THE PROVISION OF PERSONAL LIBERTIES TO INDIVIDUALS WITH INTELLECTUAL DISABILITY

A dissertation submitted to the Kent State University College and Graduate School of Education, Health, and Human Services in partial fulfillment of the requirements for the degree of Doctor of Philosophy

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The present study was designed to measure educators’ attitudes toward providing daily personal liberties to transition-age students with intellectual disability. A non-experimental, causal comparative design was utilized. Differences in attitude with regard to previous experience taking an ethics course, type of discipline (i.e., special education versus general education), enrollment in a Behavior Intervention Specialist Certificate Program, and familiarity with a professional membership’s ethical guidelines were examined. To investigate group comparisons, a 20-item Likert scale titled Personal Liberties and Transition-Age Students Scale (PLATSS-ID) was developed. Psychometric properties were examined. Results indicated that educators who had previously taken an ethics course had significantly lower PLATSS-ID scores, indicating less support towards providing personal liberties, than educators with no prior experience taking an ethics course. No significant difference in PLATSS-ID scores were observed with regard to type of discipline, enrollment in a Behavior Intervention Specialist Certificate Program, or familiarity with a professional membership’s ethical guidelines. An examination of the psychometric properties of the PLATSS-ID revealed support for the reliability of scale items (Cronbach’s Alpha = 0.777). Concerning validity, correlations between items on the PLATSS-ID and items on established scales measuring related concepts (i.e., Attitude
Toward Inclusion Instrument and Community Living Attitude Scale – Empowerment Subscale) were low at, or less than, $r = 0.418$. Results concerning the psychometric properties of the PLATSS-ID should be considered when interpreting group comparison data from this study. Future research should focus on refining content on the PLATSS-ID to create an improved tool to examine educator’s ethical decision-making.
DEDICATION

To my wonderful mother, Peggy Avellone,

who has supported me unconditionally during my pursuit of a lengthy dream.

To everyone who believes in the right

for all people to be the chief architect of their own life experiences.
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CHAPTER I
LITERATURE REVIEW

Historical Overview

The United States is a country founded on principles of justice and equality for all citizens. When the Declaration of Independence was signed in 1776, it clearly emphasized several themes intended to serve as the basis for the new government, including important ideals about equality, life, and liberty. The document stated, “We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness” (The Library of Congress, 2013). The document further clarifies that the new government was intended to serve the interest of all people by stating:

That to secure these rights, Governments are instituted among Men, deriving their just powers from the consent of the governed,—That whenever any Form of Government becomes destructive of these ends, it is the Right of the People to alter or to abolish it, and to institute new Government, laying its foundation on such principles and organizing its powers in such form, as to them shall seem most likely to effect their Safety and Happiness. (The Library of Congress, 2013)

On an individual level, the provision of equality, life, and liberty is a major avenue to a person’s “pursuit of happiness” because it enables the opportunity for individuals to pursue their own good, in their own way (Turnbull, 2012). These founding principles apply to individuals with disabilities in the same way they are applicable to individuals
without disabilities. Therefore, it is the responsibility of educators to ensure their teaching methods and intervention supports for individuals with disabilities respect their rights to equality, life, and liberty. This directly affects their “safety and happiness” as intended for all citizens from the moment The United States was formed.

**Equality, Life, and Liberty**

As an educator, interpreting a legal document and translating it into application can be challenging. Law was not written using a lexicon for the lay person and legal terminology is vague, allowing for broad interpretation (Concannon, 2012). It is important to define the terms equality, life, and liberty in order to elucidate each term’s contemporary use and relation to disability rights. First, use of the term *equality* typically refers to equal protection under the law as stated in the 14th amendment of the U.S. Constitution (Maurer, 2011). In other words, all citizens are entitled to the same rights, and specific populations of citizens are treated equal only when they are afforded the same rights as everyone else. Second, the term *life* usually refers to quality of life. Although this can encompass a broad range of life-related issues, it can be best summed up as a person’s experience of physical and psychological health (Migerode, Maes, Buysse, & Brondeel, 2012). More specifically, the right to life or quality of life is intended to ensure that citizens are physically safe and are subject to a healthy state of mental and emotional well-being (Verdugo, Navas, Gómez, & Schalock, 2012). Finally, *liberty* refers to freedom of choice within a set of laws and social customs (Turnbull, 2012). Educators can gain further clarity regarding the ways in which these principles
are afforded to individuals with disabilities by examining specific pieces of legislation that address these rights.

**Federal Legislation**

During the past 50 years, legislative efforts in the U.S. have passed numerous disability rights laws (Concannon, 2012; Kennedy, Greden, & Riba, 2013; Moores, 2011; Riley, 2011). Disability laws can be conceptualized as two types, identified as those that protect individual’s rights and those that guarantee access to services that support growth and independence. The following section reviews applicable federal laws.

**Equality.** Promoting equality for individuals with disabilities began with housing. The Community Mental Health Act of 1963, which provided more funding for centers to conduct research and provide services to individuals with disabilities, inevitably contributed considerably to deinstitutionalization (Kennedy et al., 2013). The Fair Housing Act (FHA) of 1968 promoted equality in community living by banning practices resulting in segregated housing for individuals with disabilities (Riley, 2011).

The push for equality was soon extended from housing and education. For example, Section 504 of the Rehabilitation Act of 1973 is a nondiscrimination law preventing organizations, including employers, which receive federal funding from discriminating against individuals due to disability. The Education for All Handicapped Children Act (EHA) in 1975 mandated that all students with disabilities have access to an education that is equal to the education received by students without disabilities. The addition of new laws and revision of existing laws to better promote equality in housing and education continues today. For example, The Americans with Disabilities Act
(ADA) originally signed into effect by George H. W. Bush in 1990 was revised in 2008 and titled The Americans with Disabilities Act Amended Act (ADAAA). The revision broadened disability criteria to prohibit discrimination based on disability in employment (Title I) and public settings ([Title II]; Concannon, 2012). The EHA’s later revision titled the Individuals with Disabilities Education Act (IDEA) in 2004 expanded upon these access requirements and specified that students with disabilities be placed with typical peers to the maximum extent possible. This is known as the Least Restrictive Environment (LRE) stipulation (Moores, 2011) which promotes inclusion and equality in educational settings.

While laws such as The Community Mental Health Act, FHA, Section 504, EHA, and ADAAA focused on inclusion in housing, employment, and grade school education, similar activities lead to ideas of inclusion in post-secondary settings. The beginning of inclusive higher education initiatives in U.S. colleges and universities is another recent stride in promoting equality for individuals with disabilities. The Higher Education Opportunities Act of 2008 supports the placement of students with intellectual disability in college and university settings (Kleinert, Jones, Sheppard-Jones, Harp, & Harrison, 2012). The act allows for students with intellectual disability to receive federal support in the form of Pell Grants and work study positions to fund their pursuit of certifications and degrees, or audit courses in non-degree programs (Kleinert et al., 2012).

**Life.** Laws created to support individuals with disabilities not only address equality, but also life or quality of life. For example, both Title II of ADA and Section 504 of the Rehabilitation Act require that “reasonable accommodations” be made for
individuals with disabilities in order to allow them to participate in work and career opportunities (Concannon, 2012). This enables individuals with disabilities to pursue career interests and function as a contributing member of society. Additionally, the IDEA requires that qualifying students receive Individualized Education Plans (IEP) to address their unique academic needs, which enables educational success and consequently enhances both their short-term and long-term quality of life (Moores, 2011).

**Liberty.** Finally, laws that ensure liberty or freedom of choice have also been established. Most notable are laws limiting the use of restraint and seclusion, which not only protect individuals from physical risks associated with restraint use but also protect their right to freedom over their own actions. The Keeping All Student Safe Act, which was approved by the U.S. Congress in 2010, prohibits the use of restraint and seclusion procedures for unnecessary reasons, such as convenience in controlling a student or as a means of discipline (Kaplan, 2010). Instead, restraint and seclusion must be used only in situations where injury to self or others is imminent. This applies to all students, not just students with documented disabilities. Limits on the use of restraint and seclusion are necessary as students have endured physical injury, and in some cases death, as a result of improper use in educational settings (Government Accountability Office, 2009). U.S. courts have held that the use of chemical restraints are considered more intrusive than mechanical restraints and should be used only as a last resort when individuals are at serious risk of injury (Matson & Boisjoli, 2009). Chemical restraint refers to the administration of a psychotropic drug (e.g., antipsychotic pharmaceuticals) solely due to
its sedative effect in an effort to restrict a person’s physical movement (Matson & Boisjoli, 2009). Additionally, courts typically uphold the rights of adult individuals with disabilities to refuse or give consent for medical treatment and other habilitation services (Turnbull, 2012).

**International Rights Law**

Federal laws in the United States are markedly consistent with international laws governing the treatment of individuals with disabilities. The United Nations launched the first large scale international human rights initiative titled “Convention on the Rights of Persons with Disabilities (CRPD)” in 2006. The promotion of rights outlined in the convention is comprehensive in range, addressing everything from the inclusion of persons with disabilities in leisure and recreation activities to the prevention of exploitation, violence, and abuse (United Nations, 2006). The CRPD is significant with regard to human rights because it differs from any previous international effort in two very important ways. First, the convention does not simply reiterate existing law in a contemporary context, but also offers greater clarification of the meaning and application of those laws (Harpur, 2012). In other words, less interpretation is left to courts, which aid individuals with disabilities in successfully winning cases of discrimination. Second, the CRPD is novel in its placement of individuals with disabilities and their advocates as having greater sway in public decisions that affect them than ever before (Harpur, 2012). The CRPD was signed by Barak Obama in 2009 (Quinn, 2009) and now offers U.S. citizens with disabilities both federal (e.g., ADA) and international protection.
Law Versus Ethics

Federal and international law are helpful in addressing high stakes issues that undoubtedly need to be addressed in the field of education. However, it is the smaller scale, daily infractions toward individuals with disabilities that tend to go unnoticed. Antaki, Finlay, and Walton (2009) pointed out that the focus of law on ensuring that individuals with intellectual disability have choice in major life activities, such as voting, marriage, employment, and education has resulted in very little attention to the provision of common liberties in areas of daily living. Incidents of others disallowing individuals with disabilities to make decisions about when to go to bed, what to eat for dinner, what to do with their leisure time, what to spend their paycheck on, and whether or not to clean their room are rarely documented. Laws do not specifically address these ethical violations because resulting damage is often not sufficient enough to warrant the bringing of legal action.

It is important to point out that there is a distinct difference between law and ethics. Law is a broad overarching set of regulations meant to be applied in a variety of contexts while ethics refers to the discretionary interpretation and abidance of laws (Bon & Bigbee, 2011). Law cannot be specific enough to detail its use in every situation it may apply. As a result, ambiguous legal language is left to be interpreted by teachers in educational settings. This creates a situation where there is a strong reliance on individual teacher’s moral compasses. The hope is that teachers care deeply enough about students that they interpret the laws in ways that benefit students with disabilities and that teachers’ and students’ views are consistent. This begs the very important
question of how teachers’ moral compasses, as they relate to the teaching field, are
developed and shaped. With so much discretion provided to teachers, it is important to
determine the extent to which pre-service teachers are prepared for ethical
decision-making they will face once they enter the field.

**Ethics in Teacher Curriculum**

Noticeably lacking from contemporary teacher education programs is an emphasis
on ethics. Colloquially known as the “ethics boom,” the inclusion of ethics training in
degree programs gained momentum in higher education during the 1970s in a variety of
disciplines (Glanzer & Ream, 2007). For example, bachelor’s degree programs such as
nursing, psychology, business, social work, and computer science either introduced or
reinstated a requirement that students receive ethics training relevant to practice in their
field. Ethical content was either embedded in existing courses or required as an isolated
course. Despite the documented trend, teacher education programs did not follow suit
with other disciplines of the time and even today appear to place less emphasis on ethical
training than other service-related disciplines (Bon & Bigbee, 2011; Glanzer & Ream,
2007). This is of particular concern given that most teachers are required to make many
ethical decisions about students and their rights.

**Prevalence of Ethics Courses for Teachers**

This omission of ethics in curriculum is true for both general education and
special education programs. Awareness of the absence has been noted for the past two
decades. In 1989, Cobb and Horn found that only 53% of a nationwide sample of 381
teachers belonging to the Council for Exceptional Children (CEC) reported that
professional ethics was embedded in their program curriculum prior to teaching. Contemporary statistics regarding the prevalence of ethics being taught in teacher preparation programs 20 years later is hardly better. Glanzer and Ream (2007) analyzed the degree requirements for seven majors at 156 religious affiliated U.S. institutions of higher education and found that education programs were the least likely to mandate an ethics course. The degrees sampled were chosen based on their qualifications as a full degree, meaning graduate work that might include an ethics course was not needed before the student could be employed in the respective discipline. Additionally, researchers were liberal in their definition of an ethics course including any required course using the terms “moral,” “ethics,” “values,” or “responsibility” in the course title or course description. Despite broad criteria, only 6% of education programs required an ethics course compared to 46% of business, 43% of nursing, 39% of social work, 34% of communications/journalism, 29% of engineering, and 17% of computer science programs of the 156 religious affiliated universities examined (Glanzer & Ream, 2007). To date, the prevalence of ethics courses in non-religious universities remains unknown as no contemporary studies examined this sub-group.

Although not all colleges and universities require ethics courses, some offer the opportunity to take an ethics course for elective credit. Glanzer and Ream (2007) also compared the same degree programs when combining required and elective course offerings and found similar results. Education degree programs were still the least likely of all other programs examined to even offer an ethics course for interested students despite large percent increases observed relative to other disciplines after broadening the
criteria. A total of 9% of education degree programs listed the availability of an ethics course compared with 71% of business, 60% of nursing, 51% of social work, 45% of communication, 33% of engineering, and 19% of computer science programs of the 156 religious affiliated universities included in the study (Glanzer & Ream, 2007).

Despite the lack of mandated ethics courses in teacher degree programs, there appears to be general agreement that teachers should behave in a professionally ethical manner. Sileo, Sileo, and Pierce (2007) found that the majority of respondents in Curriculum and Instruction departments representative of 98 institutions of higher education (IHEs) reported that preparing teachers to act in professional ways was perceived as highly important. Specifically, respondents indicated that it is highly important that teachers value human diversity, maintain professional competence and integrity, and demonstrate commitment to promoting a high quality of life for individuals with disabilities. However, of the IHEs sampled, only 10% required education majors to complete an ethics course and only 50% offered such a course as an elective (Sileo et al., 2007).

Although an isolated ethics course is not required by most colleges and universities, ethical content is sometimes embedded in other courses or covered in continuing education classes associated with licensure (Barrett, Neal Headley, Stovall, & Witte, 2006). In a focus group of 12 special education teachers in Virginia, 91% reported their only exposure to ethical content was embedded in other curriculum (Bon & Bigbee, 2011). Additionally, the majority of participants in this focus group also reported they did not feel prepared to deal with the ethical dilemmas they faced once in the field (Bon
& Bigbee, 2011). However, caution should be used in generalizing these results due to the low sample size and lack of geographical representation. Unfortunately, specific statistics regarding the prevalence of ethics content embedded in other education coursework in IHEs has rarely been examined. Currently, no nationwide studies have been conducted and consequently the dosage of ethics training that pre-service teachers presently acquire remains unknown.

**Approaches to Ethics Teaching**

A further examination into how ethical content is taught to pre-service teachers revealed three common approaches (Warnick & Silverman, 2011), and each is accompanied by reasonable criticism. First, teachers are taught existing models of ethics that they can carry with them to help guide decision-making in the field. However, curriculum that emphasizes one moral theory may promote insular ethical decision-making and leave students unprepared to deal with the vast array of ethical problems they meet in the field while teaching. On the other hand, multiple theories may result in students selectively utilizing a theory that supports their preconceived judgments about ethical decision-making (Carr, 2000, p. 34). Second, students can be provided with vignettes that describe ethical scenarios and work collaboratively with a team to determine an ethical pursuit of action via a philosophical debate. However, in the absence of an ethical framework this strategy may promote action based on intuition and opinion rather than sound ethical principles (Nelson, 1985). Third, a mixed-method approach incorporates aspects of both theoretical models and case study discussions. This method is still recognized as being void of specific answers or clear cut
decision-making processes to address ethical dilemmas, resulting in students having to make autonomous ethical judgment calls that involve intuitive thinking (Warnick & Silverman, 2011).

A qualitative study assessing 12 special education teachers in northern Virginia, with an average experience of 13 years in the field, indicated that teachers may have trouble even identifying when they face an ethical dilemma (Bon & Bigbee, 2011). The majority of teachers reported that they had trouble formulating an operational definition but reported they were aware when they encountered one due to a “gut feeling.” Such findings are reflective of the overreliance of teachers on intuitive feeling in ethical decision-making.

**Professional Membership Guidelines**

Whereas other service-provider professions have a generally recognized and enforced code of ethical behavior identified by one predominant source, the teaching profession does not (Barrett et al., 2006). For example, the American Medical Association publishes professional codes for practicing doctors, while the American Psychological Association publishes similar codes for practicing psychologists. Instead of one prominent overarching association providing clear ethical guidelines, many smaller teaching associations exist, each with their own set of established ethical guidelines. Teachers can voluntarily become members of these associations and would then be expected to adhere to the respective guidelines. Associations such as the Association of American Educators (AAE) and National Education Association (NEA) exist for general education while associations such as The Council for Exceptional
Children (CEC) and the National Association for Special Education Teachers (NASET) relate more specifically to special education. All provide a code of ethics for members that can be easily accessed via association websites (AAE, 2013; CEC, 2010; NASET, 2007; NEA, 2013).

