A Descriptive Phenomenological Investigation of the
Academic Information Search Process Experience of Remedial Undergraduate Students

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Doctor of Philosophy

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Chapter I

Introduction

This dissertation explains and describes the qualitative study examining the academic information search process experience of six undergraduate students enrolled in a remedial English course as they completed an assigned research paper for the course. The study was conducted during spring, 2014, at a regional campus of a four-year, state university in Ohio (hereinafter referred to as MidState University), and study findings informed this researcher’s creation of a thematic representation of study findings model of the participants’ experience. Additionally, based on the study’s findings, this researcher puts forth recommendations for library and information science and remedial education professionals and for targeted information literacy instruction for undergraduate students similar to study participants in Chapter 5 of this dissertation.

This researcher used descriptive phenomenological research methods to uncover and report the universal essence of the academic information search process experience for participants in the study described throughout this dissertation. Rather than referring to the entire population of remedial undergraduate students, ‘universal essence’ within the context of this dissertation refers to the commonalities of the experience for study participants only (please see the “Definition of terms” table later in this chapter for further explanation). Because there is minimal published research regarding this process for remedial undergraduate students specifically in the library and information science literature, this researcher’s study contributes its findings to this research gap, as the findings have broader implications for future library and information science research with remedial undergraduate students. Additionally, as shall be explored in Chapter 5, this study’s findings also have implications for targeted information
literacy instruction which may aid this academically at-risk population’s continued persistence in higher education.

Previous library and information science research indicates that a person’s understanding and possession of information literacy skills (the ability to “recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information” [ALA, 2000]) is innately linked to their ability to create and follow through with a balanced and appropriate academic information search process (Boon, Johnston, & Webber, 2007). Additionally, as Salisbury and Karasmanis (2011) assert, this process is “intertwined” (p. 43) with learning in general. Therefore, this researcher engaged in the study described within this dissertation on the premise that examining the academic information search process (hereinafter referred to as ‘AISP’ for purposes of brevity) experience for undergraduate students enrolled in a remedial English course would allow her to create a thematic representation of study findings model of the participants’ experience.

Consequently, this model of the participants’ experience builds a foundation for future research into the broader information behaviors and experiences of undergraduate students enrolled in remedial coursework (also referred to in the literature as ‘developmental coursework’—Brothen & Wambach, 2004; Buglear, 2009; Di Tommaso, 2012; Fields & Holland, 1998; Mulvey, 2009; Parker, 2012). This researcher would like to note at this juncture that the terms ‘remedial’ and ‘developmental’ are often used interchangeably in the literature on the topic, and when the term ‘developmental’ is included within this dissertation, it is done so based on the term used by the author or authors of the specific research being cited. A specific definition of a remedial undergraduate student is included in the “Definition of terms” table presented later in this chapter.
Based on the universal essence of the experience of study participants featured in the findings-based model (please see Chapter 4), this researcher discusses possible implications of study findings for library and information science and remedial education professionals and for targeted information literacy instruction in Chapter 5. This discussion provides a basis for future research in this area, and for all those seeking ways to develop more effective instructional methods which will aid remedial undergraduate student persistence toward graduation.

This researcher puts forth that findings from this study highlight the need for a broader conversation regarding the library and information science field’s professional understanding of the information behaviors of remedial undergraduate students, as well as the importance of further, collaborative research into the information and education needs of this academically at-risk student population. Further rationale for conducting this study is presented throughout the rest of this chapter.

**Background of the problem**

In a four-year national study conducted by Project Information Literacy (2012), researchers surveyed more than 11,000 students at approximately 50 higher education institutions in the United States to understand how these students described their information search processes for both academic and personal information needs. Approximately 84% of the study’s participants stated “getting started” was the most difficult part of research, and used the following 12 adjectives frequently to describe how they feel about research assignments: “fear, angst, tired, dread, excited, anxious, annoyed, stressed, disgusted, intrigued, confused, and overwhelmed” (Project Information Literacy, 2012). Moreover, in a recent study conducted on how college freshmen conduct course research during their first year as undergraduate students, Head (2013) discovered that “[freshmen] struggle with reading and comprehending scholarly
materials once they are able to find them and have trouble figuring out faculty expectations for course research assignments” (p. 1).

Such findings point toward the presence of information anxiety in first-year undergraduate students. Information anxiety, defined in this dissertation as the combination of anxieties or uncertainties felt by students when using the library and/or information technologies to find information to meet an information need (as discussed in Blundell & Lambert, 2014; Jerabek, Meyer & Kordinak, 2001; Nicholas, Huntington, Jamali, Rowlands & Fieldhouse, 2009; O’Brien & Symons, 2007; Onwuegbuzie, Jiao & Bostick, 2004; Prabha, Connaway, Olszewski & Jenkins, 2007; and Van Kampen, 2004), is something library and information science researchers believe has a decidedly negative impact on students’ academic success when elevated, particularly in regard to their information literacy skills. Linking this concept to the general background of the problem being addressed in his dissertation, even less is known about the impact of information anxiety on remedial undergraduate students, and how this affects their academic information search processes and overall information literacy abilities. Information anxiety in academia will be addressed more broadly in Chapter 2—however, it is worth mentioning here that information anxiety of a sort does play a role in the AISP experience of this researcher’s study participants, and therefore the inclusion of this concept within the broader discussion in this dissertation is a crucial aspect of understanding the totality of the AISP experience studied and described within this dissertation.

Although the impact of anxiety and a lack of information literacy skills in undergraduate student information behavior is not a new topic in the library and information science literature, more specifically the literature which examines the Millennial student information search process in higher education (Becker, 2003; Nicholas et al., 2009; Onwuegbuzie et al., 2004;
Prabha et al., 2007; Robinson & Reid, 2007; Taylor, 2012; Timmers & Glas, 2010), what is a vastly underexplored research area is the impact of all these facets on undergraduate students enrolled in remedial coursework. Based on current statistics indicating increasing remedial education enrollment and ever-decreasing degree attainment for same (explained in more detail below), this researcher believed this gap in the scientific literature in library and information science could no longer be ignored, and sought to create a foundation for broader research in this area through the qualitative study described within this dissertation.

In a 2012 report of the current state of remedial education in the United States, Parker (2012) shares that approximately one in four students (or, 25% of incoming students) seeking a bachelor’s degree from a state university require remedial education before beginning their college-level coursework. Other researchers in this area estimate those requiring remediation in four-year institutions may be as high as 30% (Bailey, Jaggars, & Scott-Clayton, 2013; Bettinger & Long, 2005; Roselle, 2009), and as high as 79% in two-year institutions (Bailey et al., 2013; Buglear, 2009; Di Tommaso, 2012; Hamilton, 2013; Mulvey, 2009; Roselle, 2009). Parker (2012) says of those testing into remedial coursework at a state university, only around 32% of these students will achieve a bachelor’s degree in six years or less—compared to the 58% six-year completion rate of those who do not need remedial coursework.

As the National Center for Education Statistics (NCES) findings reported by Sparks and Malkus (2013) bear out, the rate of students whose college placement test scores have placed them directly into remedial education was approximately 20% of all incoming students in 2003-04, and in 2007-08 (based on statistics reported through NCES from years 2003-04, and 2007-08). This indicates a five to 10% increase between Sparks and Malkus’ (2013) report of figures from 2007-08, and figures reported by Parker (2012) from 2012. Despite varying claims of the
success of remedial education for students completing these courses before moving onto college-level coursework (as studies cited in Bailey et al., 2013, and Bettinger & Long, 2005, put forth), it is becoming readily apparent to many working on the front lines of remedial education in higher education that “the nation’s remedial education system is broken” (Mangan, 2012).

When it comes to remedial English and writing courses, some researchers believe that libraries and library instructors can play a pivotal role in helping students in these courses succeed (Badke, 2011; Boon, Johnston & Webber, 2007; Gullikson, 2006; Lascar, 2002; Latham & Gross, 2011; Lee, 2012; Roselle, 2009; Tierney & Garcia, 2011). However, the impediment to such interaction sometimes comes not from students but from course instructors, particularly in faculty attitudes toward collaborative library instruction and involvement in these courses. As Lee (2012) explains in his study of levels of library anxiety in undergraduate students enrolled in a remedial English course, “library knowledge was primarily affected by the behaviors and attitudes of classroom instructors” (p. 67), adding that those student study participants who reported little to no library exposure or bibliographic instruction in their remedial courses also reported the highest levels of library anxiety. More on faculty perception barriers to collaboration will be discussed in Chapter 2.

Low exposure to specific information literacy instruction and other academic impediments (e.g. information anxiety) can only harm undergraduate students in terms of essential information literacy skill development, particularly remedial undergraduate students. As Roselle (2009) discovered in her study of library and library instructor involvement in developmental education programs, “[a]pplying sound pedagogy, librarians teach basic library skills in developmental education and academic success courses so that students have the fundamental knowledge and skills to do college-level work” (p. 154). Badke (2011) adds that
“faculty members themselves, rather than just librarians, need to revamp what they do to make information literacy more than what it now is” (p. 51). Finally, as Freeman and Lynd-Balta (2010) assert:

> It is imperative that faculty of all disciplines introduce students to effective strategies to filter and analyze information and then provide them with increasingly complex tasks that are discipline-relevant to cultivate critical thinkers and the skill set necessary for lifelong learning. This effort should involve interactions with librarians and occur early and throughout the undergraduate curriculum (p. 114).

In personal experience working with remedial English instructors as an information literacy instructor and based on accounts from others with similar interactions, this researcher has seen first-hand that collaborative faculty-librarian instruction in introductory courses generally, and in remedial English courses specifically, can make a positive difference in students’ attainment of information literacy skills. Specifically, this researcher witnessed that collaborative instruction often increases remedial undergraduate students’ observed information literacy abilities and overall success in remedial courses, based on instructor reports comparing involvement to non-involvement. More on this will be discussed in the next section.

**Statement of the problem**

As stated earlier, this researcher puts forth that there is an inherent lack of research in library and information science which addresses the information needs and anxieties expressed specifically by undergraduate students enrolled in remedial coursework, particularly in regard to these students’ AISP experience. Further, there is little research examining the AISP experience of these students as they engage in information-seeking tasks to meet a specific academic need,
such as the completion of an assigned research paper. With such limited understanding in this area, researchers and information literacy instructors alike are at a disadvantage when addressing the information needs of remedial undergraduate students at present. Therefore, research which highlights the AISP needs of these students specifically is imperative for those creating instruction guiding this process. It is this problem which this researcher investigated in her study, and one which she intends to continue researching after completing her Ph.D. studies.

Although current research in the area of library instruction and/or involvement in remedial English coursework is limited, the few studies that have been conducted (Boon, Johnston & Webber, 2007; Lascar, 2002; Latham & Gross, 2011; Lee, 2012; Roselle, 2009) show that this involvement often makes a significant difference in students’ overall college-level course readiness after completing remedial coursework. However, these studies have largely focused on librarian-assessment of general information-seeking skills pre-and-post library instruction intervention, with limited understanding of the entirety of a student’s experience in these courses or, in particular, how students perform in academic information-seeking tasks when completing an assignment such as a research paper. If library assistance and instruction is to be more effective for students in remedial coursework, this researcher asserts that a fundamental understanding of all the elements involved in the remedial course experience is crucial, as evidenced by the study explained and described herein. Particularly, researchers like Becker (2003), Gross and Latham (2011; 2011; 2009; 2007), Holman (2013), Nicholas et al. (2009), Prabha et al. (2007), Taylor (2012), and Warwick et al. (2009) have discovered that how students seek information on their own to meet the needs of academic assignments differs substantially from the type of academic information-seeking educators and librarians believe these students are and should be performing in a higher education environment.
Turning to research that examines information-seeking as a process in general, seminal researchers of information-seeking and information behavior have explored the different ways and means people seek information, and why, from a number of perspectives (Bates, 2005; Belkin, 1980; Dervin, 1999, 1998; Erdelez, 1997; Jiao, Onwuegbuzie, & Lichtenstein, 1996; Kuhlthau, 1991; Savolainen, 1993; Taylor, 2012; Taylor, 1991; Williamson, 2005; Wilson, 1983; 1977; Wilson, 1999). For the purposes of this dissertation, the information search process is defined as the physical, mental, and emotional processes in which one engages when seeking information to fulfill an identified information need (variations on this concept, such as ‘academic information search process,’ ‘information-seeking behavior,’ etc. are described in the “Definition of terms” table in this chapter). This definition is consistent with a similar and widely accepted definition developed by educator Carol Kuhlthau (1991), in regard to her creation of a model of the information search process from the user’s perspective, and affirmed by other seminal researchers in the field (as described in the meta-analysis of information search/behavior models conducted by Wilson, 1999, and in Taylor, 1991).

