without disabilities and histrionic behaviors contributed to misunderstandings and struggles with self and others. Some students, in spite of their disabilities and illnesses, did well in academics and some teachers recognized them, which again led to peer rejection. Moreover, some parents’ advices made it difficult for some students with disabilities to develop reciprocal relations with peers, which decreased their confidences and trust in others.

Sources of social demands varied although they primarily revolved around isolation, exclusion, and mistreatments. Isolation limited students with disabilities’ social participation and acquisition of interpersonal skills, which further limited their social networks, particularly in high school. Some struggled with interactions and communication, while guilt, fears, and frustrations led to misconceptions and misunderstandings that made school inimical. This also led to distrust of peers and adults, which made it difficult for them to share their experiences, concerns, feelings and opinions, which again limited their access to appropriate guidance, support, and adequate information necessary to manage transition processes to college. Some peers and teachers that were prejudicial, unappreciative, and intolerant due to their prejudged misinformation entrapped students with disabilities and hindered their social inclusion. Some students were made victims, treated unfairly, stifled their voices and rendered them inaudible, which also made them feel less belonging, caused stress, and negatively affected their relations. These factors limited their relations with peers, their supports, and made school life challenging.

Students with disabilities had reliable supportive friends; but they also had peers that caused hardships and isolation because of disability stigma and stereotypes. Some
peers would not relate with them because of fear of disability and illnesses. Peer demands coupled with limited interpersonal skills made them struggle to discriminate, discern, decode, and appraise behaviors and attitudes, which made it difficult for them to relate and influence others to provide social support. Also, students were critical, over-reactive, oversensitive, and over-analytical of peers’ behaviors, which increased their social gaps. Disability stigma limited their involvement in learning activities, and they struggled to balance the need for acknowledgement without being singled out negatively, or fear of becoming a social obligation limited acceptance of their own limitations. It also caused guilt of unknown and struggle to gain interactive social patterns to assimilate. Their disability, illnesses, disability stigma, frequent transfers, limited social support, and limited social participation all contributed to less belonging, which limited social opportunities and made social life stressful. Others grappled with balancing different social actions as they felt they had limited channels to address their needs, which made them worried about their invisibility and hypervisibility. Others felt they needed to adjust their aspects so peers could recognize and appreciate them, which led to lack of self-confidence, and feelings of devastation.

On the other hand, some peers contributed to student participants’ social competences through participant-peer learning. Other peers were confidants and comrades that supported them throughout their education journey and relieved their stresses. In college, they had role models and mentors who exposed them to international students from whom they learned a wide range of cultures and experiences. They also had roommates and members of the same student organizations and clubs that involved them in social and academic explorations. They were actively involved in school events
and activities, made friends, and connected with reliable peers who encouraged, protected, and acknowledged them. Although some interacted with both supportive and unsupportive peers, all were sources of experiences that helped them navigate different spaces. They were exposed to varied behaviors, cultural experiences, opportunities, and challenges that not only expanded their experiences but also helped them develop awareness of self and others. The few reliable steadfast clique of friends and teachers filled voids of loneliness by supporting their social participation and social awareness.

Peers’ reciprocal relationships filled gaps caused by lack of shared interests between children and adults who were disengaged from their lives or held different perspectives; they created supportive and dependable groups and provided opportunities unavailable from adults. Also, they nurtured their coping skills and helped them persist and deal with the education pressures that helped turn challenges into impetuses that led to their academic success. Some peers were confidants and comrades, they were relievers of stress, they provided emotional supports and guided and helped them in their navigation of their milieus, they protected them from abusive students or bullies. As such, they felt valued and found a place of belongingness. Peer role models understood their circumstances, provided material and immaterial support, and helped them with critical decision making about their education goals and career choice. For example, in college, June’s resident hall advisor was her role model who helped her reconcile her body and mind, made her remain on track and have the conviction that she could make it in college, guided her set goals and focus on her childhood dream of becoming a doctor.

Social co-dependence is a typical human trait. Equally, students with disabilities need social support to succeed in their milieu. Peers play critical role in the lives of
students with disabilities. Students with disabilities identified peers and parents’ support critical in their transition to college. In Banks’ (2013) study with three African American students with learning disabilities, peers were essential social networks and role models. They provided social avenues for sharing dreams and moral support, and helped student participants navigate school system successfully; to grow and develop skills to manage deficit cultural practices attributed to students from minority groups. Some students devised counter-narratives to stereotypes attributed to African American. Often, students with disabilities are susceptible to social demands when they struggle with histrionic behaviors and communication of their needs. Competency in communication and interpersonal skills help with socialization, which again lead to reciprocal relationships. Socialization requires that students learn to fit into the school structures by becoming sensitive to the formal and informal power structures, and the explicit and implicit rules of behavior. Students with disabilities learn social skills in segregated settings through instructions and social models. Yet such conditions though helpful are limited in providing rich opportunities to learn and practice social skills contexts reminiscent of the real world. This may lead to discrepancy of behaviors and social expectations, which again add to social pressures, particularly when students with disabilities struggle to become accustomed to schoolwide culture and orientations, to negotiate and bargain issues, and solve conflicts. They may also struggle to regulate their emotions, to make appropriate responses, and to understand different feelings.

Interpersonal skills help with the building of relations that lead to social capital (Holahan, Valentiner, & Moos, 1994; Oesterreich & Knight, 2008). Williams (2009) found that parents of students with learning disabilities maintained a reserved view about
their children’s competency in social skills to lead an independent life in college (e.g., self-management, management of time and money). In this research study, however, all of the students struggled with social life in high school, not necessarily because of deficit in social skills, rather because of limited social avenues. After they transitioned to college, their social life changed for the better and they became more involved in social activities and events, and had a large social network on campus and via online social media networks.

Social networks provide social supports that are tangible, emotional, and informational, which helps students with disabilities’ overall well-being (Banks, 2013). Personal relationships allow every one in the school to share their knowledge, skills, and feelings. Calderalla and Merrell (1997) noted that negative social behaviors harm relations and learning processes. Challenging behaviors that contribute to learning issues include disrespect of colleagues and teachers, self-interest, pride and aggression—hurtful physical, emotional, verbal and non-verbal behaviors (e.g., micro-expressions). Antisocial behaviors such as oppositional defiant behaviors harm certain relationships, and may lead to exclusion or isolation from a certain milieu. Individuals that capably manage antisocial behaviors are able to build reciprocal relationships. The process of managing antisocial behaviors involves assessment of individual behaviors, setting of social goals, being socially sensitive, and being insightful. Individuals with insight into their milieu comprehend processes that are relevant to positive outcomes, and make objective judgments, performances, or actions to shape and maintain their relationships.

Transition is a physiological and physical event. Moving to college can be challenging for students with disabilities if they lack essential behaviors or coping skills
to manage personal and place changes. An amiable environment makes transitioning flexible, especially when the individual ends in a friendly milieu. Social supports provide impetuses that help students invest in their education and work to achieve their education goals (Cheney et al., 2000; Liparini, 2008). All students irrespective of the level of education benefit academically, socially, emotionally, and physically when provided with social supports (Gerdes & Mallinckrodt, 1994). In contrast, decreased social supports escalate students’ susceptibility to education failures (Buhs & Ladd, 2001). Peers and parents’ social support contributed to children’s successful adaptations in their environments, and also contributed to their academic achievements in college (Geenen et al., 2001; Zea, Jarama, & Bianchi, 1995).

Successful social relations contribute to success in academics and vice versa (Ankeny & Lehmann, 2011). Positive peer relations have a positive effect on others, and so social life and academic life are interlinked. Social competences contribute to positive relations in the school, which lead to increased social repertoires, increased experiences, and developed abilities to flexibly cope with change. Hence, socially competent students find college life satisfying (Hearn, 1985). Equally, students with interpersonal skills are easily accepted in their milieus; they have expanded social networks that further provides support and available opportunities to succeed (Holahan et al., 1994; Oesterreich & Knight, 2008). Amicable peers and families provide students with disabilities appropriate support to learn social skills necessary to navigate social demands (Geenen et al., 2001). Successful students with disabilities can regenerate self energy to work on their academics, navigate their environment, manage barriers, set ambitious achievable education and career goals; they are patient, resilient, persistent, creative, social, and
motivated (Gerber, et al., 1992; Hitchings et al., 2001), qualities nurtured through socialization, and when challenged, are encouraged, and valued (Geenen et al., 2001).

Banks (2013) research study with three college African American with learning disabilities on their perception of high school to college transition experiences revealed that they encountered many social, cultural, physical, and academic barriers in their education and transitioning to college because of the confluence of race and disability. And that most challenges they experienced were externally caused, and that they are less related to individual’s disability or academic ability. She found that some teachers, parents, and peers were sources of barriers experienced by students with disabilities aspiring to attend college. Then again, peers and parents contributed to students with disabilities transition to college. Some peers were role models, others social networks that provided social avenues for sharing dreams, others provided students with disabilities with moral supports that helped them successfully navigate school systems. As a result of social supports, students with disabilities were able to grow and develop skills that helped them manage disability stigmas, stereotypes, and misbeliefs of their capabilities.

**Family-Related Factors.** Again families were sources of social demands and social competences. Families contributed to social demands that affected students’ education. Sources of social demands were disabled family members who were over-controlling, misunderstandings of child’s disability, and students’ inability to decipher and apply parents’ advice correctly. Negative consequences of parents’ advice included histrionic behaviors and feelings that parents were hard on them. Also, some students struggled with socialization because of the stressful relationships with family members and struggle to contextualize and generalize their advices. Some families had low
expectations while others had over-expectations, which limited interactions, consultations, and access to emotional support. Lack of appropriate information about schooling and transitioning processes led to disparate expectations that created tense relations in some families. Parents’ fear for students’ future life, anxiety, apprehensive and over-concerned about the child’s health and safety, all made it difficult for students to socialize and confide their need to parents. Also, some students felt frustrated by parents who compared them with their siblings. In some situations, parents’ emotional insecurity led to reversed roles that forced students with disabilities to provide their parents with emotional support as opposed to receiving emotional support.

On the other hand, families contributed to students’ social competence were acceptance of child’s disability, provision of supports, and a stable home where parents were role models, mentors, social partners, and friends. Family supports are reliefs provided to students with disabilities by parents, siblings, and extended family members. Students with disabilities were relieved from many challenges so they were able to access education and develop in the areas of socio-emotional, cognitive, and general knowledge. Family supports during P12 schooling, transitioning to college, and in college contributed to students with disabilities’ overall wellness. They enhanced their positive personalities such as confidence, which helped them explore their milieus. Exposure and interactions with people in different settings also increased their social and academic capabilities that helped them manage challenging experiences. Knowledge of parents’ supports further encouraged them to invest in their education and to explore their individual interests.

Families provided stable home environments that supported their children’s academic and personal needs. They accepted their disability, supported their
development, treated all children equitably, nurtured their respect, and helped them develop self-awareness. Families were students’ immediate social circle that provided financial, socio-emotional, relational support, and inculcated social skills and social values and nurtured their self-awareness and self-determination. They created enabling environments full of opportunities for students to meet and make friends. Parents were their children’s referents, advocates, counselors, guides, friends, advisors, comforters, mediators, and representatives. They pacified or reduced their fears and anxieties, they shared personal triumphs and failures, provided guidance, consolation, fixed their concerns when they struggled with social issues; they mediated between them and their teachers, and helped reduce misunderstandings and increase their children’s acceptance and belonging in school. Families were small and parents were professionals (e.g., doctors, academics, teachers, engineers, managers), entrepreneurs, educators, and had at least a college degree and resources to provide students with disabilities with necessary supports. Parents facilitated their children’s academic and socio-emotional competences through financial support in the form of resources, services, and equipment, which ensured they accessed education in the most enabling environment. In college, parents paid their children’s tuition, upkeep, healthcare, insurance, and assistive technologies (e.g., smartphones, computers, and wheelchairs).

Students’ socialization was limited by factors such as disability, health, time, season, workload, infrastructure, and cultural orientation. Aware of their social needs, their struggle in building and maintaining relations, parents sponsored them on tours and vacations some in foreign countries. They attended events and activities such as on-campus football matches. They hosted families and foreign students, which helped them
meet different people, build and expand their social circle, and develop their personalities. Parents also connected them with their extended families that provided social participation opportunities, which increased their social competences and improved their behaviors. They understood different settings and were prepared for different interactions. Also, parents inducted them into adulthood as they transitioned into high school and college by encouraging them to make personal choices (e.g., with college selection). These enabled children’s social participations and so they connected with different kin and people and became aware of self and their world thus increasing their competences, autonomy and agency, which again enabled social and academic opportunities, nurtured their tenacity and confidences, and placed them in the right academic direction to achieve own goals. Moreover, parents advocated for their children, which led them to gain admission to resourceful schools, to be treated fairly in the school, access general education curricula, and solve home-school differences amicably.

**Path to College.** Moreover, families and individual teachers supported students with disabilities’ transition to college by committing resources and time to guide them as they exited high school, on their path to college, and final switch to college. Parents’ academic, social, economic, and emotional supports, guidance and right information helped students with disabilities manage demands caused by changes. Families filled in the gaps that schools left behind due to insufficient or incomprehensive IEPs and 504 Plans; they supported students with disabilities with college selection or choice, the college application processes, pre-college visits, college orientations, and also supported their children that transferred from other smaller colleges to Savvy University. They also gathered information about colleges relative to disability services, academic ranking,
costs, and location. Some parents helped maintain momentum after their children graduated from high school by involving them in productive activities that kept them focused on attending college. Activities consisted of attending summer classes at community colleges, seeking medical treatment to improve their health before moving to college, or taking college-qualifying standardized tests after surgery, working summer jobs to gain independence and social skills and work ethics, or vacationing and visiting extended families abroad to make connections and to familiarize oneself with the world.

After transitioning to college, families continued to provide advocacy, socio-emotional and financial supports that helped them to invest in their education and manage social stressors caused by change. Parents paid their tuition and other living costs, supported their development of individual autonomy and agency, and their independent and decision-making skills so they could lead an independent life in college. They remained connected through emails, phone calls, and social media and nurtured their reciprocal relationships, built their children’s disability identity, and provided rich information. Siblings provided peer-supports, modeling, competitions, and interactions that influenced their competences and behaviors. As a result of sibling effect, they were challenged and motivated by their siblings’ successes most of whom were in college or had a college degree and a steady job, and so they committed themselves to attending college by investing in their own education to realize their academic and career goals.

A confluence of factors directly or indirectly connected to the child’s disabilities can exacerbate existing tensions in the home (Banks, 2013). Family relations can be harmed by stress caused by changes to accommodate children’s needs. It is parents’ expectation that their children succeed in school and life. However, social and academic
struggles insinuate fear for the children’s future, which affects everyone in the family; it creates tensions, and prevents normal growth and development of capacities to manage different circumstances. Parents were caught between two major fears: the fear that their children with disabilities would be harmed by the uncaring society, or that their disability would impede or limit what they could do on their own. Thus, parents wrestle with dependence and autonomy; how to protect their child, and how to let them explore and discover their world. Overprotection limits the child’s exploration of their environment; it dwarfs their self-initiatives and accountability for their own behaviors and leads to dependency. Autonomy lets the child discover their own world so they can develop self-determination, perseverance, and endurance skills to lead independent lives. Some families are distressed by the birth of a child with disability while others become overprotective and in the process constrict their children’s opportunities (Ankeny & Lehmann, 2011). Ankeny and Lehmann (ibid) described the life of one the students as full of challenges that emanated from parents’ despair and overprotection.

Students’ academic performance improves when families are involved in their school life (e.g., Banks, 2013; Bryan & Burnstein, 2004; Coleman, 1987) and when they provide social, moral and physical support (Ankeny & Lehmann, 2011; Hetherington et al., 2010) that build personalities, inculcate positive behaviors, and enhance learning processes (Trainor, 2005; Zhang, 2005; Webster, 2004; Zhang et al., 2005). This helps prepare them for changes including moving to college. Social factors can either afford or inhibit students with disabilities’ education (Kampsen, 2009). Social networks influence families’ behaviors, knowledge, attitudes and expectations (Bronfenbrenner, 1977, 1989). Rich social environments afford students with disabilities opportunities to develop
various behaviors from which they learn social repertoires that enable them to interact with others, make friendships, find solutions to issues, collaborate in building a mutually satisfying life and live in harmony, and therefore manage various social demands (Ankeny & Lehmann, 2011). Social repertoires increase students’ adaptations to circumstances and environments, it expands their social networks, it supports growth of positive non-cognitive behaviors, and lead to success in academics and general well-being (Baker & Siryk, 1984; cited in Kampsen, 2009, p. 157). Students that flexibly adapt to social situations are able to develop reciprocal relationships (i.e., acceptance, belonging) with peers and adults; they find themselves belonging to that milieu and also they find school amiable and education satisfying (Kampsen, 2009). Some teachers were important; they were crucial to students’ successes. Nonetheless, family members and peers rather than educators and teachers tend to contribute to students with disabilities’ positive education outcome and transitioning to college (e.g., Ankeny & Lehmann, 2011; Banks, 2014; Hetherington et al., 2010). While some student participants were unsatisfied with some parents’ expectations, overall, their parents facilitated their access to education and eventual transition to college through their financial, emotional, social, academic, physical supports. And so the degree of family involvement in students with disabilities’ education life makes them value parents and peers/friends over teachers (Webster, 2004).

The composition of families also positively impacted students’ social competences and overall well-being. Families’ (social, cultural, and economic) capitals (Bourdieu, 1986; Bourdieu & Passeron, 1990) make it possible for children with disabilities to receive appropriate services, resources, and support to enhance their
functionality and access of education. They also influence behaviors, attitudes, values, and orientations, which determine children’s life outcome (Williams, 2009).

Ankeny and Lehmann (2011) reported that students with disabilities exiting high school require skills to make prudent choices; they also need preparation for adult roles and independent living in college. Usually they learn roles and boundaries of autonomy when provided with opportunities to make choices. However, out of fear for the child, parents can be overprotective making the child over-dependent on them (Ankeny & Lehmann, 2011). Overdependence suppresses development of experiences essential for survival; it hinders independence and the natural experience of reality, which is an entwinement of successes and failures. Thus, it leaves the child vulnerable to unexpected and inexplicable changes (Eckes & Ochoa, 2005; Smith, English, & Vasek, 2002).

Exposure to risks and opportunities prepare them for real life; exposure to risks inculcates qualities such as self-determination (Ankeny & Lehmann, 2011). While overdependence causes deficiency in essential skills and stultify the abilities to lead an independent life, students with disabilities’ dependence on families is inevitable in some circumstances especially when the child’s severe or chronic disability requires continuous personal assistance.

Sibling effect influences behaviors of other children; behaviors of siblings affect the functional abilities of each other (O’Brien et al., 2011). Children learn social behaviors through imitation and copying, and so child’s behaviors influence and are influenced by other children. A rich home environment provides learning opportunities and experiences that help children expand their competences, while a deficient home environment diminishes learning opportunities and experiences and leaves children
unprepared for changes (Cassidy, Fineberg, Brown, & Perkins, 2005). Rich enabling social environments stimulate faster growth and development of behaviors (e.g., care, love, tolerance, responsibility) and skills (e.g., negotiation, planning, management) (McAlister & Peterson, 2006). The internal experiences related to mental state (e.g., intentions, desires, beliefs, emotions) impact and are impacted by the external behaviors (e.g., aggression, care, love, tolerance). External input influences growth and development of children’s behaviors and in the process they mold themselves to fit their environment (O’Brien, Slaughter, & Peterson, 2011). Some sources of external inputs that make quality education accessible to students with disabilities include parent and family supports and advocacy (Williams, 2009).