**Association Ethical Guidelines**

A review of ethical guidelines for teacher associations and related service providers is discussed.

**Teacher Associations**

There are several concerns with the codes of ethics published by teacher associations. First, these ethical codes are best conceptualized as guidelines for members. Although the principles set in these codes are typically consistent with state and federal laws, the guidelines themselves are not legally binding. Violations of guidelines carry consequences no more serious than membership removal, as far as the association is concerned. Second, these codes of ethics focus overwhelmingly on professional ethics rather than liberty related ethics. For example, statements target conduct such as maintaining confidentiality and using empirically-based methods of intervention, rather than protecting student’s constitutional rights. Third, the language used for these codes is typically very ambiguous and open to interpretation. For example, NASET (2007) states that “members must nurture the academic, psychological, physical, and social potential of children with special needs” and further explains that this can be done by “respecting the inherent dignity and worth of the children with whom they work.” There is no operational definition provided for many of these terms, such as
“respecting dignity and worth” and “nurturing academic, psychological, physical and social potential” and so the teacher can interpret and apply this guideline as they perceive fit. CEC (2010) also states that members should “maintain a high level of professional competence and integrity and exercise professional judgment to benefit individuals with exceptionalities and their families.” By this notion, an action is justified if it is perceived to be done in the best interest of the student. This may result in the violation of liberties in the name of “protecting” students.

Even if guidelines were more clearly stated, the establishment of a code of ethics certainly doesn’t guarantee that professionals will adhere to the guidelines or even be knowledgeable about their content. For example, associations do not require members to pass an exam indicating that they have reviewed and understand the established guidelines. Results of a survey study in Wisconsin inquiring about 1,248 special education teachers’ and administrators’ knowledge regarding the CEC’s code of ethics gives reason for concern that many educators do not know their association’s ethical guidelines (Fiedler & Van Haren, 2009). Cumulatively, only 54% of those surveyed claimed to have at least adequate knowledge. More specifically, only 11% reported having substantial knowledge, and 43% claimed to have adequate knowledge regarding the CEC’s code of ethics. Consequently, 27% reported having very minimal knowledge while 18% of members reported having no knowledge at all about the CEC’s code of ethics, and therefore, did not refer to its use at all to guide ethical decision-making (Fiedler & Van Haren, 2009). Fiedler and Van Haren’s findings are certainly an improvement in contrast to a similar study conducted 20 years earlier by Cobb and Horn.
(1989) who surveyed 381 CEC members nationwide regarding their use of the CEC’s ethical codes. A total of 71% of respondents at that time were unaware that a code even existed despite its inception six years earlier.

**Behavior Intervention Guidelines**

The Behavior Analyst Certification Board (BACB) is slightly different than the aforementioned teacher associations because failure to adhere to established ethical codes can result in the removal of board certification (BACB, 2010). It is reasonable to assume that licensed analysts would, therefore, be more cognizant of upholding the code in their everyday practice than teacher organization members. This makes licensure boards, such as the BACB, exceptional organizations to develop more stringent guidelines with less ambiguous language. However, the established ethical codes of the BACB exhibit many of the same traits as those for which teacher association’s ethical codes are criticized. They also are predominantly concerned with professional ethics and the language is no more elucidating with regard to the provision of civil liberties than teacher organization established codes. Board Certified Behavior Analysts (BCBA) typically concern themselves with writing behavior intervention plans (BACB, 2010), putting them in a position to violate individuals’ rights in a systematic way. This makes it ever more imperative that they use ethical judgment that favors the protection of personal liberties.

Coursework necessary to sit for board certification requires ethics to be addressed (BACB, 2010). However, there is no research to date indicating the extent to which individuals who are certified refer to the codes to guide ethical decision-making in the day-to-day work of a certified Behavior Analyst.
Allowing Choice-Making to Students With Intellectual Disabilities (ID)

All people are faced with daily decisions that allow for choices to be made. Generally, people prefer to make those decisions for themselves. Not surprisingly, this is also true for individuals with disabilities. Agran and Hughes (2008) found that 88% of a sample of 56 junior high school students on IEPs reported they disliked having teachers make decisions for them. A total of 70% of the same sample indicated they disliked parents making decisions for them. Similarly, Agran, Krupp, and Storey (2010) found that a sample of adults with ID reported that they felt making choices about their life was important to them. Individuals with ID often experience deficits in communication or self-advocacy skills that hinder their ability to speak up when rights are violated. Consequently, it is important to examine the boundaries of how choice-making is stifled for individuals with ID by teachers because denial of the opportunity to make daily life choices can happen in a variety of ways and without intention.

Violations of Liberties for Students With ID

In 2001, as many as 12.4% of children enrolled in public school systems received IEP services, which totaled about six and half million children nationwide (National Center for Education Statistics [NCES], 2001). In 2008, 88.9% of U.S. schools reported having at least one student currently on an IEP (NCES, 2009). Given the changes in legislature that broadened disability labels to enable services to be extended to more individuals (Moores, 2011), the number of children receiving IEP services is likely even greater today. This results in a large population that is vulnerable to daily infractions of personal liberties by service providers such as teachers, aids, school psychologists,
speech language pathologists, and occupational therapists. Bannerman, Sheldon, Sherman, and Harchik (1990) pointed out that when habilitation services are provided, personal liberties are often violated in a number of ways including giving the student little input over how they learn, neglecting to account for individual preferences during task completion, a lack of teaching individuals how to make choices, and a failure to give opportunities to make choices.

**Lack of input on learning.** Modern society is a complex world that is rapidly increasing in terms of technology, job creation, and social media modalities. As a result, the repertoire of skills students need in order to compete once they leave high school is continually expanding. The average high school student must meet certain core curriculum requirements, but often has some choice in elective courses that will help prepare them for their postsecondary plans. Transition-age students with ID should be provided the same opportunities to give input regarding what they will learn in order to prepare for their future. However, students with ID are not always given much say over what they learn or how they are taught. Johnson and Sharpe (2000) surveyed 548 special education administrators regarding their inclusion of students with disabilities in the IEP process. Results indicated that although students are often urged to be present, they are not encouraged to be an active participator in the IEP meeting. For example, when asked the likeliness of employing procedures to promote student participation, a total of 92% said they were least likely to achieve this means by facilitating a student-led IEP meeting (Johnson & Sharpe, 2000). They were, however, most likely (i.e., 85%) to simply
verbally verify with students that the interests and preference stated in the meeting were consistent with student views (Johnson & Sharpe, 2000).

Agran and Hughes (2008) reported that in a sample of 17 high school students receiving special education services, a total of 80% of the students were not taught how to lead IEP meetings, which is great practice in self-advocacy, and therefore, a missed opportunity for students to direct their lives. Furthermore, a total of 80% were not taught how to read their IEP and 67% did not even know their IEP goals (Agran & Hughes, 2008). Mason, Field, and Sawilowsky (2004) reported that the majority (i.e., 58%) of a sample of 523 teachers and administrators described student involvement in the IEP process during the previous years as only Somewhat Involved. The second highest percent (i.e., 32%) rated involvement the previous year as Not Involved while only 10%, the lowest percent, rated involvement as Very Involved (Mason et al., 2004).

Consequently, the results of such studies illustrate the lack of opportunity students with disabilities are provided to give input regarding their education (Agran & Hughes, 2008; Johnson & Sharpe, 2000; Mason et al., 2004).

**Failure to account for student preference.** For many tasks, there is more than one way to get something done. The manner in which a person gets that task done depends on many variables such as efficiency, quality, or preference. In the case where multiple methods result in equally efficient and high quality results, preference can be afforded. For example, there are several ways to tie shoes or wrap a scarf that each get the job done appropriately. However, teaching styles do not always incorporate student preference. Rather, teachers tend to instruct others to perform a task based on how they
themselves perform the task (Bannerman et al., 1990). For example, a pencil can be
gripped near the point or at the mid-section of the instrument during writing. A teacher
may preemptively prompt the student to adjust the pencil in the manner in which the
teacher holds the pencil rather than examining how the student naturally selects the pencil
and modifying accordingly. In another example, a teacher who instructs a student to wet
their toothbrush before applying toothpaste rather than applying toothpaste and then
wetting the brush neglects the fact that preference matters (Bannerman et al., 1990).
These methods are typically utilized because they match the teacher’s preferences rather
than the students; but it is important to be cognizant of the student’s right to exercise
preferences, even on small tasks.

**Failure to teach choice-making.** Teachers create lesson plans for skill building
activities such as language development, fine and gross motor skill improvement, and
social engagement because such skills prepare students to function more successfully in
everyday life. Choice-making should be viewed as the same type of skill necessary to
thrive. However, teachers may not always teach students how to make choices, which
leave them unprepared to discriminate between choices or pursue identified choices that
affect both short and long-term goals. Agran and Hughes (2008) reported that only 67%
of the 17 students with IEPs in their high school sample indicated that choice-making had
been taught to them. In other instances, choice-making is taught, but in informal ways
with less attention than it deserves. Mason et al. (2004) surveyed a sample of 523
educators regarding student involvement in IEPs and found that 70% reported
self-determination, which includes choice-making, was only taught informally.
Furthermore, a total of 41% indicated that self-determination skills, and consequently choice-making, was taught with only limited instruction (Mason et al., 2004). Again, such data are from small samples but reflect the general need to examine the pervasiveness of this problem nationwide.

**Denial of choice-making opportunities.** Of greater concern is the fact that even when choice-making is in a person’s behavioral repertoire, service providers may fail to offer daily choices or encourage choice-making. Tichá et al. (2012) found that in a sample of 8,892 adults with ID living in residential facilities from 19 states nationwide, only 47.9% reported they were able to choose what time they went to bed each night, only 53.7% reported they were the one who chose what to spend their own money on, and only 65.2% reported they were the one who decided what to do during their free time. Furthermore, only 28.8% reported they chose where to work or spend the day, only 32.2% said they had a say about whom they lived with, and only 23.3% reported they had a say in where they lived (Tichá et al., 2012).

Such violations can occur daily and because they appear to be minor, they often occur without much thought to the fact that they have serious implications. The root cause of such violations can be due to a multitude of “practical” reasons including a lack of available resources or a lack of consideration to all alternative choice options that could be provided. Although it is less desirable to admit, such violations likely occur simply because it is less work on the part of the educator to offer less or no choice. In educational settings, school schedules are tight and programing needs to be completed (Bannerman et al., 1990). Restricting choice is one way to cut corners and fit in all that
needs to be accomplished in a day. However, it is important for teachers to understand both the advantages and disadvantages of providing choice to individuals with ID so they can make educated ethical decisions every day when serving students.

**Arguments Against Choice Provision**

Several strong concerns related to providing choice to individuals with disabilities have been voiced in the scientific literature over the past 20 years, including poor choice-making (Brylewski & Wiggs, 1999; Peterson, Janz, & Lowe, 2008; Sohler, Lubetkin, Levy, Soghomonian, & Rimmerman, 2009) and likelihood of victimization (Nettelbeck & Wilson, 2002). First, the most common argument against choice provision is that individuals with disabilities are apt to make poor daily choices if given the opportunity (Bannerman et al., 1990). Certainly, there is evidence to support this notion in a variety of domains including dietary, sleep, spending, and exercise habits. Individuals with ID tend to have higher rates of obesity than their typical peers, as much as 12% higher than the national average (Sohler et al., 2009). Sleep disorders and associated sleep problems are frequently reported among individuals with ID (Brylewski & Wiggs, 1999). Additionally, due to fewer employment prospects and typical fulfillment of lower wage jobs, individuals with ID are at a higher risk for poverty (Emerson, 2007), resulting in a smaller margin of error for making financial decisions. Individuals with ID tend to lead fairly sedentary lives and are not typically as physically active as is recommended by experts to ward off negative health effects associated with inactivity (Peterson et al., 2008).
However, evidence also suggests that individuals with ID make better health choices than their typical peers with regard to some risky behaviors. A survey sample of 423 young adults residing in Atlanta, Georgia, indicated that individuals with developmental disabilities were significantly less likely than individuals without disabilities between the ages of 20 and 24 to use tobacco products. Young adults with developmental disabilities were also significantly less likely than those without to consume alcohol. Regarding risky sexual behavior, adults with developmental disabilities were more likely to have unprotected sex but were overall significantly less likely to be sexually active or report a previous pregnancy (Rurangirwa, Braun, Schendel, & Yeargin-Allsopp, 2006).

The second argument against choice provision involves the likelihood that providing choices to individuals with ID places them at a heightened risk of becoming victims to scammers, thieves, and violent individuals. Exposure to such events has obvious psychological and physical dangers. Limiting autonomy in choice-making can reduce the odds of such encounters. For example, an individual with poor math skills could easily be tricked into overpaying for an item. Also, a person with poor social skills could naively be talked into doing something humiliating for other’s amusement. Individuals with ID do experience a higher rate of victimization than the general population (Nettelbeck & Wilson, 2002), so it is reasonable to fear that opportunities for increased choice-making may result in their being taken advantage of by others.

A third commonly argued notion against choice provision is that providing preference may result in the hindrance of their learning essential skills, including those
that would ultimately enable more freedom and independence (Bannerman et al, 1990).

For example, if given a choice of whether or not to learn how to do laundry, balance a checkbook, or learn a bus system, a student would likely opt not to learn these tasks since they are typically non-preferred, and require both mental and physical work. Not learning such skills results in an inability to be more independent and prevents them from accessing more reinforcing items. Philosophically speaking, this is a circular argument in that it claims violating personal liberties is acceptable when such an action results in the provision of more learning opportunities that will enable access to more liberties. This argument does bring up an important conundrum of the boundaries of providing personal liberties.

Generally speaking, violations of personal liberties may be justified at times. A notable example is when the allowance of one person’s liberty results in infringement upon another person’s right to liberty. For example, a student placed in an inclusive classroom is aggressive toward other children and disruptive to their learning. By law, the student would then be placed in a slightly removed environment from what is typical for students (less but not most restrictive on the continuum) with additional supports according to need (Turnbull, 2012). In cases where a student poses serious risk to himself or herself, such as substantial self-injurious behavior, the implementation of restraint procedures may be necessary regardless of personal liberty rights. Similarly, an individual who is unable to make medical decisions that directly affect their overall health, such as a diabetic who is unable to regularly inject insulin, may require a guardian be appointed to oversee such decisions. These high stakes situations seem clear cut and
restriction may be necessary, but intervention in less high stakes situations remains unclear.

**Arguments Favoring Choice Provision**

Many valid points in favor of choice for individuals with disabilities have also been made. This section will review reasons favoring choice provision.

**Promotion of autonomy.** Probably the most difficult to debate is the hard fact that personal liberty is a legal right, which means that it applies to all individuals regardless of disability. Such laws are rooted in the tacit understanding that all people prefer to make choices that affect their own lives (Agran & Hughes, 2008). The promotion of autonomy directly reflects the momentum of self-advocacy groups that state loudly and clearly that individuals with ID have a voice and want to be heard (Scotch, 2009). Most notably, the “Nothing About Us without Us” movement sends the clear message that many historical decisions and research about individuals with disabilities have been executed without the inclusion of ideas or feedback from the people affected (Scotch, 2009).

**Reduction in challenging behavior.** Empirical research has demonstrated that the provision of choice can reduce challenging behaviors (Bannerman et al., 1990). Although challenging behavior serves different functions for different students, it is often the result of escape-maintained behavior (Rispoli et al., 2013). Providing choices between task demands as an antecedent strategy has been demonstrated to be effective in reducing challenging behaviors. Vaughn and Horner (1997) observed lower rates of challenging behavior (e.g., aggression and self-injurious behavior) in three of four
students with cognitive disabilities during a preferred task rather than a non-preferred task, regardless of whether or not it was chosen by the student or teacher. Additionally, when administering less preferred activities, lower rates of aggression and self-injurious behavior were observed in two of the four students than when the student chose which preferred activity to engage in rather than when teachers chose the activity (Vaughn & Horner, 1997).

Teachers can not only allow students to choose between available tasks, which are commonly known as across-choice activities, but also make choices within tasks (Cole & Levinson, 2002). This can be as simple as allowing a choice regarding the types of materials used or manipulation of environmental stimuli. Using an ABAB, single subject research design with two primary school students displaying aggressive behavior toward others and property destruction, Cole and Levinson (2002) observed lower incidents of challenging behaviors when choices were provided as opposed to when choices were not provided. For example, during a no-choice condition a verbal directive such as “Line up at the door” was provided but during the choice condition the verbal directive was phrased as “Do you want to line up first or last?” Choices were provided at every level of the task analyses followed during the choice condition. For one of the two students, the percentage of self-initiated steps also increased from an average of 37% during the no-choice condition to an average of 64% during the choice condition. However, it should be noted that the same gains were not observed for the other student in relation to an increase in self-initiated task behaviors (Cole & Levinson, 2002).
Similarly, Rispoli et al. (2013) observed reductions in challenging behaviors when choice was maximized by being incorporated into both between and across activities. Using an ABAB, single subject research design, lower rates of challenging behavior were observed during both across-activities and between-activities conditions as compared to no-choice baseline conditions for four students. Interestingly, the provision of choice across-activities was observed to result in lower rates of challenging behavior than within-activities choices for three of the four children (Rispoli et al., 2013).