One thing that appears to be fairly consistent in research findings, as discussed briefly earlier in this chapter, is that undergraduate students experience a great deal of information anxiety during the information search process to meet an identified information need (Gross & Latham, 2009; Gross & Latham, 2007; Head & Eisenberg, 2010; Holman, 2011; Jerabek et al., 2001; Van Kampen, 2004) (please see “Definition of terms” for a description of this concept). However, very few of these studies explain broadly why students believe they experience such high levels of information anxiety, or how they believe this anxiety impacts them during their information search process primarily, and in regard to their academic performance overall. Without a deeper and more complex understanding of how or why information anxiety has such
negative effects on student academic information-seeking, any attempt to limit such anxiety
during a college-ready undergraduate student’s information search process will be challenging—
and may be almost impossible when it comes to limiting this same anxiety in remedial
undergraduate students. The difference between college-ready and remedial undergraduate
students is outlined more completely in the “Definition of terms” table.

In addition to a lack of understanding regarding the information search process for
undergraduate students enrolled in remedial coursework as a whole, there is also a gap in the
literature that addresses specifically similarities and differences in this process between remedial
undergraduate students, and their college-ready undergraduate student counterparts. However,
this dissertation study did not gather data from both college-ready undergraduate students and
undergraduate students enrolled in remedial coursework. Such analysis may be best performed
after collecting data through a large-scale, quantitative study and because this dissertation
focused on deeper understanding of the remedial undergraduate student AISP experience, such
comparison was deemed inappropriate for this study. However, this researcher supports that the
qualitative data she gathered and analyzed from her research participants on the entirety of their
AISP experience, and the thematic representation of study findings model of the participants’
experience presented and explained in Chapter 4, contributes critical research to the previously
identified gap in this area in the library and information science literature.

**Purpose of the study**

The purpose of this dissertation study was to examine how participants in the study (i.e.
undergraduate students enrolled in a remedial English course) explained and described their
AISP experience conducted to find information to complete a course-required research
assignment. The experience was examined from a number of perspectives via a triangulation of
data collection methods, recommended by some qualitative researchers as a means to increase the trustworthiness of qualitative study findings (Hatch, 2002; Merriam, 2002; Schram, 2003). Study findings were then used to create a thematic representation of study findings model of the participants’ experience (as is appropriate with descriptive phenomenological studies—Colaizzi, 1973; Giorgi, 2009; Spinelli, 2005; Wojnar & Swanson, 2007) so that such findings might inform future research in this area, as well as provide a research context for those interested in the creation of targeted information literacy instruction that more broadly meet the specific needs of similar student populations (as shall be discussed more broadly in Chapter 5). Please see the “Definition of terms” table for more detailed descriptions of phenomenology in general and descriptive phenomenology in particular, and distinctions between the two.

Descriptive phenomenological study, which focuses on the universal essence of an experience itself (Colaizzi, 1978; 1973; Dowling, 2007; Giorgi, 2009; Shosha, 2012; Spinelli, 2005; Wojnar & Swanson, 2007), is based on data gathered from a number of perspectives (including from the experience’s participants themselves). Therefore, this methodology was deemed to be an appropriate qualitative approach for the study because of this researcher’s focus on the AISP experience, and not on the AISP ‘experiencers,’ per se. Although some descriptive phenomenological research does use only the participants’ recounting of their experience as the study’s primary data, other descriptive phenomenological research examines the experience from numerous data sources (including artifacts, protocol writing, and participant observation—Colaizzi, 2973, Giorgi, 2009; Hatch, 2002; Merriam, 2002; Moustakas, 1994). Triangulation of data sources was used in the study described herein to obtain as rich and robust a set of information about the AISP experience of remedial undergraduate students as possible, as well as to increase the trustworthiness of study findings (as explained earlier in this chapter). These
sources include one-on-one interviews with participants, observations of in-class and in-lab activities while engaged in the AISP experience, and the participants’ final assignments. More on descriptive phenomenology, justification for its use as this dissertation study’s methodology, and broader detail on the study’s data collection methods are provided in Chapter 3. Although all efforts were made by this researcher to include both traditional and non-traditional undergraduate student participants in the study (distinctions described in the “Definition of terms” table), the study included only traditional undergraduate students as neither of the two non-traditional students in the class elected to participate. Therefore, study finding-driven implications for targeted information literacy instruction explained in Chapter 5 theoretically extend only to traditional undergraduate students enrolled in remedial coursework. Future research will endeavor to include the non-traditional undergraduate student perspective in this area, as well.

Research question

It was deemed appropriate early in the study to use a research question as a basis for the research itself because inductive qualitative study allows findings to emerge from collected data, rather than making assumptions about findings before collection begins, as might be the case with formulating hypotheses for a quantitative study (Hatch, 2002; Schram, 2003).

It was the aim of this dissertation study to answer the following research question regarding the AISP experience of undergraduate students enrolled in a remedial English Course at MidState University:

RQ: How do the study’s participants (traditional undergraduate students enrolled in a remedial English class) explain and describe their academic information search process (AISP) experience:
a) During the process, and

b) Once the process has concluded and the final product (i.e. the research assignment) has been submitted for a grade?

The answer to this question is detailed in Chapter 4, and is based on the analysis of the collected study data explained and in part presented as a thematic representation of study findings model of the participants’ AISP experience, and expounded upon in the appropriate descriptive phenomenological fashion, as detailed in Chapter 3.

**Importance of the study**

As has been put forth previously, research examining the academic progress of undergraduate students enrolled in remedial courses indicates that these students are more at-risk than their peers in terms of academic persistence and institutional retention in higher education (Bettinger & Long, 2005; Fields & Holland, 1998; Sparks & Malkus, 2013; Parker, 2012; Roselle, 2009). The appropriate and/or effective academic information search process (or AISP) of undergraduate students has been linked to the notion of strong and academically sound information literacy skills and understanding in the literature (Becker, 2003; Boon et al., 2007; Gross & Latham, 2011; 2009; 2007; Gross, 2005; Nicholas et al., 2009; O’Brien et al., 2007; Prabha et al., 2007). Additionally, strong information literacy skills have been identified as fundamental components of students’ continued academic success in higher education (ALA, 2000; Breivik & Gee, 2006; Budd, 2008; Head, 2013; Project Information Literacy, 2012; Soria, Fransen, & Nackerud, 2013). Therefore, understanding the AISP experience in context and from multiple perspectives, including from the perspective of undergraduate students enrolled in a remedial English course at MidState University, increases the discourse in this under-researched
area and creates a foundation for future research into the specific information needs and behaviors similar populations in higher education in the United States as a whole.

This researcher affirms that this study has greatly informed her own understanding of the AISP experience for remedial undergraduate students, and therefore supports that her findings may be similarly informative for remedial education instructors and information literacy instruction librarians. It is this researcher’s informed opinion that study findings described in detail in Chapter 4 and the implications of same for both library and information science and remedial education professionals presented in Chapter 5 may facilitate the creation of information literacy instruction that more effectively targets the academic information needs of remedial students enrolled in undergraduate coursework.

Scope of the study

As stated earlier in this chapter, although it was the goal of this researcher to secure both traditional and non-traditional participants within the study, this was not the case, and therefore this study’s scope is limited to traditional students. Research indicates there are fundamental differences across the educational spectrum between traditional and non-traditional students, and to be able to compare those differences on some level would have been a great boon for this researcher’s study (as will be discussed briefly in “Limitations” in Chapter 3). However, that the participants of this study represented traditional students only does not detract from the importance of the data gathered in terms of the phenomenon under investigation (i.e. the AISP experience of remedial undergraduate students). Future research in this area will endeavor to secure greater numbers of participants, as is described in Chapter 5. Additionally, although every effort was made to recruit all participants in the class to participate, only six chose to do so. More on the demographics of participants shall be discussed in “Data sources” in Chapter 3.
Finally, this researcher would like to reiterate that this study was limited to investigating the AISP experience of participants from a qualitative perspective. Therefore, findings reported in Chapters 4 and 5 conform to qualitative reporting norms, as discussed in Colaizzi (1978; 1973), Giorgi (2009; 1997), Hatch (2002), and Merriam (2002).

**Definition of terms**

The following table provides definitions for terms used within this dissertation and how this researcher defines these terms within the context of her study.

Table 1

<table>
<thead>
<tr>
<th>Definition of terms</th>
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<tr>
<td><strong>Academic information search process</strong></td>
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<td><strong>Critical thinking</strong></td>
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forth is emblematic of the concept of ‘reflective thought:’
“Active, persistent and careful consideration of a belief or
supposed form of knowledge in light of the grounds that
support it, and the further conclusions to which it tends” (p. 6).

<p>| <strong>College-ready undergraduate students</strong> | Students whose college entrance/placement scores indicate they are academically prepared for college-level work and therefore require no remediation/developmental coursework before enrolling in college courses (Bettinger &amp; Long, 2005; Brothen &amp; Wambach, 2004; Buglear, 2009; Conley, 2008; Hamilton, 2013; Hoyt, 1999; Ishitani, 2006; Mangan, 2012; Mulvey, 2009; Parker, 2012; Roselle, 2009). |
| <strong>Identified information need</strong> | Similar to ideas discussed in work by Dervin (1999; 1998; 1983), Kuhlthau (1991) and Wilson (1999), an identified information need is defined within this dissertation as a mental catalyst that spurs a search for information. Specifically, its identification typically sets off “a state or process started when one perceives that there is a gap between the information and knowledge available to solve a problem and the actual solution of the problem” (Miranda &amp; Tarapanoff, 2008). |
| <strong>Information anxiety</strong> | The combination of anxieties or uncertainty felt by students when using the library and/or information technologies to find information to meet a need (Fry, 2009; Gross, 2005; Lee, 2012; Onwuegbuzie, Jiao &amp; Bostick, 2004; Prabha, Connaway, Olszewski, &amp; Jenkins, 2007; Roselle, 2009). |
| <strong>Information behavior</strong> | “An information-seeking activity, the causes and consequences of that activity, or the relationships among (table continues) stages in information-seeking behavior” (Wilson, 1999, p. 250). |</p>
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<tr>
<th><strong>Information literacy</strong></th>
<th>The ability to “recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information” (ACRL, 2000).</th>
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<tbody>
<tr>
<td><strong>Information literacy instruction</strong></td>
<td>Typically delivered by librarians, information literacy instruction (or ILI) promotes the use and implementation of information literacy via instructional methods. Such instruction can occur in collaboration with a course instructor, or it can be delivered by one or more librarians during a class period or online, without instructor assistance. ILI can include instructional modules on navigating library resources and tools (like academic research databases), and often incorporates hands-on exercises to reinforce session objectives (Booth, 2011; Budd, 2009; Grassian &amp; Kaplowitz, 2009; Johnson, Lindsay, &amp; Walter, 2008; Kasowitz-Scheer &amp; Pasqualoni, 2002; Kvenild &amp; Calkins, 2011; McAdoo, 2012; Ren, 2000). Library instruction as a whole is defined later in this table.</td>
</tr>
<tr>
<td><strong>Information need</strong></td>
<td>A need that arises when a person identifies a gap in his or her knowledge (Belkin, 1980; Dervin, 1999), and seeks to fill that gap either because it stimulates curiosity, conflict, or concern (Wilson, 1983, 1977; Williamson, in Fisher et al., 2005). Needs may be partially or fully formulated at the original identification of the need (Bates, 1989; Dervin, 1999; Nicholas et al., 2008; Wilson, 1999) and may change slightly or significantly as the person engages in information-seeking to fulfill his or her need (Bates, 1989; Dervin, 1999; Williamson, Wilson, 1983, 1977).</td>
</tr>
<tr>
<td><strong>Information search process</strong></td>
<td>The physical, mental, and emotional processes in which one engages when seeking information to fulfill an information</td>
</tr>
</tbody>
</table>
need (Dervin, 1999; Kuhlthau, 1991; Taylor, 1991; Wilson, 1999).

| **Information-seeking behavior** | Perhaps best described by Wilson (2000) (cited in Boon, Johnston, & Webber, 2007), information-seeking behavior is “the purposive seeking for information as a consequence of a need to satisfy some goal” (p. 207). |
| **Library anxiety** | The range of anxieties (fear, nervousness, confusion, etc.) experienced when attempting to identify, define, and satisfy an information need, through use of the library and/or its resources (such as reference services) to satisfy that need (Gross et al., 2009; Gross et al., 2007; Kwon et al., 2007; Onwuegbuzie, Jiao & Bostick, 2009; Van Kampen, 2004). |
| **Library instruction** | Formerly referred to as ‘bibliographic instruction’ (Ellis & Whatley, 2008), library instruction typically refers to instruction delivered at least in part by a librarian or information professional in a number of areas. Basic library instruction typically includes teaching library users how to navigate the library itself (including physical and digital resources), and more advanced library instruction focuses on multi-faceted topics like information literacy development. Herein, library instruction refers to that instruction delivered by a librarian or information professional to undergraduate students enrolled in remedial coursework in the area of library navigation and information search process development. |
| **Non-traditional undergraduate students** | Those students entering higher education at the age of 24 or older, who may also have one or more of the following considerations: minority race status, non-campus residence, |
part- or full-time employment level, and enrolled in a non-degree occupational program (NCES, 2013).

| Phenomenography | Phenomenography, although sometimes viewed as fitting within the philosophy of the phenomenological concept (Andretta, 2007), differs from phenomenology as a research paradigm in that it focuses on the variations of an experience expressed by study participants (Marton & Booth, 1997, in Andretta, 2007), as opposed to the common facets or universal essences of an experience focused on in phenomenological research (see below for a further description of phenomenology). Additionally, phenomenographic research also focuses on “the relationship between the subject and the phenomenon of interest” (Gross & Latham, 2011, p. 165), setting it apart from the phenomenological focus on the experience itself as primary outcome of the analysis of data in a study. As stated by Boon, Johnston, and Webber (2007), “[p]henomenography can be differentiated from phenomenology in that the former concentrates on discovering the subject’s experience of the phenomenon and the latter concentrates on discovering the essence of the phenomenon itself” (p. 209). |
| Phenomenology (descriptive) | Founded in the Husserlian tradition of ‘phenomenology as philosophy’ (as explained in Giorgi, 2009, and Wojnar & Swanson, 2007), descriptive phenomenology “calls for exploration of phenomena through direct interaction between the researcher and the objects of study … it calls upon investigators to set aside preconceptions through the procedures involved in bracketing … The lived experience itself, as described by participants, is used to provide universal description of the phenomenon” (Wojnar & Swanson, 2007, p. |
Further, descriptive phenomenology studies provide a universal representation of phenomena (as opposed to contextual representations, as may be the case with interpretive phenomenological study—Wojnar et al., 2007), and findings seek to illuminate gaps in previous research on phenomena by “present[ing] a theoretical model representing the essential structures of phenomenon under study” (Wojnar et al., 2007, p. 177), which Wojnar et al. (2007) explain is methodology’s goal.