Path to college. For students with disabilities age 16 or preparing to exit high school, their ITP goals complements the IEP goals. It is therefore critical that disability programs center around them so that they can acquire experiences to manage their circumstances with little or no help after they transition to post-secondary life. However, often they passively participate in transition planning programs (Banks, 2013; Hetherington et al., 2010). While the expectation is that IEPs address student’s needs holistically, that is not always the case. For some time the IEP team address the academic content and neglect experiential part (Ornstein & Hunkins, 2004). Edeiken-Cooperman (2011) found that the implementation of IEPs were perfunctory and not in conformity with the IDEIA 2004 even though students showed progress in their skills. For instance, some of the IEPs goals were not measurable when the IDEIA 2004 mandated they should. Liparini (2008) also found that students with disabilities were either actively or passively involved in their college application processes. Though she does not explain the
reasons, it can be deduced that students with disabilities that are passively involved in
college selection are less informed of the opportunities and resources. Webster (2004)
observed that most students with disabilities aspiring to pursue college education
understood their capabilities to manage the education demands at college level. But most
children do not understand the demands that come with attending college because they
were not provided with the right information during the transition process. Also, Moreno
(2013) self-study shows that some students with disabilities exiting high school may be
less informed of different individual and institutional rights and responsibilities at high
school and college. She was herself unaware that college did not provide personal
assistants until she was enrolled. Thus, lack of information about a specific college makes
it difficult for students to reach their goals.

When provided with the right information about colleges and universities,
students with disabilities are able to anticipate social and academic challenges to prepare
for the expectations, and develop coping strategies (Collins & Mowbray, 2005; Liparini,
2008). The link between high school and college facilitates flexible switching of
institutions; but often that link is missing, creating gaps that make it difficult for students
with disabilities to become acclimated to college life. Students’ input in their college
choice is realized when they have concrete information about options, which makes
family support critical. Different activities provided by different individuals,
departments, and agencies are designed to support high school students with transition
experiences and to prepare them for a variety of postsecondary options. Pre-college
activities provide essential information that support and guide transitioning students with
disabilities to make appropriate decisions when selecting colleges.
Through pre-college visits, students and their families are provided learning opportunities about colleges and universities. Students and their families learn about how colleges’ services, resources, or facilities can support them in navigating the environments to meet their institutional, educational, career, social, and personal goals. They learn about colleges’ physical and social environments, available resources, services and support, the programs, and admission criteria (e.g., GPA; required courses and exams such as SAT, CAT, OGT; test scores; statement of interest; skills; involvement in extra-curricular activities). Also, they access past and current information about colleges, which guides them in finding one that will enhance their academic performance, ameliorate their disabilities, and foster socialization (Garner, 2008; Moreno, 2013; Trainor, 2005). This happens when students and their families interact with potential students and their families, and also when they interact with academics, staff, alumni, and current students (Madaus & Shaw, 2006; Webster, 2004). Students have the chance to interact with the staff and academics, and to find answers to their questions, concerns, worries, and fears. They have the chance to evaluate and compare programs and services that would be suitable to their needs. Such interactions instill curiosity, stir interest, and motivate students and families to work toward achieving education goals including transitioning to college.

Parents’ supports to maintain momentum and supports with the applications, campus visits, and college orientations help facilitate students with disabilities’ movement to college and flexible accustomedness to college life (Mullendore & Banahan, 2005; Strumpf et al. 2003; Strydom & Mentz, 2008; Webster, 2004). Students with disabilities choose colleges from options based on personal experiences, initiatives
and enthusiasms, internalized qualities, awareness of own abilities and needs, and the application processes involved (Liparini, 2008). Liparini (2008) found that some students wanted to stay close to home because of their treatment needs, available social supports, or just because of lack of forethought into the college search. Then others wanted to attend schools away from home because of the desire for a fresh start or so that they can lead an independent life. Also, parents’ role in education and transition processes is indispensable because of the material and immaterial supports they provide that helps students with disabilities manage education requirements (Banks, 2014). Parents’ supports (e.g., financial, moral, social, and emotional) are critical for students with disabilities’ education and transition to college. Even though IEP planning and implementation is a collaborative work, Geenen et al. (2001) found that “much of the transition planning and support occurs at home, rather than in the school” (Hetherington et al., 2010, p. 170). This can be attributed to the close relationship between children and parents because many parents invest heavily in their children’s education hoping an appropriate transition program will lead to a successful life (Ankeny & Lehmann, 2011; Banks, 2014; Hetherington et al., 2010).

Few students with disabilities transition to college even though many of them aspire to attend a higher education institution to increase their opportunities to lead a productive life (Newman, 2005; Webster, 2004). But even after they have switched to college, some students still experience problems. As Webster (2004) observed, lack of skills and knowledge, inadequate resources, negative feelings about students with disabilities, and unawareness of rights and responsibilities make student-faculty relationships difficult. However, students’ involvement in college activities before,
during, and after admission provides them with opportunities to learn about college programs, college life, and expectations of academics, staff, officials, and perspectives of current students, which also helps academics learn about them (Strydom & Mentz, 2008). This way they can develop reciprocal relationships.

Families provide supports and encouragements; they model behaviors and attitudes, guide and help with goal setting, financial responsibility, and work ethics (Henderson, 2001; Wagner et al., 2005). Also, educated and professional parents of children with disabilities have access to resources, services, and information to deal with school systems and to make education accessible (Artiles, Rueda, Salazar, & Higareda, 2005; Cheatham, Smith, Elliott, & Friedline, 2013). The contribution of families to the general well-being of college students with disabilities requires that institutions recognize and expand parents’ involvement in their child’s education (Shim, Barber, Card, Xiao, & Serido, 2010). Like all young adults, students with disabilities require parental support and guidance even in college. Parents can nurture resiliency, which is one of the qualities that determine individual’s academic success. Students are bound to experience barriers and challenges related to their disabilities and their environment. But with resiliency, they can manage environmental challenges more effectively and positively. Thus, nurturing resiliency is essential for students with disabilities, and parents can support their children to develop positive personalities to succeed in their college life (Williamson, 2003).
Research Question 3

What kinds of accommodations provided to students with disabilities during their P12 education helped them navigate the transition to university, given the demands of their disability?

ACCOMMODATION DOMAIN

This domain discusses the impact of accommodations on students with disabilities’ education outcomes; how access to accommodations within or without the individualized education plan (IEP) and the 504 Plan facilitated or hindered their mobility to college. Key to understanding the impact of accommodations on students’ education and transitions is the IDEIA 2004 definition of a student with disability, special education, related services, and assistive technology. The student with a disability has a physical or mental impairment that substantially limits one or more major life activities, or has a record of such impairment, or is regarded as having such impairment (U.S. Department of Education; as cited in Kampsen, 2009). Special education is a “Specially designed instruction, at no cost to parents, to meet the unique needs of a child with a disability” (U.S. Department of Education). It includes special remedial academic supports provided to prepare students for readiness for academics; but excludes placement in classes purposely to provide services such as counseling, therapies, and hearing aids. Related services are provisions that enable the child with disabilities to receive a free appropriate public education (FAPE) in the least restrictive environment (LRE) so they can benefit from special education. Services include early identification and assessment of disabling conditions, developmental, corrective, and other supportive services (e.g., recreation and counseling), and provision of transportation (20 U.S.C.
Section 1401(26)). Assistive technology is a device, item, or a piece of equipment, or product system used by students with disabilities to enhance their functional capabilities and learning. (See Appendix A for detailed definition of the terms.)

One of the definitions of person is an individual, while personal is something intimately concerning a person’s body or physical being. Whereas demand is the requirement of something to be done by an individual. (http://www.merriam-webster.com/dictionary/personal) Then, personal demands are requirements that the individual has to meet to be considered a valued person. In the school context, personal demands are conditions or factors required of students with disabilities to meet in learning settings to be treated equitably as their peers without disabilities. Personal demands are caused by gaps between one’s actual abilities and potential abilities to function in one’s settings. The abilities are related to independent living or life skills and self-help skills or adaptive skills. Self-help skills enable students to meet their own needs. For example, self-determined students take control of their education course. Conversely, independent living skills are behaviors that enable individuals to support themselves with minimal help from others, for example, taking personal responsibilities. Still, self-help skills and independent living skills are interchangeable and complementary depending on the situations. For instance, the ability to manage emotional needs decorously, that is, to express displeasure through email rather than through meltdown; or management of personal hygiene through proper use of bathroom; or the ability for personal care, for example, the ability to be safe, awareness of bus schedules, routes, and ability to ride the school bus; or the ability to use assistive technologies, that is, to manipulate computers or wheelchairs, can all be considered independent living skills and self-help skills.
Accommodations and supports help students with disabilities meet personal
demands by mitigating disabilities and environmental barriers. This way students can
function in their environments and improve on their personal competences, which are
behaviors, qualities, knowledge, and skills needed for them to lead a valued life.
Competences in independent living skills, self-help skills, interpersonal relationship
skills, communication skills, leadership skills, and non-cognitive abilities enhance
students’ possibilities to support themselves, to control their interests, to make personal
judgments, to share information, and to guide their own lives (Almlund, Duckworth,
Heckman, & Kautz, 2011; Borghans et al., 2008; Garcia, 2013, 2014; Kyllonen et al.,
2009; Rosen et al., 2010).

Some students had disabilities documented when young while others had their
disabilities documented when in high school. They had IEPs or 504 Plans, and received
special education and related services and access to assistive technologies based on their
psychomotor attributes (i.e., physical and cognitive traits) and tailored to their individual
needs. (See Table 3.1 for the list of accommodations.) Accommodations and supports
mitigated their disabilities and pain and bridged personal and environmental gaps, which
contributed to their personal competences. Some students received learning materials and
support while in the hospital and others such as Rita and Hera had slightly flexible
schedules after having surgeries and other medical treatments. Moreover, students
accessed related services, which included transportation, therapy, and assistance from the
Bureau of Vocational Rehabilitation services. Related services eased the demands and
opened opportunities to expand social networks and partake and improve in academics.

Students that were actively involved in the planning and implementation of IEP
The program had their needs documented and addressed fairly well. They accessed adapted learning materials, were granted sick leaves that led to proper management of their absenteeism. Others had some teachers provide them with safe and welcoming learning environments that encouraged their involvement in learning processes. Even though the degree of accommodations and supports provided to students differed at different grade levels, they helped them to meet personal demands and to compete fairly with peers without disabilities. They experienced increased functionalities, social participation, and involvement in learning processes, which enhanced their cognitive and non-cognitive abilities competences. They expanded their knowledge and skills through exploration of milieus and relations, they acquired different skills such as self-help skills and interpersonal skills. As a result of accommodations and supports facilitating their academic competences, they valued their lives and developed positive qualities; some students were also able to take control of their lives, and to invest in their education to meet the school requirements. Even though students did not perform to their true potential, they made academic adjustments, and endeavored in their academic work, succeeded and proceeded to subsequent education levels, and so they experienced positive education outcome that saw them transition to college.

Students accessed different assistive technologies (ATs) such as wheelchairs, crutches, hearing aids, Braille, PDFs, computers, e-calculators, smartpen, smartphone, headphone, laptop, and watches and education technologies or media technologies. Technologies also provided many benefits: they enhanced their academic, social, and personal competences, they compensated or ameliorated their disabilities and lessened challenges enabling them to lead a productive life by taking part in academic and non-
academic events and activities. They also enhanced their learning, mobility, and access to learning environments. Some of the ATs were universal such as iPhones that were installed with software tailored to students’ needs; they were aesthetic and more user friendly, and enhanced students’ image, their access to learning materials and social world, leveled their social life, and protected them from disability stigma (e.g., they had ATs similar to peers which made them equal—iPhone). Also, ATs connected them with families, peers, and friends and enabled their collaboration with academics, teachers and specialists. Also, ATs created a pool of service providers who coordinated efforts and formulated transition programs with teachers. These enhanced their relationships with people that supported their involvement in learning processes and also provided socio-emotional support. As a result of school-community partnerships, students such as Kim were trained on the use of Braille by a local disability community organization. With ATs, students located their way around campus, scheduled and attended meetings, and worked on group projects. They increased their socialization and connections that made them feel valued and helped tame their challenging behaviors.

On the other hand, all students in this study were less satisfied with their special education and related services because of lack or limited accommodations; or lack of information; or lack of teacher supports, which created educational demands. Educational demands are distractions; they make it difficult for students to find enabling learning spaces that supports their wellbeing, wellness, and growth and development of knowledge and skills. They negatively affected their ability to bridge the differences between their actual and potential abilities and limited their access to quality education. Most of them were less involved in the IEP programs, particularly as they moved to
higher grades; they relied on peers and families for support instead of teachers, or just compensated their disabilities. Students’ limited input in the IEP planning and implementation process resulted into wrong interventions, lack of or limited accommodations, and less support that made the curricula or classes inaccessible. And for others, the IEPs and 504 Plans’ goals were inadequate, which led to disparate expectations and tense relations. For instance, it was difficult for June and Mei to participate in the gym activities or to work on the high laboratory tables. Others considered their accommodations and supports insufficient because they felt they qualified for IEPs instead of 504 plans. Some considered the IEP meetings unhelpful because their needs were met or because the IEPs were less efficient in addressing their needs. For example, as for Perry, the IEP became a formality to ensure that everyone in the school was aware of his needs; his needs were either adequately addressed and/or he could compensate some of the needs, for example by shifting from the wheelchair to the stool when working on experiments in the laboratory. Educational demands also emanated from the dilemma over labels. And so they were less active in advocating for accommodations. For instance, Rita was reluctant to accept her disability qualities even though it adversely affected her school work and relations. It was not till she was 18 years old, just about to graduate from high school that she accepted disability identity.

Still, other educational demands were as a result of lack of or limited assistive technologies, or teachers’ resistance to integrate assistive technologies in their pedagogy or to allow the use of assistive technologies in the class (e.g., computers and magnified calculators). It was difficult for some students to use some assistive technologies because of the nature of their disabilities and limited supports from families. Kim and Mei found
it stressful to read on the computers for long because of visual impairments. Also, between elementary school and middle school **Kim** used Braille, but it was difficult for him to access chunks of information in a short time. Besides, his parents were incompetent in Braille and so they were incapacitated to ways to provide support with the academics. Limited parents’ supports with homework further reduced child’s consultations and compromised their competences. Other educational demands were as a result of students’ placements in general education classes with insufficient accommodations and support. Moreover, **Mei** and **Rita** were in gifted classes and advanced placement classes respectively; however, they were considered competent enough to manage class work without extra support. In situations where students acquired disabilities or had disabilities manifested in puberty or when in high school, late diagnosis saw the school take a while to identify, to recommend, and to provide special education and related services, which again exposed them to difficult learning experiences by reducing their academic interactions and access to quality education.

All of the students embraced their disability qualities when they moved to college; their disclosures and registrations with the disability services offices helped them access timely and appropriate accommodations, services, and supports. Their accommodations and supports were much broader and more efficient than the ones provided at high school. The IEPs and 504 Plans documented their disabilities and needs and described their accommodations and supports, and so they were able to register with the colleges’ disability services offices (DSOs) after switching to college. Some of the accommodations and supports provided in college upon registration with DSO were counseling and advocacy services, access to assistive technology laboratory and related
services (e.g., transportation). Some of the assistive technologies were distributed across the campus’ laboratories and libraries, which made it easier to access them at multiple locations. The DSO also connected them with peer note takers who either scribed notes or shared their class notes. Also, some colleges provided specific accommodations, social activities and events that enhanced students’ academic and social competences. On-campus facilities, equipment, and services were accessible, which increased their social participation and academic competence. The resident halls were accessible; they were offered the options for single rooms or shared rooms, and other rooms were adapted to the needs of students. Provision of meal plans, accessible transportation, adapted recreational facilities and services. Besides, some of the off campus eateries, restaurants, and entertainment joints were accessible, and the infrastructure and transportation services made mobility relatively efficient. The on-campus paths were cleared of snow during winter, and transportation was convenient with the university and city buses plying specific routes, which complemented the disability transportation services. All these enhanced their competences and positive education outcome and made college life convenient and satisfying.

The IDEIA of 2004 requires students identified as having a disability that affects their education to receive special education and related services. The individualized education plan (IEP) details the essential resources, services, and supports that will be provided based on the child’s abilities, strengths, interests, and preferences (Neece et al., 2009; Shaw, 2009). The child’s needs and qualities are determined by the individualized education program (IEP) team, which is comprised of teachers, school administrators, professionals and specialists (physician, physiotherapist, occupational therapist, and
speech therapist), parents or guardians, the student, and other significant persons in the child’s circle (Eckes & Ochoa, 2005; Kauffman, 2005). This ensures that different perspectives from different disciplines are brought forth in the understanding of the child’s disability vis-à-vis the child’s environment. The IEP team is required to plan and implement the IEP program based on a holistic approach to address the child’s needs.

Accommodations and supports enrich learning processes and contribute to students’ positive education outcome. Accommodations are changes of material and immaterial learning things (e.g., resources, services, supports, practices, procedures) provided to students with disabilities to access education and engage in productive learning processes (Byrnes, 2008; Ciccantelli, 2011; Corcoran, 2010; Garrison-Wade, 2004; Getzel & Wehman, 2005; Hunt, 2012; Shaw, Madaus, & Dukes, 2010). Changes are made in the physical environment or structure or space or time, or in an individual learner to make learning processes accessible and conducive or possible. This involves eliminating, mitigating, or reducing barriers that cause strenuous effects to allow students with disabilities to function to their potential, and to compete fairly and equitably with their peers without disabilities. Therefore, accommodations and supports impact students’ involvement in their learning process and learning outcome, and eventually their movement to post-secondary life. They provide affordances that allow students to grow and develop their experiences; they create enabling environments that supports their functionalities, learning processes, interactions, and achievement in social and academic and personal realms; they motivate and nurture their curiosity and interests to value learning, and make learning and teaching manageable and enjoyable. They lead to maximum use of resources; allows creativity and efficiency; and provide opportunities
and challenges for students, teachers, and academics to work toward a common education goal. While accommodations are provided to mitigate individual’s disability and to increase functionality in achieving education goals, they may or may not be written in any of the accommodation plan.