**Increased participation and productivity.** The incorporation of choices has also been demonstrated to be associated with increased work productivity. Using a multi-element design, Bambara, Ager, and Koger (1994) examined the effects of assigning versus allowing for choice of a work task on engagement in both highly and less preferred work activities, such as stuffing envelopes, stamping, labeling, and sealing envelopes, in three adults with ID. Researchers observed that work behavior was highest during preferred tasks regardless of whether it was chosen (an average of 85% of intervals on-task) or assigned (an average of 84% of intervals on-task) as compared to low preference work activities (an average of 76% of intervals on-task for both conditions).

**Preparation.** Lastly, a salient argument in favor of choice provision points out that making choices is a part of life, whether one is prepared for it or not. Enabling students to make choices prepares them for a world that requires them to make choices (Bannerman et al., 1990). Educators teach fundamental concepts such as financial, domestic, social, and employment skills to transition-age students because they will need
those skills as they fast-approach adulthood. However, it is difficult to separate out the notion that daily choices undoubtedly go hand in hand with all of those skills. At times, an authority figure may be in place to make decisions for those students, whether right or wrong. Other times, it will fall on the individual to make those choices. Preparing a student who is readily able to meet that challenge by having a history of practice in making choices, and the advocacy skills to vocalize their preferences is ideal.

**Areas of Choice for Transition Age Students With ID**

The Life Centered Education (LCE) transition curriculum comprises didactic and assessment materials used to teach students with disabilities necessary skills for adult life. Specifically, the curriculum teaches students how to gain greater independence in three domains: Interpersonal, Occupational, and Independent Living (CEC, 2012). The LCE curriculum identifies specific competencies within these domains. Interpersonal skills include Rights and Responsibilities, Self-awareness, Self-determination, Communication, Social Awareness, and Good Decision-making. Occupational skills include Employment Possibilities, Employment Choices, Maintaining Employment, and Exhibiting Appropriate Employment Skills. Independent Living skills include Personal Finances, Managing Households, Personal Needs, Children and Marriage, Buying and Preparing Food, Caring for Clothing, Citizenship, Recreation and Leisure, and Getting Around the Community. The curriculum is scored such that a student is considered competent in a particular domain when they achieve 80% or above on a Competency Rating Scale, Knowledge Battery, and Performance Battery for each competency (CEC, 2012). It is necessary to teach transition age students these skills for adulthood and also assess their
ability to perform these skills. However, it remains unclear whether or not students will be afforded the right to make adult choices within these recommended domains they devote so much time and energy to learning. If the motive for learning these skills is to promote independence and consequently increased access to reinforcers, then violating choices regarding personal liberties defeats this purpose.

**Need of Assessing Violations of Liberties for Transition-Age Students**

Currently, there is little research investigating the thought process behind educator’s ethical decision-making in terms of respecting the personal liberties of transition-age students with ID. Measurement scales with content addressing attitudes toward the provision of the constitutional rights *equality* and *quality of life* have been developed. For example, the concept of *equality* is addressed by the Attitude toward Inclusion Instrument (Swain, Nordness, & Leader-Janssen, 2012) and the concept of *quality of life* is addressed by the Community Living Attitude Scale–Mental Retardation (Henry, Keys, Jopp, & Balcazar, 1996). However, the concept of *liberty* as it relates to students with ID remains unaddressed. As a result of the documented concern regarding a lack of ethics training for pre-service teachers, their reliance on ambiguously worded laws and optional professional organizations’ ethical codes, it is essential to gain a better understanding of their ethical decision-making process. To date, no scale addressing the ethical decision-making of teachers with regard to the provision of personal liberties for transition-age students with ID exists. The construction of such a scale would help with gaining a better understanding of the general approach teachers’ take toward this issue and guide future educational directives in teacher training programs.
CHAPTER II

METHODOLOGY

Scale Development

Surveys are a common method of research used to gather information about a variety of different topics in multiple contexts. In institutions of higher education (IHE), individuals are often inundated with requests to complete surveys from various sources. Universities not only thrive by capitalizing on the results of successful survey research, but are also responsible for teaching students how to be skilled researchers. This results in a large pool of researchers, including faculty, staff, graduate students, undergraduate seniors, professional research teams, consultants, and student organizations all vying for people to serve as participants (Barge & Gehlbach, 2012). On average, as many as 10 official university sponsored surveys alone are slated to be sent out to the student body at large research universities per year (Barge & Gehlbach, 2012). On an academic calendar, this equates to approximately one every four weeks. This statistic does not even account for the many unofficial requests initiated by the other entities that are typically targeting the same populations. The abundance of research demands placed on individuals in IHEs makes it especially important that researchers are respectful of this fact and thus exercise responsibility by ensuring that their studies are conducted as efficiently and effectively as possible to obtain valuable data. Researchers constructing new measurement instruments should take care that they are developing scales that serve a documented need, do not replicate existing scales, and are constructed in a scientific manner that will support the
reliability and validity of the scale, which are suggestive of its usefulness in measuring a specific construct (Clark & Watson, 1995).

**Constructs and Scale Development**

A construct is an unobservable phenomenon inferred to exist based on observable measures (MacCorquodale & Meehl, 1948). For example, the idea of “homesickness” is considered a construct because such a phenomenon is believed to exist even though it cannot be directly observed. Instead, “homesickness” can be inferred to exist based on measurable behaviors such as frequency of calling friends and family. Another example is the construct of “customer satisfaction” (Churchill, 1979). Although one cannot specifically see what “customer satisfaction” looks like with the naked eye, it is inferred to exist based on observable customer behaviors, such as repeat purchases or visits to a store. There are many constructs of interest to clinicians, educators, researchers and statisticians including attitudes, beliefs, perceptions, moods, and judgment. Furthermore, many treatments and interventions are based on the belief that specific constructs exist. This relies on the assumption that such constructs can be accurately studied in a reliable and scientific way. The development of a scale to measure a specific construct achieves this purpose, and it begins with a very thorough definition of the construct of interest.

When defining a construct, such as attitude toward the provision of personal liberties, it is important to conduct a thorough literature review in order to comprehensively understand the construct. A literature review will determine how a construct or similar constructs are currently conceptualized by relevant parties with regard to contextual, temporal, or other variables. This type of broad examination allows
the researcher to identify the boundaries of a construct (Clark & Watson, 1995). Being overly inclusive when developing the first list of potential items is recommended because statistical analyses can be conducted to ultimately weed out items with a weak relationship to the construct, but cannot account for items that should have been included but were not (Clark & Watson, 1995). A literature review should also include a thorough examination of existing scales that measure similar constructs. Existing scales can serve as a prototype for new constructs and alert the researcher to difficulties that should be corrected on the scale being developed (Churchill, 1979). Finally, an educated decision regarding the need for the scale being developed should be confirmed. It is unethical to add unnecessary scales to an existing data bank of assessments with ones that already measure constructs in similar ways. A scale developer should clearly articulate how the scale measures a distinctly novel construct or measures an older construct in an improved way (Clark & Watson, 1995). As previously noted, the lack of ethics training for teachers required to make ethical decisions illustrates the need for a tool to investigate attitudes toward the provision of personal liberties.

**Item Construction**

Once the development of a scale is justified, attention should be given to how to construct a reliable and valid tool.

**Writing Worthy Items**

Items on a scale refer to the individual questions the respondent is asked. A collection of individual items comprises both the subscales and total scale. Items are the direct measure of the construct. This makes it essential that they are written clearly and
Several general recommendations for item construction are presented. First, item language should be appropriate for all populations using the scale. Wording that is simple and likely to be understood by respondents with minimal education should be used (Clark & Watson, 1995). Second, the use of colloquial phrases, trendy expressions, or culture specific language should be omitted, as such items may be confusing for some respondents and result in errors in responding (Clark & Watson, 1995). Third, the use of double-barrel questioning should also be avoided. Double-barrel questions present a dilemma in which the respondent may accurately answer two parts of the question differently but are unable to convey the discrepancy (Churchill, 1979). For example, a question asking “Do you wake up often and hit the snooze alarm?” with a Likert scale response option may lead a respondent to want to answer Often for waking up early but Rarely to hitting the snooze. Accordingly, items should only inquire about one behavior. Fourth, it is unnecessary to write items that likely all of or none of the population will endorse as this does not provide useful information in measuring a construct (Clark & Watson, 1995). For example, an item such as “Sometimes I get disgusted” will likely be endorsed by all respondents since everyone sometimes gets disgusted.

The rare exception to the rule of omitting items that all or no participants will endorse is when the item is intentionally placed within a scale to detect for malingering. Malingering occurs when a respondent intentionally answers inaccurately because it is beneficial to them in some way (Raine, 2009). Typically, malingering is observed in cases where the presentation of symptoms results in monetary gain, such as disability funding, or reduced responsibility, such as an insanity plea during criminal cases (Raine,
2009). However, most scales do not need to assess for malingering because falsely representing oneself has little benefit in most situations.

The fifth recommendation for item construction is ensuring that items are not worded in a way that makes assumptions about the respondents (Crocker & Algina, 2008). For example, an item written as “Do you agree with the typical amount of sleep recommended for children?” makes the assumption that the respondent correctly knows the typically recommended amount off-hand. Finally, consideration to wording should be given when measuring sensitive topics (Crocker & Algina, 2008). Items should be worded in a manner that is not too sensitive to evoke truthful responding from participants. In such instances, participants may answer in a way that is socially desirable rather than how they truly feel. All of the recommendations listed should be followed when constructing individual items to include on a scale. Failure to do so can subsequently lead to errors in responding, which affects both the reliability and the validity of items on the scale.

**Wording of Items**

Items can be worded positively or negatively. There is some indication the use of negatively worded items are favorable to the use of positively worded items (Locker, Jokovic, & Allison, 2007). In a sample of 100 parents and 91 children receiving dental services, participants using a 5-point Likert scale with a *Don’t know* option were significantly more likely to avoid answering items by endorsing *Don’t know* for positively worded items than for negatively worded items. This observation occurred despite all items on the scale being matched, such that a positively worded item such as “
My child has been able to eat this week” was matched with a negatively worded item such as “My child has had difficulty eating this week” on each questionnaire.

Specifically, a total of 39.1% of children answered Don’t know for at least one positively worded item but only 16.3% answered Don’t know for at least one negatively worded item. Regarding parents, 49% answered at least one Don’t know for positively worded items whereas only 10.2% answered Don’t know for negatively worded items.

Researchers hypothesized that this may be explained by the fact that people attend to and remember negative information better than positive information. For example, a participant could likely answer how many days they had a toothache, but not be as likely to remember how many days a tooth had not bothered them (Locker et al., 2007).

Furthermore, significantly higher means were observed for positively worded items as compared to negatively worded items on three of the four subdomains, including Appearance, Eating, Self-care, but not Self-confidence, for both parents and children. This suggests that when positively worded items are endorsed, they may elicit inflated reports of the construct (Locker et al., 2007). In summary, research supports the use of negatively worded items over positively worded items (Locker et al., 2007). One way to combat the potential effects of the direction of wording is to include a reverse wording method.

After deciding on the direction of wording, a researcher must decide on whether reverse worded items should be included. For example, if a scale is predominantly worded positively, the inclusion of a few items worded negatively may be utilized, or vice versa. There are four ways in which reverse items can be constructed, known as
regular, polar opposite, negated regular, and negated polar opposite (Schriesheim, Eisenbach, & Hill, 1991). Regular is stated as “I feel energized,” and the polar opposite is stated as “I feel tired.” The negated versions include negative particles of speech for select items on a predominantly positively worded scale (Sonderen, Sanderman, & Coyne, 2013). For example, a negated regular is stated as “I do not feel energized” and the negated polar opposite is stated as “I do not feel tired.” The use of reverse wording is overwhelmingly more common than the use of all positive or negative language on a scale (Churchill, 1979; Schriesheim et al., 1991; Sonderen et al., 2013). Despite this generally accepted practice, there is much debate regarding how reverse items should be constructed and whether they should even be included on scales.

Researchers advocating for the use of reverse wording have argued that there are clear benefits associated with this practice. Reverse wording procedures are typically implemented to detect inconsistencies in responding, which is indicative of a respondent’s inattentiveness while answering (Churchill, 1979). Additionally, reverse wording is useful in detecting a respondent’s lack of comprehension regarding item content (Swain, Weathers, & Niedrich, 2008). More specifically, a respondent with highly inconsistent response patterns may have difficulty reading, may be experiencing cultural language barriers, or may not have the mental capability to accurately understand what is being asked. Despite the reason, respondents who display inconsistent patterns of responding between non-reverse worded and reverse worded items causes the validity of that individual’s scores to be questioned. Subsequently, a researcher may need to eliminate those individuals’ scores from a study as they may inaccurately influence
results. Concerning scale development, inconsistent response patterns can reduce the reliability and validity of scale items, making the tool appear to inaccurately measure the construct when it, in fact, actually measures the construct in a reliable and valid way.

Although detecting problematic responding from participants is valuable, recent research has suggested that the reverse wording detection method is not as ideal as once thought (Roszkowski & Soven, 2010; Schriesheim et al., 1991; Sonderen et al., 2013). Instead of reducing error, reverse wording may cause confusion as respondents begin to learn the pattern of item wording and continue to document answers as they anticipate what items are asking rather than reading them in detail (Sonderen et al., 2013). Ironically, this results in scenarios where instead of detecting error, the reverse wording actually produces error. The effect of reverse wording on scores from a sample of 700 patients administered the 20-item Likert format Multi-dimensional Fatigue Inventory (MFI-20) was examined by Sonderen and colleagues (2013). The MFI-20 comprises one positively and one negatively worded subscale that is combined for a total scale score. Results indicated that the average correlation between items on the entire scale, which includes both subscales, and thus reverse wording, was lower than the inter-item correlation for each individual subscale where items were all phrased in the same direction (i.e., all negative or all positive). Furthermore, scores on the total scale were observed to be more internally consistent, as evidenced by a larger Cronbach’s Alpha value (α =0.95) than for subscale scores (i.e., α = 0.90 for positive and α = 0.91 for negative items). Although the inclusion of reverse items resulted in a higher Cronbach’s Alpha, it should be noted that Cronbach’s Alpha is influenced by scale length. Longer
scales result in inflated alpha values and shorter scales result in lower alpha values (Cortina, 1993). Consequently, combining the subscales resulted in an analysis of 20 items as opposed to only 10 on each subscale. This means the higher alpha value may be explained simply by increased scale length. Similar results regarding the potential harm of reverse worded items have been observed in other studies.

In one such study, the effect of the style in which reverse wording is constructed was examined. Researchers examined the effect of reverse wording styles on scores obtained from 280 college business majors on a contrived questionnaire asking about a hypothetical business leader depicted in a vignette (Schriesheim et al., 1991). All participants received a set of standard questions such as “Expectations are expressed in clear terms,” along with reverse questions from the four styles. As an example, the regular stated “Uniforms are required,” the polar opposite stated “Uniforms are optional,” the negated regular stated “Uniforms are not required,” and the negated polar opposite stated “Uniforms are not optional.” Scores from participants in groups with polar opposite and negated polar opposite reverse wording styles were associated with lower Cronbach’s Alpha values, a measure of internal consistency reliability, than both regular and negated regular items (Schriesheim et al., 1991). Consequently, there is evidence to suggest that scale developers should opt for regularly stated or negated regularly stated items if reverse items are to be included. The use of reverse wording may be necessary in cases where malingering is a potential problem, but may do more harm than good in all other cases.
Measurement Methods

Once items have been constructed, an associated measurement system must be identified. For example, an item asking a respondent to rate satisfaction may yield a simple *Yes* or *No* answer, but may also yield much broader response options by asking the respondent to rate their satisfaction on a scale from 1 to 100. This response option is how the construct is quantifiably measured. The process for selecting a measurement method involves identifying the nature of the data desired to be collected, qualities associated with the format of the scale, and potential analyses that a researcher intends to use to examine results.