**Phenomenology (general)**

Phenomenology as a methodology uses research methods such as interviews, participant observation (examination of and discussion with study participants while they are involved in the ‘experience’), protocol writing (self-reported writing or journaling by study participants), artifact analysis (examination of products germane to the experience under investigation, such as the research assignments of study participants in the case of this study), and bracketing (a reflexive process wherein the researcher constantly documents his or her perceptions/opinions/bias, etc. throughout the process so as to remove his or her ‘voice’ from the experience that shall be reported—Hatch, 2002; Schram, 2003) in order to get to the essence/s of the experience being examined, toward obtaining a more holistic view or understanding of the experience itself (Giorgi, 2009; Hatch, 2002; Moustakas, 1994; van Manen, 1990). Because the focus of phenomenological research is on the experience itself, and most particularly, the commonalities found in the experience as expressed by study participants, it is a less ‘social’ form of qualitative research than methodologies such as case study analysis or narrative analysis (Moustakas, 1994). Key strengths of phenomenological research are rich,
deep understanding of the experience under investigation because of the multiple methods used to gather data on that experience, and the narrow focus on the understanding of a lived experience as the primary outcome of the research (Hatch, 2002; Merriam, 2002; Schram, 2003; Moustakas, 1994; van Manen, 1990).

<table>
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<tr>
<th>Satisficing</th>
<th>“Satisficing” was defined by Simon in 1955 as “an information competency whereby individuals assess how much information is good enough to satisfy their information need” (cited in Prabha et al., 2007, p. 27).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional undergraduate students</td>
<td>Those students enrolling in higher education immediately after high school and attending the chosen higher education institution with a ‘full time’ course load (NCES, 2013).</td>
</tr>
<tr>
<td>Undergraduate students enrolled in remedial coursework (i.e. remedial undergraduate students, also referred to as ‘developmental’ students in some literature on the topic)</td>
<td>Students whose college entrance/placement scores indicate they are academically un/underprepared for college-level work and therefore require remediation/developmental coursework (traditionally in math, writing, English, or other subjects as determined) before enrolling in the college-level courses of these subjects (Bettinger &amp; Long, 2005; Brothen &amp; Wambach, 2004; Buglear, 2009; Conley, 2008; Di Tommaso, 2012; Fields &amp; Holland, 1998; Hamilton, 2013; Hoyt, 1999; Ishitani, 2006; Mangan, 2012; Mulvey, 2009; Parker, 2012; Roselle, 2009).</td>
</tr>
<tr>
<td>Universal essence</td>
<td>The universal essence of a descriptive phenomenological experience describes the “common features of any lived experience” (Wojnar &amp; Swanson, 2007, p. 174). This concept stems from the phenomenological work of forefather Husserl (as described in Wojnar &amp; Swanson, 2007), who “referred to these features as universal essences or eidetic structures”</td>
</tr>
</tbody>
</table>
(p. 174) that he “considered … to represent the true nature of the phenomenon under investigation” (p. 174). The concept of the universal essence or essences of an experience are also described in work by Colaizzi (1978; 1973), Giorgi (2009; 1997), and Spinelli (2005). Within this dissertation, universal essence is used to describe elements common to or representative of the experience for the majority of study participants. Therefore, ‘universal essence’ as it is used within this dissertation pertains only to the ‘universe’ of the study, and not to the broader AISP experience of remedial undergraduate students at large.

**Organization of the remainder of this dissertation**

This dissertation continues in Chapter 2 with a thorough and constructively critical review of the relevant literature regarding general information-seeking behaviors and the AISP of undergraduate students. This review begins with a summation of seminal research in the area of information-seeking and behavior at the undergraduate level, moving into a discussion on literature examining academic information-seeking processes and behaviors specifically, and then into an exploration of literature examining information literacy and information-seeking within the context of other variables relevant to the concept within higher education (i.e. best practices in information literacy instruction, faculty-library instructor collaboration in regard to information literacy, and the pedagogical intersect of information literacy instruction and critical thinking instruction). The review of related literature concludes with a presentation of the academic theories and models which provided the conceptual framework for this dissertation study and the theoretical model of the AISP of the Millennial undergraduate student, created by this researcher as a high-level summary of current research on the topic.
Chapter 3 describes the qualitative paradigm in general and the specific qualitative research methodology used for this study (i.e. descriptive phenomenology). It then discusses the challenges of such research, the researcher’s role and ethical considerations within the research field and during data analysis, the nature of study participants, the data collection and analysis procedures used in the study, verification of data processes, and limitations of the study.

Chapter 4 introduces, outlines, and describes the qualitative data collection processes used in this study and the particular descriptive phenomenological method used to analyze study data. It also includes primary and secondary research findings from this study and the exhaustive description of the AISP experience of study participants, constituting the response to the research question introduced in Chapter 1 and reiterated in Chapter 3. Also included in Chapter 4 are the thematic representation of study findings model of the participants’ experience, and a discussion comparing the thematic representation model to the theoretical model in Chapter 2 and other relevant literature presented throughout this dissertation. The chapter concludes with a discussion of findings, a reflection on non-universal study findings, a brief overview of trustworthiness in the study, and a relation of study findings to Chapter 2’s conceptual framework of theories and models guiding the study.

Chapter 5 presents a summary of study findings and this researcher’s conclusions regarding what is now known about the experience investigated and how it will impact her research agenda moving forward. The implications of these findings to practitioners and to targeted information literacy instruction is also discussed, as well as recommendations made for future research suggested by study findings. Final thoughts conclude the chapter.
Chapter II

Review of Related Literature

As was outlined in Chapter 1, this dissertation sought to create a research foundation for addressing the gap in the library and information science literature related to the academic information-seeking behavior of undergraduate students enrolled in remedial coursework. Stated previously, it is reasserted here that there exists very little published research that looks specifically at remedial undergraduate student experiences with information-seeking and information behavior in general, or that explores information literacy challenges faced by these students. Until more is known about the information ‘misbehaviors’ of these students, this researcher puts forth that both library and information science and remedial education professionals will be limited in their ability to create effective instruction that assists these students with their academic progress. The implications of this study’s findings for these professionals and for the targeted information literacy instruction are discussed in Chapter 5.

The literature reviewed in this chapter explores what is currently available in the area of academic information-seeking for undergraduate students, and a variety of current approaches to information literacy instruction in higher education. As current research with college-ready undergraduate students puts forth, academically appropriate information behaviors and the possession of implementable information literacy skills and abilities are crucial elements in the educational development of students, and are therefore pivotal in aiding these students persist through their academic experiences and become lifelong learners (Badke, 2011; Bruce, 2004; Fitzgerald, 2004; Freeman & Lynd-Balta, 2010; Grassian & Kaplowitz, 2009; Hardesty, 2007; Harley, 2001; Mittermeyer, 2005; Salisbury & Karasmanis, 2011). As asserted previously, understanding more about these experiences from the remedial undergraduate student
perspective is necessary if educational initiatives and associated instruction are to be developed that target these students directly.

Because remedial undergraduate students are more at-risk than college-ready undergraduate students in terms of persistence toward graduation (Bettinger & Long, 2005; Conley, 2008; Fields & Holland, 1998; Hoyt, 1999; Ishitani, 2006; Mangan, 2012; Merisotis & Phipps, 2000; Mulvey, 2009; Noble & Sawyer, 2013; Parker, 2012; Roselle, 2009; Tierney & Garcia, 2011; Sparks & Malkus, 2013; Stuart, 2009), it behooves all those who work with undergraduate students enrolled in remedial coursework to find ways and means to help those students to succeed, both in their remedial coursework and in their academic experiences as a whole. It is the hope of this researcher that establishing the research ‘conversation’ on the academic information search process (AISP) experience of remedial undergraduate students through the study findings presented in this dissertation will create a foundation for further investigation into the specific educational needs of remedial undergraduate students, giving both library and information science and remedial education professionals the tools to address specific concerns of these students and empower them to persist to graduation.

In creating a review of the related literature before beginning research into the academic information search process (AISP) experience of remedial undergraduate students (detailed further in Chapter 3), the following sections are included herein: 1) Information-seeking and the information search process in higher education, 2) Information literacy and the undergraduate student information search process, and 3) Conceptual framework: Theories and models guiding the study. This chapter also includes a theoretical model of the AISP of the Millennial undergraduate student, created as a summative analysis of current relevant models in this area, and toward creating a bracketed, reflexive model for this researcher in accordance with research
protocols necessary for a descriptive phenomenological investigation into the AISP experience of study participants (defined in Chapter 3). As shall also be explained in Chapter 3, such reflexive activities are crucial in descriptive phenomenological research (See “Definition of Terms” and Chapter 3 for an in-depth explanation of descriptive phenomenological research) so that the researcher does not unduly ‘color’ the research field with pre-conceived biases related to the experience under investigation.

Literature informing the creation of the model described above and which framed this researcher’s descriptive phenomenological study is reviewed next.

**Information-seeking and the information search process in higher education**

This researcher would be remiss in beginning the discussion on information-seeking from the undergraduate student perspective without first examining the impact of seminal research into information-seeking from the user’s perspective conducted by researchers in the library and information science field. Therefore the first part of this section will look to these researchers’ work and discuss their findings in light of the discoveries they made which shaped consequent research into information-seeking from the undergraduate student’s perspective.

*Seminal research into information-seeking from the user’s perspective*

As the dearth of scholarly literature on the topic shows, understanding information-seeking from the user’s perspective has been of particular interest to both library and information science professionals and educators for many years. Although earlier studies in this area sought to analyze information-seeking quantitatively (as related by Wilson [2010] in his 50-year summary of information behavior research), in the 1970s and 1980s researchers began incorporating qualitative methodology into information-seeking studies to learn more about the ‘why’ of information-seeking from the user’s perspective (Wilson, 2010), including research
done by Belkin (2000; 1980), Dervin (1999; 1998; 1983), Kuhlthau (1991; 1987), Savolainen (1993), P. Wilson (1983; 1977), and T.D. Wilson (1999). Although numerous groups (from children, to public library users, to the elderly) were the focus of many information-seeking studies during this time, of particular interest to this researcher were those studies focusing specifically on the information-seeking behaviors of undergraduate students and similar populations, and these shall be the primary studies discussed within this section.