While accommodations, supports, and training are provided to meet students’ needs to function in the environment (Ankeny & Lehmann, 2011; Gerber, 2005), students should possess certain basic innate or acquired personal skills to meet certain criteria to be valued in school. For example, the ability to control their hands or eyelids to control a computer screen or mouse. Without these skills, the student experiences personal costs. Hence, it is the responsibility of the individualized education program (IEP) team to identify, evaluate, and classify students based on their dis/abilities and needs to ensure they access right special education and related services. Operation and achievement of IEP programs’ objectives require input from all IEP team members, particularly the input of the student with disabilities and their parents. As key IEP team members, parents share information about their child’s specific disability so that right services can be tailored to their specific needs to actualize the plans and to realize their goals (Ankeny & Lehmann, 2011; Banks, 2014; Geenen et al., 2001). Realization of education and transition goals depend on meaningful curricula, student-oriented outcome-based goals, students’ active involvement, continuous student and parent engagement, delivery of transition services, open communication (Hetherington et al., 2010; Kohler & Field, 2003; Martin, Van Dycke, D’Ottavio, & Nickerson, 2007; Shogren et al., 2007). Open communication builds reciprocal relations among students, families, teachers, specialists, professionals, policy makers, and the whole school system. Through continuous cooperation and
exchange of ideas on students’ prospects, enabling environments are created and education and transition programs are initiated and implemented effectively, which supports student’s development and growth (Ankeny & Lehmann, 2011; Garner, 2008; McKenna, 2000).

Students acquire competences when their positive qualities are nurtured through constructive and progressive relationships with others. However, their access to quality education remain elusive (deFur, 2003) four decades after the enactment of EAHCA 1975 because of cultural, socio-economic, and political barriers. Schools have been reported to fail to provide precise services needed for students with disabilities causing a major discrepancy between their future goals and actual outcomes (Horn, Berktold, & Bobbitt, 1999). This disparity significantly affects their postsecondary outcomes (Neece et al., 2009), leading to under-education and under-employment in comparison to non-disabled peers (Getzel & Briel, 2006). Attempts to address the shortcomings have seen the IDEA (1990) mandate schools to make education outcomes measurable. Schools are required to make education plans to have “appropriate measurable post-secondary goals, based upon age appropriate transition assessments related to training, education, employment and where appropriate, independent living skills; and to provide the transition services needed to assist the child in reaching those goals” (Turnbull, Huerta, & Stowe, 2006, p. 55; cited in Edeiken-Cooperman, 2011). Still, disability programs remain inefficient, and implementations of IEPs inadequate to the extent that some IEPs have been found to have immeasurable IEP and ITP education goals, or they are not facilitated in the manner that sufficiently address the needs of students with disabilities (Liparini, 2008; Stoep et al., 2000).
Factors that hamper effective implementation of IEP programs include non-engagement of students with disabilities in the design, development, and implementation of the IEP programs; students with disabilities’ deficiency in self-advocacy skills; misidentification and non-identification of student’s disabilities; de-emphasis of measurable goals (IEPs that are written haphazardly to the extent that no one is accountable to student’s behaviors); and inefficient implementations (Gil, 2007; Liparini, 2008; Test et al., 2004; Test, Mason, Hughes, Konrad, Neale, & Wood, 2004; Test et al., 2005; Van Dycke, Martin, & Lovett, 2006). Other factors that contributes to effective implementation of IEP programs are the formal IEP meetings that limits involvement of students with disabilities and their parents; IEP team members that fail to make adequate implementation of the plans (e.g., fail to make follow up with decisions or plans); focus on academic needs at the expense of personal and social needs; lack of support from school administrators; and viewing of the IEP meetings legalistically rather than personally. That is, the IEP team members’ failure to see the IEP program as an essential component for supporting students with disabilities’ success makes them fail to put a personal touch in it (showing interest in being part of the committee).

Hetherington et al. (2010) found that parents deplored how school districts managed their children’s transition programs. Parents and students considered the school curricula inadequate, and transition goals were either immeasurable or irrelevant to their children’s needs. Also, teachers were adamant, unsupportive, and unprepared to direct the transition program. These factors made it difficult to get correct information in time to make decisive career planning. Parents also found the rigors of the transition process wanting and full of misinformation; and that the school miscommunicated about the
children’s performance, which further left them confused. Some students with disabilities disengaged from their school, and they attributed their action to superficial treatment that left them caught in the bureaucratic system. Williams (2009) identified causes of failure of IEP programs as related to uncoordination of programs—lack of collaboration and minimal communication among special education and general education teachers, administrators, parents, and students; and poorly trained teachers. She also observed that sometimes students with disabilities are not identified for accommodations, or the implementation of school disability programs limit teachers and students’ involvements that hinder realization of education goals. Liparini (2008) found that most students with disabilities considered their IEP team inefficient in supporting them to realize their transition goals because of teachers’ inefficiencies and unsupportiveness, which contributed to their learning helplessness. Also, although most parents can tell the impact of their children’s disability, not all are knowledgeable or skilled enough to provide support for them to function to their potential (Williams, 2009). Whereas such gaps can be filled through teamwork, limited or lack of collaborations make IEP team’s work inept. Disengagement of any IEP team frustrates relationships, it complicates teacher-parent relationships and makes it difficult to meet students’ transition goals, which further affects students’ participation in education and transition processes, and adversely affects implementation of transition programs (Powers et al., 2005). The transition process is complex and requires gathering information from multiple sources in order to make informative decisions. It requires coordinated effort of individuals and agencies to plan, execute, monitor, and restructure the education and transition program. Thus, depending on one person renders the possibilities of providing adequate information to
students challenging. Unless students with disabilities are provided with the appropriate information, they may be reluctant or unwilling to apply for college or work towards college while in high school. Having the IEP team involved in the education of students with disabilities is imperative to set a multi-faceted approach that makes implementation of IEP/ITP effective (Williams, 2009).

While IDEIA 2004 requires involvement of students with disabilities and their parents in the planning and implementation of the IEP programs, few of them are involved in the actualization of IEP/ITP programs because of the feeling that they are well represented by parents and teachers (Banks, 2014; Hetherington et al., 2010). However, it is not enough for students with disabilities to be represented in the IEP meetings for it limits their self-determination and self-awareness (Ankeny & Lehmann, 2011). Teenagers tend to oppose views of adults and people in authority in an attempt to define their identities and desires, and to create a niche of independence (Bridgeo et al., 2000). However, in the process, they avoid interactions with adults like teachers who can provide much needed support. Non-involvement of students with disabilities in the IEP meetings reduces chances of the programs addressing their specific needs. Students are less likely to develop responsibilities to manage their course of life or to understand their rights based on different disability laws when they remain in the periphery and let parents and teachers decide their education path. On the other hand, they are more likely to be confident and motivated to work toward achieving their education goals when aware of disability laws and when provided with resources, services, and supports (Garner, 2008). Therefore, it is important to involve those preparing to attend college to partake in the IEP meetings so they can articulate their individualized needs and have the program
center on them. To increase their involvement in the IEP meetings requires that formalities are lowered to encourage friendship when addressing issues of functionalities, accommodations, and roles of families (Clark et al., 2000; Liparini, 2008). Involvement of families in the IEP meetings has been found to encourage student’s participation (Bridgeo et al., 2000; Liparini, 2008). Since involvement of IEP team members is predicated on reciprocal relationship (Hetherington et al., 2010), deFur (1999) recommended inclusion of competent persons with experience in transition to be part of student’s transitioning planning team (p. 94).

Negative cultural practices increase power distance between students and IEP team members, which limit equitable participation in decision making. Reciprocal relations among IEP team members is critical for the successful implementation of IEP programs. This requires changing beliefs that adversely influence individual IEP team members’ indecision making. Equally important is the centrality of students with disabilities in the provision of accommodations. Involvement of those preparing to exit high school in the IEP/ITP processes reduces power distances in the IEP team, which allows for sharing of genuine information about their interests, preferences, and abilities, and in the process, it ensures incorporation of their perspectives in the education plan (Liparini, 2008). It also ensures that IEPs focus on substantial factors that contribute to their academic success and acquisition of positive qualities (e.g., self-determination), which are necessary for successful post-secondary life (Sitlington et al., 2010). Hence, it is important to reconstitute the IEP team with mentors, advocates, and affirmative individuals that know the student and his/her needs. This would also enhance collaborations, communications, and coordination of IEP programs to facilitate efficient
provision of accommodations and supports in addressing the child’s interests and aspired education goals (deFur, 2003).

Some students were cognizant of how interactions of factors determined access to quality education and so they planned and executed actions to navigate through obstacles, which led to their successes. Then others were stigmatized by their disabilities and so they lacked confidence and preferred to pass. Even though they succeeded academically, the educational demands were exhaustive and distressing particularly in high school. Self-disclosure, self-awareness, self-determination, and positive demeanors are important qualities for students with disabilities for they prepare them for eventualities and negotiation with teachers and service providers for equitable treatment (Carroll & Bown, 1996; Lynch & Gussel, 1996; Williams, 2009).

Effective transition programs provide continuity that helps students move from one education level to another without disruptions (Madaus & Shaw, 2006; Webster, 2004). Students feel confident and secure when they can predict the pattern of transition; when they can associate with places, events, people, and routines. This gives them content to build and connect images and ideas to their ways of life. Hence they can connect education and career goals and work toward exiting their new environment. Hence, students and their families should be provided with special education and related services to nurture their functionalities, experiences, and behaviors to promote their educational success and relations. Hence, provision of transition services predicated on the students’ needs should enable them succeed in education. However, that does not happen always in schools. And so, students experienced difficulties to access special education and related services particularly those whose disabilities manifested while in
high school. Timely provision of services and supports make it possible for students to access quality education, which increases their chances of making successful transitions. However, the success of disability programs requires planning, evaluation, and sustenance, which depends on the effective coordination, collaborations, and partnerships of school and home. Thus, implementation of disability programs requires coordination of programs within and outside the school (Levinson & Ohler, 1998; Office of Special Education and Rehabilitative Services, 1996). This is achieved when teachers, parents, and other stakeholders work collaboratively to provide students with disabilities with resources, services, and supports to be involved in learning processes. Coordinated efforts increase chances of education and transition programs focusing on the student needs which further increases possibilities of realizing the IEP/ITP goals. Besides, collaboration also ensure that different stakeholders’ goals are harmonized to achieve purposes that enhance students with disabilities competences. Lack of and limited collaboration, partnerships, and uncoordination of disability programs reduce flow of information, lead to misunderstandings, misconceptions, and discrepant expectations that make it difficult for students to access support and right information to efficiently deal with barriers (Hanline & Daley, 2002; Hetherington et al., 2010; Horn & Berktold, 1999; Plotkin, 2011). Also, when stakeholders’ different goals are not harmonized, they result in disparate expectations that harm students’ involvement in learning processes, causes misunderstandings that affect planning and implementation of IEPs, which further negatively affect student’s academic achievements (Williams, 2009). In addition, they make learning settings unfriendly, which weighs students down and causes them to struggle academically, socially, and emotionally, and because of demotivation, they end
up with low education outcomes (Howard, 2003; Moore et al., 2003; Williams, 2009).

Failure to meet the academic demands harms student’s own social expectations, particularly their relationships with teachers and peers, which affect their emotional and personal growth, and as a result, they come to see education system as inimical (Heiman & Kariv, 2004).

Different circumstances can make transitions thrilling or challenging for students with disabilities (Bramston & Patrick, 2007). Students’ change of statuses depend on their disability, demands, and ambiguity of the situations, anticipations, re-adjustments, or expectations (Connor, 2013; Gregg, 2009). Change creates stresses that cause loneliness, anxiety, and vulnerability to failure or marginalization particularly for those that struggle with coping. Unfulfilled needs due to changes can cause distraction and lead to challenging behaviors when students struggle with issues of motivation/demotivation, dependence/independence, and freedom/control. This can also contribute to conflict with peers and teachers’ expectations, adding to peer pressure, and difficulties in making positive relations and accessing quality education. Switching from high school to college involves change from ‘dependent’ life to ‘independent life’ leaves students with disabilities vulnerable to college pressure. Some get overwhelmed with the “academic demands, social expectations, and emotional and personal growth” (Heiman & Kariv, 2004, p.), which affect their matriculation (Eckes & Ochoa, 2005). Specially, students with LD have high college drop out rate (Gregg, 2009) mostly because of their inability to cope with increased academic load, inability to manage their anxiety and frustrations, inability to negotiate with professors, and inability to fit the social realm (Connor, 2013; Levinson & Ohler, 1998).
In the absence of supportive structures, students with coping skills may better manage change than those with limited coping skills. For instance, some student participants compensated for their inadequacy in the absence of accommodations. And so they became self-determined and self-reliant, which helped them manage some educational demands to succeed in their milieu. But compensation can be counterproductive because difficulties can lead to demotivation or development of challenging behaviors thus affecting relations and access to supports. Lack of accommodations creates education demands that lead to unbalanced routines that weigh down students and teachers. For example, students may be demotivated and frustrated by spending a lot of time and effort in the areas of deficit at the expense of maximizing their true potentials. This can lead to failures in areas of strength even when their actual performance is above average.

Not all students with disabilities qualify for special education and related services; some disabilities insignificantly impact access to education and so some students can benefit from minimal supports that are provided to the whole class without significant adaptations or modifications of learning processes, materials, or settings. Conversely, some students with disabilities require substantial services and support to access education, which makes them qualify for an IEP or 504 Plan. Still, some students despite the adverse effect of disability on their involvement in learning processes and belonging in school may not receive formal accommodation even though their disability fits one of the disability categories, for reasons such as lack of early diagnosis or early identification or limited resources. These categories of students may fail to transition to college because of the aforesaid factors (e.g., lack of right supports). Lack of accommodations adversely
affects education and transition of students with disabilities. Butler (2011) reported that nearly 55% of students with learning disabilities in her study had no IEPs despite having a disability that significantly affected their education. Also, students who acquire a disability late in high school or who are identified as in need of accommodations may not access or benefit from special education and related services if teachers, parents, and student fail to actively incorporate them in the IEP programs (Williams, 2009). As in the case in this study, late identification often involves a lot of paperwork, which may delay the onset of provisional resources and services thus further causing harm to the student who might be coping with a disability.

Students’ educational success is influenced by the provision of resources, services, and supports that are provided to mitigate their disabilities, increase their functionality, and make environments accessible and manageable. The broadness and the complexities associated with their education requires coordination, collaboration, and communication of stakeholders to effectively utilize material and immaterial resources to address their needs. Teamwork is important in the planning and implementation of education and/ or transition programs. The IEP team ensures that the IEP/ITP plans are implemented and assessed to realize education objectives set to support students’ growth and development through the systems. Coordination, collaboration, and communication facilitate efficient delivery of resources, services, and information to support students with disabilities’ education and transition (Williams, 2009). Considering vulnerability of students with disabilities to change, it is important that institutions provide adequate resources to support their flexible transitions. Their transitions to college require comprehensive approach; it requires that IEP teams structure IEP programs to promote
collaborations of teachers and service providers so they can develop home-school partnerships that supports cooperation of departments at high schools and colleges. This way they can work with the individual student to prepare him or her for various situations by providing them with appropriate information about college application processes, college life, and by instilling right attitudes (Kohler, 1998; as cited in Cobb & Alwell, 2009).

Teamwork is also critical in this era of technology. Modern assistive technologies have narrowed the gap between what students with disabilities can and cannot do, making their lives more convenient. While mainstream technologies and assistive technologies are of value in teaching and learning processes, they work for individuals differently thus making user’s input in their selection and integration in learning processes essential. Personal choice provides a glimpse into how beneficial the technology is to an individual. The student participants had technologies integrated in their lives, which enhanced their learning and living conditions. Some students are technologically savvy and had teachers tap into their funds of knowledge (Moll et al., 1992) or into multiple intelligences (Gardner, 1983). Through cooperate learning or group work, teachers can support learning of all students and explorations of topics. In the process, this creates opportunities for dialogue, encourages respect, appreciation, and recognition of diversity and individual competence. It also balances student-teacher roles in the classroom especially when students are invited to share their knowledge. Teachers’ ability to combine various teaching approaches such as child-centered instruction helps address holistically the needs of students.
Interplay of Academic, Social, and Accommodation Domains

The mutual effect of academic, social, and accommodation domains are fluid, complementary, and interconnected. Changes in one domain significantly affect other domains. Hence, an impact in one domain affects students’ education outcome. The interactions of disability and environmental factors facilitate or hinder realization of education goals (Baer et al., 2011). Students’ education outcomes were affected by many factors related to individual, institutions, instructors, peers, and families. These factors directly or indirectly intersected with systems at the macro-level and micro-level to influence their qualities and relations, access to resources and services, and final education outcome (Apple, 2004; Barton & Coley, 2010; Bronfenbrenner, 1979; Butler, 2011; Krueger et al., 2010).

On one hand, students experienced education barriers that were related to the individual, institution, instructors, peers, and families. The interactions of individual student’s physiological, psychological, environmental, and cultural factors made access to quality education challenging. They also faced obstacles in their pursuance of science-related courses because of inaccessible learning settings and inhospitable teacher attitudes. Some laboratory tables were inaccessible to wheelchair users and some teachers were uninterested in providing students with supports to learning materials, which interfered with access to quality and quantity learning. On the other hand, they gained competences as a result of individual, institutional, instructor, peer, and family-related factors. These factors contributed to their academic preparation and transition to college. In particular, they accessed general education curricula, were exposed to high expectations and competition after their placements in regular institutions. Challenging
learning settings motivated them and so they were able to set high personal, education and career goals. Besides, they were exposed to the community’s cultural practices from which they learned about their positions in society and how to navigate through various systems. These experiences nurtured their skills and knowledge and so they exhibited high academic competences despite their disabilities and illnesses. While their social participation was limited, they had a small social network that provided supports and made school life bearable; they were also able to tame some risky behaviors and to learn some beneficial behaviors. Moreover, they also accessed some accommodations and supports that helped them maximize their abilities to meet teachers and parents and peers’ expectations. Also the accommodations helped them to interact, build relations, share knowledge, explore environments, and broaden their experiences, which also inculcated confidence and motivation in the face of challenges. At college, belonging and personal fulfillment helped them build a larger social network than in high school.

Intersection of disability and cultural, socio-economic-political factors contribute to problems of access, retention, progression, and transition experiences of students of disabilities (Banks, 2013; Bronfenbrenner, 1979; Eckes & Ochoa, 2005; Madaus, 2005; Masten, 2003; Rumberger, 2004; Schutz, 2002; Snyder & Dillow, 2013; U.S. Department of Education 2013; Wagner, 1991). Multiple layers of cultural, socio-economic-political factors influence children’s education as they interact with their milieu in space and time with people and institutions and their cultures and norms and practices that direct them. Hence, it can be surmised that postsecondary gaps between persons with and without disabilities in education, employment, and other quality of life originate from inefficient
education and transition programs that fail to recognize students with disabilities’ needs, abilities, interests, and preferences (Henderson, 2001).

Barriers make education inaccessible; when disability entwine with negative cultural practices, they render students invisible or hypervisible (Banks, 2014; Butler, 2011; Butler, 2009; Connor, 2013; Danforth, 2009; Eckes & Ochoa, 2005; Getzel & Thoma, 2008; Williams, 2009; Williamson, 2003). Access to education and transition to college depends on how student’s disability is conceived and perceived. Beliefs of disability influence relations of stakeholders and misconceptions and misperceptions that create barriers that undermine provisions of resources and support. Disability stigma and stereotypes contribute to misconceptions, misrepresentations, and miscommunications that heighten peers and teachers’ deficit perceptions. This limits interactions and leads to unconcern with inaccessible school structures (e.g., broken handicap buttons), inaccessible systemic structures (e.g., uncoordination of programs), and inaccessible education structures (e.g., curricula, gym classes). Also, limited accommodations and limited social participations create education demands that predispose students with disabilities to challenging and harmful behaviors that affect adversely their physiological and emotional statuses and education outcome.