Nature of the Data

Survey research can examine many different types of variables. Variables in a study are first classified as either independent or dependent. Independent variables are variables that are either manipulated in some manner by the researcher (e.g., treatment intervention) or serve as classifying variables for different groups (e.g., gender). Dependent variables are a measure of the effect of an independent variable (Hinkle, Wiersma, & Jurs, 2003), which allows for a cause and effect or correlational relationship to be determined. Variables can further be defined in terms of how they are measured, and not all measurement forms are equal. Four distinct forms of measurement exist in a hierarchy that denotes their amount of precision. The nominal and ordinal scales are the lowest ranking in terms of precision and deal with qualitative variables. In contrast, interval and ratio scales measure continuous numerical values and, therefore, offer considerably more precision (Hinkle et al., 2003).
The nominal scale is the least precise type of measurement. Nominal data are mutually exclusive but follow no logical order (Hinkle et al., 2003). For example, eye color is considered nominal because it cannot be ranked in any particular order in and of itself, and a person with blue eyes cannot also have brown eyes (generally speaking). Ordinal data include categories that are also mutually exclusive, but differ from the nominal scale in that logical order can be assigned to the variables and, thus, those variables can be ranked (Hinkle et al., 2003). For example, class status does not allow a student to be a junior and a senior, but it is clear that senior level ranking is considered higher than junior level ranking on the path to graduation. Although the ordinal scale deals with qualitative categories, those categories can be associated with numerical values. Interval data are very similar to ordinal data except that data are numerical and, therefore, an equal distance between points is assumed (Hinkle et al., 2003). An interval scale does not give special consideration to the zero point and includes it similarly to all other negative and positive points on the continuous scale. For example, temperature is a commonly used example of interval data, because temperature points can be -2 degrees and 23 degrees and the difference between degrees remains constant. Finally, ratio data are the most precise of measurement. They only differ from interval data in that they have a “true zero” at the bottom of the scale. For example, a person can be age three, but not negative age three (Hinkle et al., 2003). Understanding the nature of the data to be collected from a scale guides developers in choosing a scale format.
Scale Formats

When developing a scale, it is important to consider the nature of the data in order to determine if the scale is measuring nominal, ordinal, interval, or ratio data. Data relating to perceptions about constructs such as ethical decision-making can be conceptualized as either ordinal or interval data. As a result, three main types of formats are used in existing scales, including the Visual Analog Scale (VAS), Likert scale, and dichotomous scale. The Likert scale and dichotomous scale more commonly used than the VAS (Clark & Watson, 1995). However, each has a distinct design and different implications for analyses.

The VAS is a continuous scale designed to measure interval data, and typically includes a vertical scale with verbal anchors that indicate the boundaries of the scale. The VAS allows for measurement along a single dimension. For example, Janhunen (2012) used a 30-point VAS scale asking respondents to indicate the degree to which they felt the ethical behavior listed in a vignette was wrong. Verbal anchors were provided along the continuum beginning with Severly wrong at the bottom, Very wrong, Moderately wrong, Slightly wrong, and Not wrong, at the very top. In another functional example, Vickers (1999) used a 100 mm VAS scale in a sample of runners to assess self-reports of the degree of muscle soreness ranging from No pain to Worst pain. Due to the considerably high numbers of response options, VAS scales allow for great variations in responding to be examined.

A Likert scale allows for the measurement of a construct along a two dimensional rather than a one dimensional scale (Hartley & Betts, 2010). The Likert method accounts
for both positive and negative attitudes by assigning each end of the spectrum a number and using an equal-interval scale along the continuum. The original design was a 5-point scale with 1 = *Strongly approve*, 2 = *Approve*, 3 = *Undecided*, 4 = *Disapprove*, and 5 = *Strongly disapprove*. Likert scales are used for ordinal and interval data (Hartley & Betts, 2010). Accepted variations of the Likert scale have since included removal of the scale numbers so that only verbal labels are observed or removal of the verbal labels so only the scale numbers are observed. On some scales, a 0 midpoint is identified and the scale is numbered using both positives and negatives such as -2, -1, 0, 1, and 2. The odd number of points on the scale can be varied to include as few as 3 points, or as many as 11 points or more (Jacoby & Matell, 1971). Additionally, verbal labels are modified to appropriately assess the construct. For example, instead of a continuum of *Approve* to *Disapprove*, verbal labels can include *Agree* to *Disagree*, *Happy* to *Sad*, or *Good* to *Poor* (Hartley & Betts, 2010). The ability to exercise such modifications makes the Likert scale a highly versatile instrument for measurement.

In contrast, a dichotomous scale allows a respondent only two choice possibilities, such as *Yes/No* or *True/False*. The result is a scale design that forces a respondent to take a position on the construct being measured, as no neutral option is provided. Dichotomous scales are used for analyzing nominal and ordinal data. They are associated with an ease of administration and ease of analyses of scores as a result of their simplistic construction (Clark & Watson, 1995; DeCoster, Gallucci, & Iselin, 2009). Such factors should be considered when making a final decision regarding which format to select during scale development.
Choosing a Format

When developing a scale, a researcher must make an informed decision about whether to use a VAS, Likert, or dichotomous scale. Historically speaking, dichotomous scales were often selected in the interest of convenience and practicality. Before the modern luxury of computer software, which runs complex calculations, statisticians completed calculations by hand. Lumping interval data, such as course grades, into dichotomous variables such as pass (e.g., above 65%) and fail (e.g., 64% and below), was extremely time efficient and generally met the needs of the researcher (DeCoster et al., 2009). Even today, dichotomous measures are preferable for considerably lengthy tests because a respondent can answer a greater quantity of questions in a short time period because response options are more limited than on Likert scales (Clark & Watson, 1995). However, dichotomous measures do not allow for the same level of precision as continuous variables because they do not enable a researcher to detect differences in scoring between members in the same group (MacCallum, Zhang, Preacher, & Rucker, 2002). In the example of “Pass/Fail,” a person scoring a 66% is treated similar to someone scoring a 99% because they are all lumped together in the “Pass” category (DeCoster et al., 2009).

Perhaps the most convincing argument in favor of selecting a VAS or Likert scale over a dichotomous scale is the fact that because the VAS and Likert scales measure continuous data, those wide measurements can be later collapsed into dichotomous analyses, but not vice versa. Accordingly, Moore, Moore, McQuay, and Gavaghan (1997) demonstrated that scores obtained from VAS measures of pain can be converted
into mean values and analyzed as dichotomous variables without adversely affecting reliability. Concerning Likert scales, creating a median split is a common way of dichotomizing variables. In this procedure, the median of the independent variable is first identified. Then, a high group and low group are consequently formed and subsequently compared to means yielded from the dependent variable (MacCallum et al., 2002). This process is one directional so collecting continuous variables first and later dichotomizing, if necessary, is recommended. However, DeCoster and colleagues (2009) cautioned that, in general, the process of dichotomizing continuous variables weakens the correlations between variables and, therefore, all data that can be collected and analyzed as continuous should be collected and analyzed as continuous.

**Designing the Format**

Format design deserves a number of considerations, including the number of scale points, the inclusion of a neutral middle, and the position of both numbers and wording.

**Number of points.** The number of points on a Likert scale can vary greatly. Response options can range anywhere from 4 to 19 points depending on the scale. Overall, research appears to indicate that Likert scales with both fewer and greater numbers of points are equally acceptable. In a sample of 360 undergraduate students at Purdue University, researchers found no significant influence on reliability or validity of a scale measuring values when Likert points were varied from 2 points to 19 points (Jacoby & Matell, 1971). In a more recent study, Leung (2011) administered four variations of a Likert scale measuring self-esteem to a sample of high school students. Specifically, 4-point, 5-point, 6-point, and 11-point scales were utilized. A total of 231
students completed the 4-point scale, 271 completed the 5-point scale, 220 completed the 6-point scale, and 272 completed the 11-point scale. Results indicated no significant differences between type of scale and mean scores, standard deviations, inter-item correlations, item-total correlations, or reliability. It is worth nothing that the higher point scales (i.e., 6- and 11-point) demonstrated a more normal distribution than the lower point scales (i.e., 4- and 5-point). This is important in the sense that normal distributions are a necessary assumption that needs to be met for the use of more powerful parametric analyses over less powerful non-parametric analyses (Leung, 2011). Therefore, higher point scales (i.e., 6 points and above) do have a statistical advantage over lower point scales. Deciding on a total number of points consequently results in the issue of including what is known as a neutral middle.

Neutral middle. Odd numbered point systems allow for a neutral middle, or a response option that does not force a choice. For example, a 3-point scale could be constructed as 0 = Disagree, 1 = Neutral, and 2 = Agree. In contrast, even numbered point systems require the respondent to choose which side of the continuum they endorse (e.g., agree or disagree) and the extent to which they endorse that position. An advantage of excluding the neutral middle point is that it reduces the chance that respondents will answer items in a more socially desirable way rather than in a manner than reflects their true beliefs because they have to choose (Garland, 1991). Leung (2011) found no significant differences with respect to mean scores, standard deviations, inter-item correlations, item-total correlations, or reliability values between scales including a neutral middle (i.e., 5- and 11-point) and those that did not include such a
point (i.e., 4- and 6-point). In light of these findings, the decision to include or exclude a neutral middle may best be answered from a theoretical perspective.

A researcher should inquire about the nature and sensitivity of the construct being measured. It is reasonable to expect that respondents will have a belief in one direction or the other about sensitive topics (e.g., discrimination or abortion) because it is more difficult to feel neutral about emotionally-charged topics. In contrast, a scale assessing preference toward vegetables could likely include a middle point as it is more reasonable that people would feel neutral about certain items. In essence, highly sensitive topics should typically be addressed in a forced-choice manner with more scale points, because more scale points allows for greater variability in answering and thus better discrimination of the degree of the construct being measured (Crocker & Algina, 2008). Less sensitive topics can be addressed with fewer point scales and include a neutral point.

**Position of numbers and wording.** After deciding on the number of points, the researcher must decide where to place those points. A decision regarding whether to put the lowest value (e.g., point 0) on the left and the highest value (e.g., point 11) on the right of a horizontal Likert scale, or vice versa must be made when developing a scale. Similarly, a decision to associate the lowest point value with negative labels (e.g., 0 = *Strongly disagree*) and the highest point value with positive labels (11 = *Strongly agree*) or vice versa must also be made. Hartley and Betts (2010) recommended that the highest value be placed on the left and associated with positively worded labels. A sample of 465 adults identified as academic writers and researchers were asked to rate the clarity of an abstract from a conference presentation using a 10-point Likert scale. Participants
were randomly assigned to one of four groups and received a Likert scale with either positive labels/high values on the left, positive labels/low values on the left, negative labels/high values on the left or negative labels, low values on the left. Results indicated that participants receiving the positive labels/high values on the left were associated with significantly higher ratings than the other three versions of the scale (Hartley & Betts, 2010). The authors suggested that the observed results may be attributed to participants’ preconceived notions of higher numbers being more commonly associated with more positive ratings, emotions, or attitudes, whereas lower values are more commonly associated with negative feelings. Switching up these notions may be counterintuitive and cause confusion among respondents. Despite this observation, the negative label/low values on left version, which was also consistent with this notion, did not yield significantly different results from the inconsistent versions (Hartley & Betts, 2010). In summary, research indicates that placing higher numbers from left to right, and associating higher numbers with more positive ratings appears to result in the most accurate responding (Hartley & Betts, 2010).

**Subscales**

Deciding whether or not to use subscales can be a difficult question to answer because the idea of subscales is somewhat counterintuitive. The creation of subscales within a total scale involves the process of bringing together seemingly unrelated items that may actually be connected under a bigger umbrella concept (Clark & Watson, 1995). Consequently, a score can be obtained for both the smaller subscale concept and also added into the larger concept for a total scale score (Clark & Watson, 1995). When
initially developing a scale, a researcher who has identified seemingly unrelated material that comprises a whole, should first identify these clusters of questions as subscales. Once sample data have been collected for the scale, analyses can be conducted to further guide the decision to keep or eliminate the subscales. For example, Clark and Watson (1995) pointed out that the average correlation between subscales should at least be greater than zero, otherwise there is no relationship between the two topics and rather than combining them for a total scale score, they should be considered entirely separate constructs, and thus, not measured by the same scale. However, the average correlation between subscales should be less than the average within-subscale values otherwise the individual items are not more cohesive than the entire scale (Clark & Watson, 1995). If the average correlation between subscales exceeds the within-subscale values, the use of subscales should be abandoned for use of the total scale score.

**Analyzing Psychometric Properties**

There is a long historical debate over whether or not a Likert scale should be conceptualized as an ordinal or interval scale. This distinction is important because the answer guides the type of analyses that can be used to examine results. The viewpoint that a Likert scale collects ordinal data means that non-parametric statistics are more appropriate for analysis. Non-parametric statistics are less ideal than parametric statistics because they are less powerful. However, others argue that a Likert scale produces interval data, and therefore, should be able to be analyzed with parametric analyses that offer more powerful results. Empirical evidence has demonstrated that Likert scales, in fact, do approximate interval and ratio data. For example, Vickers (1999) compared
Visual Analog Scales to Likert scales in 400 runners reporting level of soreness after running each day. A seven point Likert scale ranging from 0 = Complete absence of soreness to 7 = Inability to move from soreness, and 100 mm VAS ranging from Not sore to Extremely sore were both completed by participants daily. A linear relationship between the VAS and Likert scale was observed suggesting that Likert scale scores do approximate that of interval scale scores (i.e., the VAS). As a result, it can be concluded that Likert scale data are interval in nature and, therefore, can appropriately be analyzed using means, standard deviations, Pearson correlations and Analysis of Variance methods (Carifio & Perla, 2008).

After a scale has been constructed, it must be administered to a sample in order to test the psychometric properties of the scale. No specific sample size quota is set among scholars for this process, but a general recommendation is to aim for approximately 5 to 10 times as many participants as there are total items on the test (Crocker & Algina, 2008). Consequently, scores on a scale with 20 items should be gathered from approximately 100 participants. An analysis of participants’ scores collected for specific items can guide decision-making regarding which items to keep in the final scale and which items to exclude. Analyses should also be conducted to determine if the scale produces valid and reliable scores. Validity refers to collected evidence in support of the ability to accurately draw inferences about what is intended to be measured by a scale (Crocker & Algina, 2008). Reliability refers to the extent to which similar scores are repeatedly produced by multiple administrations of a scale (Crocker & Algina, 2008).
Item Analysis

A more in depth description of procedures for conducting item analysis, validity and reliability procedures are presented below.

**Item descriptives.** When analyzing scores from Likert scale items, the mean indicates the difficulty or likeliness of endorsement. In others words, difficult items are harder to endorse so fewer people select that response, resulting in a lower mean for that item. A researcher should be alerted to means on individual items that are close to both 0 and the top value of the scale because they may be indicative of potentially bad items that may need to be removed from the scale (Crocker & Algina, 2008). For example, on a 3-point Likert scale with 0 = *Never*, 1 = *Sometimes*, and 2 = *Always*, an item with a mean close to 0 indicates that the item was “difficult” or that very few people endorsed this item, whereas means on items close to 2 indicate that most or all respondents endorsed the item. As Clark and Watson (1995) pointed out, it is unnecessary to include items that most or none of the respondents endorse because such items are unlikely to produce useful information. In addition to means, standard deviations for items should also be examined because they indicate variability in responding (Crocker & Algina, 2008). Items with standard deviations close to zero indicate little to no variability between response choices (i.e., *Never, Sometimes, Always*) from participants. A review of the minimum and maximum response value endorsed for each item will also help the researcher gain a better understanding of the variability among response choices. For example, on the same 3-point Likert scale, it is ideal that each item yields a minimum of 0 and a maximum of 2, which indicates that at least one participant endorsed the lowest
and highest response values possible. In other words, at least one participant selected the response choice *Never* and at least one participant selected the response choice *Always*, which demonstrates variability in responding. In contrast, an item with a minimum value of 1 and a maximum value of 2 means that no respondents answered *Never* for that item, which may consequently be suggestive of a bad item. No item should be eliminated simply based on the results of item descriptives. Results should be analyzed in conjunction with all other psychometric analyses before a decision regarding removal should be finalized.

**Inter-item correlations.** An examination of the relationship between all individual items is typically conducted to determine the extent to which scale items relate to one another (Crocker & Algina, 2008). Pearson correlations can be used for this purpose. Although no specific cutoffs have been determined regarding what is too high or too low, the standard hierarchy for both positive and negative correlations is identified as 0.00 to 0.30 is little to none, 0.31 to 0.50 is low, 0.51 to 0.70 is moderate, 0.70 to 0.90 is high, and 0.90 to 1.00 is extremely high (Hinkle et al., 2003). Two items that yield extremely high positive correlations indicate that they may be too similar and are essentially accessing the same material from the respondent. In such cases, one of the items may need to be eliminated. All correlations between items should be high and positive, indicating homogeneity among items accessing the same construct (Crocker & Algina, 2008). A negative correlation between items usually indicates that one or both of the items does not relate well to the construct being measured.
**Item-total correlations.** The extent to which individual items relate to the rest of the scale should also be examined. Pearson correlation analyses can also be used for this purpose. A high positive item-total correlation is preferred for all items but moderate is acceptable. Extremely high item-total correlations may mean the item is redundant of material already covered by other items on the scale. Extremely low item-total correlations indicate that the item is not related to the rest of the scale and, therefore, may not be related to the construct being measured (Crocker & Algina, 2008).

**Reliability Coefficient**

There are two common analyses used to estimate the reliability of scores on a Likert scale following a one-administration method. The first method is using Cronbach’s Alpha, also known as Coefficient Alpha. This is a measure of internal consistency, or the extent to which respondents answer similarly across items (Crocker & Algina, 2008). For example, participants endorsing *Agree* for the item “I voluntarily walk to school whenever possible” should consistently endorse *Disagree* for the item “I hate walking to school.” Cronbach’s Alpha values range from 0 to 1.00 with lower values indicating inconsistencies in response patterns. Alpha values exceeding 0.70 are typically considered acceptable by most disciplines (Cortina, 1993). However, it should be noted that alpha is influenced by the total number of scale items such that scales with more than 20 items can produce Alpha values higher than the accepted 0.70 minimum, even when inter-item correlation values are low (Cortina, 1993). Data software systems that are designed to run complex statistical analyses, such as SPSS (International Business Machines Corporation [IBM], 2012), can determine the effect of the alpha level
were each individual item omitted from the scale. A researcher should examine each item to determine if the value would increase were it removed during revision processes.