When one considers foundational studies which assist library and information science professionals in understanding more about the information-seeking behaviors of undergraduate students, the conversation quickly turns to three researchers in this field, and their theories and models of such behavior: Belkin (2000; 1980), Dervin (1999; 1998; 1983), and Kuhlthau (1991; 1987). Of particular interest to this researcher for the purposes of this study was the work done by these three researchers that led to the creation of conceptual theories and models explaining information-seeking behavior from a number of perspectives. Belkin’s (2000; 1980) research investigated the intersect between information retrieval (IR) systems and information users, and the impediments users encountered when attempting to use IR systems to find information for as-yet formulated information needs. Belkin (1980) dubbed this unformulated information need the “anomalous state of knowledge,” (p. 135), which he also refers to as the ASK (1980), and explained that when users attempt to find information to meet an ASK from an IR system, they often encounter frustration, confusion, and a low return rate of information appropriate to helping them further formulate their information needs. As Belkin (1980) explains, “[t]he success of the communication [with the IR system] is dependent upon the extent to which the anomaly can be appropriately resolved on the basis of the information provided. Thus, the system is also controlled by the recipient and is, in general, iterative” (p. 135).
Verbalizing the crux of the issue that soon became the focus of much information-seeking research, Belkin (1980) suggested that IR systems were only as useful as the information users provided to the system when seeking to resolve an ASK. If these systems were confusing to use, or hindered the user’s progress when seeking to turn an ASK into a formulated information need, frustration and continued ASK status would result. This concept is discussed in great detail in Blair’s (1990) work detailing how and when users reach a point of futility when searching for information in complex IR systems—more on the influence of Blair’s (1990) work shall be discussed toward the end of this chapter. Belkin (1980) suggested that future IR systems should be more user-friendly in their design, helping reduce uncertainty and anxiety in information-seeking for users, one of the first researchers to indicate that a change from system-centered design to user-centered design was a critical component in better addressing user information needs in their interactions with IR systems (Wilson, 2010).

Within the same time period, researchers Dervin (1983, and with Nilan in 1986) and Kuhlthau (1991; 1987) were also investigating the role that uncertainty and anxiety played in a user’s search for information, and indeed, how these emotional factors affected a user’s identification of an information need from the very beginning. For Dervin (1999; 1998), who along with colleagues created sense-making theory in the early 1980s (Dervin, 1999; 1998; Savolainen, 1993), the goal of the theoretical application of sense-making was to understand more about human communication as a whole. Dervin (1999; 1998) saw information needs and seeking as natural elements in the human communication process, and developed her sense-making theory within the communication field to better understand its impact on the field of communication studies. Although her sense-making process was meant to ‘improve’ communication tools such as interviews and the like, the foundational concepts of the model
representing sense-making theory, simplified in her Dervin’s (1999) later work as “time, space, movement, gap: step-taking, situation, bridge, outcome” (p. 39), were of great interest to researchers in many fields, and particularly in library and information science. That sense-making included considerations for user’s ecological states and backgrounds when approaching a search for information, and that she discussed at length the role uncertainty and anxiety plays in a sense-making endeavor, helped researchers move into a user-focused paradigm when investigating information-seeking behaviors (Savolainen, 1993; Wilson, 2010).

In concluding the section examining seminal research into information-seeking from the user’s perspective, last but not least the discussion turns to the work in this area done by Kuhlthau (1991; 1987). For many educators and library and information science professionals examining the information-seeking of undergraduate students specifically, Kuhlthau’s Information Search Process (ISP) theory and model was instrumental in aiding their understanding and addressing of undergraduate student information-seeking needs. In addition to her explanation of the steps often encountered by students in a search for information—“initiation, selection, exploration, formulation, collection, and presentation” (Kuhlthau, 1991, p. 367), Kuhlthau (1991) included within each of these stages her perspective on user’s thoughts (cognitive aspects), the actions and tasks of users (physical aspects), and their feelings (affective aspects), including the role that anxiety and uncertainty played on the search process as users moved through the stages (Kuhlthau, 1991, p. 367).

Most usefully, Kuhlthau (1991) also identified that

a) students encountered the most anxiety related to their information search process at the beginning of an information search process, particularly when it
came to identifying and defining an information need, and therefore it was at this stage users needed the most assistance,
b) the fourth step, formulation, was perhaps the hardest step for students to reach, stating that for students at the third ‘exploration’ stage, “an inability to express precisely what information is needed makes communication between the user and the system awkward” (p. 366), and further, that “[u]sers may find the situation quite discouraging and threatening, causing a sense of personal inadequacy as well as frustration with the system. Some actually may be inclined to abandon the search altogether at this stage” (pp. 366-7), and, most critically for the time,
c) an information search process is dynamic and not linear as Kuhlthau [1990] explains is suggested by Taylor’s 1986 model, which claimed that a user’s information need moves through four stages (visceral, conscious, formal, and compromised) in a linear fashion as information was found to meet the need (Kuhlthau, 1991, pp. 368-9).

Understanding where and how uncertainty and anxiety impact information-seeking, and specifically, what happens when uncertainty and anxiety become too great for students to handle in a search for information, was instrumental in affecting change in the way students were aided in their information-seeking from a practical level, and in the way 21st century researchers addressed information-seeking studies. Noteworthy findings of some of these studies and what they contribute to the conception of the AISP experience of the Millennial undergraduate student shall be discussed in the next section.
Information-seeking and the academic information search process of undergraduates

Twenty-first century research into the AISP experience of undergraduate students is plentiful in library and information science literature, stemming from the earlier studies of researchers such as Belkin (1980), Dervin (1983), and Kuhlthau (1991; 1987), to current studies representative of the experience by library and information science researchers like Gross and Latham (2011; 2009; 2007) Head and Eisenberg (2010), Holman (2011), Timmers and Glas (2010), and Warwick, Rimmer, Blandford, Gow, and Buchanan (2009). Although much of the literature discusses research undertaken regarding in-situ case study investigations (exampled by Becker, 2003; Bowler, 2010; Jones, 2009; Holman, 2011; Maybee, 2007; and Vakkari, 2005), or expounds on the outcomes of evidence-based practice into differing information search process educational initiatives (such as studies done by Hayes-Bohanan & Spievak, 2008; Kalbach, 2006; Larkin & Pines, 2004; Limberg, 2000; Medeiros, 2009; Shanahan, 2009; 2008; and Taylor, 2012), a great deal has been learned about the particular needs of undergraduate student information-seeking from these investigations and has led to broader, more in-depth studies regarding the information-seeking behaviors of undergraduate students (Cole, Cantero, & Unger, 2000; Lee, 2008; Metzger, Flanagan, & Zwarun, 2003; O’Brien & Symons, 2007; Salisbury & Karasmanis, 2011; Vechtomova & Zhang, 2009).

It is to specific research projects that this researcher now turns in addressing the range of research examining the information-seeking behaviors of undergraduate students, as well exploring key take-aways from these studies and how they frame this researcher’s understanding of these behaviors pre-data collection for the specific study proposed in this dissertation.

In analyzing quantitative research performed in the field of the information search process of undergraduate students, it appears that much of this research was undertaken in controlled situations or settings (Cole, Cantero, & Unger, 2000; Holman, 2011; Lee & Tsai,
2011; Lim, 2009; Nicholas et al., 2009; Ren, 2000; Shanahan, 2009; Shanahan, 2008; Taylor, 2012; Timmers & Glas, 2010; Vechtmova & Zhang, 2009), where information search processes were simulated and then performed as a part of an experiment, rather than observing the information search process from a more natural perspective. Some noteworthy exceptions include studies performed by Head (2013; 2012), Head & Eisenberg (2010), and Warwick, Rimmer, Blandford, Gow, & Buchanan (2009), who instead studied the information search process from a number of naturally occurring perspectives and over a period of time (particularly Warwick et al.’s [2009] longitudinal study on the development of AISP skills and behaviors of undergraduate students).

In exploring qualitative studies in the area of information search processes and behavior of undergraduate students (such as those in Andretta, 2007; Boon et al., 2007; Gullikson, 2006; Larkin & Pines, 2004; Lupton, 2009; Maybee, 2007; and Rieh, 2004), this researcher discovered rich and in-depth analysis of the how and why of information-seeking of undergraduate students, particularly information-seeking conducted to meet specific academic needs. In terms of the information search process experience itself, there are a number of phenomenographical studies (see “Definition of Terms” in Chapter 1 for a description of phenomenography) which explore and present a range of participant perspectives on the nature of and approach to an information search process, as opposed to providing overarching themes uncovered during the research about information search processes themselves (Andretta, 2007; Boon et al., 2007; Gross et al., 2011; 2011; 2009; 2007; Limberg, 2000; and Maybee, 2007).

Adding to the literature on the information search process experience presented here is the literature which explores the impact of high levels of information anxiety on undergraduate student information-seeking behaviors. As discussed in Chapter 1, some researchers in the
library and information science field believe that many of the poor information behaviors exhibited by students are linked inherently to high levels of information anxiety. As information anxiety can be a substantial hindrance to an undergraduate student’s academic research pursuits, it is being recognized by higher education professionals as a major factor limiting students’ research abilities and progress through their degree programs (Fry, 2009; Gross, 2005; Lee, 2012; Onwuegbuzie, Jiao & Bostick, 2004; Prabha, Connaway, Olszewski, & Jenkins, 2007; Roselle, 2009).

Although Mellon began research into ‘library anxiety’ in the mid-1980s (as discussed in Onwuegbuzie et al., 2004), a scale for measuring library anxiety in undergraduate students was not developed until 1992. In their book discussing the genesis of the library anxiety scale, Onwuegbuzie et al. (2004) state co-author Bostick wanted to develop a scale that looked specifically at the library anxiety of undergraduates from first year to postgraduate work, because she assumed that “library anxiety is not limited to first-time users but is consistent across the continuum of learning in a university setting” (p. 2). Furthermore, Onwuegbuzie et al. (2004) state that “[b]ecause the library is a dynamic institution continuously updating and changing systems, adding new technologies, and becoming more diverse, … even students who have been enrolled without interruption can experience anxiety when confronted with these changes” (p. 2).

Despite the recent research which shows that continually changing technological advances in academic libraries have increased student anxiety in information-seeking (Head, 2013; Jerabek et al., 2001; Kwon et al., 2007; Nicholas et al., 2009; Onwuegbuzie et al, 2004; Prabha et al., 2007; Vitasari et al., 2010), the concept of anxiety itself in information-seeking and the limitations it has on academic progress is not new. Researchers such as Belkin (1980), Dervin (1999, 1998), Erdelez (1997), Jiao, Onwuegbuzie, & Lichtenstein (1996), Kuhlthau
(1991), Savolainen (1993), Taylor (2012), Taylor (1991), Wilson (1983; 1977), and Wilson (1999) have expounded upon this concept at length. However, those working within the field are concerned that anxiety in information-seeking may not be the only problem affecting information-seeking proficiency in undergraduate students. Indeed, Blundell and Lambert (2014), in a quantitative study exploring first-year undergraduate student responses to information anxiety elements, discovered that approximately 67% of respondents in the study either agreed or strongly agreed that they did not want to learn how to do their own research. Therefore low motivation of students to learn how to do research is worthy of further investigation, although this researcher surmises that low motivation is linked to high information anxiety in students, reiterating the need for researchers to understand more about specific elements behind poor information-seeking behaviors.

To that end, and critical to this dissertation study, this researcher did not find a true phenomenological study on the information search process experience of undergraduate students, particularly those undergraduate students enrolled in remedial coursework. The study as described throughout this dissertation therefore provides a more in-depth and complex image of the AISP experience for undergraduate students enrolled in remedial coursework, toward furthering research in this area. As Williamson (2005) shares in her research, no information search is approached without a complex array of background factors influencing the searcher in the ways he or she searches for information. Additionally, because of phenomenology’s focus on the universal essence of a lived experience (Colaizzi, 1978; 1973; Giorgi, 2009; 1997; Spinelli, 2005; Wojnar & Swanson, 2007), and not on the diverse range of perspectives of an experience expressed by participants in a study as occurs in phenomenographical research (see “Definition of terms” in Chapter 1 for a more complete definition), this researcher was able to
investigate more broadly the ecological factors which influenced the participants’ experience itself. Supporting the use of phenomenology as a means to study the information-seeking experience of undergraduate students; Budd (2009), quoting Elmborg (2006, p. 194), writes:

By objectifying and decontextualizing phenomena in the search for broad structural patterns, information literacy researchers have separated students from social and economic contexts, thereby detaching them from school, teacher, and society in an effort to isolate variables to create more pure ‘scientific’ studies. (p. 23).

Indeed, this researcher asserts that it is crucial for 21st century library and information science researchers and instructors to appreciate the entirety of a student’s academic information search process experience if they are to assist these students in contextually relevant and meaningful, successful ways. As Grassian and Kaplowitz (2009) state so poignantly in their expansive guide on information literacy instruction and initiatives, “[p]eople learn when it is meaningful for them to do so” (p. 10).