Learning theories postulates that students acquire experiences through engagement with activities and events. That is, they undergo specific change processes in which they obtain knowledges and skills commensurate to their involvement in activities. Thus, their competences are commensurate to their involvement in learning processes. At the same, learning theories form the basis from which students’ competences are assessed. Oftentimes, disability is assumed to hinder student’s growth, learning ability,
and development; hence, students with disabilities are considered inherently inadequate to match the academic scales. Often they are categorized based on the norm scale and inaccurately boxed based on traits less representative of their qualities (Pellegrino et al., 2011). While disability predisposes students to failures, they are externally induced rather than based on individual’s disability (Baglieri et al., 2011). The social model of disability stance is that barriers to academic actualization are human phenomenon rather than an individual phenomenon (Baglieri et al., 2011; Danforth & Gabel, 2006), and that handicapping factors reside in the environment and not in the individual students with disabilities (Vygotsky, 1978). Disability and environmental barriers are mitigated and removed with an inclusive schoolwide culture, enabling learning environment, right attitudes, accommodations and supports to allow students with disabilities to develop their endowed capacities to achieve academically (Baglieri et al., 2011; Ferri, 2011).

While no list of cognitive or non-cognitive behaviors in education is conclusive, learning outcome is influenced by the students’ behaviors or skills related to critical thinking, problem-solving, relations, work ethic, emotional health, and community responsibility (Rothstein, Jacobsen, & Wilder, 2008). Other behaviors and skills that have been reported to impact learning outcome include care, friendliness, and open communication (Pianta et al., 2005); “persistence, academic confidence, teamwork, organizational skills, creativity, and communication skills” (Garcia, 2014, p. 7); “study skills, attendance, work habits, time management, help-seeking behaviors, metacognitive strategies, social and academic problem-solving behaviors” (Farrington et al., 2012 as cited in Garcia, p. 8); self-control and self-regulation (Bierman et al., 2008; Bierman et al., 2009); “motivation, effort, self-regulated learning, self-efficacy, self-concept, social
behavior, and coping and resilience” (Rosen et al., 2010 as cited in Garcia, p. 24).

Williamson (2003) found that college students with disabilities that maintained positive education outcomes were assertive, confident, determined, intelligent, efficacious, and disciplined. They also had self-esteem, leadership skills, a sense of humor, positive interpersonal skills, work ethics, and risk-taking ability. Studies show that non-cognitive behaviors lead to positive education outcomes (Borghans et al., 2008; Almlund et al., 2011; Kyllonen et al., 2009; Garcia, 2014) and success in life (Nikolaou, 2013).

Individuals competent in non-cognitive behaviors maintain reciprocal relations “in work-places, communities, families, and politics” (Levin, 2012) and in the classrooms (Olson, 2012). Competency in non-cognitive behaviors provide students with disabilities impetuses to manage their education life. And so mobility of students with disabilities to college depends on their academic, social, and personal competences (Ekpone & Bogucki, 2003; Gil, 2007; Liparini, 2008; Souma et al., 2002; Wolf, 2001). Students with disabilities succeed academically when the inclusive schoolwide cultures make general curricula and accommodations accessible (Donovan & Cross, 2002; Mainzer et al., 2003; Milsom & Hartley, 2005; Soukup et al., 2007; Williams, 2009).

An inclusive school environment promotes home-school partnerships, shared management and decision-making, accountability, expeditious management of issues; it provides enabling learning environments that promotes efficient delivery of resources and services and students with disabilities’ functionality. Inclusive learning settings are safe, and recognizes and acknowledges students with disabilities’ intricate qualities; they support interactive learning of the class; nurture a community of learners, encourages cooperation, consultation, discussion, and interrogations of issues from which the whole
class learns; taps into the class’s potentialities; encourages students with disabilities to disclose their disabilities and needs and to request needed accommodations (Roessler, Brown, & Rumrill, 1998). In contrast, non-inclusive learning settings increase societal and cultural practices that elevate binaries of normality in the form of ability/disability or normal/abnormal binary, are unsafe and instill fear, make relations difficult, and contributes to challenging behaviors that affect active learning processes. General education classrooms are the least restrictive environment, and it increases interactions of all students and through exposure students challenge deficit-alienating cultures that perpetuate normality, propagate disability mythologies, and in the process it allays the fear of unknown, stigmas, and misconceptions. This lowers peer pressure to conform to norms and it instead promotes an inclusive schoolwide culture that enhances cultural evolution toward an inclusive society.

Meeting social demands is contingent on the individual’s personal needs, abilities, skills, and behaviors, particularly pertaining interpersonal relationships and prosocial demeanors, leadership, communication, and civic engagement. Relations are constructed in social spheres governed by norms, rules, and expectations, and are shaped, redirected, and constrained by social contexts when individuals independently strive to achieve certain goals in the group (e.g., education goals in a school). Students with disabilities are at risk of failure in a non-inclusive learning environment; it decreases their quality of education and equitable access to opportunities and experiences. However, they improve on their social, affective, and interpersonal behaviors when they interact with peers and adults in supportive environments. Parents, siblings, and personal attendants are
immediate social groups, and through social involvement and formation of relations, students learn to navigate their environment.

The Individuals with Disabilities Education Act (IDEIA) of 2004 amendments (P.L. 108-446) introduced the provision on transition services mandating school systems to offer transition services to all children with special needs starting at age 16 or as determined by the Individualized Education Program (IEP) committee. The IEP must contain an annual transition statement and information regarding transfer rights, behavioral concerns, and any community necessities (Folsom-Meek et al., 2007) while the ITP discusses employment, postsecondary schooling, independent living, and adult community services (Edeiken-Cooperman, 2011; Rueda et al., 2005; Stuart & Smith, 2002). The transition services focus on improving the academic and functional achievement of the child to facilitate his or her movement from school to post-school activities, including postsecondary education, vocational education, integrated employment (including supported employment), continuing and adult education, adult services, independent living, or community participation. Transition planning is an important component of the IEP and it is guided by student’s employment or postsecondary education prospects (Black, 2010). Transition services may include assistive technology, instruction, related services, community experiences, functional vocational evaluation (Pierangelo & Giuliani, 2004). Transition services factors in education process and the student’s needs, strengths, preferences, and interests in setting goals (Neece et al., 2009; Rowe, 2004; Shaw, 2009). Goals focus on improving student’s academic and functional achievement to facilitate movement from grade to grade to postsecondary life including transition to vocational training, integrated employment,
college and adult education and services, independent living, and/or community participation (Black, 2010).

Students’ success or failure is dependent on the focus of disability programs. Clear planning of disability programs for students with disabilities exiting high school is important. This starts by understanding that transition is a process with a beginning, middle, and an end (McKenna, 2000), and therefore a once a year meeting approach to review IEP/ITP goals may not be enough to inculcate a working formula with parent-student-teacher-specialists in a way that they can evaluate student’s progress (Black, 2010). Age 16 is the official transition period; but starting transition five years prior to exiting high school may provide the IEP team time to try different options that suits the student (Pierangelo & Guiliani, 2004). This also provides the IEP team with time to identify postsecondary needs and to set goals that foster the student’s knowledge and skills and to address their needs, values, interests, abilities, and to prepare them for adult roles (Cummings et al., 2000; Shaw et al., 2008). Brinckerhoff (1996) noted that institutionalization of transition process as early as eighth grade may give students opportunity to become more responsible for their own learning objectives and outcomes (p. 120; cited in Schultz, 2002, p. 53). This is critical because students with disabilities sometimes are less exposed to opportunities to make career choice. Besides, little exposure to appropriate careers makes it difficult for them to realign their education to long-term goals (Cummings et al., 2000). Hartnell-Young et al. (2006) therefore suggested distinct transition phases such as school-to-college, school to-employment, college-to-employment, or employment-to graduate study to help the IEP team addresses transition issues in piecemeal and in-depth. Additionally, centering students with
disabilities in the design, planning, and implementation of programs ensures the merging of diverse inputs in providing a comprehensive approach that supports their education achievement. There are various systems used to support students with disabilities’ education—system-centered services, child-centered services, and family-centered services (Peterson & Hittie, 2010). In system-centered services, provision of services revolves around the interests of the institutions, and the education processes are highly influenced by the school’s program structure; thus, they detail the functions and links of curricula (Kohler, 1998 as cited in Cobb & Alwell, 2009). It therefore leads to effective management of institutional resources but less focus on the needs of students with disabilities and their families. In child-centered services, provision of resources focuses on the needs of students less their families, while in family-centered services, resources and support revolve around the needs of the whole family, which provides teachers with comprehensive information about various actors in their life.

The “three levels of family involvement in school transition services [are] (1) participation and roles, (2) empowerment, and (3) training” (Kohler, 1998; as cited in Cobb & Alwell, 2009, p. 70). Family-centered disability programs include the student and their families’ inputs in the management of programs, which lead to effective resource management (Wagner & Blackorby, 1996; William, 2009; Willis, 2008). It leads to quality education that positively shapes students with disabilities’ experiences and behaviors and leads to a productive life (Willis, 2008). This was the case in this research study whereas parents played critical roles in supporting students with disabilities’ education outcome and transition to college. Still, it is important to develop school-home partnerships to ensure a team approach in supporting students with disabilities’ whole
growth and development, and eventual transition to college. In fact, IDEA requires inclusion of parents in their children’s education planning because of their critical roles. Parents or guardians are responsible for reporting the child’s physiological and psychological behavior at home, treatment/interventions, and approving services. Involvement of families/parents and students with disabilities at all phases of the child’s referral to provision of services is important in ensuring that the IEP plans are centered on each individual student; it gives them the opportunity to contribute to and assume responsibility for the IEP and transition plan (Ankeny & Lehmann, 2011; Martin, Van Dycke, Christensen, et al., 2006; Martin, Van Dycke, Greene, et al., 2006; Mason, Field, & Sawilowsky, 2004). This also increases rates of realization of the education and transition goals.

College education provides more prospect for students with disabilities; it provides the opportunity for them to maximize their potential and to grow and develop into productive citizens (Dutta et al., 2009; Madaus, 2006; Mazzotti et al., 2009; Wilson et al., 2009). With the School-to-Work Opportunity Act of 1994 (STWOA) emphasizes providing all students with the needed skills to enter the labor market, providing students with disabilities with appropriate resources and supports P12 through college is indispensable (Dorow, 2010). Already, re-authorization of disability laws continues to focus on making college and universities accessible to students with disabilities (Newman et al. 2010; Snyder & Dillow 2010). Section 505 of the Rehabilitation Act 1973 and the American with Disabilities Act 2008 forbid tertiary institutions from discriminating students on the basis of disability and the Higher Education Opportunity Act 2008 (P.L. 110-315), and the Higher Education Opportunity Act 2008 created new

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programs and added financial assistance for students with disabilities (VanBergeijk, 2011). Still, students with disabilities face old and emerging barriers on their path to college (Gartin et al., 2002; Hetherington et al., 2010; Milsom & Hartley, 2005; Soukup et al., 2007; Williams, 2009). Baer et al. (2011) identified predictors that reduces chances of students with disabilities transitioning to college as socio-economic status of the family, unavailability of financial aid, fewer applications to colleges, and poor transition plans. Other factors that contributes to fewer students with disabilities transitioning to college are lack of right information and unpreparedness for college. Lack of career choice coupled with unpreparedness to deal with the bureaucratic college system often leaves them intimidated by the prospect of living away from their families further derailing their transitional goals (Chang & Logan, 2002; Edmondson & Cain, 2002). Moreover, confluence of disability and cultural and socio-economic factors denies internship experiences to many students with disabilities; and so they usually lack knowledge about the job market and the skills to compete for jobs or skills to handle failures or to fit the work place (Cummings et al., 2008). These factors affect their access to education, their retention and progression in in school and finally transition to college. Thence, individuals with disabilities lag behind peers without disabilities on every measure of access to quality and equity general education, graduation rates, acquisition of high school diploma, transition success, postsecondary education participation and completion, entry into employment, incomes, and successful independent living (Getzel & Thoma, 2008; National Organization on Disability, 2000; Roessler & Rumril, 1998; Sharpe & Johnson, 2001).
While more economic opportunities are projected in science, technology, engineering, and math (STEM) field for degree holders (Nagle, Marder & Schiller, 2009; U.S. Department of Education), students with disabilities remain underrepresented in STEM fields because of cultural, physical, social, economic, and political barriers (Alston & Hampton, 2000). The 2012 U.S. Department of Education Office for Civil Rights’ report, *The Transformed Civil Rights Data Collection* showed that the disproportionate underrepresentation of students with disabilities in STEM fields were caused by socio-cultural, physical, social, economic, and political barriers. These limit access to resources, services, and supports as well as early access to math and sciences. Early access to science and mathematics increases success possibilities. Yet, students with disabilities were more likely to access these subjects later in their schooling, which leads to low performances, discouragement, and disinterest in STEM programs and careers (CRDC, 2012). Math and sciences require hands-on experiences in order to make abstracts and concepts practically meaningful; but underexposure in structured and unstructured STEM-related learning activities lowers students with disabilities’ abilities to conceptualize subjects and to independently work on science projects (Eriksson, Welander & Granlund, 2007). Students with disabilities education outcome is limited by lack of early exposure and lack of accommodations and supports (Hasse, 2011). These factors later adversely affect their education experiences, preparations, and employment (Committee on Equal Opportunities in Science and Engineering, 2006; National Science Foundation, 2002; Shaw et al., 2008), and greatly limits their education, employment, and healthcare opportunities.
Prejudices, low expectations, inadequate knowledge, and ineffective instructional practices make it hard for students with disabilities to access education opportunities (Hanline & Daley, 2002). They demotivate and isolate them from STEM classes and careers of interest, and reduce numbers of those that qualify for the STEM programs and careers which lead to fewer role models with disabilities (Hasse, 2011; Lee, 2011; Napper, Hale, & Puckett, 2002; Rule, Stefanich, Hadelhuhn & Peiffer, 2009). These create misconceptions that students with disabilities are recipients of assistive technologies—cochlear implant, electric wheelchairs or MiniComs) rather than producers (or creators, inventors, or investors), which sends a wrong message to educators and students that a disability renders an individual incapable of acquiring math and science knowledge and skills, affirms and creates cyclic misconceptions about science and disability that justify processes of exclusion and re-allocation of resources away from students with disabilities (Alston, Bell, & Hampton, 2002; Alston & Hampton, 2000; National Science Foundation, 2002).

Appropriate resources and support enhance students with disabilities’ academic capabilities, and STEM programs provides spaces for them to speak back to misconceptions of disability and science and math. History is replete with scientists with disabilities whose works have enriched lives of millions of people; for example, the electric light by Thomas Alva Edison who had a hearing impairment; gravity by Isaac Newton and Pythagoras theorem by Pythagoras who both had epilepsy; the Black Hole theorists Stephen Hawking who was diagnosed with motor neuron disease; and engineer and manufacturer of wheelchair accessible vehicles, Ralph Braun who was diagnosed with muscular dystrophy (http://www.hawking.org.uk/; Weisgerber, 1991). Since most of
the STEM programs can be pursued in colleges, it is imperative to promote the number of students with disabilities taking sciences and math P12 to prepare them for the job market where they can contribute to the integral development of humanity, and also challenge deficit conceptualizations of disability (Mazzotti et al., 2009).

Some students with disabilities acknowledged that their disabilities and illnesses adversely affected their education—it affected their access to learning spaces, involvements in learning activities and events, academic interactions with teachers and peers, and education outcome. This is somewhat in agreement with the disability laws that describes disability as an individual’s functional limitation, and in agreement with some special education scholars that consider disability an individual limitation that renders them less capable of performing tasks equivalent to non-disabled students (Fuchs & Fuchs, 1994). Nonetheless, disability studies scholars and disability rights activists have long argued that disability is a social phenomenon less an individual handicap, and that it used as a tool to create a binary to empower or disempower and influence access to spaces and resources (Baglieri et al., 2011; Brantlinger, 1997; Danforth & Gabel, 2006; Oliver, 1992, 1993). From the social construct lens, education barriers are socially engineered to make education inaccessible; hence, the barriers that students with disabilities experienced can be associated with institutional, relational, and cultural barriers. Therefore, social demands that harmed the students’ academic and social experiences can be linked to cultural practices such as disability stigma and stereotypes.

Culture is people’s programs of survival; it organizes and operationalizes peoples’ co-existence; it structures their ways of life, and in the process they are sustained through relations, which produces accumulated knowledge, skills, and values (McDermott &
Varenne, 1995; Pollock, 2008). The construction of disability as a personal property and individuals with disabilities as deficient of human prototype (Baglieri et al., 2011; Brantlinger, 1997; Davis, 1995; Garland-Thompson, 2007; Mintz, 2007) is a cultural fabrication that whitewashes reality and naturalness of disability as a human experience (McDermott & Varenne, 1995). McDermott and Varenne (1995) argued, “A disability may be a better display board for the weaknesses of a cultural system than it is an account of real persons” (p. 327), as in the case of the “exclusionary practices in education” of students with disabilities that are based on “the myth of normalcy” (Ferri, 2011, p. 2267).

How individuals with disabilities are defined, identified, categorized, and treated differ across society because of the historical, linguistic, ethnic and cultural heritage, social, political, and economic factors; geographical area; labeler, religious orientation, ability, sex, gender, and age; technological advancement, scientific, and medical factors (Nielsen, 2012; Park et al., 2007; Priestley, 2003). These factors can exacerbate or lessen discrimination experiences (Barton, 1993). Often, however, they qualify and justify their marginalization because of ‘non-disabled’ interests in economics, politics, and normalcy (Barton, 1993; Davis, 1995; Oliver, 1992, 1993; Siebers, 2008). Hence, negative cultures distort individual’s qualities and lead to social and personal misrepresentations that again create a mirage of disability and misperceptions that justify students with disabilities’ marginalization. With social misrepresentation, students with disabilities are placed in different social categories through labeling, while with personal misrepresentation their personal identifications are falsified, and so the stigmatized labels take precedence of who they are (Apple, 2004; Baglieri et al., 2011; Brantlinger, 2003; Pellegrino et al., 2011). Disability as a tool for social and personal misrepresentations, distorts and filters
students’ qualities through the deficit lens to justify their discrimination and marginalization. Segregation leads to unfamiliarity, which in turn inculcates fear of the unknown, self-guilt, and victimhood that further pushes them to the margin (Danforth & Gaber, 2006; Ferri, 2011). Rather than a human difference, disability is individualized to qualify stigmatizing labels that justify students’ invalidation. Thus, critics of labels mention that it has debilitating effect on the student’s social emotional wellbeing which also affects their cognitive competence particularly when teachers use it prejudicially (e.g., Apple, 2004; Brantlinger, 2003; Danforth, 2009; Danforth & Gabel, 2006; McDermott & Varenne, 1995; Schutz, 2002).