The second method used to estimate the reliability of a scale is known as Split-Half reliability. When the variances of the scores on the scale are equal, or almost equal, the Spearman-Brown Split Half analysis is recommended (Crocker & Algina, 2008). If variances are considerably unequal, then the Guttman Split-Half analysis should be conducted. Both analyses require that a scale first be administered and then divided into two equal halves before being scored. Items are randomly assigned to a half or divided in terms of odd and even item numbering (Crocker & Algina, 2008). Each half is scored separately resulting in two half-scale scores. A correlation analysis is then conducted to examine the relationship between the two halves. However, examining individual halves typically results in an underestimation of the reliability of the total scale because shorter tests have lower reliability values and longer tests have higher reliability values (Cortina, 1993). Consequently, use of either Split-Half method is less favorable than use of Cronbach’s Alpha as a measure of reliability.

Validity

The most important type of validity to examine when developing a scale to measure a construct is construct validity (Benson, 1998). Construct validity refers to the extent to which a scale measures what it is intended to measure. Assessing construct validity involves establishing relationships between unobservable constructs and observable indicators. This can be done by creating a Nomological Network, which is an interrelated system of theoretical constructs and associated measures that target
observable behaviors (Cronbach & Meehl, 1955). For example, the focal construct of
teacher attitude toward inclusion could be reasonably thought to be related to a secondary
construct such as teacher attitude toward diversity, such that a teacher in favor of
inclusion would likely be more tolerant of diversity, and vice versa. The Nomological
Network provides a conceptual framework for hypothesizing the relationship between
constructs. However, in and of itself, it does not provide empirical evidence for the
hypothesized relationships (Benson, 1998).

To offer empirical support to a Nomological Network, operational definitions of
the construct must be created and measured (Cronbach & Meehl, 1955). In the example
of the focal construct of teacher attitude toward inclusion, behavioral measures of
inclusion and diversity could be observed, such as number of interactions with students
with disabilities or students differing culturally from the norm, and correlational analyses
conducted to determine if a strong relationship exists. Using Pearson correlation
analyses, scores from scales measuring these constructs could also be analyzed in terms
of their relationship with the established observable measures, which would elucidate
relationships between the unobservable constructs (Benson, 1998; Cronbach & Meehl,
1955).

It is important to note that methods to assess all forms of validity only offer
support for the claim that scale items have validity, not that it “is valid” in a concrete
sense (Benson, 1998). Any form of measurement, including scales, assessments, and
inventories, should be continually re-examined for validity over time as populations using
the measurement instrument or procedures used to implement the measurement
instrument change (Benson, 1998). The process of establishing support for the notion that a scale has validity is a prolific process requiring multiple examinations, using multiple methods, which create a collective body of evidence (Benson, 1998). The initial examination of validity should focus on the type of validity most appropriate for the measure. In the case of construct measurement, construct validity is a starting point.

**Purpose**

For the purposes of this study, it was necessary to build a conceptual framework that illustrates the construct of attitude toward the provision of personal liberties for transition-age students and use that framework to determine if a developed scale properly accessed the construct. The focal construct of attitude toward the provision of liberties was hypothesized to be related to attitudes toward other constitutional rights, including equality and life, which is depicted in the constructed Nomological Network (Figure 1). Observational measures of the constructs attitude toward equality and life for individuals with disabilities were examined using established scales, including the Attitude toward Inclusion Instrument-Modified ([ATII-M]; Swain et al., 2012) and the Community Living Attitude Scale - Mental Retardation Form, Empowerment Subscale, respectively ([CLAS-MR]; Henry et al., 1996).
The ATII-M is a 20-item questionnaire, in a Likert scale format, assessing respondent’s views on whether or not students with disabilities should be included in typical classroom settings (Swain et al., 2012). The original version of the scale, developed by Yates (1995) comprised 38 items in a Likert scale format but was modified by Swain et al. (2012) in order to shorten administration time. There are a total of eight reverse coded items on the ATII-M, which are Items 6, 8, 12, 13, 14, 15, 17, and 20 (Appendix E). The modified scale has been demonstrated to have adequate internal consistency with a reported Cronbach’s Alpha value of 0.84.
The CLAS-MR is a 40-item questionnaire in a Likert scale format assessing respondent’s views toward individuals with ID living in the community (Henry et al., 1996). The CLAS-MR comprises four subdomains, including Empowerment, Exclusion, Similarity, and Sheltering. Only the Empowerment subscale was included in this study because items coincided most appropriately with the measurement of “quality of life” denoted in the Nomological Network (Appendix A). The Empowerment subscale includes 13 items that assess the extent to which respondents agree that individuals with ID should be enabled to make decisions that directly affect their lives. There are a total of four reverse coded items on the CLAS-MR Empowerment subscale which are Items 1, 2, 3, and 4 (Appendix D). The Empowerment subscale of the CLAS-MR has been demonstrated to have acceptable construct validity, an adequate test-retest reliability value of 0.74, and an internal consistency value of Cronbach’s Alpha = 0.86 (Henry et al., 1996).

The developed scale is titled the Personal Liberties and Transition Students Scale (PLATSS-ID). The PLATSS-ID is a 20-item, Likert scale assessing teacher’s ethical decision making regarding the provision of personal liberties to transition-age students with intellectual disability (ID). A Likert scale format was chosen over a VAS or dichotomous scale as a result of its ease of use and ability to be condensed for dichotomous analyses if needed (DeCoster et al., 2009). This scale was constructed using regularly phrased language, rather than regular negated, polar opposite or negated polar opposite language. A 6-point scale was chosen, as the research indicates little difference between the total number of points, but more sensitive topics are typically associated with
the use of higher point scales (e.g., 6-11 points) to allow for greater discrimination in responding to be examined (Jacoby & Matell, 1971; Leung, 2011). Similarly, a neutral middle point was excluded due to the sensitive nature of the topic and the theoretical view that respondents should have a position on the construct. Positive verbal labels were placed on the left per the findings of Hartley and Betts (2010), but no associated number scale was included. Additionally, no reverse worded items were included, as research appears to indicate that such inconsistencies tend to produce errors in responding (Roszkowski & Soven, 2010; Sonderen et al., 2013). All 20 items on the PLATSS-ID were randomly ordered to determine the final sequence of items on the scale. The final version of the developed scale included in this study is presented in Appendix C.

Items on the scale were developed using the Life Centered Education (LCE) curriculum for transition-age students published by the Council for Exceptional Children (2012). The curriculum has three competency areas, including Independent Living, Interpersonal, and Occupational Skills. Additionally, each competency is divided into a total of 20 sub-competencies. After reviewing the curriculum, one item was written for each sub-competency and included in the final scale (Appendix C). The nature of the competency was considered and then formulated into an ethical scenario in which a teacher violates a student’s choice about a personal liberty. On the PLATSS-ID, respondents rated the extent to which they thought the teacher’s actions were ethical by indicating a point on the Likert scale ranging from Very ethical to Very unethical. The psychometric properties of the scale were tested. Results were compared to scores from
measures of related constructs to determine level of support for the hypothesized Nomological Network (Figure 1).

**Examination of Construct**

The PLATSS-ID was used to investigate existing attitudes of educators, defined as students currently pursuing education-related degrees, toward providing personal liberties to transition-age students with ID. The developed scale was used to examine group difference in attitude between students who had previously taken an ethics course, special education related or not, versus those with no prior ethics course training. Additionally, difference in PLATSS-ID scores between general education and special education majors was examined. An examination of attitude differences as a result of membership to a teacher association with published ethical guidelines and enrollment in the Behavior Intervention Specialist Certificate Program was also measured. Accordingly, the following hypotheses regarding participants’ ethical decision-making as it relates to the provision of personal liberties to transition-age students with ID were investigated. Analyses were conducted only after the necessary assumptions needed to use parametric methods were met.

**Hypothesis I:** There is no mean difference in educator’s PLATSS-ID scores between groups with regard to status taking an ethics course (i.e., currently or previously taken an ethics course versus those who have not).

**Hypothesis II:** There is no mean difference in educator’s PLATSS-ID scores between participants majoring in general education and special education.
**Hypothesis III:** There is no mean difference in educator’s PLATSS-ID scores between participants enrolled in the Behavior Intervention Specialist Certificate Program and those not enrolled in the certification program.

**Hypothesis IV:** There is no mean difference in PLATSS-ID scores between groups with regard to familiarity with professional membership guidelines (i.e., *Yes, No, Never a member*).

**Method**

A non-experimental, causal comparative design was utilized because manipulation of an independent variable was not necessary for the purposes of this study. A non-random convenience sample was utilized as participants were included on a volunteer basis. Data collected were used to examine the psychometric properties of items on the PLATSS-ID scale as well as investigate group differences according to research hypotheses. All necessary statistical assumptions were examined before analyses were conducted.

**Participants**

Graduate and undergraduate students in educator-related disciplines, such as education and special education, were sought for participation in this study. A minimum of 100 participants was chosen in accord with recommendations that a total of 100–200 participants be used as a sample size when conducting item analyses (Crocker & Algina, 1986). However, as few as 30 participants have been suggested as an acceptable sample size during initial scale development processes (Johanson & Brooks, 2010). All participants were enrolled in courses at a public Midwestern university.
Setting

A survey link via the Qualtrics online survey program (Qualtrics, 2013) was sent to all potential participants through their university email address. Participants were able to complete the survey at their leisure using their own Internet device (i.e., desktop, laptop, iPad, etc.). They were able to pause and resume the survey at any time. Consequently, participants chose their own time and setting to complete the survey.

Materials

All potential participants received an email detailing the purpose of the study, a description of procedures involved in participating, a description of the researcher’s department affiliation, student status, qualifications for conducting the study, researcher contact information, and a survey link to click on if they desired to participate. The hyperlinked PLATSS-ID, ATII-M, and the CLAS-MR Empowerment Subscale were completed using the Qualtrics survey system affiliated with the university.

Procedure

To recruit participants, the researcher first emailed professors currently teaching courses in general education, special education, or other educator-related disciplines in the university’s College of Education, Health, and Human Services. This email explained the purpose of the study and requested that professors forward the email with the survey link to all students currently on their roster. The forwarded emails explained that participation was anonymous and that the professor forwarding the email would have no way of knowing who did, and who did not, complete the survey. Following low response rates, an Institutional Review Board approved alteration in procedures was
enacted enabling the researcher to email potential participants directly. Participants were able to click on the survey link, which connected them to the Qualtrics survey program. A consent form appeared first. The participant was required to agree to the consent form before being able to continue and complete the survey. Completed data were retrieved by the researcher from the Qualtrics survey program. All individual responses were kept anonymous, as the Qualtrics system does not link identifying information with individual surveys.
CHAPTER III

RESULTS

Participant Totals and Information

A total of 171 participants responded to the Personal Liberties and Transition Students Scale-ID (PLATSS-ID) by completing some portion of the surveys administered. However, in order to statistically analyze the data, incomplete surveys were omitted before conducting reliability, validity, and group comparison procedures. This resulted in slightly different total numbers of participants for different analyses. Specific information regarding total participant numbers and demographic information is presented in Table 1.

Reliability Analysis

A total of 111 of the 171 participants fully completed all items on the PLATSS-ID and were, therefore, included in analyses. Of the total 111 participants, the overwhelming majority was female (87.4%) compared to male (10.8%), with 1.8% stating, “I prefer not to answer this question.” The average age range for participants fell between 18 and 30 as reported by 76.6% of participants, although other age ranges were represented. A total of 12.6% were reportedly between 31 and 40 years of age, 7.2% between 41 and 50 years of age, and 3.6% were between 51 and 60 years of age. Regarding ethnicity, 89.2% identified themselves as White/Caucasian, 3.6% as Black/African American, 3.6% as Hispanic, 0.9% as Asian, 0.9% as other, and 1.8% answered, “I prefer not to answer this question.”
Information regarding educational training and experience working with individuals with ID was also acquired from participants and is presented in Table 1. Most of the 111 participants were undergraduate students (61.3%) as opposed to graduate students (30.6%), whereas a small percent reported they were currently enrolled in some type of university Certificate Program (8.1%) rather than enrolled as graduate or undergraduate status. Concerning major, most were majoring in special education (64.9%) or general education (19.8%) whereas some reported “other” (15.3%). Participants reporting “other” were asked to specify their major. All reported disciplines offered some opportunity to educate individuals with ID, such as speech and language pathology, school psychology, and family and lifespan development. Accordingly, those declaring “other” were determined to meet the participant definition of “educator” and were included in final analyses examining reliability of items on the scale. Only 10.8% were enrolled in the Behavior Intervention Specialist Certificate Program. More than half of participants (61.3%) reported they had never taken an ethics class related to education and most had also never taken an ethics class for any other discipline (73%). Finally, of the 111 participants, 84.7% responded that they had some level or previous experience interacting with a person with ID whereas 15.3% reported no previous experience.

Finally, information concerning experience teaching and membership activity was collected and is presented in Table 1. Most students (73.9%), consistent with the majority reporting undergraduate status, indicated that they “were not/have never been employed as a teacher” whereas 14.4% indicated having 1 month to 5 years’ experience
Table 1

Demographic Characteristics of Respondents for Reliability and Validity Analyses

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<td>%</td>
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<tr>
<td>Age</td>
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<td>14.3</td>
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<td>73.0</td>
<td>71</td>
<td>72.4</td>
<td>71</td>
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</tbody>
</table>

(table continues)
in the field, 6.3% had 6 to 10 years in the field, 1.8% reported 11 to 14 years’ experience, and 3.6% had more than 15 years’ experience. Although type of professional membership was not inquired about, most participants (55%) indicated they have never belonged to any organization. Of those that did, 27.9% said they were familiar with their membership’s ethical guidelines, and 17.1% said they were not familiar with their membership’s ethical guidelines.

Construct Validity Analyses

A total of 98 participants completed both the PLATSS-ID and Attitude toward Inclusion Instrument (ATII-M) and were included in analyses examining validity. Similarly, validity analyses for the PLATTS-ID and the Community Living Attitude Scale (CLAS-MR) Empowerment subscale included 98 participants who completed both

<table>
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<tbody>
<tr>
<td>Familiarity with Membership Guidelines</td>
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<tr>
<td>Yes</td>
<td>31</td>
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<tr>
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<td>17.1</td>
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<td>17</td>
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<td>55.1</td>
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<tr>
<td>Years Employed as Teacher</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 month – 5 years</td>
<td>16</td>
<td>14.4</td>
<td>14</td>
<td>14.3</td>
</tr>
<tr>
<td>6 – 10 years</td>
<td>7</td>
<td>6.3</td>
<td>7</td>
<td>7.1</td>
</tr>
<tr>
<td>11 – 14 years</td>
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<td>1.8</td>
<td>1</td>
<td>1.0</td>
</tr>
<tr>
<td>15 years and above</td>
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<td>4</td>
<td>4.1</td>
</tr>
<tr>
<td>Never employed as teacher.</td>
<td>82</td>
<td>73.9</td>
<td>72</td>
<td>73.5</td>
</tr>
</tbody>
</table>
scales. To bolster support for the credibility of the Nomological Network (Figure 1), an examination of the relationship between scores on the CLAS-MR Empowerment subscale and the ATII-M was conducted, which included a total of 102 participants. Total numbers per group along with comparable demographic information for all participants included in reliability and validity analyses can be observed in Table 2.

**Group Comparisons**

A slightly lower number of total participants were included in the group comparison analysis conducted for Hypothesis II. A total of 94, instead of 111, participants were included as a result of 17 participants reporting “Other” as their major. Although participants claiming “other” were included in reliability and validity analyses, Hypothesis II was a restricted investigation of those claiming special education or general education as their major. Removing those reporting “other” ensured solidarity within groups. For Hypotheses I, II, and IV, all 111 participants who fully completed the PLATSS-ID were included in statistical analyses.

**Data Analysis Procedure**

Data were analyzed in two phases using SPSS Data Analysis software. First, the psychometric properties of scale items were examined to determine reliability and validity. Reliability analyses involved examining the internal consistency of the PLATSS-ID. Validity analyses involved examining the relationship between scores on the PLATSS-ID with scores on both the CLAS-MR Empowerment Subscale and the ATII-M. Second, group comparisons to examine mean differences in PLATSS-ID scores were conducted with respect to previous experience taking an ethics course, major,
membership to a professional organization, and enrollment in the Behavior Intervention Specialist Certificate Program.

**Item Analyses**

The results of item analyses, including item-descriptives, inter-item and item-total correlations are presented.

**Item descriptives.** Descriptive analyses examining the mean, standard deviation, minimum and maximum values, and variances were conducted to determine if particular items should be considered for removal from the scale. Data from 111 participants were included in these analyses (Table 1). Results are presented in Table 2. As mentioned, the PLATSS-ID comprised 20 items with a possible response range of 1 = *Very ethical* to 6 = *Very unethical* for each item. Results indicated that participants endorsed a minimum score of 1 and maximum score of 6 on nearly all items with the exception of five items. At the bottom of the scale, a minimum response of 2 = *Ethical* was observed for items 7, 18, and 20 since no respondents chose 1 = *Very ethical* for these items. However, a maximum score of 6 = *Very unethical* was endorsed for these same items (i.e., Items 7, 18, and 20).