In summarizing key take-aways from the studies analyzed in pursuit of understanding more about information-seeking and the information search process of undergraduate students, one finds a number of commonalities. These include:

1. Students, regardless of the information need, typically and overwhelmingly turn to the Internet and family, friends, and peers as primary information sources when information-seeking, without much thought given to the authority, credibility, or reliability of these information sources (Becker, 2003; Gross & Latham, 2011; 2007; Head, 2013; Holman, 2011; Massimini & Peterson, 2009; Nicholas et al.,
Despite exposure to instruction in terms of best practices when seeking academic information, students have low motivation to change their current, poorly structured search strategies (mostly developed during their high school years), choosing instead to ‘update’ their current strategies rather than seek out new and more effective strategies to finding information, most often because of previous success they have experienced with the poorer strategies (Becker, 2003; Gross & Latham, 2011; 2011; Holman, 2011; O’Brien et al., 2007; Prabha et al., 2007; Taylor, 2012; Thelwall, 2005; Vakkari, 2005; Vechtomova & Zhang, 2009; Warwick et al, 2009; Weiner, 2011),

Students often ‘satisfice’ (see “Definition of terms” in Chapter 1) their information-seeking for academic purposes, finding resources that meet minimal requirements for assignments because of anxiety and uncertainty in information-seeking for academic purposes, and because they encounter difficulty when trying to understand content presented in academic resources (such as in scholarly journal articles). Consequently, many students turn to less-reliable sources such as Wikipedia and ‘trusted’ web resources for information, even though most acknowledge these resources are insufficient and academically inappropriate for meeting the requirements of academic assignments (Badke, 2011; Cole et al., 2000; Deitering & Jameson, 2008; Hsieh, Dawson, & Carlin, 2013; Johnson, Lindsay, & Walter, 2008; Mittermeyer, 2005; Taylor, 2012; Warwick et al., 2009; Weiner, 2011),
And finally,

4. Academically appropriate information-seeking is tied directly to the information literacy abilities of students—therefore, the less information literate students are, the more difficulty they will encounter when developing academically appropriate information-seeking behaviors, despite believing their behaviors to be sufficient and their information behaviors to be above average. This is perhaps best summed up by Gross & Latham (2011):

While below-proficient [in terms of information-seeking abilities and behaviors] students also buy into the idea that information seeking is something anyone can do and have a high degree of self-confidence in their information skills, they tend to rate their own ability as above average … The idea that an objective set of skills for information is possible surprised some students. In line with the perception that finding information is about product, not process. (Gross & Latham, 2011, pp. 172-3).

The words quoted above from Gross and Latham (2011) are particularly poignant for this researcher. Indeed, it is surmised that such problems extend even deeper for undergraduate students enrolled in remedial coursework, who face a range of academic challenges that their college-ready peers do not. Therefore, and as supported by the study findings presented in Chapter 4, this study revealed that remedial undergraduate students have additional, unique sets of anxiety-inducing problems and challenges in terms of information-seeking behaviors. Current research into the information anxiety of undergraduate students in general is presented next.

As summation of the literature cited in this section, this researcher has shown that research in library and information science has revealed that many undergraduate students have
poor academic information-seeking skills and therefore continually exhibit poor academic information behaviors. Additionally, many of these same students fail to recognize the poor quality of these behaviors, choosing instead to amend deficient academic information-seeking behaviors rather than adopting new, academically appropriate ones. Similarly, many students in the studies cited above exhibit satisficing behaviors in their academic information-seeking to meet minimum assignment requirements, and believe these behaviors to be sufficient for their academic progress. Finally, it is apparent that many students focus not on their information search process, but rather, the products of that process as being emblematic of the ‘success’ of their information behaviors. These elements produce a troublesome cocktail for all those working in education and library and information science to promote efficient, academically sound information literacy skills and thorough academic information-seeking processes.

However, that there are researchers in education and library and information science who acknowledge how detrimental these beliefs are to the academic progress of undergraduate students as a whole is encouraging. These professionals are attempting to remedy student misconceptions regarding the AISP through information literacy instruction, both in and out of the classroom, believing (as does this researcher) that strong academic information-seeking processes are linked to strong information literacy abilities. The literature on information literacy instruction initiatives in higher education intent on improving the general information behaviors of students shall be discussed next.

**Information literacy and the undergraduate student information search process**

Because of the impact of the Information Age (a.k.a. the Knowledge Era) on higher education, starting in the 1980s and growing increasingly more pressing as Internet usage became commonplace, many higher education institutions were required by accreditation
agencies to implement strategic academic responses to meet the needs of the 21st century workforce. This included creating initiatives that promoted the development of information literacy and critical thinking abilities in the student body, thereby instilling characteristics in these students required for lifelong learning—characteristics in high demand in the information economy (American Library Association, 2000; Oakleaf, 2010; Saunders, 2007). As Oakleaf (2010) and Saunders (2007) discuss, academic libraries more than ever were charged with proving their ‘worth’ in higher education institutions across the country. Particularly, academic librarians were tasked with aiding educators imbue the characteristics of lifelong learning in all students moving through these institutions, and in helping institutions as a whole staunch their ‘student attrition bleed,’ as it were (Oakleaf, 2010; Saunders, 2007). The numerous ways librarians and educators have chosen to guide the implementation of information literacy instruction programs in higher education is discussed in the next section.

*Information literacy instruction in higher education: Is there one ‘best practice?’*

In preparation for the dissertation phase, this researcher spent the last three years monitoring discussions on the information literacy instruction listserv of the American Library Association (ili-l@ala.org). Specifically, discussions related to information literacy instruction were followed in order to ascertain whether a consensus would emerge regarding what constitutes ‘best practices’ to improve the academic information-seeking behaviors of undergraduate students. The short answer to the consensus question is that there appears to be no consensus in this matter. Indeed, over the monitoring period it appeared that there was much discussion arguing for the merits of a variety of instructional types in this field. This included discussions on a) one-shot library instruction sessions, typically administered to incoming freshmen during orientation programs, and that attempt to instill the value of the academic
library for these students in ‘one shot’ 45-60 minute-long sessions), b) embedded librarianship, where librarians “work closely over extended periods of time with non-librarian groups, whether by joining a semester-long course, maintaining an ongoing presence in online courses, participating in broad curriculum planning efforts, or joining the staffs of academic departments, clinical settings, or performing groups” (Kvenild and Calkins, 2011, p. vii), c) collaborative partnerships between librarians and faculty in a number of unique endeavors (such as those discussed in Alfino, Pajer, Pierce, & O’Brien Jenks, 2008; Cole, Cantero & Ungar, 2000; Deitering & Jameson, 2008; Dewey, 2001; Hoffman & LaBonte, 2012; Johnson, Lindsay, & Walter, 2008; McAdoo, 2010; Nutefall & Ryder, 2010; Rockman, 2004; Smith & Dailey, 2013; and Young & Harmony, 1999), and d) the integration of library services into auxiliary campus support services, such as writing centers, testing and tutoring centers, supplementary instruction programs, and in first-year orientation programs (similar to programs discussed by Breivik & Gee, 2006; Fitzgerald, 2004; Hardesty, 2007; Lupton, 2008; and Malone & Videon, 2003).

In addition to a range of discussions on the ALA listserv regarding what constitutes the ‘best’ type of information literacy instruction in higher education is an equally lengthy debate on who exactly should be providing information literacy instruction to students. Although some on the listserv maintained that information literacy instruction is and should remain the domain of librarians, others contributing to these discussions believed it should occur through collaborative partnerships. Perspectives on collaboration included suggestions for collaboration between librarians and faculty members (but that librarians should take the lead), or between librarians and student support services (described above). Interestingly for this researcher, a strong opinion on the matter of instruction emerged from the library and information science professionals who promote the powers of technological advancement. Many of these professionals shared that they
believe information literacy instruction should be delivered through self-guided, online tutorials made available to students, from which they could learn at their leisure (ALA-ILI listserv, email communication, January, 2012 to January, 2015).

Turning to the literature that addresses information literacy instruction in higher education, there appears to be no more consensus on information literacy instruction best practices within the numerous works on the topic than there was in the listserv discussions (a brief sample of which appears here: Badke, 2011; Burkhardt, MacDonald, & Rathemacher, 2005; Elmborg, 2003; Freeman & Lynd-Balta, 2010; Gross & Latham, 2011; 2009; 2007; Hardesty, 2007; Jacobson & Xu, 2004; Smith & Dailey, 2013; and Young & Harmony, 1999). However, despite a lack of consistency in listserv discussions and published works on the topic of information literacy instruction, a strong voice in support of collaborative, contextual information literacy instruction is emerging. More on the specific literature related to collaboration in information literacy instruction shall be discussed in the next section.

Views on collaboration in information literacy instruction

As was stated previously, there are a growing number of library and information professionals conducting research into the benefits of collaborative partnerships in information literacy instruction in higher education. Numerous advocates for such efforts include librarians like Badke (2011), who contends that “those who know and care about information literacy need to become mentors to faculty members who care about student research” (p. 53). Breivik and Gee (2006), in discussing the importance of institutional support for collaborative partnerships between librarians and the entire higher education institution, state: “[t]he challenge is for institutions to ensure an integrated approach that fosters active learning by students and offers incentives and opportunities through faculty development programs for faculty to become more
active facilitators of learning” (p. 48). Johnston and Webber (2003), in a meta-analysis of current initiatives in higher education institutions in the United States, the United Kingdom, and Australia, found that the most effective information literacy programs (in terms of achieving student learning outcomes related to information literacy) were those initiatives that were a seamless part of the higher education structure. As they explain, the effectiveness of these initiatives stemmed from their responsiveness to the needs of the world outside of academia:

The development of the information society and the knowledge economy is causing fundamental change in the nature of organisations [sic], and this includes universities. It is not enough … for the university simply to concentrate on teaching students to be information literate. We contend that in order to realise [sic] fully the value of this [integrated information literacy] approach as a sensible curricular response to the information society and the knowledge economy, universities need to reappraise their own structures and reprioritise [sic] activity accordingly. (Johnston & Webber, 2003, p. 349).

Finally, in support of collaborative and institutionally supported information literacy instruction programs, Bruce (2004) states:

Information literacy education is not possible without partnerships. Students, information specialists, IT specialists, curriculum designers, community organizations, teachers, amongst others, all need an awareness of the value of information literacy, and all need to collaborate to make possible learning experiences that facilitate information literacy (p. 16).

Despite numerous reports of successful collaborative projects between librarians and faculty, institutional organizations, first-year programs, support services, and the like (including
those reported in Freeman & Lynd-Balta, 2010; Hoffman & LaBonte, 2012; Hoyer, 2011; Hsieh, Dawson, & Carlin, 2013; Kasowitz-Scheer & Pasqualoni, 2002; Kvenild & Calkins, 2011; Lee & Tsai, 2011; Mackey & Jacobson, 2010; Moser, Heisel, Jacob, & McNeill, 2011; Nichols, 2009; and Nims, Baier, Bullard, & Owen, 2003), there are still those in academia who resist such collaborations for a variety of reasons.

Gullikson (2006) discovered that although most faculty from a variety of disciplines interviewed for the study agreed that the Information Literacy Competency Standards for Higher Education (ALA, 2000) are very important for students in terms of academic progress, they tended to disagree on who was responsible for helping students achieve these standards. Indeed, many faculty members in the study expected students to enter higher education with most of the standards already learned, or believed students would attain them quickly during their first year of study. In applying these sentiments outward, Gullikson (2006) speculates this could cause problems for librarians who wish to collaborate on information literacy instruction with faculty members because disagreement over who should teach the standards could cause friction and misunderstanding between faculty and librarians. In a qualitative investigation of multidisciplinary faculty members’ perceptions of information literacy instruction and student learning, McGuinness (2006) found that many faculty members believed collaboration with librarians in information literacy instruction was unnecessary because they were ‘already teaching’ information literacy in their courses, or they believed that a) students already knew all that they needed to know about information literacy or, if they didn’t, b) they would be driven to learn the necessary information literacy skills on their own:

One of the more striking themes to emerge [from faculty interviews] was the pervasiveness of the belief that the extent to which students develop as
information literate individuals depends almost entirely on personal interest, individual motivation and innate ability, rather than on the quality and format of the available instructional opportunities. (McGuinness, 2006, p. 577)

As Gross and Latham’s (2011; 2011; 2009, 2007) research has found repeatedly, not only are most students ill-aware of their actual academic information-seeking and information literacy abilities, but many students with below-proficient skills also rate their information literacy skills as being above average. Therefore, these students do not seek ways to improve their academic information-seeking behaviors or attempt to acquire appropriate information literacy skills.

Toward educating faculty on this matter, Weiler (2004) states that faculty members who believe that students are ‘information literate’ upon their entry into higher education (like the faculty interviewed in the McGuinness (2006) study) are woefully mistaken:

It cannot be expected that all students will arrive at college ready to seek information with high levels of reflective and critical thinking. Some students will develop these skills later than others, and some will still be struggling with them in graduate school. Instructors and librarians would be well advised to keep in mind that cognitive ability is a developmental process and students must go through a series of steps over a period of time before they are able to seek information critically and reflectively. (Weiler, 2004, p. 52)

Adding to findings already presented here, Albitz (2007) puts forth that in terms of failed opportunities for collaboration, “[l]ibrarians are frustrated that they are not invited into the classroom to teach “information literacy” skills, and teaching faculty are suspicious of librarian’s motives for wanting to take over valuable class time” (p. 98), leading to confusion and miscommunication from both camps regarding the benefits of collaborative information literacy
instruction. Finally, as Breivik and Gee (2006) discuss, research indicating a direct correlation exists between high levels of library use and research skills, and increased academic performance and retention for students, dates back as far as 1972 to a study at Brooklyn College. However, collaborative partnerships between librarians and faculty are rarely supported or rewarded at the administrative level. With the competing work demands of both librarians and faculty, then, expending extra effort and energy on innovative, collaborative endeavors in information literacy instruction that may not even be recognized or supported by the institution for which they are created may hardly seem worth it to many would-be collaborators.