Like every community member, teachers are conditioned to believe that disabilities invalidate an individual and that they should be treated differently, often unfairly or less honorably. Power distance between teachers and students with disabilities occurs through interactions, teacher discourses, learning processes, language and non-verbal language, when cultural practices position students with disabilities as victims and render them voiceless and invisible. Thus, power distance increases unfamiliarity with others’ experiences, which lead to misunderstanding, misconception, and miseducation. Teachers that are less informed about students are likely to keep very high professional distance and alienate further students from the class thus affecting their behaviors and well-being. Misunderstandings lead to stigma, tension, and frustrations; misconceptions validate stereotypes of deficit; and miseducation lead to academic failures. Thus, disability studies in education promotes disability rights, inclusive schoolwide cultural practices, and placement of student with disabilities in the general education settings to develop pride in disability and inculcate self-awareness and their confidence.
Creating inclusive learning environments is essential for students with disabilities’ academic, social, and personal successes (Baglieri et al., 2011; Ferri, 2011). Their success depends on access to quality education and ability to acclimatize to institution settings, which happens when provided with institutional and home supports to lead a healthy life that allows them to engage in a wide variety of learning experiences and relation-building activities. This is facilitated when instructors use a variety of pedagogical practices such as universal design for learning (UDL) (CAST 2011), differentiated instruction (DI) (Tomlinson, 1999; as cited in Baglieri et al., 2011), and culturally relevant pedagogy (CRP) to make education accessible, and when their social circles develop reciprocal relationships to provide supports in managing changes and demands.

Transitioning from high school to college exposes students to old/familiar and new/unfamiliar experiences; they meet old schoolmates, new peers, and adults, and they are exposed to new or familiar lives, routines, practices, and expectations. Although high school-college transition is associated with delinking with the past, in some situations, links allow for the continuation of practices and processes that promote students with disabilities’ successes. Moving to college is a big lifetime shift that requires a lot of preparation, and students with disabilities need to be aware of expectations, have knowledge of own rights vis-à-vis rights of others and knowledge of roles and responsibilities; they need to accept their disability qualities in order to request and receive accommodations; they need to make adult choices about relations, sexuality and be accountable to their own actions and behaviors; they need to practice justice, to respect norms and rules, and to connect in the community. Hence, right information,
resources, services, and support as well as broad knowledge and skills and positive attitude, inquiry, and management of risks are necessary for students with disabilities exiting high school to achieve education and transition goals at college.

Moreover, early exposure of students with disabilities to college life helps disabuse their misconceptions that college is a difficult place. They form positive views about college to flexibly habituate to new environments after change when they access information about college through pre-visits or PSEO program, or taking college-prep courses, honors and advanced placement classes, or sharing college life experiences with siblings, parents, or friends attending or working in college. Since not all students with disabilities are lucky to have such early exposure due to limited or lack of resources, information, support, or motivation, high school-college disability partnerships can provide links necessary to expose them to varied experiences as they transition to postsecondary life so they can make informed decisions (Ankeny & Lehmann, 2011). Provisions of accommodations differ between P12 and college, which makes high school-college partnerships critical in creating awareness. College students with disabilities access accommodations as adults protected under the ADA and Rehabilitation Act 1973 (Edeiken-Cooperman, 2011). Thus, high school and college disability services offices can facilitate their transition by connecting them early to resourceful agencies and individuals where they can access useful information for their needs (Butler, 2011).
Implications

Reform of Education Systems

Students with disabilities continue to face education barriers despite disability laws creating cultural awareness of disability and mandating schools to provide special education and related services. Thus, continued school reforms and teachers’ transformations is necessary to improve on inclusive schoolwide cultures (i.e., norms and practices) that constructively foster collaborations that support students with disabilities’ access to quality education. Making education meaningful to all students requires access to general education curricula in enabling learning environments (Dolmage, 2008). Reforms in education is ongoing complex process as seen in the shift from rote learning to experiential learning and democratic education espoused by John Dewey (cited in Brantlinger, 1997).

Improving Transition Programs

Increasing rates of students with disabilities moving from high school to college requires fostering positive personal attributes; timely provision of support, resources, and services to before, during, and after high school graduation; building home-school partnerships, and open ongoing communications among stakeholders. Equally important is partnerships of high school-college mentoring programs to counsel, guide, and encourage peer role modeling. Pairing high school and college students with disabilities to share education and personal experiences can prepare the latter for college by exposing them to college education and life. Promoting collaborations with outreach agencies can enhance the sharing of information about college opportunities to help pre-college students with disabilities with college decisions. Moreover, social problems had little
negative substantive effect on students’ education outcome. Lack of success in the social realm does not correlate with an inability to perform in the social realm later in life.

While all students excelled in the academic realm, some struggled in the social realm. And most students felt unprepared in social and emotional areas to transition to college. This necessitates providing social opportunities and training programs to enhance their abilities holistically rather than in a specific area. Doing so would encourage those that aspire and qualify to pursue a higher education but opt out because of limited social skills, inexperience, or fear of the college environment, to enroll.

**IEP Teams**

Officially, schools and colleges provide transition services to eligible students with disabilities. Comprehensive and appropriate planning, development, and implementation of IEP/ individualized transition plan (ITP) before graduation from high school becomes imperative for students with disabilities moving to post-secondary life. The centrality of IEP/ITP in students with disabilities’ lives, according to Sitlington et al. (2010), demands that schools and IEP teams be made accountable to the resources, services, and support they provide to ensure that students with disabilities are educationally prepared for post-secondary life.

**Path to College**

Students with disabilities’ involvement in pre-college and PSEO programs should be encouraged since they prepare them for college. They can familiarize themselves with college life early, which attenuates fears of that unknown, which may hinder them from switching from high school to college. While IDEIA (2004) mandates schools to identify students in need of special education and related services, those that acquire a disability
or whose disability is manifested in high school find it difficult to receive accommodations to navigate the school systems flexibly. Thus, there is a need to revise the time frame of identifying students for special education and related services to enhance efficacy of the programs and students’ access to quality and quantity education.

**Teacher Practices**

Respect is a two-way process; yet often students are required to respect people in authority such as teachers without their actions being reciprocated (Giesinger, 2012). The bottom-up respect without the top-down respect instills fear and feeling marginalization. All of the students in this research study expressed a need for fair treatment at school. They wanted teachers to value them as capable individuals. Teachers should provide needed supports; believe them when they communicate their issues; lower the power distance between them and not just depend on a third party to inform them about their personal experiences. Instructors should also show compassion, try to understand their feelings, their experiences, how they navigated their environments, the challenges they faced, and triumphs they made. The students wanted to be provided assistive technologies and opportunities to access the general curriculum so they could work toward achieving their education and career goals. Specific student suggestions were: **Hugo** and **June** mentioned the importance of teacher-student respect in nurturing reciprocal relationships. **Kim** mentioned a need to improve coordination of departments to allow flow of information to teachers and students in order to address the totem pole effect. **Hera** mentioned the importance of teachers’ familiarities of commonalities and differences between students with and without disabilities so that they could tailor their practices appropriately to support individual needs. **Rita** mentioned need of teachers being
objective and guided by facts rather than whims when dealing with students with disabilities. **Rita** cautioned against generalizing disability experiences based on one’s inclination or profession because lumping disabilities denies students with disabilities access to needed accommodations. It is significant that teachers support students with disabilities fit into the class community by creating safe learning environments and opportunities that foster reciprocal relationships. Educators and parents can make education accessible to all students by addressing barriers and providing affordances.

Critical to facilitating learning processes for students with disabilities is the knowledge of individual differences; their different abilities, needs, interests, and preferences make them learn variedly; some are kinesthetic, visual, or auditory learners.

**Limitations**

This dissertation explored perceptions of undergraduate students with disabilities on their education and transition experiences P12 through college; however, the transition process was ongoing after the researcher concluded the data collection process. So, it is important to understand the findings relative to its limitations.

Students’ education and transitions are impacted differently by the interactions of socio-economic, political, and cultural factors both at micro and macro levels—by different individual variables such as dis/abilities, illnesses, age, gender; institutional variables such as resources, services, and support; spaces and locations such as school, home, and community and their structures; different education and transition and teacher accreditation programs; and curricula, pedagogy, learning processes and instructional practices (Bronfenbrenner, 1979; Masten, 2003; Snyder & Dillow, 2013; U.S. Department of Education 2013). Their effect can be instant, gradual, or cumulative. It
was difficult to compare the influence of specific factors or variables on students’
education outcome or transitions. Therefore, this dissertation did not examine
conclusively how these factors or variables influenced students’ education as they moved
*in, through* and *out* of the education systems. Nevertheless, it was supposed that students
received equitable P12 education opportunities that significantly contributed to their
education and transitions, and were equally competent, despite having different
experiences.

The IDEIA (2004) lists 13 categories of students with disabilities (National
Dissemination Center for Children with Disabilities, 2012). However, groups such as
attention deficit disorder (ADD), attention deficit hyperactivity disorder (ADHD), or
learning disabilities (LD) were not part of this study (because of the IRB requirement to
work with volunteer students only), making findings skewed to perspectives of current
students. Moreover, this dissertation like other qualitative studies has inherent limitations
beyond the control of the researcher (Simon & Goes, 2013). Data was collected primarily
through interviews; but a confluence of factors such as context, setting, health, ambience,
experiences, relations, and feelings influenced what individuals remembered. Hence,
generalizability of the findings in other contexts is limited relative to the institution,
students, and methodology. While this dissertation achieved its objectives of identifying
factors that influence students with disabilities education and transition to college from
their paradigm, information was not collected from other mentioned actors such as
families, teachers, and service providers due to limited resources and time. Lastly, even
though other theories (e.g., grounded theory, portraiture, and counter-narrative
framework) could inform understanding of students’ experiences, disability studies in
education (DSE) was chosen to give credence to disability discourses so they can speak back to the atypical and untypical discourses of disability. This noble trend might create inherent weakness by representing perspectives deemed fit by students and the researcher. Although the assumptions, scope of the study, limitations, and delimitations might raise questions on the validity and reliability of the dissertation (Carrell & Willmington, 1996; Herzog, 2007; Pascarella, 2001), as discussed in detail in Chapter 3, necessary steps were taken to increase trustworthiness of the research.

**Recommendations for Future Research**

There is need for further research based on this dissertation’s findings. Students’ education and transition was impacted by individual, institutional, instructor, peer, and family-related factors. While a replication of this study is favorably encouraged, future research should consider expanding the base of undergraduate students with varied disabilities from different colleges and universities, and use multiple instruments to gain more insight into the conclusions drawn herein. Equally important, most students with disabilities partook in the research study because they wanted to create awareness of disability experiences and to introspect and self-reflect on their life direction, which encourages more emancipatory research studies. The IDEIA (2004) mandates schools to provide transition services to students with disabilities exiting school; however, like previous research (e.g., Banks, 2014; Edeiken-Cooperman, 2011; Hetherington et al., 2010), insufficient management of IEP/ITP programs contributed to demands that students experienced as they exited high school. Considering the critical role of schools, more research is needed on the efficiency of IEP/ITP programs, with a focus on IEP team collaborations, and in particular, involvement of students with disabilities and their
families in the planning and implementation of the plans. Findings in this dissertation as in previous researcher’s findings show that students with disabilities habitually passively participate in transition programs (Banks, 2014; Hetherington et al., 2010). All of the undergraduate students with disabilities were considered low incidence disabilities. Yet learning disabilities make the highest category in P12 special education programs and accommodations focus on them. Therefore, more research is needed on low incidence students with disabilities’ non-participation in the IEP/ITP programs. Moreover, considering that parents played a key role in facilitating students’ mobility to college, more research with parents of exiting students with disabilities is needed on their experiences in working with institutions, high school and college, and on their awareness of differences of the disability laws relative to transition.

This research study found that pre-college visits and college preparatory programs helped most students. To make the claims verifiable and truths weightier, more research is needed on the impact of pre-college programs and pre-college visits on pre-college students with disabilities. Finally, this dissertation found that identification of students with disabilities for provision of special education and related services is inefficient for those students that acquire a disability in high school or those whose disability manifests when about to graduate high school. Hence, more research is needed on how to reduce the identification process so that students can receive immediate support.
Conclusion

Students with disabilities are one of the extensively studied group; yet their educational challenges remain despite the investment of resources and legislative changes informed by research. Then, the objective of this research study was identifying critical factors that contributed to students with disabilities education outcome including transition to college. And findings showed that education and transition to college of students with disabilities is a complicated process because of the confluence of individual, institutional, instructor, peer, and family-related factors that directly and indirectly impact their access to education, involvement in learning processes, and also influence collaborations, home-school partnerships, and management of IEP/ITP programs. Sources of students with disabilities’ demands and competences emanated from the individual, institutions, instructors, peers, and families. Individual’s disabilities, illnesses, medication, hospitalization, pain, injuries; non-inclusive schoolwide culture, non-inclusive learning settings and practices; lack of right information; struggle with individual and group needs, and the needs for recognition, affiliation, and friendships; and lack or limited accommodations and supports adversely impacted their involvement in learning processes and their education outcome. At the same time, individual and environmental-related factors also contributed to their management of education demands and successful transition to college. These included cognitive competence, self-determination, set educational goals, access to regular and inclusive schools and general education curricula, and the supports of significant others such as family members, peers, teachers, and service providers. They also developed various strategies to cope with the transition process, which included positive thinking that disability was just a part of the
whole of them; trying new things such as assistive technology; developing close relationships with specific trusted teachers and peers that provided support throughout their critical education journey; setting high education, career, and personal goals beyond the ones described in their IEPs, 504 Plans, and transition plans; investing in their academics and working hard to disapprove some teachers, peers, and parents’ deficit thinking. Moreover, they were conscious of norms, rules, and policies and so they were able to navigate through the school system. Also, their mobility to college was influenced by their desire to attend college to pursue careers that would allow them to lead a better productive life; the need to prove to themselves, families, peers, and the community that they could succeed irrespective of their disabilities; the need to escape isolating and distressing P12 school experiences; isolation and the urge to move on with education after failure to find medical solution to one’s health problems; fear of getting stuck with parents, and fear of attending college after their peers had already graduated.

Moreover, the students’ social competences helped them deal with demands to access learning and social opportunities. They were more socially interactive in college than P12 and their social participation exposed them to affordances to varied skills, extensive knowledge of events, activities, and processes that made their life exciting and satisfying. They had positive prosocial conduct qualities, temperament, and communication abilities that helped them develop constructive relations with certain peers and teachers that helped them navigate milieus to meet academic and social demands, and supported them on their education path to college. Their personal demands were connected to their disabilities; however, their successes were dependent upon access to resources and positive attitude of teachers and service providers. Training and
provision of special education and related services mitigated their disabilities and environmental demands, and improved their functionality.

Conclusively, students with disabilities may benefit from supports that help them manage demands and enhance their competences. Reducing barriers is key for students with disabilities experiencing quality education and making successful transition to college. It is evident that they managed some barriers and invested in their competences with the support of significant people (families, teachers, peers, and friends), which enabled them transition to college. As it is in the literature about families’ contribution to successful transition of students with disabilities (Dorow, 2010; Shaw, 2009), these students’ families provided critical supports that developed their self-awareness and nurtured their self-determination, critical qualities that helped them persevere difficulties while focusing on the achievement of educational and transition goals. And so they were able to invest in their studies to transition to college. Besides, accommodations are critical for students with disabilities academic and social successes even though most of them succeeded with inadequate provisions. It is not enough to provide resources, services, and supports without students with disabilities’ input. Their input is necessary in nurturing self-drive and agency so they can communicate their needs and be assertive when seeking supports. Nevertheless, they require certain basic skills to manipulate learning materials or tools to improve their functionality and personal qualities. Equally important, teachers, professionals, and specialists should possess the knowhow and positive attitudes to turn resources into productive and effective solutions. Experienced teachers and service providers become ineffectual without having the right attitude and showing interest to support students with disabilities. Thus, students with disabilities are
denied personhood and rendered invisible or hypervisible; thus, they are susceptible to prejudice, stigmatized labeling, and are predisposed to failure regardless of their learning and high-achieving capabilities. Finally, access to right information about colleges is essential for students with disabilities exiting high school. Provision of right information about colleges require high school-college partnerships and also involvement in pre-college visits. This way students with disabilities and their families can be prepared to manage obstructions caused by change of statuses because of the changes of disability laws and shift of rights, responsibilities, and expectations.
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APPENDIX A: DEFINITION OF TERMS
The following terms were operationalized to enhance understanding of the dissertation.

**Academic achievement.** The ability for students to perform satisfactorily academically to progress through and complete their P12 education experience. (E.g., students qualify for academic honors.)

**Academic adjustment.** It is the ability to fit in the institution’s social and academic structures after a change or switch (Butler, 2011; Ramsay, Barker, & Jones, 1999).

**Academic behaviors.** A repertoire of qualities necessary to function efficiently at school and work (Sien, 2014, p. 20). They include cognitive and non-cognitive qualities. Cognitive qualities include intelligent quotient, creative and critical thinking. Non-cognitive qualities include a range of attitudinal, behavioral, emotional, and personality characteristics.

**Academic competence.** It is the individual’s collection of related behaviors, abilities, knowledge, skills, and dedications that enable him or her to act effectively in any learning situation or task (Horton, 2000). The individual with these qualities are academically capable to engage in learning activities and events, to meet educational objectives, to exhibit learning outcome that lead to education attainment (TENCompetence Learning Network). Thus the individual student is flexibly capable of using their competences to cope with the educational demands in their learning environment to succeed academically. Factors that influence the learning outcomes of students depend on the individual’s cognitive/conceptual, non-cognitive, and psychomotor behaviors (McGrew, 2008) and cultural and environmental factors (Apple, 2004; Bronfenbrenner, 1979; Cole, 1996; Vygotsky, 1978). Academically competent students with disabilities are able to academically adjust to manage changes and academic demands and to maintain high general point averages (GPAs).

**Academic demands.** Academic demands are educational activities or tasks, curricula-based course-related work required of students to perform at school or home to enhance their non-cognitive and cognitive abilities in a subject area. Requirements are related to computation and communication (e.g., listening, reading, speaking, writing, and calculation); classroom practices that focus on thinking, understanding, and presentation of knowledge and skills; and competing expectations and goals of stakeholders in education (e.g., the expectations of individual and groups of students, teachers, educators, administrators, policy makers, families, community, governments). Demands on student’s circumstances and interactions and their interactions in the environment; may be caused by other barriers such as inaccessible infrastructure or curricula. Inability to manage academic demands lead to academic failures or school drop out. (Ames, 1992; Meece, Anderman & Anderman, 2006).

**Access.** The ability of all children to have equitable treatment in schools regardless of their social class, ethnicity, background, or dis/abilities. Access includes admission and progression with education on schedule for age-related activities at grade
level, ability to attend school regularly to pursue school opportunities, learn, and achieve in educational goals articulated in the national curricula (Consortium for Research on Educational Access, Transitions and Equity [CREATE]; Lewin, 2007).

**Achievement orientation**: Are the intrinsic and extrinsic qualities such as motivation, values, and attitudes and goals that contribute to successful transitions P12. Intrinsically motivated behaviors are internally directed while extrinsically motivated behaviors are externally directed, that is, input come from out of the individual (Ryan & Deci, 2000). Intrinsic stimuli are input from the individual as a result of personal interests and internalized values and so they are less vulnerable changes. Individuals that depend on external stimuli are vulnerable to changes because when the outside input is supplied to satisfaction or when it deteriorates or weakens, the individual does not have the drive to pursue their goals constructively (Frodi, Bridges, & Grolnick, 1985).

**Academic performance.** It is the ability of the student to maintain their statuses as they pursue academics by meeting school requirements (Butler, 2011).