At the top of the scale, a maximum score of 5 = *Unethical* rather than a possible 6 = *Very unethical* was observed for two items (i.e., Items 4 and 16). However, a minimum score of 1 = *Very unethical* was observed for these same items. Although it is ideal to obtain the full range of response options (i.e., minimum of 1 and maximum of 6) for all items, most scale items (75%) did meet these criteria. Further, the few items that were not associated with endorsement at the top and bottom of the response range were still
very close to endorsement of the full range of response options being only one less than the total possible in all cases.

Table 2

*Item Descriptive Statistics for the PLATSS- ID (N = 111)*

<table>
<thead>
<tr>
<th>Item Number</th>
<th>Minimum</th>
<th>Maximum</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
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<td>1</td>
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<td>6</td>
<td>3.32</td>
<td>1.28</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>6</td>
<td>3.07</td>
<td>1.45</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>6</td>
<td>3.14</td>
<td>1.39</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>5</td>
<td>2.43</td>
<td>1.15</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>6</td>
<td>2.55</td>
<td>1.05</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>6</td>
<td>3.41</td>
<td>1.24</td>
</tr>
<tr>
<td>7</td>
<td>2</td>
<td>6</td>
<td>4.05</td>
<td>1.18</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>6</td>
<td>3.02</td>
<td>1.12</td>
</tr>
<tr>
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<td>6</td>
<td>4.73</td>
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</tr>
<tr>
<td>10</td>
<td>1</td>
<td>6</td>
<td>3.34</td>
<td>0.91</td>
</tr>
<tr>
<td>11</td>
<td>1</td>
<td>6</td>
<td>4.01</td>
<td>1.06</td>
</tr>
<tr>
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<td>3.51</td>
<td>1.45</td>
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<td>6</td>
<td>2.97</td>
<td>1.25</td>
</tr>
<tr>
<td>15</td>
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<td>6</td>
<td>3.50</td>
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<tr>
<td>16</td>
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<td>0.89</td>
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<td>19</td>
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<td>20</td>
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<td>6</td>
<td>4.15</td>
<td>1.23</td>
</tr>
</tbody>
</table>

A review of item means on the PLATSS- ID revealed that no average responses fell at the minimum score of 1 or maximum score of 6 (Table 2). Nearly all means fell close to the middle of the response range (i.e., score of 3 or 4), with the exception of Item 4, with a mean of 2.43 ($SD = 1.15$). In addition to mean scores, corresponding standard deviation values also demonstrated variability in responding with an observed lowest value of $SD = 0.89$ for Item 16 and highest value of $SD = 1.45$ for Item 2. Means and
standard deviation results indicate variability in responding on the PLATSS-ID, as is ideal.

**Inter-item correlations.** Inter-item correlations were conducted to determine the extent to which individual scale items correlate with every other scale item. High correlation values typically indicate redundancy in content while low correlations indicate little relationship in content between scale items (Boyle, 1991). Consequently, moderate correlation values are ideal with correlation values ranging from above $r = 0.3$ to 0.7 (Kline, 1979). Further, positive correlations are ideal because a positive direction indicates that items are related. For example, if a respondent endorses item A, then they should also endorse item B if both items are consistently measuring the same construct.

Results, shown in Table 3, indicated that only 10% (i.e., 21 of 210) inter-item correlations on the PLATSS-ID fell between the recommended $r = 0.3$ to 0.7 range (Kline, 1979). No inter-item correlations exceeded the 0.7 ceiling suggesting a low probability of repetitive content among any items. Overall, most inter-item correlations were considered weakly correlated falling below $r = 0.3$, which calls into question the relatedness of most scale items.

Although no single item on the PLATSS-ID was consistently negatively correlated with all other scale items, negative correlations between items were observed. Items that are negatively correlated with most other items call into question the accuracy of the item in accessing the construct (Crocker & Algina, 2008). In other words, a high number of negative correlations for one item may mean that item is not measuring the construct at all, or in a manner that is inconsistent with the way other items are measuring
the construct. Of all items, Item 1 was negatively correlated with the largest number of other scale items, specifically Items 3, 4, 8, 10, 11, 14, and 20. Also, Item 2 was found to be negatively correlated with four other scale items (i.e., Items 5, 9, 17, and 20). Item 3 was negatively correlated with Items 5, 10, and 16. Item 5 was negatively correlated with Item 12. Item 6 was negatively correlated with Items 4 and 11. Finally, Items 17 and 14 were observed to be negatively correlated. In summary, Table 3 shows that a relatively small percent of the total scale items (8.57%) were found to be negatively correlated.

Table 3

Inter-Item Correlations for the PLATSS-ID Scale (N = 111)

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<th>Item</th>
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<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
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<th>10</th>
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<td>.185</td>
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<td>.048</td>
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<td>.103</td>
<td>.105</td>
<td>.243</td>
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<td>.070</td>
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<td>.019</td>
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<td>.239*</td>
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</tbody>
</table>

**Item-total correlations.** Item-total correlations were conducted to examine how well individual items related to the rest of the scale. Extremely high correlation values indicate that other items already cover content presented by the individual item, and therefore, the individual item may not be needed while an extremely low correlation
value indicates that an item does not relate well to the rest of the scale as a whole (Croker & Algina, 2008). Although there is no specific cut-off, the general recommendation is that item-total correlation values are a minimum of 0.40 in order for an item to be considered related to the rest of the scale (Gliem & Gliem, 2003). Results indicated that only 25% of item-total correlations on the PLATSS-ID exceeded the suggested correlation value of 0.40. Such findings indicate that items on the PLATSS-ID may not be measuring the same construct.

**Reliability Coefficient**

Cronbach’s Alpha value was computed to examine the reliability of items on the scale. Analyses were also conducted to determine which items that would raise the Cronbach’s Alpha value if deleted (Table 4). Cronbach’s Alpha values range from 0 to 1, with a high, positive value indicating that all scale items address the same construct (Crocker & Algina, 2008). A total of 111 completed PLATSS-ID surveys were included in this analysis (Table 1). The internal consistency of items on the PLATSS-ID was high, with $\alpha = 0.777$, which exceeds the generally accepted .70 minimum (Cortina, 1993). Only one item on the scale was determined to increase Cronbach’s Alpha if removed. Specifically, removal of Item 1, which states, “A teacher implements a behavior plan for a student with ID who refuses to wear deodorant every day,” would raise Cronbach’s Alpha from 0.777 to 0.786. No other scale items were determined to raise Alpha if deleted from the scale.
Table 4

Item-Total Statistics for the PLATSS-ID Scale (N = 111)

<table>
<thead>
<tr>
<th>Item</th>
<th>Item Total Correlations</th>
<th>Cronbach’s Alpha if Deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.082</td>
<td>0.786</td>
</tr>
<tr>
<td>2</td>
<td>0.232</td>
<td>0.777</td>
</tr>
<tr>
<td>3</td>
<td>0.267</td>
<td>0.774</td>
</tr>
<tr>
<td>4</td>
<td>0.285</td>
<td>0.772</td>
</tr>
<tr>
<td>5</td>
<td>0.255</td>
<td>0.773</td>
</tr>
<tr>
<td>6</td>
<td>0.372</td>
<td>0.766</td>
</tr>
<tr>
<td>7</td>
<td>0.362</td>
<td>0.767</td>
</tr>
<tr>
<td>8</td>
<td>0.462</td>
<td>0.760</td>
</tr>
<tr>
<td>9</td>
<td>0.301</td>
<td>0.771</td>
</tr>
<tr>
<td>10</td>
<td>0.250</td>
<td>0.773</td>
</tr>
<tr>
<td>11</td>
<td>0.363</td>
<td>0.767</td>
</tr>
<tr>
<td>12</td>
<td>0.396</td>
<td>0.764</td>
</tr>
<tr>
<td>13</td>
<td>0.462</td>
<td>0.760</td>
</tr>
<tr>
<td>14</td>
<td>0.350</td>
<td>0.767</td>
</tr>
<tr>
<td>15</td>
<td>0.382</td>
<td>0.765</td>
</tr>
<tr>
<td>16</td>
<td>0.465</td>
<td>0.763</td>
</tr>
<tr>
<td>17</td>
<td>0.348</td>
<td>0.768</td>
</tr>
<tr>
<td>18</td>
<td>0.530</td>
<td>0.758</td>
</tr>
<tr>
<td>19</td>
<td>0.463</td>
<td>0.760</td>
</tr>
<tr>
<td>20</td>
<td>0.288</td>
<td>0.772</td>
</tr>
</tbody>
</table>

Construct Validity

Correlation analyses between scores on the PLATSS-ID and both the CLAS-MR Scale and the ATII-M were conducted to examine validity. Correlation analyses are appropriate when both dependent and independent variables on a scale are continuous (Hinkle et al., 2003) and a relationship exists between variables is being investigated (Rodgers & Nicewander, 1988). Correlation analyses not only provide information regarding the strength of relationship on a scale from -1.0 to +1.0, but also provide information regarding the direction of the relationship (Rodgers & Nicewander, 1988). A positive correlation means that both variables increase or decrease together while a
negative correlation means that one variable increases as the other decreases.

Pearson-Product Moment Correlations were conducted to examine the relationship between the PLATSS-ID and related measures (Table 5).

Table 5

*Pearson-Product Moment Correlations Between Measures*

<table>
<thead>
<tr>
<th>Measure</th>
<th>PLATSS-ID</th>
<th>ATII-M</th>
<th>CLAS-MR</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLAS-MR</td>
<td>-0.272</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PLATSS-ID</td>
<td></td>
<td>-0.181</td>
<td></td>
</tr>
<tr>
<td>ATII-M</td>
<td></td>
<td></td>
<td>0.418</td>
</tr>
</tbody>
</table>

Results including 98 participants, identified in Table 1, indicated a weak, negative correlation between scores on the PLATSS-ID and CLAS-MR Empowerment subscale, $r = -0.272, p = 0.007$. A weak, negative correlation was also observed for scores from 98 participants on the PLATSS-ID and ATII-M, $r = -0.181, p = 0.075$. There was a noted tendency for participants to answer conservatively on the PLATSS-ID, as the possible total scale range was 20-120 but the actual response range from all 111 participants was 40-100 (Figure 2). Most participants endorsed responses in the middle of the scale (e.g., $3 = \text{Slightly ethical}$ and $4 = \text{Slightly unethical}$), which accounts for the observed mean of 68.20 on the PLATSS-ID. A strong correlation between the PLATSS-ID and related scales is not possible when a lack of extreme responding at either end of the scale on the PLATSS-ID is observed, as shown in Figure 2.
In an interest to further examine the relationships among variables in the Nomological Network (Figure 1), a correlation between the CLAS-MR and the ATII-M was conducted. Results indicated a moderate, positive correlation, \( r = 0.418, p = 0.000 \) indicating a tendency for participants who endorsed items in favor of inclusion to also endorse items in favor of empowerment. However, similar to restricted response patterns observed on the PLATSS-ID, participants also demonstrated conservative responding on the CLAS-MR Empowerment subscale and the ATII-M. For example, an actual total scale score range of 16 to 64 out of a possible score range of 13 to 91 was observed on the CLAS-MR Empowerment subscale (Figure 3) and an actual total scale score range of 24 to 56 compared to a possible 20 to 80 was observed on the ATII-M (Figure 4).
Figure 3. Range of CLAS-MR Total Scale Scores

Figure 4. Range of ATT1-M Total Scale Scores
Without the endorsement of responses at the extreme ends of the scale, it is difficult for the strength of relationship between variables to be observed.

**Subscale reliability.** The three subscales on the PLATSS-ID were also investigated for reliability in order to compare to the internal consistency of the entire scale. Reliability results for all subscales are presented in Table 6. Results indicated that Cronbach’s Alpha for each subscale was not greater than Cronbach’s Alpha for the entire scale. The Independent Living subscale, which comprised a total of nine items, yielded a Cronbach’s Alpha value of 0.643. Cronbach’s Alpha was 0.488 for the Interpersonal subscale, which included a total of seven items and 0.423 for the Occupational subscale, which included a total of four items. Thus, all PLATSS-ID subscale Alpha values were lower than the total scale Alpha of 0.777. These findings are ideal because subscale Alpha values should be lower than total scale score in order for the total scale to be more cohesive than individual sections (Clark & Watson, 1995). Further, these findings suggest that the total scale should not be abandoned in lieu of three separate scales.

**Table 6**

*Reliability Coefficients for PLATSS-ID Subscales*

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Items</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent Living</td>
<td>1, 13,19, 8, 16, 6, 9, 14, 20</td>
<td>0.643</td>
</tr>
<tr>
<td>Interpersonal</td>
<td>10, 3, 18, 5, 4, 15, 12</td>
<td>0.488</td>
</tr>
<tr>
<td>Occupational</td>
<td>11, 2, 7, 17</td>
<td>0.423</td>
</tr>
</tbody>
</table>
Group Comparisons

The following results were observed for group comparisons.

**Hypothesis I.** Hypothesis I stated there is no mean difference in educators PLATSS-ID scores between groups with regard to status taking an ethics course. An independent samples t-test was conducted to determine if mean PLATSS-ID scores differed between participants who had previously taken, and those who had not previously taken, an ethics course (Table 7). Information obtained from the demographics section was used to collapse variables into two groups. Consequently, all participants reporting enrollment in an ethics course, special education related or not, were coded as having taken an ethics course versus those with no reported ethics training from any discipline.

**Table 7**

*Results of a t-Test Comparing Participation in an Ethics Course and PLATSS-ID Scores*

<table>
<thead>
<tr>
<th>Ethics Course</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>df</th>
<th>t</th>
<th>p</th>
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</thead>
<tbody>
<tr>
<td>Yes</td>
<td>56</td>
<td>65.76</td>
<td>9.65</td>
<td>109</td>
<td>-2.558</td>
<td>0.012</td>
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<td>No</td>
<td>55</td>
<td>70.69</td>
<td>10.60</td>
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</tbody>
</table>

To conduct an independent samples t-test, five assumptions must be met in order to observe valid results. First, the dependent variable must be considered interval or ratio level data (Hinkle et al., 2003). This assumption was met as scores on the PLATSS-ID are continuous variables that can be classified as interval data. Second, the independent
variable must be considered a categorical (i.e., nominal or ordinal) variable (Hinkle et al., 2003). This assumption was also met as the variable “Ethics Training” was divided into “Yes” and “No” dichotomous categories. The third assumption requires that there be independence among groups (Hinkle et al., 2003). This assumption was satisfied, as there was not overlap between groups. Assumption four requires that that data yield a normal distribution (Hinkle et al., 2003). Results of a Shapiro-Wilk test of normality, which is normally used for smaller data sets, indicated significance values greater than the 0.05 alpha value for both groups, including those who had ($p = .332$), and those who had not ($p = .203$), taken an ethics course. In other words, the assumption of normality was met. Lastly, assumption five states that homogeneity of variance must be observed in order to accurately interpret data from an independent samples t-test (Hinkle et al., 2003). A Levene’s Test of Equality of Error Variance revealed that the assumption of variance was not violated, statistically significant results were not observed, which is required because it indicates comparable variability between the groups. Specifically, the significance value of 0.489 was greater than the 0.05 alpha level, indicating that variances within groups are equal.

Results indicated a statistically significant difference in mean PLATSS-ID scores for participants who had previously taken an ethics course as compared to students who had never taken an ethics course, $t(109) = -2.558, p < 0.05$. A total of 111 participants were included in this analysis (Table1). Participants who reported never taking an ethics course ($n = 55$) yielded a higher average score on the PLATSS-ID ($M = 70.69$, $SD = 10.60$), than participants who had not taken an ethics class ($M = 68.76$, $SD = 9.65$) which
comprised a total of 56 participants. Interestingly, these findings mean that participants who had never taken an ethics course were actually more likely than participants who had taken an ethics course to view items on the PLATSS-ID as being a violation of transition-age students’ personal liberties.

**Hypothesis II.** Hypothesis II stated there is no mean difference in educators PLATSS-ID scores between participants majoring in general education versus special education. An independent samples *t*-test was conducted to determine if there was a mean difference in PLATSS-ID scores between groups (Table 8). All necessary parametric assumptions were met. Data were found to be normally distributed as results of a Shapiro-Wilk test revealed significance values greater than .05 for both general education (*p* = .067) and special education (*p* = .261) majors. Results of a Levene’s Test of Equality of Variances indicated a significance value of 0.834, which is greater than the 0.05 alpha level. An independent samples *t*-test showed no statistically significant difference in mean PLATSS-ID scores between participants majoring in special education and general education, *t*(92) = 0.813, *p* > 0.05. There were more than three times as many special education majors (*n* = 72) included in this analysis compared to general education majors (*n* = 22). Only 94 of the 111 participants who completed the PLATSS-ID were included in this particular analysis due to their reported major as “other” on the demographics sheet. General education majors demonstrated a slightly higher mean (*M* = 69, *SD* = 10.73) than special education majors (*M* = 66.9, *SD* = 10.27). However, this difference was not significant.
Table 8

Results of a t-Test Comparing Special Education and General Education Majors
PLATSS-ID Scores

<table>
<thead>
<tr>
<th>Major</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>df</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Education</td>
<td>22</td>
<td>69.0</td>
<td>10.73</td>
<td>92</td>
<td>0.813</td>
<td>0.419</td>
</tr>
<tr>
<td>Special Education</td>
<td>72</td>
<td>66.94</td>
<td>10.27</td>
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</table>

**Hypothesis III.** Hypothesis III stated there is no mean difference in educators PLATSS-ID scores between participants enrolled in the Behavior Intervention Specialist Certificate Program and those not enrolled in the certification program. An independent samples t-test was conducted to examine mean difference in PLATSS-ID scores between groups (Table 9). All assumptions required for this analysis were met. PLATSS-ID scores were interval data while enrollment in the certification program (e.g., “Yes” vs. “No”) were nominal and independent of one another. The assumption of normality was met as results of the Shapiro-Wilk test resulted in significance values greater than the 0.05 alpha level for participants enrolled \( p = .120 \) and those not enrolled \( p = .125 \) in the Behavior Intervention Specialist Certificate Program. The assumption of homogeneity was also met as results of a Levene’s Test for Equality of Variances was greater than 0.05, \( p = .199 \).