So it appears that information professionals seeking to create an institution-wide support system for effective information literacy programs are facing a double threat: 1) A lack of support for the role of academic libraries as a whole by administrators, and 2) a lack of awareness of the role that collaborative information literacy instruction can play in the classroom by faculty members. Therefore, in returning to the ‘calls to action’ detailed in the report by Oakleaf (2010), this researcher puts forth that academic librarians must do more to promote their institutional value, particularly in terms of information literacy instruction and initiatives, to higher education as a whole.

A positive means for promoting the institutional value of academic libraries is by addressing the specific information needs of remedial undergraduate students (which, as this researcher has already stated, is an under-researched area in library and information science). Nationwide, almost a quarter of incoming undergraduate students test into remedial coursework (Bettinger & Long, 2005; Parker, 2012; Sparks & Malkus, 2013). In Ohio, percentages of undergraduate students enrolled in remedial English courses range from 19% (under the age of 20) to 24% (aged 20 and older) (Ohio Board of Regents, 2011). Problematically, researchers in
library and information science who are examining issues faced by remedial undergraduate students allege scant evidence is provided indicating that these courses help students succeed academically, or persist toward graduation in a timely fashion (Bettinger & Long, 2005; Hamilton, 2013; Mangan, 2012; Parker, 2012; Roselle, 2009; Sparks & Malkus, 2013).

This researcher asserts that academic librarians have a unique opportunity to affirm their institutional value by partnering with remedial instructors toward creating contextual, collaborative information literacy instruction in remedial courses that addresses directly the needs of these students. As has already been indicated, Breivik and Gee (2006) suggest that research on direct, positive correlations between information literacy instruction and student academic success and retention abound. If academic librarians can create successful partnerships in remedial courses that help these most at-risk students succeed academically and persist toward graduation, it is possible that institutional support for campus-wide collaborative initiatives will soon follow. For this reason and for the many other reasons shared throughout this dissertation; this researcher asserts study findings presented in this dissertation will provide academic librarians who are eager to collaborate with remedial instructors crucial ‘bargaining chips’ for doing so, toward better serving the needs of remedial students, specifically.

Presently, research on the information behavior and information literacy needs of remedial undergraduate students is minimal, constituting only a handful of studies by researchers such as Hamilton, 2013; Ishitani, 2006; Lascar, 2002; Lee, 2012; Merisotis & Phipps, 2000; Mittermeyer, 2005; Noble & Sawyer, 2013; Mulvey, 2009; Roselle, 2009; Stuart, 2009; and Vance, Kirk, & Gardner, 2012. Therefore, this researcher asserts that her in-depth examination of the AISP experience of students enrolled in a remedial English course, the findings of which are described and applied in Chapters 4 and 5 of this dissertation, will provide a foundation for
further, more directed research in this area. As she intends to pursue this research further (please see Chapter 5 for more information), this researcher hopes to develop broader, more-attuned instruction, working with both academic librarians and potential faculty collaborators in remedial education to best meet the needs of this academically at-risk student population.

Lastly for this section, a cross-section of the research in library and information science and education is examined which discusses intersects between information literacy and critical thinking. This rounds out the reviewed literature used to support this researcher’s argument of the need for more research into the academic information-seeking process of remedial undergraduate students.

On information literacy and critical thinking: Similar, but not the same

As explained in the preamble to the Information Literacy Competency Standards for Higher Education (ALA, 2000), critical thinking and information literacy abilities are two of the fundamental elements required for a person to become a lifelong learner. As the literature in this area supports (Albitz, 2007; Alfino et al., 2008; Deitering & Jameson, 2008; Ellis & Whatley, 2008; Harley, 2001; Johnson, Lindsay, & Walter, 2009; Kwon, 2008; Kwon et al., 2007; Lampert, 2007; and Weiner, 2011), although the two concepts are related, they are not the same. However, teaching one without an appreciation for the role of the other in related instruction can be confusing for students who are attempting to develop a better understanding of both concepts. As Weiler (2004) shares, “[t]he issue of critical thinking cannot be separated from how students view their information universe” (p. 47).

Albitz (2007) suggests that there are some professionals in both education and library and information science who incorrectly believe that information literacy and critical thinking are essentially the same concept. Albitz (2007) further speculates that this is the primary reason that
librarians encounter resistance when attempting to collaborate with faculty to provide information literacy instruction in classrooms. He surmises that this is because the concept of critical thinking is underexplored in the library literature. Therefore, librarians may be at a loss in explaining that although faculty may be addressing critical thinking through coursework, collaborative information literacy instruction could enhance critical thinking abilities, and help students gain a better appreciation for the role of both concepts in their academic lives, and beyond. After assessing the results of information literacy instruction programs incorporated into first-year coursework at their academic institution, Alfino et al. (2008) discovered

[C]ritical thinking and expression goals of the thought and expression block can be enhanced by promoting information literacy skills as part of a set of sequenced assignments, which raise student awareness of knowledge acquisition tools, standards of evaluation for authority, and point of view. (p. 97).

Therefore, based on the literature presented herein, this researcher asserts that even though they are essential elements needed for a student to engage in academically appropriate information behaviors and to become a lifelong learner, critical thinking and information literacy abilities are not the same and therefore require different instructional approaches by educators. As the literature cited previously affirms, these approaches can be linked and indeed may more successfully impart the importance of these elements to students when taught together. However, where undergraduate students enrolled in remedial coursework are deficient in either critical thinking or information literacy abilities (in terms of their information-seeking and general information behaviors) is still largely uncharted territory. It is the hope of this researcher that the findings of the research study conducted and described throughout this dissertation will enhance educational practice in this area. Specifically, it is this researcher’s
hope that future research will explore intersects between information literacy and critical thinking instruction in remedial education classes. Such research might illuminate best practice instructional methods, which consequently could lead to the improvement of both to the benefit of all who work with remedial undergraduate students.

The final portion of this chapter presents a conceptual framework for the proposed study (discussed at length in Chapter 3), based on pertinent theories and models in the realm of information-seeking and information behavior, as well as a theoretical model of the AISP of the Millennial undergraduate student, which was created by this researcher as a visual summary of prior research in this area and toward bracketing pre-study ‘biases’ held by this researcher, based on her understanding of the literature previously explored and presented herein.

**Conceptual framework: Theories and models guiding the study**

Although some of the theories and models described within this section were introduced earlier in this chapter, they have been broken out within this section as they form the basis for the conceptual framework of the research study described throughout this dissertation. Additionally, placing these theories and models into a separate section constituted a key bias-minimizing phase in this researcher’s study, allowing for enhanced reflexivity during the research study (please see the Epoché in Appendix F for more details). As bracketing and reflexivity are crucial to appropriately undertaking a descriptive phenomenological investigation, documenting the effect of prior research examined that could impact this researcher’s perspective in a typically inductive research environment is both necessary and critical to accurately reflect the lived experience of the researched (Colaizzi, 1978; 1973; Giorgi, 2009; 1997; Spinelli, 2005).

The conceptual framework is visually presented through the ‘Theoretical Model of the AISP of the Millennial Undergraduate Student’ at the end of this section. This model constitutes
a high-level, summative analysis of the theories and models discussed in this section, and constitutes the primary step toward documenting pre-conceived biases about the experience under investigation, specifically as these biases are founded in the literature. Specific reasons for including the theories and models are explained in each section below.


Although most of Blair’s (1990) and Wilson’s (1983; 1977) research alluded to within this section was written well before the technological advancements and capabilities available to undergraduate students currently, it is telling that so much of what they discovered is still relevant today, and therefore has implications for the way any researcher investigating the information search process of undergraduate students in general (and remedial undergraduate students, in particular) should approach that research, both conceptually and realistically. The work of Blair (1990) and (Patrick) Wilson (1983; 1977) is discussed together here because of the rational intersects between the two in terms of information-seeking behaviors.

Although Wilson’s (1983; 1977) research was primarily people-focused and Blair’s (1990) research focused more on information retrieval (IR) systems and peoples’ use of them, discoveries made by both create a plausible foundation for understanding some of the insufficient information-seeking behaviors of undergraduate students. This includes behavior such as “satisficing” (see “Definition of Terms” in Chapter 1), defined here more contextually as the unwillingness of students to replace inappropriate academic information-seeking behaviors with more academically efficient ones, and what prompts information-seekers to abandon a search for information altogether, no matter the repercussions of such abandonment.
In his description of the Personal Information System (PIS) in *Public Knowledge, Private Ignorance*, Wilson (1977) explains that for most people, the PIS is comprised of information gained from three main sources:

1. **Monitor sources** (consulted daily or near-daily information sources such as news, etc., and which today could include social networks, trusted websites and online news sources),

2. **Reference sources** (sources that are turned to less frequently and typically used most when someone discovers a gap in his or her overall information system he or she wishes to fill), and

3. **Advisory sources** (mostly composed of people within the user’s life that he or she trusts as information sources and therefore to whom he or she regularly turns for information, even though these sources may be incorrect or unreliable).

In *Second-hand Knowledge*, Wilson (1983) expounds on the notion of advisory sources and states that these sources are “cognitive authorities” (p. 13) within a PIS, explaining that cognitive authority is “influence on one’s thoughts that one would consciously recognize as proper” (p. 15). Although not necessarily an expert source, cognitive authorities nonetheless have become information authorities for people based on a number of personally applied factors, such as educational background, experience with a topic or topics, and primarily because of the level of trust someone places in this person/resource for providing information (as not all cognitive authorities are people within a PIS). To that end, one can see why the above-described ‘advisory’ category becomes particularly problematic for both college-ready and remedial undergraduate students, based on prior research presented within this chapter on the preferred information resources of undergraduate students.
In discussing users and IR systems, Blair (1990) explains that many users encounter a ‘point of futility’ when engaging with IR systems to find information, reached much quicker if the user is poorly oriented in using the IR system itself. Blair (1990) claims that mathematically, one can calculate a “futility prediction criterion” (p. 10) in relation to one’s “futility point” (p. 10), based on factors such as the number of anchor terms (terms the user believes are significant in finding information for the information need within an IR system) submitted to the system (and altered, adapted, or changed in consequent searches), the number of searches performed, and the number of results retrieved (whether relevant or not). Blair (1990) puts forth that the futility point itself is the number of retrieved items a user is willing to look through in order to find the information he or she needs to fulfill an information need, and the futility prediction criterion allows one to calculate a precise number of times a user may conduct a search, with different strategies and/or anchor terms where appropriate, in pursuit of the information he or she needs before reaching his or her futility point.

Blair (1990) explains what has become known among library professionals as ‘hunt and peck’ searching in IR systems is problematic because many IR systems are not intuitive (which is still true today), with controlled vocabulary terms make searching difficult, especially for novice users. Additionally, Blair (1990) says that a user’s overreliance on certain anchor terms, limiting or overextending the number of terms used, and the order in which the terms are used can cause search results to reach a person’s futility point long before the necessary information has been found. Blair (1990) adds

[W]hile the inquirer may have a single, comprehensive goal which defines his search normatively, his actual searching behavior will still be characterized by his attempts to satisfy the sometimes competing processes of predicting the terms
describing relevant documents and retrieving few enough documents at a time to browse through. (p. 22).

In connecting the work of Blair (1990) and Wilson (1983; 1977), it is the notion of ‘cognitive authority’ that may best link the two differing perspectives to information ‘mis’-retrieval. Wilson (1983) explains that a source is deemed a cognitive authority for a number of reasons, but that most of a person’s cognitive authority sources are formed/selected primarily during youth, and comprise parents and/or guardians, and a person’s peers. As research cited within this chapter and throughout this dissertation reinforces: In regard to the information role of friends, family, and peers in a student’s AISP experience, this appears to be the case with many current undergraduate students, as well. Because such sources often form the basis for a person’s burgeoning PIS, ineffective cognitive authorities can be deleterious to a student’s overall PIS (which Wilson [1977] explains are rarely changed entirely, in that such change brings about emotional turmoil in people that they find difficult to manage and/or overcome).

One can then make the conceptual leap between the negative effects of ‘deficient’ cognitive authority sources on a person’s PIS, and the negative effects of overreliance on poorly developed academic information-seeking strategies when using an IR system on a person’s PIS, as well. As Blair (1990) discusses, when users become more knowledgeable about how IR systems work and discover system-recognized vocabulary terms for their AISP needs, information searches can become more fruitful. However, many users are often unwilling to relinquish their key anchor terms in a search, or to stop using search strategies they believe could be ‘successful’ with some tweaking (despite evidence to the contrary in terms of information retrieved applying such strategies). Particularly, Lupton (2008) found that novice users had a habit of asking questions of a search engine (as opposed to providing a search query), or not
properly formulating requests for information from a search engine, e.g. Google, Bing, Yahoo!, etc.. However, Lupton (2008) discovered that these students were overall satisfied with the results that were returned if they seemed even tangentially related to an information request, which she speculates is an anxiety-reduction method for these students.