**Accommodation (i.e., resources, services, and support).** Is the legally mandated changes of material and immaterial learning things (e.g., processes, practices, procedures) provided to students with disabilities so they can access education and engage in productive learning processes. They include extended time, portable books, computers, or sign language interpreters (Byrnes, 2008; Ciccantelli, 2011; Corcoran, 2010; Garrison-Wade, 2004; Getzel & Wehman, 2005; Hunt, 2012; Shaw, Madaus, & Dukes, 2010). The purposes of providing accommodations (adaptations and modifications) are to mitigate disability and reduce or eliminate environmental factors that hinder student’s functionality in achieving educational goals that may or may not be written in the IEP, 504 Plan, or in the accommodation plan (Corcoran, 2010).

**Advanced Placement Program (AP).** “Many high schools have Advanced Placement Programs designed to give students the opportunity to take college-level courses while in high school. These courses are taught by high school teachers and are developed by both secondary teachers and college and university professors. Students are able to demonstrate concepts and skills obtained through an exam given in May of each year. The tests are scored from 1-5 with 5 being the highest grade. If students score highly on the annual exams, then they may receive college credit, advanced placement in college courses, or both” (Nugent & Karnes, 2002). (Sien, 2014, p. 20-1)

**Affordance (facilitators).** It is a resource or support that offered by the environment to an individual; but the individual must possess capabilities to perceive it and to use it. It is a relation between an object or an environment and an organism that, through a collection of stimuli, affords the opportunity for that organism to perform an action. (Eleanor J. Gibson et al., in The MIT Encyclopedia of the Cognitive Sciences, 1999; http://www.merriam-webster.com/dictionary/affordance

**Americans with Disabilities Act (ADA) of 1990.** It is a wide-ranging civil rights law that that prohibits disability-based discriminations. Reauthorized as Americans with

*American College Testing (ACT).* “A curriculum-based assessment program developed by ACT to help students prepare for the transition to postsecondary education while providing a measure of high school outcomes for college-bound students. The ACT is complemented by EXPLORE, ACT’s eighth- and ninth-grade program, and by PLAN for tenth graders. The ACT tests will enable school personnel to confidently identify areas of strength and weakness” (ACT, Inc., 2009). (Sien, 2014, p. 20)

*Assistive technologies.* The IDEIA 2004 defines assistive technology (AT) as a device, item, or a piece of equipment, or product system used by students with disabilities to enhance their functional capabilities and learning.

*Cognitive.* Of, relating to, being, or involving intellect, intellectual reasoning (such as thinking, reasoning, or remembering) (Retrieved October 22, 2015, from http://www.merriam-webster.com/dictionary). (Ciccantelli, 2011, p. 10).

*Cognitive competence.* The ability to perform academic tasks adequately at grade level; cognitively complex tasks considered essential for school progress. Major components are intellectual development (i.e., developing skills for obtaining and sharing knowledge, knowledge of how to acquire information, and how to cogitate), critical thinking (i.e., making judgments through objective analysis, reasoning, inferences, and evaluation of an issue), and creative thinking (i.e., stretching one’s spectacles, evaluating multiple ideas and alternatives, and generating novel and practical ideas). These include language ability (communication skills e.g., listening, reading, speaking and writing abilities for success); metacognition; memory ability, mental stress mitigation ability, good study habits (e.g., appropriate use of time—sleeping time), interests, self-monitoring strategies (Piaget, 1977; Sun & Hui, 2006, 2012; Vygotsky, 1978).

*Competence.* It is the quality of being adequately or well qualified physically, intellectually, socially, emotionally, to compete in any setting; the ability to do something in a satisfactory or effective way; a person’s range of skills or knowledge; skills, talent, ability; soft skills—skills that enable someone to work well with other people, for example being able to communicate effectively, or to work in or lead a team. Aptitude, mastery, proficiency (http://www.macmillandictionary.com) It is the ability to manipulate one’s behavior and environment to realize an objectives and goals (Kampsen, 2009). “Intellectual competence, in particular, relates more to the academic realm and involves “‘mastering content, gaining intellectual and aesthetic sophistication, and, most important, building a repertoire of skills to comprehend, analyze, and synthesize’” issues (p. 45). (Chickering, 1969; Chickering and Reisser, 1993; Cited in Kampsen, 2009, p. 132).

*Critical factors.* Elements or variables or conditions or activities or factors that determine student with disabilities’ achievement of educational goals. They include instruction approaches, curricula, individual’s disability; these determine students with disabilities placement, the in/accessibility of the learning settings, for example.
Demands. These are pressures or stressors or barrier or hindrances or things that need to be done in a particular situation; any circumstantial factor that displaces or relocates students from their rightful course of action; things that students cannot realize and so they can only have an urge, ache, inclination, longing, yearning, wish, desire.

Disability. A physical or mental condition that causes functional limitations that substantially limit one or more major life activities, including mobility, communication (seeing, hearing, and speaking), and learning (American with Disabilities Act 1990, 2008; Ciccantelli, 2011; Garrison-Wade, 2004).

Disability stigma and stereotypes. A stereotype is a “conventional or formulaic conception or image … of ideas/behaviors/values”, or “category bound activities” that allow to categorize individuals or groups of people (Harvey Sacks, 1972).

Early college high school. A school where students can pursue high school diploma, associate degree “or up to two years of college credit toward a bachelor’s degree” (Hoffman & Vargas, 2005; cited in Sien, 2014, p. 22).

Education attainment. Entering student persists to completion and realization of their high school education goals and diploma and transition to college (i.e., undergraduate students with disabilities are considered as having met the academic requirements at each P12 grade level to attend college).

Executive functions. The “command and control” functions of the brain that involve daily organization and planning and future-oriented behaviors, and self-directed actions that humans use in self-regulation to modify behavior so as to change future outcomes (Barkley, 2001; Powell & Voeller, 2004; cited in Ciccantelli, 2011, p. 11).

Inclusive Education. The process of addressing the needs of diverse learners in the general education classroom (or least restrictive environment) by reducing barriers to and within the learning environment, and by meeting the learners’ diverse needs by bringing support to the learner rather than taking the learner to where the support is (Baglieri, Bejoian, Broderick, Connor, & Valle, 2011).

Individual Education Plan (IEP). It is a document developed by the Admission, Review, and Dismissal Committee (ARD). This committee is comprised of the parent, a representative of the school district administration, the student’s current special education teacher, at least one general education teacher, and the student as appropriate. The IEP must contain various elements including the following: student’s present competencies, annual goals, short-term instructional goals, and a schedule for evaluating progress on the goals [34 CFR §300.346]. (Dorow, 2010, p. 4)

Individualized Education Program (IEP). A document for students with disabilities that addresses their needs to access education (Lee, Wehmeyer, Palmer, Soukup, & Little, 2008; as cited in Hunt, 2012, p. 10)

Individual Transition Plan (ITP). “It is a document developed by school district personnel, the student and their parents, and appropriate government education
represents or agencies. The ITP is a separate document from the Individual Education Plan (IEP). The ITP should document the student’s long-range goals that may include postsecondary education, employment, independent living, and participation in the community. The ITP, which identifies supports and services needed by the student to reach the desired goals, is reviewed annually. Transition services identified as being needed are included in the student’s IEP” [19 TAC § 89.1110]. (Dorow, 2010, p. 4). “It includes student preferences and interests concerning postschool plans and the course of study required to prepare the student to accomplish his/her plans. The document also outlines future planning tasks/activities that are to be completed by IEP team members, including the student, using designated timelines” (National Council on Disability, 2003; Cited in Butler, 2011, p. 9). The transition plan describes ways students with disabilities age 16 can receive special education services to of achieve postsecondary goals (Hagner et al., 2012; cited in Spencer, 2013, p. 15).

**Individual with a disability.** “As defined in Section 504 of the Rehabilitation Act of 1973, an individual with a disability is any person who has a physical or mental impairment which substantially limits one or more major life activities, has a record of such an impairment, or is regarded as having such an impairment (U.S. Department of Education, Office of Civil Rights, n.d.). *Physical or mental impairment* means any physiological disorder or condition, cosmetic disfigurement, or anatomical loss affecting one or more of the following body systems. neurological; musculoskeletal; special sense organs; respiratory, including speech organs; cardiovascular; reproductive, digestive, genito-urinary; hemic and lymphatic; skin; and endocrine; or any mental or psychological disorder, such as mental retardation, organic brain syndrome, emotional or mental illness, and specific learning disabilities. *Major life activities* mean functions such as caring for one's self, performing manual tasks, walking, seeing, hearing, speaking, breathing, learning, and working.” (Kampsen, 2009, p. 4)

**Institutional factors.** “Institutional factors refer to specific aspects of the educational environment that influence the ability of the institution to provide an environment of support for students that influence academic and social adaptation.” (Kampsen, 2009, p. 148)

**International Baccalaureate (IB) Program.** “A 2-year curriculum for high school 16-19-year-old students. Students focus on one subject area from the following domains: Language, Individuals and Society, Mathematics, Arts and Electives, Experimental Sciences, and Second Language. Students then must take six subjects within each focus. Three or four of the subjects must be taken at the higher level (240 contact hours), while two or three courses are to be taken at the standard level (150 contact hours) (Nugent & Karnes, 2002). Students take a theory of knowledge course, which focuses on critical thinking and examines the nature of learning and the acquisition of knowledge. Students will then complete an extended essay from 1 of 60 subjects. Student assessment is based on criterion-referenced examinations administered by the school but graded by international examiners on a scale from 1 (minimum) to 7 (maximum) in May of each year” (Nugent & Karnes, 2002; cited in Sien, 2014, p. 23).
**Intervention.** A type of support services and/or training provided to student to achieve postsecondary education goal (Garrison-Wade, 2004, p. 7)

**Member checking.** It is a process for confirming the intended messages of participants. The researcher submits his or her analysis of what the participant has relayed, and the participant confirms or corrects the researcher’s analysis (Salmons, 2012; cited in Spencer, 2013).

**Modification.** Changes or alterations of methods, procedures, or equipment to allow students with disabilities participation in learning processes (Shaw et al., 2010; cited in Ciccantelli, 2011, p. 11).

**Non-cognitive competences.** Non-cognitive competences are the behaviors or attitudes or emotions or abilities or personalities or personal attributes or characteristics that enable students to effectively function in the learning environments (Sien, 2014, p. 20).

**Normal school progression P12.** Movement from grade to grade indicating that students met school basic requirements. Failure to progress normally include placement in special education classes or retained in a grade. These may be judgmental and subjective; nevertheless, they satisfy lack of meeting school expectation.

**Outcome-oriented or results-oriented.** “Focus is primarily on the end results or the benefits associated with goal attainment as compared to being focused on the process, or process-oriented “(Retrieved October 22, 2015, from http://mba.tuck.dartmouth.edu; cited in Ciccantelli, 2011, p. 12)

**Perceptions.** Are the students’ “opinions and insights regarding transition experiences” (Butler, 2011, p. 9).

**Persistence.** Continuous enrollment of students in academic program till their graduation (Summers, 2003; cited in Corcoran, 2010, p. 9)

**Personal competences.** Are behaviors, qualities, knowledge and skills needed for an individual to lead a valued and productive life, and include independent living skills, self-help skills, social skills or interpersonal skills, communication social skills, leadership social skills, and other self qualities skills such as self-determination and self-advocacy. So, personal competence enables the individual to take an active role in being independent in his or her life (Garcia, 2014; Rosen et al., 2010). That is, personal competences are the individual’s abilities to meet personal demands and to lead a fulfilling life. Students limited in the aforementioned skills depend on service providers such as personal assistants to help with hygiene, putting on clothes, safety, among other things.

**Personal demands.** One of the definitions of person is an individual, personal is something intimately concerning a person’s body or physical being while demand is the requirement of something to be done by an individual. (http://www.merriam-webster.com/dictionary/personal) In extension personal are activities that concern or
affect a particular person or his or her private life and personality because of disability. Then, personal demands are requirements put on an individual as a result of disability, for example, a wheelchair user needs special means of transportation to school (buses with lifts, etc.).

*Placements.* “Type of placement or curriculum received in high school, (e.g., segregated, self-contained special education), resource program, or integrated (regular education) program. It is based on background information provided on the student survey” (Garrison-Wade, 2004, p. 7)

*Postsecondary education.* Programs provided to students with disabilities after exiting high school to further their education, skills, or career which are done in vocational and career schools, apprenticeships, adult education programs or military, or colleges, or universities (Butler, 2011; Garrison-Wade, 2004; Sien, 2014; Sitlington, Clark, & Kolstoe, 2000).

*Postsecondary readiness framework.* “Is built around methods, programs, and best practices high schools use to help students prepare for postsecondary success. This framework is comprehensive in nature and centers on three key elements: (a) structural elements, (b) academic elements, and (c) social elements” (Sien, 2014, p. 25)

*Preparedness.* Focuses on academic qualifications, which are measured by the National Assessment of Educational Progress (NAEP) (Sien, 2014, p. 25)

*P12.* Means pre-kindergarten to 12th grade.

*P16.* Means pre-kindergarten to first four years of college education.

*Readiness.* “Includes behavioral aspects of student performance such as time management, persistence, and interpersonal skills” (Ford et al., 2006). (Sien, 2014, p. 25)

*Related services.* These according to IDEIA 2004 are services provided to enable a child with disabilities receive a free appropriate public education in the least restrictive environment so they can benefit from special education. Related services include early identification and assessment of disabling conditions, developmental, corrective, and other supportive services (e.g., recreation and counseling), and provision of means transportation. (20 U.S.C. Section 1401(26)). ([http://www.wrightslaw.com/info/relsvcs.defs.htm#sthash.hitCXcOb.dpuf](http://www.wrightslaw.com/info/relsvcs.defs.htm#sthash.hitCXcOb.dpuf))

*Retention.* Completion of a certificate or degree program in the same institution (Berger & Lyon, 2005; Corcoran, 2010, p. 9). While *school retention* is the ability for a student to remain enrolled until graduation, that is, until completion of certain education program to earn a diploma. Then *student retention (or persistence)* is entering pre-kindergarten to high school students remain, re-enroll, and continue their P12 education. The ability for a student to remain enrolled until graduation, that is, until completion of the P12 education program (Hagedorn, 2012, pp. 81-99). (E.g., students graduating from elementary school to continue with studies at middle school and then high school.)
School competence. Never received one or more years of special education or never retained in any grade.

Secondary transition experiences. “Activities for students with disability designed to prepare them for a variety of postschool options, including postsecondary education, vocational training, or supportive employment; specific activities occur during ninth and twelfth grade” (Butler, 2011, p. 9).

Section 504 of the Rehabilitation Act of 1973. Refers to a civil rights legislation that prohibits discrimination against individuals with disabilities, as defined in the Act, and is applied to entities that receive federal funding, including public schools. Section 504 requires actions that attempt to level the playing field for individuals with disabilities; its intent is to create an equal opportunity for individuals with disabilities to be successful (Smith & Patten, 1998; Smith, Polloway, & Dowdy, 2001).

Self-awareness. Awareness of self refers to knowing one’s abilities (strengths and weaknesses), skills (self-awareness, self-determination), knowledge (e.g. about rights and responsibilities, services, career), and feelings and desires (e.g., anger, self-esteem, pride) while awareness of others is knowledge about the society, its compositions and the roles of families, friends, educators, teachers, specialists, and people in the circle of the child (Webster, 2004, p. 158).

Self-determination. Refers to the, “ability to identify and achieve goals based on a foundation of knowing and valuing oneself” (Field & Hoffman 1994, p. 164). Throughout all of the definitions of self-determination that have been offered, there is an emphasis on knowing oneself, making choices, taking control, believing in oneself, and taking action to reach one’s goals (Field & Hoffman, 1994). “Freedom to live as one chooses or decides without consulting or being influenced by others” (Lee, Palmer, Turnbull, & Wehmeyer, 2006; cited in Hunt, 2012, p. 10)

Social competence. “Social competence refers to the ability of an individual to thrive in his or her social environment” (Stump, Ratliff, Wu, & Hawley, 2009, p. 28). That is, it is the ability of a student to determine appropriate behavior in a given school milieu, to adapt to the school community’s expectations at each developmental stage, and to get along with peers and teachers (Vaughn & Hogan, 1990). Social competence is affected by how a student interacts and communicates with other children and with adults and how a student views himself/herself in relation to her family, peers, and the wider world around them. Elements include social assertion, frequency of interaction, positive self-concept, social cognitive skills, and popularity with peers (Dodge, 1985). Social competences include ethical development (formulating a clear value system that guides life choices and demonstrates personal character); emotional development (developing skills for understanding, controlling, and expressing emotions); spiritual development (appreciating the search for personal meaning, the purpose of human existence, and questions that transcend the material or physical world).

Social demands. Social are activities appropriate on social occasion; the quality and depth of interpersonal relationships, leadership skills, and civic engagement. Hence
social demands are the requirement to participate in these activities in order to relate human society and its members. These include group action such as hanging out together, friendship. “Social factors are those aspects of relational experiences that facilitate or impede adaptation to the university such as the development of new college friendships, renegotiation of family relationships, continuation or development of a support network, and campus and community involvement” (Kampsen, 2009, pp. 137-8).

**Social integration.** “The ability and desire to interact with peers and to develop peer relationships appropriate to the individual’s developmental level” (Attwood, 2000; in Ciccantelli, 2011, p. 13)

**Social participation.** Social participation relates to the entire activities that a person must have to undertake to ensure a living, according to his/her lifestyle choices. It is measured against the fulfilment of activities of daily and domestic life as well as that of all social roles.

**Special education.** The Individuals with Disabilities Education Act 2004 defines special education as a “Specially designed instruction, at no cost to parents, to meet the unique needs of a child with a disability” (U.S. Department of Education). This include special remedial academic support to prepare students for readiness to compete equally with children without disabilities. This excludes placement in special education classes purposely to provide services such as counseling, physiotherapy, speech therapy, and hearing aids. Generally, students with disabilities are provided with resources, services, and support designed to meet their needs (Gerber, 2005).

**Student advancement.** Students proceed to and succeed at subsequent educational endeavors for which their program was designed to prepare them.

**Students with disabilities.** These are students with identified disabilities as outlined in the Individuals with Disabilities Education Act (IDEA) of 1990. Categories of disabilities according to IDEA include mentally retarded, hearing impaired, vision impaired, other health impaired, orthopedically impaired, learning disabled, seriously emotionally disturbed, autistic, and traumatic brain injured (Podemski, Marsh, Smith, & Price, 1995). (Dorow, 2010, pp. 2-3)

**Successfully navigate.** Successful students with disabilities are able to persist to completion of their educational goals (Hagedorn, 2012, pp. 81-99) by navigating through the education systems by developing relations that improves their performance to earn credits in their coursework to move to the next level of learning (Corcoran, 2010, p. 9).

**Successful transition to college.** Academic, social, and emotional preparedness to attend, live in, and enjoy college life, and to succeed in academics, and to graduate with a degree in one’s major. That is, joining college and fully participating in college programs as a member of the college/university community. Whereas some students with disabilities manage to attend college, often many do not fit in the university social fabric and as a result fail to be integrated in the university community. Those frustrated with the
experience and lack of inclusion develop behaviors that affect their (academic, social, and emotional) wellbeing and academic performance.