Results of an independent samples t-test showed no statistically significant difference in mean PLATSS-ID scores for participants who were enrolled \( M = 66.16, SD = 6.95 \) and those not enrolled \( M = 68.45, SD = 10.73 \) in the Behavior Intervention
Specialist Certificate Program, \( t(109) = -0.719, p > 0.05 \). A total of 111 participants were included in this analysis. However, a considerable difference in total number of participants per group was noted. Only 12 participants comprised the “Enrolled” group compared to a markedly larger total of 99 participants in the “Not enrolled” group.

Table 9

*Results of a t-Test Comparing Enrollment in Behavior Intervention Specialist Certificate Program and PLATSS-ID Scores*

<table>
<thead>
<tr>
<th>Enrollment</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>df</th>
<th>( t )</th>
<th>( p )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>12</td>
<td>66.16</td>
<td>6.95</td>
<td>109</td>
<td>-0.719</td>
<td>0.474</td>
</tr>
<tr>
<td>No</td>
<td>99</td>
<td>68.45</td>
<td>10.73</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Hypothesis IV.** Hypothesis IV stated there is no mean difference in PLATSS-ID scores between groups with regard to familiarity with professional membership guidelines. A non-parametric test was needed in order to examine mean difference in PLATSS-ID scores between Professional Organization Member groups which were divided into the following; members that were familiar with their ethical guidelines, members that were not familiar with their ethical guidelines, and those that were never a member of any professional organization (Table 10). Although a One-Way Analysis of Variance (ANOVA) would typically be used to examine this hypothesis, not all necessary parametric assumptions were met. Concerning assumptions that were met, PLATSS-ID scores were appropriately classified as interval data, while Professional Organization Member categories were appropriately classified as nominal data and comprised more
than three subgroups. Further, Professional Organization Membership was considered to be independent categories. A Levene’s Test of Equality of Error Variances was non-significant ($p = .407$), indicating that the assumption of homogeneity was met. However, the data were not observed to be normally distributed as results of the Shapiro-Wilk test indicated a significance value of 0.005, which is less than the .05 alpha level. When the assumption of normality is violated, a non-parametric test can more appropriately be used (Hinkle et al., 2003).

Table 10

*Kruskal-Wallis Test Results Comparing Familiarity With Ethical Guidelines of a Professional Organization and PLATSS-ID Scores*

<table>
<thead>
<tr>
<th>Membership</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>df</th>
<th>$H$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>31</td>
<td>67.87</td>
<td>10.46</td>
<td>2</td>
<td>3.983</td>
<td>0.136</td>
</tr>
<tr>
<td>No</td>
<td>19</td>
<td>63.94</td>
<td>12.32</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Never a Member</td>
<td>61</td>
<td>69.70</td>
<td>9.46</td>
<td></td>
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</tr>
</tbody>
</table>

A Kruskal-Wallis (H test) is an alternative, non-parametric test for One-Way ANOVA used when more than two independent groups are being examined for mean differences on an interval or ratio level dependent variable (Chan & Walmsley, 1997). Unlike an ANOVA, the Kruskal-Wallis test does not require the normal distribution assumption to be met (Chan & Walmsley, 1997). Whereas an ANOVA is designed to examine mean difference between specific groups thought to be representative, a Kruskal-Wallis is designed to make a general statement about groups because a
distribution that is not normal cannot assume anything specific about the population being represented. To summarize, the Kruskal-Wallis test makes fewer assumptions about the populations in each group than the ANOVA (Chan & Walmsley, 1997).

Concerning Hypothesis IV, results of a Kruskal-Wallis indicated no statistically significant difference in PLATSS-ID scores among the Professional Organization membership groups, $H (2) = 3.983, p > 0.05$. A total of 111 participants (Table 1) were included in this analysis, with the majority reporting they had never belonged to a professional organization but demonstrating the highest average PLATSS-ID score of all groups ($M = 69.70, SD = 9.46$). The second highest mean was observed by the group of 31 individuals who reported they were familiar with ethical guidelines of the professional membership organization to which they belonged ($M = 67.87, SD = 10.46$). Finally, the lowest mean PLATSS-ID score was observed for those who were reportedly not familiar with their professional membership organizations ethical guidelines ($n = 19, M = 63.94, SD = 9.46$). However, these differences were not significant.
CHAPTER IV
DISCUSSION

Summary of Study Purpose

The purpose of this study was to examine the reliability and validity of items on a scale intended to measure educators’ attitudes toward the provision of personal liberties to transition-age students with ID. Further, this study was intended to examine existing group differences in attitudes toward providing personal liberties with respect to four variables. Specifically, differences in average scores on the developed scale were examined in relation to participation in an ethics course (i.e., Yes vs. No), major in college (i.e., Special education vs. General education), enrollment in the Behavior Intervention Specialist Certificate Program (i.e., Yes vs. No), and familiarity with a Professional Organization’s ethical guidelines (i.e., Yes, No, or Never a member).

Summary of Findings

The psychometric concepts of reliability and validity as they relate to scale interpretation are merely measures of the extent to which items on a scale measure the intended construct in a manner that is consistent across respondents. These concepts measure a degree of accuracy. Results of psychometric analyses should be interpreted along a continuum of support for the usefulness of a scale as no scale can be “proven” to be completely reliable or valid (Cook & Beckman, 2006). Results of this study offered support for the reliability of items on the PLATSS-ID, but not necessarily support for the validity of scale items. In other words, it is difficult to determine if the PLATSS-ID is actually measuring attitude toward providing students with ID personal liberties as a
result of the scenarios depicted for each item on the scale. Although further investigation into the validity of scale items is needed in the future, findings for group comparison analyses can still be interpreted, with noted consideration for the need to bolster support for construct validity.

**Psychometric Properties of PLATSS-ID Items**

Findings offer support for the internal consistency of items on the PLATSS-ID as Cronbach’s Alpha ($\alpha = 0.777$), which measures the interrelatedness of a set of items (Schmitt, 1996) was above the typically utilized 0.70 acceptability level. However, it is important to note that Alpha values can increase as a result of various factors, such as the amount of items on a scale or strength of inter-item correlations. Accordingly, a scale can yield a Cronbach’s Alpha value greater than 0.70, even with only modest inter-item correlations, if the total number of items on the scale exceeds 14 and the scale is actually measuring two or more independent constructs (Streiner, 2003). In relation to findings on the PLATSS-ID, multiple independent constructs may be present because the Life Centered Education (LCE) curriculum from which items were developed covers a broad range of material. Items on the PLATSS-ID included items categorized by three different LCE sub-domain areas (i.e., Independent Living, Occupational, and Interpersonal), which are further divided into 20 different Curriculum Areas.

The wide range of content used as the basis for LCE items may explain the low inter-item correlation values (i.e., $r \leq 0.415$) that were observed in a mixture of positive and negative directions. Low, mixed correlation values between individual items usually indicate that items do not scale well together because they are not measuring the same
construct. As seen in Table 1, most negative correlations are observed between items representative of different LCE curriculum areas. For example, Item 1, which reflects the curriculum area Personal Needs, was found to be negatively correlated with Item 3, which reflects Self-Awareness content. The inclusion of 20 different Curriculum Areas in order to comprehensively address the LCE curriculum may have resulted in an overall scale with items that are weakly related. This may also explain the moderate to low item-total correlations observed at, or below, $r = 0.530$.

The ability to examine the construct validity of items on the PLATSS-ID was hindered by the conservative response pattern endorsed by the majority of participants. The full range of responses (i.e., 1–6) was only observed on 75% of items. In most cases, participants endorsed response options in the middle of the scale (i.e., 3 = *Slightly ethical* and 4 = *Slightly unethical*) rather than at extreme ends of the scale (i.e., 1 = *Very ethical* and 6 = *Very unethical*), which is evidenced by 80% of item means ranging between 3.07 and 4.73. In fact, the full range of possible total scale scores was not observed for any measure administered making it difficult for strong correlations to be observed between the PLATSS-ID and other measures in the Nomological Network (Figure 1). Weak correlation values may mean that the chosen additional measures, the ATII-M and the CLAS-MR Empowerment subscale, are not actually measuring the same construct as the PLATSS-ID, as hypothesized in the Nomological Network. Further, the ATII-M was hypothesized by the researcher to function as an observable measure of equality and the CLAS-MR Empowerment subscale was hypothesized to function as an observable measure of quality of life in the Nomological Network. However, an additional
examination as to whether these scales are actually measuring the associated constructs may be needed in the future to determine if the they are the most appropriate tools to use as a validity check for items on the PLATSS-ID.

Table 11

*Negative Inter-item Correlations by LCCE Subscale and Curriculum Area for the PLATSS-ID (N = 111)*

<table>
<thead>
<tr>
<th>Item</th>
<th>Subscale</th>
<th>Curriculum Area</th>
<th>Item</th>
<th>Subscale</th>
<th>Curriculum Area</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Independent Living</td>
<td>Personal Needs</td>
<td>3</td>
<td>Interpersonal</td>
<td>Self-Awareness</td>
<td>-0.08</td>
</tr>
<tr>
<td>1</td>
<td>Independent Living</td>
<td>Personal Needs</td>
<td>4</td>
<td>Interpersonal</td>
<td>Decision-Making</td>
<td>-0.15</td>
</tr>
<tr>
<td>1</td>
<td>Independent Living</td>
<td>Personal Needs</td>
<td>8</td>
<td>Independent Living</td>
<td>Personal Finances</td>
<td>-0.11</td>
</tr>
<tr>
<td>1</td>
<td>Independent Living</td>
<td>Personal Needs</td>
<td>10</td>
<td>Interpersonal</td>
<td>Self-Determination</td>
<td>-0.07</td>
</tr>
<tr>
<td>1</td>
<td>Independent Living</td>
<td>Personal Needs</td>
<td>11</td>
<td>Occupational</td>
<td>Seek, Secure, Maintain Employment Citizenship</td>
<td>-0.04</td>
</tr>
<tr>
<td>1</td>
<td>Independent Living</td>
<td>Personal Needs</td>
<td>14</td>
<td>Independent Living</td>
<td>Employment</td>
<td>-0.01</td>
</tr>
<tr>
<td>1</td>
<td>Independent Living</td>
<td>Personal Needs</td>
<td>20</td>
<td>Independent Living</td>
<td>Transportation</td>
<td>-0.01</td>
</tr>
<tr>
<td>2</td>
<td>Occupational</td>
<td>Employment Skills</td>
<td>5</td>
<td>Interpersonal</td>
<td>Communication</td>
<td>-0.06</td>
</tr>
<tr>
<td>2</td>
<td>Occupational</td>
<td>Employment Skills</td>
<td>9</td>
<td>Independent Living</td>
<td>Buying and Caring for Clothing</td>
<td>-0.02</td>
</tr>
<tr>
<td>2</td>
<td>Occupational</td>
<td>Employment Skills</td>
<td>17</td>
<td>Independent Living</td>
<td>Explore/ Know Employment Possibilities</td>
<td>-0.08</td>
</tr>
<tr>
<td>2</td>
<td>Occupational</td>
<td>Employment Skills</td>
<td>20</td>
<td>Independent Living</td>
<td>Transportation</td>
<td>-0.04</td>
</tr>
<tr>
<td>3</td>
<td>Interpersonal</td>
<td>Self-Awareness</td>
<td>5</td>
<td>Interpersonal</td>
<td>Communication</td>
<td>-0.11</td>
</tr>
<tr>
<td>3</td>
<td>Interpersonal</td>
<td>Self-Awareness</td>
<td>10</td>
<td>Interpersonal</td>
<td>Self-Determination</td>
<td>-0.00</td>
</tr>
<tr>
<td>3</td>
<td>Interpersonal</td>
<td>Self-Awareness</td>
<td>16</td>
<td>Independent Living</td>
<td>Relationships</td>
<td>-0.02</td>
</tr>
<tr>
<td>6</td>
<td>Independent Living</td>
<td>Recreation and Leisure</td>
<td>4</td>
<td>Interpersonal</td>
<td>Decision-Making</td>
<td>-0.01</td>
</tr>
<tr>
<td>6</td>
<td>Independent Living</td>
<td>Recreation and Leisure</td>
<td>11</td>
<td>Occupational</td>
<td>Seek, Secure, Maintain Employment</td>
<td>-0.05</td>
</tr>
</tbody>
</table>
Negative correlations observed between the PLATSS-ID and related measures (i.e., ATII-M and CLAS-MR Empowerment Subscale) may also be explained by a difference in the hypothesized relationship between constructs in the Nomological Network. According to validity analyses conducted for this project, an increase (or decrease) in scores on the PLATSS-ID was associated with a consequent decrease (or increase) in scores on the related measures. Although the observed relationship was weak in both cases, the direction of the relationship suggests that participants may view the provision of personal liberties as competing with the promotion of equality and life, rather than in support. This is a theoretical relationship that needs to be explored further in future research.

**Modifications of PLATSS-ID Items**

Before removing any item from the scale, a comprehensive review of item-descriptives, inter-item correlations, item-total correlations, and the influence on Cronbach’s Alpha if removed was considered. The only item identified for removal on the PLATSS-ID was Item 1, which stated, “A teacher implements a behavior intervention plan for a student with ID who repeatedly refuses to wear deodorant every day.” Despite having comparable mean, and minimum and maximum values, to other items on the scale, Item 1 was selected for removal because it was observed to be negatively correlated with seven other items on the PLATSS-ID. Additionally, it was determined that Cronbach’s Alpha would be raised from 0.777 to 0.786 if Item 1 were removed. As a result of findings, it is currently recommended that Item 1 be removed from the scale in the future as the PLATSS-ID continues to be developed and refined.
Group Comparisons

Results indicated that individuals with prior experience enrolled in an ethics course, compared to those without, displayed significantly higher PLATSS-ID scores (Hypothesis I). Interestingly, this means that participants who previously took an ethics course were more likely to view the items on the scale as not being a violation of students’ personal liberties. Conversely, students with no formal ethical training were more likely to view scale items as a violation of personal liberties. Although the reason for this finding is uncertain, the following suggestions are offered. First, the scenarios depicted in items on the PLATSS-ID are presented in an educational context. Participants who took an ethics course prior to this study may have been provided ethical training that supports a philosophy that violation of personal liberties is ethical if it promotes opportunities to learn new skills that will later enable more access to choice and freedom (Bannerman et al., 1990). Secondly, participants who took an ethics course may have felt more comfortable endorsing more socially unacceptable views while responding on the PLATSS-ID because their educational training may have made them feel more confident in making ethical decisions. In future research, inquiries regarding the type of ethical training participants received, and the extent to which they felt this training was useful, would help clarify this finding.

No other group comparisons addressed in Hypotheses II, III, or IV yielded statistically significant results. As measured by scores on the PLATSS-ID, no difference with respect to providing personal liberties to transition-age students was observed with respect to major (i.e., general vs. special education), enrollment in a Behavior
Intervention Specialist Certificate Program, or familiarity with a professional membership organization’s ethical guidelines. Several explanations, including sample selection, scale design, and socially desirable responding are offered regarding these findings.

**Sample Selection**

A convenience sample gathered from an Institution of Higher Education (IHE), rather than a random sample, was utilized in this study, which may have influenced the ability to acquire a truly diverse population for group comparisons. As can be seen in the Table 1, participants were very similar with regard to demographic characteristics. For example, the majority of participants had little to no teaching experience according to data collected in the demographics section which means participants in all group comparisons would likely have had only didactic material in courses as their framework for making ethical judgments on the PLATSS-ID. Restricted, hands-on educator experiences for all participants may have resulted in groups being too similar to truly examine group differences. Similarly, participants who had experience taking an ethics course, belonged to a professional membership or had familiarity with the Ethical Code for Behavior Analysts may not have had many more opportunities requiring the need to apply an ethical code of conduct than those in the comparison groups. Administration of the PLATSS-ID with samples possessing more salient differences, such as restricting inclusion criteria to only educators with a set number of years’ experience in the field, may allow for better group comparisons.
Scale Design

A lack of observed group difference may be attributable to the design of the scale itself. Individual scale items depict ethical scenarios, which require a respondent to endorse the extent to which they think a student’s personal liberties were violated. Very little information regarding the hypothetical student’s abilities or other contextual factors are presented. The instructions simply state, “The following questions refer to transition-age students, defined as 14 to 22 years of age.” Without knowing more details about the hypothetical student, participants may have answered more conservatively, feeling as though they did not have enough information to confidently endorse an extreme response option. This would explain the majority of response patterns that cluster around middle of the scale (i.e., Slightly ethical and Slightly unethical) rather than the ends of the scale (i.e., Very ethical and Very unethical). Perhaps more detailed information about the hypothetical student would be useful on a scale like the PLATSS-ID and allow for any existing group differences to be demonstrated.