Similarly, Wilson (1983) explains that when someone is confronted with information that challenges one’s PIS (particularly when that conflicting information comes from someone or something one considers to be a cognitive authority), a choice must be made: The user must ignore the conflicting information and leave his or her PIS intact, or views must change, necessitating changes to or perhaps of the entire PIS. As already explained, a ‘PIS overhaul’ can be traumatic, particularly for incoming undergraduate students, who researchers have found tend to be very polarized in their views and beliefs (Becker, 2003; Breivik & Gee, 2006; Gross & Latham, 2011; 2009; Head, 2013; Limberg, 2000; Lupton, 2008; Yang, 1997).

At the core of both models (and indeed, the descriptions surrounding information behavior discussed by both Wilson [1977, 1983] and Blair [1990]) is the process one must go through before one can accept a change in one’s personal information system or information behavior. For remedial undergraduate students this is particularly problematic, in that their anxiety is already heightened because they enter higher education feeling ‘lesser than’ because of their presence in remedial courses (elaborated upon by Bettinger & Long, 2005; Brothen & Wambach, 2004; Di Tommaso, 2012; Hamilton, 2013; Mittermeyer, 2005; and Roselle, 2009). Therefore, in her examination of the AISP experience of participants in the study described throughout this dissertation, acknowledging the roles of cognitive authority sources and personal information systems (Wilson, 1983; 1977) and points of futility in information-seeking (Blair, 1990) was critical for this researcher from both a reflexive perspective, and during analysis.
Breland and Breland’s (1961) “Instinctive drift” theory

Breland and Breland (1961), researchers in the field of animal behavioral psychology, developed a number of lines of inquiry and practice related to the conditioning of animals through their research. Much of their work discussed the effects of reward and/or reinforcement on conditioning behavior in animals, and they developed many successful training techniques based on their research in this area. However, as explored in The Misbehavior of Organisms, Breland et al. (1961) discuss a concept they termed “instinctive drift” (p. 684), which refers to the anomalous return to instinctual behavior of an animal conditioned otherwise. In describing why they believe instinctive drift happens, Breland et al. (1961) state:

The general principle seems to be that wherever an animal has strong instinctive behaviors in the area of the conditioned response, after continued running the organism will drift toward the instinctive behavior to the detriment of the conditioned behavior and even to the delay or preclusion of the reinforcement. In a very boiled-down, simplified form, it might be stated as ‘learned behavior drifts toward instinctive behavior’ … After 14 years of continuous conditioning and observation of thousands of animals, it is our reluctant conclusion that the behavior of any species cannot be adequately understood, predicted, or controlled without knowledge of its instinctive patterns, evolutionary history, and ecological niche. (pp. 683-4)

It is not the intention of this researcher to compare directly the behavior of undergraduate students to the behavior animals. However, there may be some parallels between what Breland et al. (1961) describe above, and frustrations experienced by educators and library and information science professionals in the area of ‘aberrant’ student information behaviors despite ‘conditioning’ otherwise.
As the previous research cited in this chapter regarding the nature of undergraduate student academic information-seeking shows, educators and library and information science professionals do their best to instill the importance of academically appropriate information-seeking behaviors in students. However, it is still the case that many students will revert to academically deficient information behaviors to gratify immediate academic needs, despite being instructed or ‘conditioned’ to do otherwise and with reinforcement provided by means of higher grades received on assignments representing the academically preferred behavior (e.g. as discovered by Becker, 2003; Gross & Latham, 2011; 2007; Gross, 2005; Nicholas et al., 2009; O’Brien & Symons, 2007; Prabha et al., 2007; and Warwick et al., 2009). Specifically, as Warwick et al. (2009) discuss, based on the results of their longitudinal study into the information behaviors of students progressing through their degrees, exposure to appropriate information behavior instruction, methods, and abilities does not necessarily equate to practice of appropriate academic information behavior. They add that although this may be evident in the work of certain students, “we believe that our results demonstrate that experience does not necessarily bring about expertise, especially if, as in this case, participants lack confidence in analyzing and evaluating the utility of search results” (Warwick et al., 2009, p. 2411). In other words, being ‘conditioned’ to perform academically sound information searching does not necessarily translate into regular practice for students, despite continual exposure, if other important background factors (such as confidence in evaluating search results) are missing.

In speaking to the final sentence in the quote above from Breland et al. (1961), i.e. related to the “knowledge of its instinctive patterns, evolutionary history, and ecological niche” (p. 684), this researcher asserts that perhaps the biggest reason students remain trapped in academically inappropriate information-seeking behaviors is the inherent lack of understanding on behalf of
educators of students’ histories and ‘ecologies’ impacting their information-seeking overall. More on the importance of this matter shall be discussed in the section related to Williamson’s (2005) Ecological Theory of Human Information Behavior.

To conclude this section, although the notion of instinctive drift is not a defining theory for this study, it was included because of its relation to Williamson’s (2005) theory, because of what the concept of instinctive drift says about animal behavior in general, and because this researcher finds it plausible that future investigation into parallels between this theory and academic information-seeking practices of undergraduate students could bear out that instinctive drift is a tangible explanation for why students revert to inappropriate information behaviors despite receiving instruction and/or ‘rewards’ for exhibiting academically appropriate behaviors.

Kuhlthau’s (1991) “Information Search Process” Model

As discussed previously in this chapter, Kuhlthau’s (1991) research into the information search process of undergraduate students and others was illuminating to the library and information science field. Not only does Kuhlthau (1991) assert an information search process is non-linear in its progression, but she also discusses the impact of uncertainty and anxiety on the information search process itself, particularly in the early stages of the process, and specifically in the initial stages, when someone is struggling to define his or her information need. For this researcher, Kuhlthau’s (1991) model was one of the primary reasons this dissertation topic was chosen as a worthy means of investigation. Therefore, including Kuhlthau’s (1991) Information Search Process Model into the larger conceptual framework shaping this study reinforces the crucial nature of the role emotion plays in information-seeking behavior. Kuhlthau’s (1991) model is presented below, as it appeared in her 1991 article.
<table>
<thead>
<tr>
<th>Stages in ISP</th>
<th>Feelings Common to Each Stage</th>
<th>Thoughts Common to Each Stage</th>
<th>Actions Common to Each Stage</th>
<th>Appropriate Task According to Kuhlthau Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Initiation</td>
<td>Uncertainty</td>
<td>General/Vague</td>
<td>Seeking Background Information</td>
<td>Recognize</td>
</tr>
<tr>
<td>2. Selection</td>
<td>Optimism</td>
<td></td>
<td></td>
<td>Identify</td>
</tr>
<tr>
<td>3. Exploration</td>
<td>Confusion/Frustration/Doubt</td>
<td>Seeking Relevant Information</td>
<td></td>
<td>Investigate</td>
</tr>
<tr>
<td>4. Formulation</td>
<td>Clarity</td>
<td>Narrowed/Clearer</td>
<td>Formulate</td>
<td></td>
</tr>
<tr>
<td>5. Collection</td>
<td>Sense of Direction/Confidence</td>
<td>Increased Interest</td>
<td>Seeking Relevant or Focused Information</td>
<td>Gather</td>
</tr>
<tr>
<td>6. Presentation</td>
<td>Relief/Satisfaction Or Disappointment</td>
<td>Clearer or Focused</td>
<td>Complete</td>
<td></td>
</tr>
</tbody>
</table>

**Figure 1. Information Search Process Model (Kuhlthau, 1991, p. 367)**

*Williamson’s (2005) Ecological Theory of Human Information Behavior*

Williamson’s (2005) theory was developed based on her 1998 model of information seeking and use, created after extensive study into how older people acquire information that form the basis of their everyday lives. Based on the influence of researchers like P. Wilson (1983; 1977), Williamson (2005) discovered that most of the information people found every day was accidentally acquired, and it was primarily the result of incidental information acquisition that people discovered information needs in their lives. To that end, Williamson (2005) believes that one cannot understand the information needs of someone unless they understand that person’s “ecological framework” (p. 130). Specifically, Williamson (2005) states:

There is a need for an acknowledged compromise position and for at least some of the focus [on the information user] to move to the *relationship* between
information types/sources/systems and the information seeker/user … There is also a need to include information sources such as family, friends, and colleagues, who are not components of “information systems,” but who play a significant role in incidental information acquisition (p. 130).

As previous research cited within this chapter has shown, undergraduate students regularly turn to their ‘inner circle’ (family, friends, etc.) for information and guidance when engaging in an academic information search process. Additionally, they rely on sources they found to be useful in previous research endeavors, and that aid them in achieving, at least minimally, the requirements for academic assignments (such as Wikipedia, discussed specifically in Head, 2013; Lim, 2009, and Project Information Literacy, 2012).

Williamson (2005) also believes that a range of socio-cultural factors affect the information behavior of people, including lifestyles, values, socio-economic circumstances, personal lives and work situations, to name a few. To that end, part of understanding the AISP experience of this dissertation study’s participants was appreciating the influence of ecological factors on their AISP experience, including to whom participants regularly turned for information assistance. During interviews and in-class observation, participants were asked to expound on statements or comments made that referred to elements not necessarily related, either directly or indirectly, to the AISP experience. In this way, this researcher was able to observe the influence of these ‘ecological’ elements on the AISP experience, and examine how participants discussed these elements within the context of their AISP experience. To that end, Williamson’s (2005) theory cemented itself as critical to the study’s conceptual framework. Her ecological model of information seeking and use (Williamson, 2005, p. 129) appears below.
In his article, *Models in Information Behaviour Research*, Wilson (1999) presented summaries and outlines for a number of models developed toward understanding more about the information-seeking behaviors of specific groups. Included are

- Wilson’s own models of information behavior (Wilson, 1999, pp. 251-252, 257),
- Dervin’s 1983 sense-making framework (pp. 253-4),
- Ellis’ 1989 behavioral framework (p. 255),
- Ingwersen’s 1997 model of the information retrieval process (p. 259),
- Saracevic’s 1996 model of the information retrieval process (p. 261),
• Spink’s 1997 model of the information retrieval interaction process (p. 262),
• A model in which Wilson (1999) links information seeking and communication (p. 264),
• A problem-solving model of the information seeking and searching process (derived partly on work from Kuhlthau (1991), Wilson, 1999, p. 266), and
• What Wilson (1999) calls a ‘nested’ model of the information seeking and information searching research areas, represented at the end of this section (p. 263).

Although Wilson (1999) does not agree with all elements included in the above-listed models, he includes the numerous research approaches to information-seeking and information behavior in this article because he hoped that doing so would lead to the integration of common thoughts expressed in the models, creating a general framework for information-seeking and behavior from which researchers could gain greater understanding about information search processes for different groups, and from different perspectives.

Although no such final model is delivered within his article, Wilson’s (1999) detailed descriptions of the research supporting each of the included models. Along with the research cited throughout this chapter on information-seeking and behavior, Wilson’s (1999) ‘nested’ model guided this researcher to create her own theoretical model of the AISP of the Millennial undergraduate student. This model, which serves as a summative, visual representation of many of the factors related to undergraduate information-seeking discussed in this chapter, represented the conceptual framework shaping this study’s foundation and administration.

Justification for the creation of such a model is drawn from Wilson’s (1999) final words in the article:
In the case of information-searching behaviour [sic]; how does knowledge of modes of information-seeking behaviour [sic] aid our understanding of the search process, if at all? Research to answer [this] question might best focus on projects that take a view of information searching as a complex process embedded in the broader perspective of information-seeking behaviour [sic], and information behaviour [sic] in general. (p. 267)

Figure 3. A nested model of the information seeking and information searching research areas (Wilson, 1999, p. 263)

Theoretical model of the AISP of the Millennial undergraduate student

As discussed previously in this chapter, a theoretical model of the academic information search process (AISP) of the Millennial undergraduate student was created by this researcher based on literature consulted for this dissertation. It is a visual summary of commonalities found across the literature in terms of the undergraduate AISP as it is conducted to complete academic requirements, i.e. writing a research paper. This model also served as a pre-study, literature bracketing process for this researcher.
Figure 4. The theoretical model of the AISP of the Millennial undergraduate student

Stage 1 – Potential pitfalls and competing concerns:

- Current information-seeking skills/information literacy abilities,
- Knowledge of academic resources vs. reliance on information-seeking in popular search engines exclusively,
- Cognitive authority sources,
- ‘Black and white’ Personal Information Systems,
- Other class assignments,
- Competing work/family life roles,
- Placement in higher education structure,
- Attitude to research and higher education in general, and
- Time.