Supports. “The necessary resources, plans, and supports granted to the student with the goal of developing a successful transition for life after high school” (Carter & Lunsford, 2005; cited in Hunt, 2012, p. 11)

Transition. A coordinated set of activities for a student, designed within an outcome-oriented process, which promotes movement from school to post school activities, including postsecondary education—Section 602(a) of IDEA. Transition include the period of high school, the point of graduation, additional postsecondary education or adult services, and the initial years of employment. Transition is a bridge between the security and structure offered by school and the opportunities and risks of adult life. Any bridge requires both a solid span and a secure foundation at either end (Butler, 2011; Dorow, 2010; Hunt, 2012; Garrison-Wade, 2004; Levinson & Ohler, 1998; Office of Special Education and Rehabilitative Services, 1996). Transition is “change in status from behaving primarily as a student to assuming adult roles in one’s community” (Halpern, 1994; cited in Corcoran, 2010, p. 9). It is “a passage from one state, stage, subject or place to another; the gradual adoption of new roles and modification of existing roles” (King, Baldwin, Currie, & Evans, 2005). Transition is a student exiting high school to attend college or university (Ciccantelli, 2011). In this dissertation, transition is considered as an episode or process that resulted into students with disabilities academic transformation from pre-kindergarten to college. The assumption is that students with disabilities build on previous experiences to move from one education level to the next (i.e., previous successful experiences supports students with disabilities’ movement through grades, school systems, and education systems).

Transition Services. A coordinated set of activities for a student, designed with an outcome-oriented process, which promotes movement from school to post-school activities, including post-secondary education, vocational training, integrated employment (including supported employment), continuing and adult education, adult services, independent living, or community participation. The coordinated set of activities shall be based upon the individual student’s needs, taking into account the student’s preferences and interests, and shall include instruction, community experiences, the development of employment and other post-school adult living objectives, and when appropriate, acquisition of daily living skills and functional vocational evaluation. [The Individuals with Disabilities Education Act 2004, P.L. 101-476.20 U.S.C. Chapter 33, Section 1410 (a) (19)] (Cited in Butler, 2011, p. 9)

Transition skills. “Skills that assist with persistence are: learning styles, time management, organization, notetaking, study skills, test taking strategies, self-advocacy, reading, writing, introduction to assistive technology, and introduction to other tutoring centers available in the college” (Corcoran, 2010, p. 10)

Universal Design (UD). A way of designing —products and environments to be usable to the greatest extent possible by people of all ages and abilities (Story, Mueller, & Mace, 1998; cited in Corcoran, 2010, p. 10)
APPENDIX B: THE PROTOCOL
Questionnaire: Sample Questions

Project: Path to college: Narrative experiences of students with disabilities

Date ____________________________
Time ___________________________
Location ________________________
Interviewer ______________________
Interviewee ______________________
Release form signed ______________

Personal
1) Perhaps we can start with some personal background and you can tell me a little bit about when and where you were born, where you grew up, and how you got disabled.
2) OR Tell me about yourself.
3) Are you still learning who you are?
4) What was your life like growing up?
5) Do you want to say a little more about how you grew up?
6) What kind of a person were you during this life?
7) Who were significant people for you during this period and why?
8) What are some biggest personal change you made?
9) What do you think people think of you?
10) What is something most people do not know about you?
11) What is something you wish everyone knew about you?
12) What do you like least about yourself?
13) Can you tell me about hobbies or activities you engage in?
14) What is your area of study and the degree you are pursuing or have completed?

Relationships
16) Tell me about your relationships with your family (parents, guardians, siblings)?
17) What was the source of your social support?
18) Who in your K-12 life influenced you the most? How did they do it?
19) Can you tell me about the kind of relationships you had at school (with peers and teachers)?
20) How would describe your relationships with peers (friends) at K-12?
21) How did these relationships (with families, peers and teachers) affect your schooling?
22) What/who influenced you the most at K-12?
23) Can you tell me about people’s attitudes towards you?
24) What was the first thing you noticed about people closest to you at K-12?
25) Can you describe the people you trusted most at K-12 schooling life?
26) How would you consider your family socioeconomic status (SES) when you were at K-12?
27) How did your SES influence your education at k-12?
28) Were you ever confronted by prejudice or discrimination at K-12 by faculty, staff or students? If so, please describe, and how you resolved the situation.
Philosophical (Positional)
29) Are there beliefs, traditions, and practices that affected your education at K-12?
30) Describe something that has happened to you at K-12 for which you had no explanation.
31) What is your thoughts on how students with disabilities should be treated?
32) Do you have any religious orientation? If so, please describe and explain how your religious orientation shaped your thinking about yourself as a person at K-12, e.g. your aspirations, getting through obstacles in your life.
33) How did religion shape you as a person at K-12?
34) What were your thoughts that people can control their own destiny?
35) How were students valued at K-12? Were they (students with disabilities vs. students without disabilities) all equally valued at all situations?

Disability
36) How would you describe the disability community at K-12? Did you identify with one?
37) Did you claim having a disability at K-12?
38) What was the effect of your disability on your education at K-12?
39) Considering your age, gender, and disability, how did it affect your behavior in K-12?
40) What services did you receive at K-12?
41) How did your disability affect your education?
42) How did you advocate for yourself as someone with a disability?
43) What have you learned (about yourself) through this process?
44) What would by your advice to someone with a disability? How can they best advocate for themselves?
45) How could schools meet the needs of the disability community to be more inclusive?
46) What would you recommend that K-12 education schools need to do to be more accessible?
47) What are the most important things students with disabilities (SWDs) should learn from you?

Life Goals
48) Can you tell me about your (major and minor) life goals (life dream) at K-12?
49) What future did you dream of at K-12?
50) What were your goals in primary school?
51) What were your goals when you joined high school?
52) What were your post-secondary goals?
53) What did you want to do after graduating from high school?
54) Can you tell me about any link between your life goals and transition goals?
55) What steps did you take to achieve transition goals?
56) What profession did you value at K-12?

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57) What was your dream career at k-12? Is it similar to what you are pursuing?
58) What was the best decision you ever made at K-12?
59) What accomplishment are you most proud of?

**Education**

60) Tell me a significant memory of your school life. What kind of memories do you have about your primary school life? What kind of memories do you have about your secondary school life?
61) Trace your K-12 life, what were your experiences that affected your education?
62) What was the personal issue that concerned you most at K-12?
63) Tell me about your learning environment (placement—special class, general education class, and mainstream).
64) Can you describe some of the accommodations that you received at K-12 and why? Were they sufficient? What could be done to improve what was available?
65) Can you describe the circumstance when you ever asked for an accommodation that was not met or was difficult to obtain?
66) What was the average class size and the student-to-faculty ratio at K-12? How did it affect your education?
67) What were your means of transportation to and from school?
68) Can you walk me through your participation in non-academic activities at K-12?
69) What were your grades like in school?
70) What were your grades like in school?
71) Describe how you maximized your learning potential.
72) Describe how you maximized your learning potential.
73) Can you describe some details of favorite things you liked about your K-12 education? Any particular reason why you liked them?
74) As someone who self-identifies with a disability what are some of the challenges or surprises that you confronted as a student at K-12?
75) How could your schooling been made better at K-12?
76) What motivated you to invest in your education and transition to college?
77) What were your grades like in school?
78) Describe to me how you maximized your learning potential.
79) Can you describe a specific incident that sparked significant learning growth for you at K-12?

**Transition**

80) Take me back through the history in your K-12 schooling that brought you to this university.
81) Tell me a significant memory of your high school transition.
82) Can you describe your transition process?
83) Can you tell me about transition services you received in school?
84) Do you remember when your transition plan initiated?
85) What grade did you start receiving transitioning services?
86) What age did you start receiving transition services?
87) How would you describe your transition experiences?
How were you involved in your transition program?
Can you tell me whether you were offered transition options?
Can you tell me about transition programs you participated in? (e.g. Campus tour)
How did you cope with transition process? (“coping is things people do to avoid being harmed by life strains” [Pearlin & Schooler 1978, p. 1; cited in Schlossberg, 1984, p. 90])
Were there any barrier during your transition process?
How were those barriers set up barriers?
How did you respond (eliminate/overcome) to those barriers?
How did you initiate or respond to transition process?
Can you describe some characteristics and skills that you attribute to your successful transition to college?
What kind of support did you get that made your transition to college successful?

Campus Visits
Can you tell me if you participated in campus visit?
How informative was your campus visit?
How did you feel walking around campus?
How did feel when you visited campus?
What was your experience with the campus life?
How did you connect with students and faculty?
How did this tour work for you?
What questions were and were not answered?
What would you like to have experienced when you visited the university?
Whom did you meet with when you visited college?
Which facilities did you visit on campus?
What are the best reasons to go to this college?
What was it like to go from high school to college?
What did you love about this college?
What did you wish you could change about this college?
Why did you choose this college?
What was your feeling about campus demographics?
Compare your exposure through visit with what you imagined college to be like.
How would you describe accessibility on campus?
Describe your living situation and why you chose it.

Notes to interviewee
• Thank you for your participation. I believe your input will be valuable to this research and in helping improve transition programs and teaching practices.
• Confidentiality of responses is guaranteed.
• Approximate length of interview: 45-75 minutes, major areas for questioning considered
• Purpose of research: Find out how current college students with disabilities navigated school systems so that the information can be used to increase the number of students with disabilities transitioning to universities.
  • What challenges did they face?
What did they do to overcome those challenges?
What cultural norms did they deal with?
What challenges did they experience as they transferred from one level to another?
How did they navigate school boundaries?
What were the motivations of teachers?
What faculty conceptualization of their disability as they set their post-school goals?
What factors of the learning environment were important?
How was the transitioning programs organized?
How did transitioning process facilitate student's successful transitioning to college?

• Methods of disseminating results: publications and presentations at conferences
APPENDIX C: CODING SCHEME
Sample of *Nvivo 10 for windows* Software Clustered and Categorized Information

**Coding Scheme**

Bryman (2012) suggests four stages of text analysis. Stage 1 involves reading the whole text and making notes and sorting major themes and grouping text into categories. Stage 2 involves marking text and key words, making notes, labeling for codes. Stage 3 involves coding the text. And Stage 4 involves relating the general theoretical ideas to the text. This include adding interpretations and identifying significance in the codes.

Coded discourses include: Words, sentences, paragraphs. They are coded to create new themes, to provide explanation, and to discuss the text in relation to the aim, goal, objective, and purpose of the dissertation.

<table>
<thead>
<tr>
<th>Initial coding</th>
<th>Second coding</th>
<th>Third coding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Categorization based on the interview questions</td>
<td>Categorization based on the research questions</td>
<td>Categorization based on emerging themes</td>
</tr>
<tr>
<td>Background questions</td>
<td><strong>Academic demands</strong></td>
<td>Professional distance</td>
</tr>
<tr>
<td>Relationships questions</td>
<td>Cognitive competence</td>
<td>Actualized theories</td>
</tr>
<tr>
<td>Positional questions</td>
<td><strong>Social demands</strong></td>
<td>Social stigma</td>
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<tr>
<td>Disability questions</td>
<td>Social competence</td>
<td></td>
</tr>
<tr>
<td>Life goal questions</td>
<td><strong>Personal demands</strong></td>
<td>Extrinsic effort—support from families, teachers, peers, and the community</td>
</tr>
<tr>
<td>Educational questions</td>
<td>Personal competence</td>
<td></td>
</tr>
<tr>
<td>Transition questions</td>
<td></td>
<td>Intrinsic effort—self-determination, self-awareness, self-concept</td>
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<tr>
<td>Campus visit questions</td>
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</table>

Table: Analysis of Data

**Deductive approach**

This was based on the:

1) Theory—Disability Studies in Education, and
2) Research Question
   a) What critical factors helped students with disabilities to successfully navigate the academic demands during P12 education to transition to college?
   b) What critical factors helped students with disabilities to successfully navigate the social demands during P12 education to transition to college?
   c) What kinds of support services and accommodations provided to students with disabilities during their P12 education helped them navigate the transition to university, given the demands of their disability?
**Themes**

<table>
<thead>
<tr>
<th>Demands, Barriers</th>
<th>Words, sentences, paragraphs</th>
<th>Code to create new themes</th>
<th>Sub-themes &amp; quotes</th>
<th>Explanation, discussion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competences, Affordances</td>
<td>Words, sentences, paragraphs</td>
<td>Code to create new themes</td>
<td>Sub-themes &amp; quotes</td>
<td>Explanation, discussion</td>
</tr>
</tbody>
</table>

Table: Coding Scheme

**Categorization of Participants’ Disabilities**

Main Node: Social Domain

Sub-Node: Accommodations

Sub-Sub-Node: Disability

<Internals\Academic Domain\Transcriptions from different participants interviews> - §10 references coded [0.64% Coverage]

Reference 2 - 0.04% Coverage

MEI: I was born with a cleft palate, and I was born with a very small airway. And so for the first 6 weeks of my life, I was not getting very much oxygen to my brain.

Reference 3 - 0.18% Coverage

MEI: the first couple years of my life, I got my cleft palate repaired, I got my airway repaired. I had recurrent ear infection.... So I had ear tubes. So I just had maintenance stuff, it improved a lot after surgeries. And so things were pretty good after age 2.

MEI: And then at age 4—I had glaucoma since I was born. Also—at age 4, my left retina detached spontaneously. They couldn’t really figure out what it was and why it happened, but it happened. And by the time they figured it out, it was pretty much too late. I went to Michigan to try to have surgery for it and that surgery didn’t work. So yeah I lost vision at age 4 in my left eye. And yea. My right eye is pretty good though. So that’s great. From age 4 until now, nothing major has happened. Except being blind in my left eye.

Reference 6 - 0.01% Coverage

MEI:  Yeah, it is called Stickler syndrome.

Reference 11 - 0.10% Coverage

KIM: My disability—I’m visually impaired and short. I’m four-foot-seven. When I was two years old, I was diagnosed with an inoperable brain tumor. Through two years of chemotherapy, I came out pretty good, although my optic nerve and auditory nerves were damaged, so I am legally blind in both my eyes and partially deafened in my left ear. I’m also—well, my growth is stunted, so that’s why my pituitary gland, I’m shorter than most, but nothing that I can’t handle.
HUGO: I was diagnosed with ADHD and Asperger’s syndrome in that time [while living in Indiana with his parents], before the end of it anyway.

HERA: I have, like, very mild food allergies. So I’m kind of lactose intolerant, but not like with this. It’s if I have a glass of milk, then I’ll notice my stomach will hurt, but—

HERA: So I have systemic lupus—

HERA: and my first symptom was pain, and that’s a really typical thing to pinpoint because there’s so many different things that can cause pain. You can’t see it or measure it. So I was telling people that I’m in a lot of pain, and no one was able to gauge it. And it was a really big challenge, but I got to a point where… So I was in a lot of pain and my joints like to two or three times their size, and they would just fill with this fluid and I had rashes everywhere. My hair fell out, and then I started having organ problems with my kidneys and my heart, and bladder problems. I wasn’t able to pee for like 4 days and hearing problems. Hera-- so I’m deaf in one ear because lupus attacked the nerve.

PERRY: So I have spina bifida. So I am paralyzed from below the knees.

PERRY: so, spina bifida is a birth defect where the spinal cord is exposed at birth. So sometimes ain’t like exposed to the air. Sometimes it is like a little skin covering it. But exposed and therefore that part is damaged and the signal can’t pass through that. So you lose function based on where the fissure is located. And mine was fairly lower on the spine and so I didn’t lose so much function. Lower motor function. And they noticed that and um when I was born … by mid 90s they did pre-birth screening but I don’t think they did for me. They just realized it when I was born. And closed that … right away but function was already lost.

RITA: I was never labeled disabled or hard any disability of any kind. I was always that, I was the kid who was sick a lot and I was known by educators I was sick a lot. And in high school I was known as the kid who was sick a lot. I was very sickly I missed many days of school. And that’s when they started realizing that something is wrong. So my first diagnosis turned out to be incorrect, it was first thought to be Tourette syndrome because it wasn’t epilepsy, they confirmed it was Tourette or something else. Possibly Tourette not epilepsy. And then I got migraines so I was diagnosed with migraine and the migraines were so bad that I had to go back to a different doctor… because the first one had to quit…. So I went to a different one who said this isn’t Tourette and isn’t migraines. I ended having a brain issue, a brain malformation that needed surgery to fix, which was four years after the initial diagnosis.
Reference 31 - 0.14% Coverage

ZEUS: I have fragile ataxia and hydrotropic cardiomyopathy. I have two more. Fragile ataxia is neuromuscular disease where … the hydrotropic cardiomyopathy is the enlargement of the left ventricle of the heart…. the impact …in extreme heat, I have trouble with that, and I have trouble exercising a lot, things like that. The main thing fragile ataxia…. I used to walk and then neuromuscular disease, is where your muscle gets weaker and weaker over time and ….in sixth grade I got the point where I started using the wheelchair. And …sometimes with my hands…. I have physiotherapy people who stretch them out because it gets super tight.

**Clustering of Researcher’s Views on Categories**

Main Node: Academic Domain

Sub-Node: Academic Demands

Sub-Sub-Node: Individual Characteristics

<Internals\Data_Analysis\Chapter 4_4Dissert> - § 9 references coded [0.61% Coverage]

Reference 1 - 0.05% Coverage

1. Academic demands were caused or affected by disability, pain, medication, hospitalization, and technology. These factors impacted negatively education of participants.

Reference 2 - 0.04% Coverage

*Disability*

2. As evidenced in the following excerpts, some participants’ disability made them struggle with their education.

Reference 3 - 0.07% Coverage

*Pain*

3. Some participants experienced pain during the P12 education that some peers and teachers never understood. Pain placed a lot of academic demands on some participants in that it changed their moods and interactions in the class.

Reference 4 - 0.03% Coverage

*Hospitalization*

4. Hospitalization added another academic pressure on some participants.

Reference 5 - 0.03% Coverage

*Medication*

5. Some participants were on medication which affected them physiologically and physically.

Reference 6 - 0.11% Coverage
6. Other affective, social, or interpersonal abilities also influence the behavior needs of learners towards others that ensures their success in the academic domain. These behaviors may include social sensitivity, communication, prosocial behaviors, problem behaviors, and traits and temperament. For the sake of continuity, I discuss these factors in depth in question 2.

Reference 7 - 0.09% Coverage

- Psychomotor abilities

7. Learner’s psychomotor attributes (physical and cognitive) influence the quantity and quality of learning processes and determine resource allocation and the provision of accommodations (i.e., services and support). I also discuss this in depth under question 3.

Reference 8 - 0.08% Coverage

8. Overall, high school social life was “traumatic” for Mei. She “hated the [high] school” and just wanted to graduate. Her academic work suffered during her junior and senior years but the only way out of this sickening environment was through hard work.

**Notes by Researcher on Themes**

Main Node: Academic Demands

Sub-Node: Impact of disability on education

Sub-Sub-Node: Pain

<Internal\\Interviews\\Participants Profile> - § 17 references coded [5.25% Coverage]

Reference 1 - 0.18% Coverage

9. Because of the migraine, she still missed some classes and lab work which are critical for pursuing biochemistry and so she prepared for other opportunities within biochemistry should there be roadblocks for her to pursue biochemistry hence her majoring in mathematics.