Socially Desirable Responding

The observed tendency for endorsement of items toward the middle of the scale may reflect reluctance from participants to disclose what may be socially unacceptable views, either in favor or against the provision of liberties, to an extreme extent. The distribution of PLATSS-ID scores around the mean may reflect reluctance from participants to respond in ways that are deemed socially inappropriate. For example, participants may have felt uncomfortable endorsing a response option of Very ethical for scale items if they felt doing so was not socially acceptable. Instead, they may have
opted for more modest responses in the middle of the scale (i.e., *Slightly unethical* or *Slightly ethical*). During future administrations of the PLATSS-ID, an inclusion of a scale to examine the extent to which participants are answering is socially desirable ways may help determine if results are attributable to a lack of observed group differences rather than hesitancy from respondents to endorse more extreme, and thus more socially inappropriate, responses options.

**Study Limitations and Recommendations**

As noted, there are several limitations associated with the current study. First, results of the psychometric analyses conducted for this study call into question the extent to which the PLATSS-ID is truly measuring the intended construct of the provision of personal liberties to transition-age students. Although adequate reliability of scale items was observed, the question of construct validity indicates that group comparison results should be interpreted with caution. As the PLATSS-ID continues to be refined in the future, it is recommended that further investigation into the appropriateness of the related measures (i.e., ATII-M and CLAS-MR Empowerment Subscale) used in this study as a comparison for construct validity be examined.

Additionally, it is recommended that a better selection process for selecting items be utilized in order to create a more cohesive scale. Rather than assembling items from 20 different sub-domains to complete a comprehensive scale for the entire LCE curriculum, concentration on items from only one subdomain may result in a more concentrated scale with better psychometric properties supporting its usefulness.
Secondly, there are noted limitations that should always be considered when using a non-random convenience sample. In relation to the current study, non-random sampling procedures may have resulted in groups that were too homogenous to compare for group differences. In future research it is recommended that a random sampling procedure be utilized. Additionally, clearer inclusion and exclusion criteria for participation in the study should be developed in order to allow for better group comparisons. A more diverse group may allow for more extreme response patterns, which enable better examination of the psychometric properties such as validity analysis, inter-item correlations, and item-total correlations.

Thirdly, the exclusion of incomplete surveys in the final statistical analyses may have resulted in a group of remaining participants with more similar characteristics with regard to a dedication to their field or a motivation to please. Such participants, for example, may be less likely to endorse extreme response patterns than participants with less regard for their discipline or less sensitivity to academic customs. Consequently, the participants that were included in the final analyses for this project may have been more inclined to answer in a socially appropriate manner than those whose scores were ultimately excluded. Participation in this research was completely voluntary, which may have enabled those who were less concerned with following social norms to drop from the study, which means their scores were not included in the final analyses. In the future, it is recommended that a scale measuring socially desirable responding be included.
Conclusions

The need for examining the ethical decision-making of educators is a timely matter that has been widely neglected by the discipline. Ethical decision-making is required on a daily basis, making it important for an investigation into the process to be examined. Although it is necessary that educators apply good ethical decision-making with all students, it is particularly important in relation to students with disabilities, who are oftentimes unable to advocate for themselves when liberties are violated. Most curriculums, such as the LCE, for transition-age students who are getting ready to enter the adult world focus on skill-building to promote independence and autonomy. It is, therefore, important to examine if educator attitudes toward providing personal liberties are consistent with the ideas rooted in the curriculum.

This study was designed to develop a tool that could be used to measure the current attitudes of educators toward providing personal liberties to transition-age students with ID. Results of this project offered support for the PLATSS-ID as a reliable tool for measuring this construct. However, further examination is needed to help refine the scale and offer support for the validity of scale items. It is important that this construct continue to be examined, and therefore, continued development of the PLATSS-ID is needed. Additionally, group differences between educators who have taken ethics courses, and those who have not, was observed in this study warranting further investigation into what differences ethical training produces in educators. The issue of ethical thinking in education is not only an important contemporary topic, but
will continue to be for all service provider fields in years ahead. It is important that the
discipline continue to research and examine this topic continually over time.
APPENDICES
APPENDIX A

SURVEY DEMOGRAPHICS PAGE
Appendix A

Survey Demographics Page

Please answer the following questions about yourself by placing a check mark (√) in the corresponding box below.

Sex:

_________ Female
_________ Male
_________ I prefer not to answer this question

Age:

_________ 18-30
_________ 31-40
_________ 41-50
_________ 51-60
_________ 61-70
_________ 71 or above
_________ I prefer not to answer this question

Ethnicity:

_________ Asian
_________ Black/African American
_________ Hispanic
_________ Indian
_________ Indonesian
_________ White/Caucasian
_________ Other
_________ I prefer not to answer this question

What type of work are you currently completing?

_________ Undergraduate
_________ Graduate
_________ Certification
_________ Audit/Non-degree
What is your major?
________ General Education
________ Special Education
________ Other

*Note: Intellectual disability (ID) is formerly known as mental retardation, and will be considered the same for the purposes of this scale.

Do you have any personal experience interacting with an individual with an intellectual disability either currently or in the past (i.e., mental retardation)?
________ Yes
________ No

Are you currently or have you previously been enrolled in the Behavior Intervention Specialist Certificate Program?
________ Yes
________ No

Have you taken an ethics class specifically related to Education, Special Education or Behavior Intervention either currently or in the past?
________ Yes
________ No

Have you taken an ethics classes in any other discipline not related to Education, Special Education or Behavior Intervention either currently or in the past?
________ Yes
________ No

If you belong to a professional membership organization related to teaching (or have in the past), are you familiar with the organization’s ethical guidelines?
________ Yes
________ No
________ I am not/have never been a member of a professional membership organization.
How many years have you been employed as a teacher?

[ ] 1 month – 5 years
[ ] 6 years to 10 years
[ ] 11 years to 15 years
[ ] 16 years and above
[ ] I am not/have never been employed as a teacher.
APPENDIX B

PERSONAL LIBERTIES AND TRANSITION STUDENTS SCALE-
INTELLECTUAL DISABILITY (PLATSS-ID)
Appendix B

Personal Liberties and Transition Students Scale-Intellectual Disability

(PLATSS-ID)

Instructions: After reading each item, place an x in the corresponding box indicating the extent to which you think the TEACHERS’ behavior was ethical.

*Note: Intellectual disability (ID) is formerly known as mental retardation, and will be considered the same for the purposes of this scale.

<table>
<thead>
<tr>
<th>Item</th>
<th>Very Ethical</th>
<th>Ethical</th>
<th>Slightly Ethical</th>
<th>Slightly Unethical</th>
<th>Unethical</th>
<th>Very Unethical</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. A teacher implements a behavior intervention plan for a student with ID who refuses to wear deodorant every day.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. A teacher acting as a job coach refuses to allow a student with ID to call off of work one day when they simply don’t feel like going in.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. A teacher insists that a student with ID make flashcards for studying rather than just looking at PowerPoint slides before a test.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. When a student with ID decides to abandon a short-term goal they set for themself, the teacher insists that the student finish what they set out to do.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. A teacher prompts a student with ID to praise the winners of a class contest after noticing that the student did not approach the winning peers after the event to say congratulations.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. During recess, a teacher redirects a student with ID who likes to copy down words from an old, outdated dictionary to choose a more functional activity.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Description</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>-----------------------------------------------------------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>A teacher persuades a student with ID who wants to be an actor into learning skills for a more common career, like secretarial work.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>At the store, a teacher dissuades a student with ID from spending all of the extra money from their paycheck on unnecessary items like baseball cards and bubble gum.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>A teacher refuses to allow a student with ID who likes to wear two different, mix-matched shoes to come into class until they have changed into a matching pair.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>After watching a student struggle to use the vending machine correctly, a teacher provides verbal directions, even though the student insisted they didn’t want help.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>A teacher, acting as a job coach, insists that a student with ID attend extra meetings at work in order to advance in their job despite the student saying they want to remain in their current position.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>A teacher, acting as a job coach, insists that a student with ID who is shy about disclosing personal information tell their boss about their disability in order to receive accommodations in the work place.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>A teacher who regularly makes home visits to a student with ID’s residential facility insists that the student keep their room neat and tidy.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>A teacher prompts a student with ID who only watches one news source to begin watching multiple news sources after the student announces they will be voting in the next election.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
15. A teacher, who regularly makes home visits to a student with ID’s residential facility, insists that they stop swearing in the evenings during sports events.

16. At a school sponsored social event, a teacher prompts a student with ID who prefers to keep to themselves to begin interacting with peers.

17. A teacher persuades a student with ID to apply for a job at a local retail store because the school has had success gaining student’s employment there in the past even though the student regularly says they would love to work with animals.

18. A teacher that accompanies a student to a job site insists that a student with ID raise their hand more often during staff meetings to answer the boss’s questions.

19. A teacher intervenes in the lunch line when a student with ID purchases a candy bar, French fries, and a donut for lunch, by telling the student to choose something better to eat.

20. A teacher writes a behavior intervention plan for a student with ID who insists on walking 3 miles to work each day even though a bus runs a block from their house to his job site.
APPENDIX C

SUBSCALE ITEMS AND LIFE CENTERED EDUCATION (LCE)

CURRICULUM AREAS
Appendix C
Subscale Items and Life Centered Education (LCE) Curriculum Areas

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Item</th>
<th>LCE Curriculum Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent Living</td>
<td>1. A teacher implements a behavior intervention plan for a student with ID who refuses to wear deodorant every day.</td>
<td>Personal Needs</td>
</tr>
<tr>
<td></td>
<td>13. A teacher who regularly makes home visits to a student with ID’s residential facility insists that the student keep their room neat and tidy.</td>
<td>Managing Households</td>
</tr>
<tr>
<td></td>
<td>19. A teacher intervenes in the lunch line when a student with ID purchases a candy bar, French fries, and a donut for lunch, by telling the student to choose something better to eat.</td>
<td>Buy, Prepare, and Consume Food</td>
</tr>
<tr>
<td></td>
<td>8. At the store, a teacher dissuades a student with ID from spending all of the extra money from their paycheck on unnecessary items like baseball cards and bubble gum.</td>
<td>Personal Finances</td>
</tr>
<tr>
<td></td>
<td>16. At a school sponsored social event, a teacher prompts a student with ID who prefers to keep to themself to begin interacting with peers.</td>
<td>Relationships</td>
</tr>
<tr>
<td></td>
<td>6. During recess, a teacher redirects a student with ID who likes to copy down words from an old, outdated dictionary to choose a more functional activity.</td>
<td>Recreation and Leisure</td>
</tr>
<tr>
<td></td>
<td>9. A teacher refuses to allow a student with ID who likes to wear two different, mix-matched shoes to come into class until they have changed into a matching pair.</td>
<td>Buying and Caring for Clothing</td>
</tr>
<tr>
<td></td>
<td>14. A teacher prompts a student with ID who only watches one news source to begin watching multiple news sources after the student announces they will be voting in the next election.</td>
<td>Citizenship</td>
</tr>
<tr>
<td></td>
<td>20. A teacher writes a behavior intervention plan for a student with ID who insists on walking 3 miles to work each day even though a bus runs a block from their house to his job sight.</td>
<td>Transportation</td>
</tr>
<tr>
<td>Interpersonal</td>
<td>10. After watching a student struggle to use the vending machine correctly, a teacher provides verbal directions, even though the student insisted they didn’t want help.</td>
<td>Self-Determination</td>
</tr>
<tr>
<td></td>
<td>3. A teacher insists that a student with ID make flashcards for studying a rather than just looking at PowerPoint slides before a test.</td>
<td>Self-Awareness</td>
</tr>
<tr>
<td></td>
<td>18. A teacher prompts a student with ID to praise the winners of a class contest after noticing that the student did not approach the winning peers after the event to say congratulations.</td>
<td>Interpersonal Skills</td>
</tr>
<tr>
<td></td>
<td>5. A teacher that accompanies a student to a job site insists that a student with ID raise their hand more often during staff meetings to answer the boss’s questions.</td>
<td>Communication</td>
</tr>
</tbody>
</table>
4. When a student with ID decides to abandon a short-term goal they set for themself, the teacher insists that the student finish what they set out to do. | Decision-Making

15. A teacher who regularly makes home visits to a student with ID’s residential facility insists that they stop swearing in the evenings during sports events. | Social Awareness

12. A teacher, acting as a job coach, insists that a student with ID who is shy about disclosing personal information tell his/her boss about their disability in order to receive accommodations in the work place. | Disability and Rights

| Occupational | 11. A teacher, acting as a job coach, insists that a student with ID attend extra meetings at work in order to advance in their job despite the student saying they want to remain in their current position. | Seeking, Securing, and Maintaining Employment

| | 2. A teacher acting as a job coach refuses to allow a student with ID to call off of work one day when they simply doesn’t feel like going in. | Appropriate Employment Skills

| | 7. A teacher persuades a student with ID who wants to be an actor into learning skills for a more common career, like secretarial work. | Employment Choices

| | 17. A teacher persuades a student with ID to apply for a job at a local retail store because the school has had success gaining student’s employment there in the past even though the student regularly says they would love to work with animals. | Exploring and Knowing Employment Possibilities
APPENDIX D

THE COMMUNITY LIVING ATTITUDE SCALE – MENTAL RETARDATION

(CLAS-MR)
Appendix D

The Community Living Attitude Scale – Mental Retardation (CLAS-MR)

<table>
<thead>
<tr>
<th>Items</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. People with ID should not be allowed to marry and have children.</td>
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<tr>
<td>2. A person would be foolish to marry a person with ID.</td>
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<td>3. People with ID should not hold public office.</td>
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<td>4. People with ID should not be allowed to drive.</td>
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<tr>
<td>5. I would trust a person with ID to be a babysitter for one of my children.</td>
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<td>6. People with ID should be encouraged to lobby legislators on their own.</td>
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<td>7. People with ID are the best people to give advice and counsel to others who wish to move into community living.</td>
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<td>8. The opinion of a person with ID should carry more weight than those of the family members and professionals in the decisions affecting that person.</td>
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</tbody>
</table>
9. People with ID can plan meetings and conferences without assistance from others.

10. People with ID can be trusted to handle money responsibly.

11. The rights of people with ID are more important than professional concerns about their problems.

12. Agencies that serve people with ID should have them on their boards.

13. Professionals should not make decisions for people with ID unless absolutely necessary.
APPENDIX E

ATTITUDE TOWARD INCLUSION INSTRUMENT – MODIFIED
Appendix E

Attitude Toward Inclusion Instrument – Modified

<table>
<thead>
<tr>
<th>Item</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Inclusion is generally a desirable practice.</td>
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<tr>
<td>2. Students with disabilities should have the right to be in general classrooms.</td>
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<tr>
<td>3. Given the current structure of the classroom, it is feasible to teach students with disabilities, students who are gifted, and students without disabilities in the same class with minor changes within the classroom.</td>
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<tr>
<td>4. Support personnel such as special education teachers, speech-language pathologists, and para-educators should take their services into a general classroom.</td>
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<td>5. Many of the activities teachers do with students without disabilities are also appropriate for students with disabilities.</td>
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<td>6. The needs of students with disabilities can best be served through special classes.</td>
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<td>7. The opportunity of being in a general education classroom will promote the academic growth of the student with a disability.</td>
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<td>8. The extra attention students with disabilities require will be to the detriment of the other students.</td>
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<td>9. Inclusion offers mixed group interaction, which will foster understanding and acceptance of the differences in individuals.</td>
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<td>10. Classroom teachers possess the expertise to work with children with disabilities.</td>
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<td>11. Isolation in a special class has a negative effect on the social and emotional development of students with disabilities.</td>
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<td>12. Most students with a disability do not make an adequate attempt to complete their tasks.</td>
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<td>13. Inclusion of students with disabilities will require significant changes in regular classroom procedures.</td>
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<td>14. The contact students without disabilities have with students with disabilities may be harmful.</td>
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<td>15. Students with disabilities will likely monopolize the teacher’s time.</td>
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<td>16. Inclusion of students with disabilities will promote their social independence.</td>
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<tr>
<td>17. Parents of students with disabilities will present more challenges for a teacher than those of children without disabilities.</td>
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<td>18. Students with disabilities should be given every opportunity to function in the general education setting.</td>
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<tr>
<td>19. The inclusion of students with disabilities can be beneficial for students in the general education setting.</td>
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<tr>
<td>20. Students with disabilities will probably develop academic skills more rapidly in a special education classroom.</td>
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</tbody>
</table>
REFERENCES
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Johnson, D. R., & Sharpe, M. N. (2000). Analysis of Local Education Agency Efforts to implement the transition services requirements of IDEA 1990. In D. R. Johnson & E. J. Emanuel (Eds.), *Issues influencing the future of transition programs and*
services in the United States (pp. 31-48). Minneapolis, MN: University of Minnesota.


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