Reference 2 - 0.57% Coverage

10. All these effects contributed to her learning issues. She was 16 years old, a junior in high school when she went through “really, really big flare” that impacted her education greatly. She had rashes, her joints swelled with fluids, her hair fell out, had organ problems that affected her kidneys and heart, hearing, and bladder control, and she could not pee for four days. In particular, it was hard to concentrate on studies when tired and in pain and when other students avoided her because they thought her rashes were contagious. Before she was diagnosed with the disease, it was not clear what was wrong for she complained of abdominal pain and chest pain. It was difficult to identify something was wrong and at the same time it was difficult to pinpoint the pain she was experiencing, and because teachers could not gauge her pain, she endured it without much empathy.
Reference 3 - 0.39% Coverage

11. Studying in the hospital was a big shift for her; it denied her chances of “bouncing ideas with other people” as it occurs in the classroom. Group projects became a single person project and although the she just focused on a piece of her interest, she did not get the entire picture of the project. After she was discharged she scheduled later classes (not morning classes) because chemotherapy had unpleasant morning effect on her. Although she was on chemotherapy many teachers never thought of giving her accommodations yet chemotherapy often slowed her thought processes and made her drowsy.

Reference 4 - 0.08% Coverage

12. However, because of the persistent pain she never registered for Post-Secondary Enrollment Options (PSEO) as she had planned.
APPENDIX D: DETAILED PARTICIPANT’S DISABILITIES
Detailed Participant’s Disabilities or Disorders

HERA: “Systemic lupus erythematosus (SLE) is a chronic disease that causes inflammation in connective tissues, such as cartilage and the lining of blood vessels, which provide strength and flexibility to structures throughout the body. The signs and symptoms of SLE vary among affected individuals, and can involve many organs and systems, including the skin, joints, kidneys, lungs, central nervous system, and blood-forming (hematopoietic) system. SLE is one of a large group of conditions called autoimmune disorders that occur when the immune system attacks the body’s own tissues and organs. … SLE may first appear as fatigue, a vague feeling of discomfort or illness, fever, loss of appetite, and weight loss. Most affected individuals also have joint pain, typically affecting the same joints on both sides of the body, and muscle pain and weakness. Skin problems are common in SLE. A characteristic feature is a flat red rash across the cheeks and bridge of the nose, called a "butterfly rash" because of its shape. The rash, which generally does not hurt or itch, often appears or becomes more pronounced when exposed to sunlight. Other skin problems that may occur in SLE include calcium deposits under the skin, damaged blood vessels in the skin, and tiny red spots called petechiae. Petechiae are caused by a shortage of blood clotting cells called platelets that leads to bleeding under the skin. Affected individuals may also have hair loss and open sores in the moist lining of the mouth, nose, or, less commonly, the genitals. … Anxiety and depression are also common in SLE.”

HUGO: “Asperger syndrome is a disorder on the autism spectrum, which is a group of conditions characterized by impaired communication and social interaction.”

JUNE: Cerebral palsy is either congenital or acquired during birth due to lack of oxygen. Spastic ataxia, dystonia, and pleurisy, a condition that make breathing extremely painful, it affects breathing.

KIM: Pituitary dwarf is a condition caused by a deficiency of growth hormones, rather than by genetic factors as in the case of the achondroplastic dwarf.

MEI: “Stickler syndrome is a group of hereditary conditions characterized by a distinctive flattened facial appearance, eye abnormalities, hearing loss, and joint problems. These signs and symptoms vary widely among affected individuals.”

PERRY: “Spina bifida is a condition in which the neural tube, a layer of cells that ultimately develops into the brain and spinal cord, fails to close completely during the first few weeks of embryonic development. As a result, when the spine forms, the bones
of the spinal column do not close completely around the developing nerves of the spinal cord. Part of the spinal cord may stick out through an opening in the spine, leading to permanent nerve damage. Because spina bifida is caused by abnormalities of the neural tube, it is classified as a neural tube defect. Children born with spina bifida often have a fluid-filled sac on their back that is covered by skin, called a meningocele. If the sac contains part of the spinal cord and its protective covering, it is known as a myelomeningocele. The signs and symptoms of these abnormalities range from mild to severe, depending on where the opening in the spinal column is located and how much of the spinal cord is affected. Related problems can include a loss of feeling below the level of the opening, weakness or paralysis of the feet or legs, and problems with bladder and bowel control. Some affected individuals have additional complications, including a buildup of excess fluid around the brain (hydrocephalus) and learning problems. With surgery and other forms of treatment, many people with spina bifida live into adulthood. In a milder form of the condition, called spina bifida occulta, the bones of the spinal column are abnormally formed, but the nerves of the spinal cord usually develop normally. Unlike in the more severe form of spina bifida, the nerves do not stick out through an opening in the spine. Spina bifida occulta most often causes no health problems, although rarely it can cause back pain or changes in bladder function.”

RITA: “Tourette syndrome is a complex disorder characterized by repetitive, sudden, and involuntary movements or noises called tics. Tics usually appear in childhood, and their severity varies over time. In most cases, tics become milder and less frequent in late adolescence and adulthood.”

Chronic migraine “is a neural condition characterized by a severe recurrent vascular headache, usually on one side of the head, often accompanied by nausea, vomiting, and photophobia, sometimes preceded by sensory disturbances; triggers include allergic reactions, excess carbohydrates or iodine in the diet, alcohol, bright lights or loud noises. A class of disabling primary headache disorders, characterized by recurrent unilateral pulsatile headaches. The two major subtypes are common migraine (without aura) and classic migraine (with aura or neurological symptoms).”

ZEUS: Fragile X-associated tremor/ataxia syndrome (FXTAS) is a neuromuscular disease that affects movement and thinking ability. Individual experience problems with coordination and balance, tremors, rigidity, pain, and muscle weakness. Individuals also experience secondary effects including anxiety, depression, cognitive disabilities, impulse control among other characteristics. Hypertrophic cardiomyopathy is where the heart struggle to pump blood due to thick heart muscle.
APPENDIX E: EDUCATION ATTAINMENT, INCOME AND POVERTY
<table>
<thead>
<tr>
<th>Subject</th>
<th>Total Civilian Noninstitutionalized Population</th>
<th>With a Disability</th>
<th>No Disability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate</td>
<td>Estimate</td>
<td>Estimate</td>
</tr>
<tr>
<td>EDUCATIONAL ATTAINMENT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Population Age 25 and Over</td>
<td>204,673,635</td>
<td>32,905,929</td>
<td>171,767,706</td>
</tr>
<tr>
<td>Less than high school graduate</td>
<td>13.4%</td>
<td>25.0%</td>
<td>11.1%</td>
</tr>
<tr>
<td>High school graduate, GED, or alternative</td>
<td>27.9%</td>
<td>34.5%</td>
<td>26.6%</td>
</tr>
<tr>
<td>Some college or associate's degree</td>
<td>29.3%</td>
<td>26.4%</td>
<td>29.9%</td>
</tr>
<tr>
<td>Bachelor's degree or higher</td>
<td>29.5%</td>
<td>14.2%</td>
<td>32.4%</td>
</tr>
<tr>
<td>EARNINGS IN PAST 12 MONTHS (IN 2012 INFLATION ADJUSTED DOLLARS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Population Age 16 and over with earnings</td>
<td>159,460,549</td>
<td>9,405,956</td>
<td>150,054,593</td>
</tr>
<tr>
<td>$1 to $4,999 or loss</td>
<td>11.4%</td>
<td>18.9%</td>
<td>10.9%</td>
</tr>
<tr>
<td>$5,000 to $14,999</td>
<td>16.6%</td>
<td>22.8%</td>
<td>16.2%</td>
</tr>
<tr>
<td>$15,000 to $24,999</td>
<td>15.2%</td>
<td>16.0%</td>
<td>15.1%</td>
</tr>
<tr>
<td>$25,000 to $34,999</td>
<td>13.2%</td>
<td>12.0%</td>
<td>13.3%</td>
</tr>
<tr>
<td>$35,000 to $49,999</td>
<td>14.8%</td>
<td>11.8%</td>
<td>14.9%</td>
</tr>
<tr>
<td>$50,000 to $74,999</td>
<td>14.7%</td>
<td>10.5%</td>
<td>14.9%</td>
</tr>
<tr>
<td>$75,000 or more</td>
<td>14.2%</td>
<td>7.9%</td>
<td>14.6%</td>
</tr>
<tr>
<td>Median Earnings</td>
<td>30,211</td>
<td>20,184</td>
<td>30,660</td>
</tr>
<tr>
<td>POVERTY STATUS IN THE PAST 12 MONTHS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Population Age 16 and over for whom poverty status is determined</td>
<td>241,065,292</td>
<td>34,972,993</td>
<td>206,092,299</td>
</tr>
<tr>
<td>Below 100 percent of the poverty level</td>
<td>14.1%</td>
<td>22.1%</td>
<td>12.7%</td>
</tr>
<tr>
<td>100 to 149 percent of the poverty level</td>
<td>9.2%</td>
<td>14.4%</td>
<td>8.3%</td>
</tr>
<tr>
<td>At or above 150 percent of the poverty level</td>
<td>76.8%</td>
<td>63.5%</td>
<td>79.0%</td>
</tr>
</tbody>
</table>

**Table:** Comparison of education attainment, income and poverty of people with and without disabilities

**Source:** U.S. Census Bureau, 2012 American Community Survey
TABLE 2-7. Major field of study of undergraduates, by disability status: 2012
(Percent distribution)

<table>
<thead>
<tr>
<th>Major field of study</th>
<th>All undergraduates</th>
<th>Without disability</th>
<th>With disability</th>
</tr>
</thead>
<tbody>
<tr>
<td>All fields (number)</td>
<td>21,823,100</td>
<td>19,405,700</td>
<td>2,417,400</td>
</tr>
<tr>
<td>All fields</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Non-S&amp;E</td>
<td>75.5</td>
<td>75.3</td>
<td>76.5</td>
</tr>
<tr>
<td>Business or management</td>
<td>16.0</td>
<td>16.2</td>
<td>14.4</td>
</tr>
<tr>
<td>Education</td>
<td>5.4</td>
<td>5.4</td>
<td>4.9</td>
</tr>
<tr>
<td>Health</td>
<td>19.6</td>
<td>19.6</td>
<td>19.0</td>
</tr>
<tr>
<td>Humanities</td>
<td>17.5</td>
<td>17.3</td>
<td>19.3</td>
</tr>
<tr>
<td>Other</td>
<td>17.0</td>
<td>16.8</td>
<td>18.9</td>
</tr>
<tr>
<td>S&amp;E</td>
<td>24.6</td>
<td>24.7</td>
<td>23.3</td>
</tr>
<tr>
<td>Computer and information sciences</td>
<td>4.3</td>
<td>4.3</td>
<td>4.8</td>
</tr>
<tr>
<td>Engineering</td>
<td>5.0</td>
<td>5.1</td>
<td>4.3</td>
</tr>
<tr>
<td>Life sciences</td>
<td>6.6</td>
<td>6.8</td>
<td>5.4</td>
</tr>
<tr>
<td>Mathematics</td>
<td>0.5</td>
<td>0.5</td>
<td>0.3 *</td>
</tr>
<tr>
<td>Physical sciences</td>
<td>0.9</td>
<td>1.0</td>
<td>0.9</td>
</tr>
<tr>
<td>Social and behavioral sciences</td>
<td>7.2</td>
<td>7.1</td>
<td>7.7</td>
</tr>
</tbody>
</table>

* = interpret data with caution; the estimate is unstable because the standard error represents more than 30% of the estimate.

S&E = science and engineering.

NOTES: Includes undergraduates with declared majors. For disability status, those who reported any type of disability related to blindness, deafness, severe vision or hearing impairment, substantial limitation of mobility, or any other physical, mental, or emotional condition that lasted 6 months or more were classified as with disability. Differences in the number of undergraduates in this table and tables 2-1–2-5 primarily reflect differences in the population of institutions surveyed. See U.S. Department of Education, National Center for Education Statistics, Estimating Undergraduate Enrollment in Postsecondary Education Using National Center for Education Statistics Data (NCES 2005-063) at http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2005063 for further explanation of these differences. Detail may not add to total because of rounding.

Recruitment Letter

Dear [Name],

My name is Theodoto Ressa and I am a doctoral student in the Department of Teaching & Learning at the Ohio State University. For my dissertation, I am conducting a study that looks at the transition experiences of students with disabilities from high school to college.

As a student with an identified disability, I would like to invite you to participate in a short interview about your transition from high school to the Savvy University. The purpose of this interview is to apply your responses to Disability Studies, Narrative Inquiry, and Transition Theory. The results of this study may be used to create recommendations for transition programs in primary and secondary schools and at universities.

If you choose to participate in the study, you will be asked to partake in a 45-75 minute interview. Participation in this study is entirely voluntary; if you do choose to participate you may withdraw at any time without any consequence.

This study is being conducted at through the Department of Teaching and Learning, however it is not affiliated with any college or department at the Savvy University. Moreover, your identity as a participant will be kept completely confidential.

Please email ressa.6@osu.edu with any question you may have and to let me know if you will be willing to participate. If you do choose to participate, we will set up a date and time via email.

Thank you,

Theodoto Ressa
Department of Teaching and Learning
The Ohio State University
(614) 843-1121
ressa.6@osu.edu
APPENDIX G: RECRUITMENT FLYER
Recruitment Flyer

Students with Disabilities Wanted!

Are you a current student with disability at the Savvy University Pursuing a degree program?

Are you an undergraduate or graduate?

Did you acquire your disability prior to graduation from high school?

If you answered yes to all three of these questions, you are eligible to participate!!

I am a current graduate student at the Savvy University researching the transition process of students with disabilities from high school to college.

Participation in the study is completely voluntary and all information will remain confidential.

For more information, please contact:
Theo Ressa ressa.6@osu.edu
APPENDIX H: INFORMED CONSENT FOR NON-MEDICAL RESEARCH
You are invited to participate in a research study conducted by Theodoto Ressa and Prof. Laurie Katz, Ph.D. at the Ohio State University, because you are a registered student with a disability pursuing a degree program. Your participation is voluntary. You should read the information below, and ask questions about anything you do not understand, before deciding whether to participate. Please take as much time as you need to read the consent form. You may also decide to discuss participation with your family or friends. If you decide to participate, you will be asked to sign this form. You will be given a copy of this form.

PURPOSE OF THE STUDY
The purpose of this study is to analyze the transition process from high school to college for students who have self-identified as having a disability.

STUDY PROCEDURES
If you volunteer to participate in this study, you will be asked to partake in a 45-75 minute interview. The questions asked will want you to reflect on your transition from high school to college. The interview will be recorded using an audio recorder. Interviews will take place in a private room at the Savvy University Campus.

POTENTIAL RISKS AND DISCOMFORTS
There are no known potential risks or discomforts for participating in this study.

POTENTIAL BENEFITS TO PARTICIPANTS AND/OR TO SOCIETY
The results of this study may be used to create recommendations for transition programs at K-12 and universities.

PAYMENT/COMPENSATION FOR PARTICIPATION
You will not be paid for participating in this research study

CONFIDENTIALITY
Any identifiable information obtained in connection with this study will remain confidential and will be disclosed only with your permission or as required by law. Only members of the research team will have access to the data associated with this study. The data will be stored on a personal computer and under key and lock. Your identity will be given a pseudo name to keep confidentiality. The voice recorded data from the interview will be erased from the voice recorder once all data has been transcribed. When the
results of the research are published or discussed in conferences, no identifiable information will be used. The data will be kept for three years.

PARTICIPATION AND WITHDRAWAL
Your participation is voluntary. Your refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study.

ALTERNATIVES TO PARTICIPATION
There are no possible alternative to participation

INVESTIGATOR’S CONTACT INFORMATION
If you have any questions or concerns about the research, please feel free to contact:

Theodoto Ressa
Department of Teaching & Learning
Arps Hall 203
1945 North High St.
Columbus Ohio 43210
Cell: 614-843-1121
Email: ressa.6@osu.edu

Dr. Laurie Katz
Teaching & Learning Administration
Arps Hall 202A
1945 North High St.
Columbus Ohio 43210
Tel. 614-292-2111
Email: katz.12@osu.edu

RIGHTS OF RESEARCH PARTICIPANT – IRB CONTACT INFORMATION
If you have questions, concerns, or complaints about your rights as a research participant you may contact the IRB directly at the information provided below. If you have questions about the research and are unable to contact the research team, or if you want to talk to someone independent of the research team, please contact …. For questions about your rights as a participant in this study or to discuss other study-related concerns or complaints with someone who is not part of the research team, you may contact Ms. Sandra Meadows in the Office of Responsible Research Practices at 1-800-678-6251.

SIGNATURE OF RESEARCH PARTICIPANT

__________________________________________
Name of Participant
Signature of Participant

Date

SIGNATURE OF INVESTIGATOR
I have explained the research to the participant and answered all of his/her questions. I believe that he/she understands the information described in this document and freely consents to participate.

Name of Person Obtaining Consent

Signature of Person Obtaining Consent

Date
APPENDIX I: INTUITIONAL REVIEW BOARD APPROVAL
July 14, 2015

Protocol Number: 2014B6265
Protocol Title: THE PATH TO COLLEGE: NARRATIVE EXPERIENCES OF STUDENTS WITH DISABILITIES, Laura Katz, Theodore Ryan, Teaching & Learning Admin

Type of Review: Continuing Review—Expedited — expedited
IRB Staff Contact: Jeana Mowils-Hatkovics; Phone: 614-688-2108 Email: mowils-hatkovics.1@osu.edu

Dear Dr. Katz,

The Behavioral and Social Sciences IRB APPROVED BY EXPEDITED REVIEW the above referenced research. The Board was able to provide expedited approval under 45 CFR 46.110(b)(1) because the research meets the applicability criteria and one or more categories of research eligible for expedited review, as indicated below.

Date of IRB Approval: July 13, 2015
Date of IRB Approval Expiration: July 13, 2016
Expedited Review Category: 7

If applicable, informed consent (and HIPAA research authorization) must be obtained from subjects or their legally authorized representatives and documented prior to research involvement. The IRB-approved consent form and process must be used. Changes in the research (e.g., recruitment procedures, advertisements, enrollment numbers, etc.) or informed consent process must be approved by the IRB before they are implemented (except where necessary to eliminate apparent immediate hazards to subjects).

This approval is valid for one year from the date of IRB review when approval is granted or modifications are required. The approval will no longer be in effect on the date listed above as the expiration date. A Continuing Review application must be approved within this interval to avoid expiration of IRB approval and continuation of all research activities. A final report must be provided to the IRB and all records relating to the research (including signed consent forms) must be retained and available for audit for at least 5 years after the research has ended.

It is the responsibility of all investigators and research staff to promptly report to the IRB any serious, unexpected and related adverse events and potential unanticipated problems involving risks to subjects or others.

This approval is issued under The Ohio State University’s OHRP Federalwide Assurance #00006378. All forms and procedures can be found on the ORRIP website – www.orrp.osu.edu. Please feel free to contact the IRB staff contact listed above with any questions or concerns.

Michael Edwards, PhD, Chair
Behavioral and Social Sciences Institutional Review Board

Institutional Review Board and Full Accreditation

IN-017-08 Exp Approval New CR
Version 0.08/15