Stage 2: Factors/steps

- AISP progresses and they physical process (i.e. the keywords and information resources consulted to find information) refined/reshaped by the student based on information found during Stage 1.
Anxiety (i.e. a facet of the emotional aspect of the AISP) at this stage ranges from mild to extreme, depending on the success of the physical process of the student’s AISP in finding information he/she believes is appropriate for addressing the academic need.

At this point, the student engages in cognitive reflection of the AISP and its returned content, and may return to one, more, or all steps completed during their beginning AISP in Stage 1, based on their assessment of how well the information they have found meets the original academic need.

Stage 3: Factors/Steps

- Overall AISP evaluated by the student based on the success/failure of process itself in Stages 1 & 2 (i.e. the cognitive aspect of the process is employed).
- AISP confirmed/refuted by seeking additional assistance from instructors, librarians, and/or support services (writing centers, etc.).
- Based on information located through the AISP in Stages 1 & 2, student either fulfills academic need with minimal anxiety, refocuses AISP with mid to high-level anxiety, or abandons the academic need completely with high/extreme levels of anxiety.

In concluding this chapter, this researcher reaffirms that a multitude of research examining the academic information-seeking experience of undergraduate students exists and has been conducted for many years, as evidenced by the work cited within this chapter. However, what is noticeably absent from the literature is research examining this experience for remedial undergraduate students specifically and, as discussed throughout this dissertation, it is this gap in the literature this researcher’s study begins to address, toward aiding library and information science and remedial education professionals more broadly serve the unique needs of this academically at-risk student population. The study’s methodology, data collection, and data analysis procedures are discussed in the next chapter.
Chapter III

Methodology

The research available on the information search process of undergraduate students as a whole, particularly in the United States, represents a number of quantitative and qualitative approaches assessing the process, toward creating a greater understanding of current needs of undergraduate students (mostly college-ready undergraduate students) for librarians and educators. However, as stated previously in this dissertation, very little of the research currently available focuses specifically on the academic information search process (AISP) needs of undergraduate students enrolled in remedial coursework. As this researcher has indicated, it is this gap in the literature the dissertation study described herein created a foundation to address. At this juncture, this researcher would like to note that although many qualitative dissertations are written in the first person, the decision was made by this researcher to use the scholarly third person throughout the dissertation in line with the writing style preferred by her college of study.

For this dissertation, descriptive phenomenological methods and analysis procedures (as described in Colaizzi, 1978, 1973; Giorgi, 1997, Spinelli, 2005; and Wojnar & Swanson, 2007) were used to collect and analyze study data, and to provide a response to the research question posed earlier in this dissertation. The exhaustive description of the AISP experience of the remedial undergraduate student, the end result of the descriptive phenomenological analysis of collected study data and indeed, the response to the earlier posed research question, was used to create a thematic representation of study findings model of the participants’ experience, and is included in Chapter 4. It is reiterated by this researcher that knowing more about the AISP experience of undergraduate students in remedial courses is crucial if remedial educators, researchers, professionals, and/or instructors in library and information science are to address the information needs of these students more effectively. As Belkin (2000) states so succinctly:
When people engage in information-seeking behavior, it’s usually because they are hoping to resolve some problem, or achieve some goal, for which their current state of knowledge is inadequate. This suggests they don’t really know what might be useful for them, and therefore may not be able to specify the salient characteristics of potentially useful information objects (p. 58).

To Belkin’s point, part of creating a 360-degree view of the AISP experience of undergraduate students enrolled in a remedial English course is identifying what these students find useful, what they do not, and how they make these determinations when searching for information to meet a specific and identified need. Without such understanding, educators, researchers, and library instructors will remain at a loss when it comes to understanding where weaknesses or gaps in remedial undergraduate students’ information-seeking skills exist, or how to help these students more effectively through targeted information literacy instruction. As findings from this study revealed, there is more to the AISP experience of remedial undergraduate students than simply the process itself, and the entirety of elements affecting the AISP experience should not be ignored. These elements and their relation to the AISP experience will be discussed in further detail in Chapter 4.

The next section will address pertinent qualitative research aspects relating to this study, as well as provide this researcher’s justifications for choosing descriptive phenomenology for the research study described herein, in comparison to other methodologies used in the literature cited in Chapter 2. Finally, the benefits and challenges of using a qualitative research paradigm as the methodological approach for this study will be discussed.
The qualitative paradigm

In his chapter comparing the merits and drawbacks of both quantitative and qualitative research, Smith (1983) states that quantitative (or positivist) research was viewed as the research ‘gold standard’ for so long because, among other reasons, the inherent generalizability of results from such research were viewed as true science. In quantitative research, Smith (1983), Hatch (2002), Englander (2012) and others explain that data are analyzed after they are gathered mostly from large, scientifically selected samples, and oftentimes in controlled settings, allowing for the researcher to claim to be an objective and unobtrusive part of the research. Theoretically, this process is meant to enhance the validity and reliability of the research results when applied to specific populations, as a whole.

However, as many researchers who have discovered unplumbed research depths through the use of qualitative methods will attest—generalizability is not the complete picture of a research ‘story.’ Indeed, one of the strongest merits of qualitative research lies in the ‘meat’ of deep, rich, and substantive data collected during such studies (as Colaizzi, 1978; 1973; Giorgi, 2009; Hatch, 2002, Merriam, 2002, Schram, 2003, and others attest). This, qualitative researchers believe, often leads to detail-rich analysis and broad-scale understanding in areas which may remain methodologically unexplored or underexplored in quantitative procedures due to the limitations of deductive approaches to data collection. Additionally, as Englander (2012) puts forth, the notion of generalizability is malleable and sometimes misunderstood when comparing research methods, and smaller, more descriptive and in-depth studies (such as those evidenced in many qualitative research studies) may do more to increase the understanding of rarely studied groups or phenomena than surface-level, quantitative studies—no matter the quantitative study’s ‘sample’ size.
Although Smith (1983) makes clear that each research paradigm (i.e. quantitative and qualitative) has its own unique sets of benefits, drawbacks, and challenges, a qualitative paradigm was chosen for this dissertation study because of the strength of qualitative research methods to produce deep and meaningful understanding of investigated phenomena. Therefore, particularly through the use of descriptive phenomenological data collection and analysis methods, this researcher puts forth that the study findings described herein contribute a rich and contextually deep foundation for continued research into the broader information needs and behaviors of undergraduate students in remedial courses. As discussed previously, if targeted information literacy instruction is to be created for remedial undergraduate students toward addressing their actual information needs in this area, similar to such instruction proposed in Chapter 5 based on study findings, a deeper and more detailed understanding of these needs is critical for informing the creation of such instruction.

In preparation for the dissertation study described herein, both quantitative and qualitative literature in the area of undergraduate information search processes were examined, as evidenced by the comprehensive review of same provided in Chapter 2. This review was conducted to create a more complete picture for this researcher of the library and information science research available regarding the information search process of college-ready undergraduate students. In part, this was done so that ‘knowledge biases’ held by this researcher regarding the AISP experience of both college-ready undergraduate students and undergraduate students enrolled in remedial coursework could be well-documented before approaching the research environment itself. This process forms the basis of a descriptive phenomenological technique known as the ‘Epoché’ (Colaizzi, 1973; Giorgi, 2009; Moustakas, 1994, Spinelli, 2005, see also Appendix F), and allowed the researcher to establish methodological separations...
between the participants’ related experience and her own as much as possible. These bias-reducing exercises continued throughout the study through this researcher’s bracketing and phenomenological reduction processes (please see Appendices G and H for the specific documents related to these processes). Phenomenological researcher van Manen (1990) explains bracketing as the term used by Husserl “to describe how one must take hold of the phenomenon and then place outside of it one’s knowledge about the phenomenon” (p. 47).

As already noted, one of the greatest strengths of qualitative research is the ability, through collection and analysis, to create a rich and deep awareness of a phenomenon (Colaizzi, 1973; Giorgi, 2009; 1997; Hatch, 2002; Smith, 1983). Therefore, the Epoché, bracketing, and phenomenological reduction during the data analysis process are critical components for the researcher to include when conducting descriptive phenomenological research. Colaizzi (1978; 1973), Giorgi (2009; 1997), Moustakas (1994), and Spinelli (2005) explain such processes are particularly important when exploring the boundaries and intricacies related to the universal essence/s of an experience. Indeed, as van Manen (1990) affirms, not acknowledging one’s own lived experience with a phenomenon may allow it to subconsciously enter into data analysis:

[I]t is better to make explicit our understandings, beliefs, biases, assumptions, presuppositions, and theories. We try to come to terms with our assumptions, not in order to forget them again, but rather to hold them deliberately at bay and even to turn this knowledge against itself (van Manen, 1990, p. 47).

A more in-depth explanation of descriptive phenomenology and how different methods were used to collect data for this dissertation shall be discussed in the next section.
**Qualitative methods**

In explaining the rationale behind selecting a phenomenological approach to research, van Manen (1990) states:

Lived experience is the starting point and end point of phenomenological research. The aim of phenomenology is to transform lived experience into a textual expression of its essence—in such a way that the effect of the text is at once a reflexive re-living and a reflective appropriation of something meaningful: a notion by which a reader is powerfully animated in his or her own lived experience (p. 36).

In adding more depth to this description, van Manen (1990), in quoting phenomenological philosopher Merleau-Ponty, says “[p]henomenology is the study of essences” (Merleau-Ponty, in van Manen, 1990, p. 39), explaining that an ‘essence’ is a description of a phenomenon, and that a good phenomenological description “is construed so that the structure of a lived experience is revealed to us in such a fashion that we are now able to grasp the nature and significance of this experience in a hitherto unseen way” (van Manen, 1990, p. 39). In sum, phenomenological study seeks to investigate the totality of an experience as related by participants in study investigating the experience, exposing multiple perspectives and considerations in such a way that new insight about the experience is revealed. This researcher asserts that her exhaustive description of the AISP experience of remedial undergraduate students, included in Chapter 4, establishes a foundation for further research in this area. Additionally, this researcher puts forth that this description and the thematic representation of study findings model of the participants’ experience created from it may inform remedial educators and library and information science professionals of previously undisclosed information needs of remedial undergraduate students.
Within phenomenological research methodology, there are two dominant approaches: the descriptive approach and the interpretive approach (Englander, 2012; Giorgi, 2009; Wojnar & Swanson, 2007). While interpretive phenomenological analysis “aims to give individuals in particular contexts a voice and understand how they make sense of their experience” (Larkin and Thompson, 2012, as cited in Ritchie, Lewis, McNaughton, Nicholls, & Ormston, 2014, p. 271), “the end point of descriptive phenomenological investigation is to present a theoretical model representing the essential structures of phenomenon under study (Wojnar & Swanson, 2007, p. 177). Therefore, descriptive phenomenology’s ‘end point’ presentation of a theoretical model of the experience aligned with the researcher’s end-study goal: The creation of a thematic representation model of the AISP experience of remedial undergraduate student participants in the study, representing the universal essence/s of the phenomenon studied. Thus, this researcher affirms that the selection of descriptive phenomenology as the methodology guiding this study was a purposeful means of extracting key findings about the AISP experience of remedial undergraduate student participants for use in future research and in targeted information literacy instruction, discussed further in Chapter 5. The next sections will outline the benefits and challenges of the descriptive phenomenological methodology and its research methods.

Benefits of descriptive phenomenological research methods

Descriptive phenomenology was chosen as the methodology for this study because as Colaizzi (1978; 1973), Giorgi (2009; 1997), Shosha (2012) and Spinelli (2005) explain, descriptive phenomenology requires a focus on a ‘lived’ experience and a rich, detailed, and exhaustive description of the universal essence of the experience of participants involved in a descriptive phenomenological study. Although not speaking about descriptive phenomenology specifically, van Manen (1990) discusses the role that descriptions play in the outcomes
produced from phenomenological studies as being pivotal to appropriately representing the experience under investigation. He states that “a good phenomenological description is something that we can nod to, recognizing it as an experience that we have had or could have had” (van Manen, 1990, p. 27), thereby illuminating the universal essence/s of the experience for all those performing research in this area. To wit, this researcher asserts that her exhaustive description of study participants’ AISP experience (and not the ‘experience’ as it may be viewed or understood by a remedial instructor or a library and information science professional) sheds light on facets that have been underexplored in literature currently available on the topic. This creates increased opportunities for further inquiry into the specific information needs of these academically underserved and at-risk undergraduate students by highlighting specifics within the experience related by study participants that could be probed more broadly in future research.

Finally, cementing the rationale for the selection of this methodology for the study described throughout this dissertation, Giorgi (1997) states: “[p]henomenology has had an impact on 20th-century thinking not only because of its rigorous descriptive approach but also because it offers a method for accessing the difficult phenomena of human experience” (p. 237). Because the AISP experience of remedial undergraduate students is an underexplored area in the literature, using descriptive phenomenological methods to create a more broad and ‘intuitive’ understanding of this experience was essential for revealing the universal essence of the participants’ experience. This researcher puts forth that the exhaustive description of this universal essence has created a foundational understanding of this experience for all those who work with remedial undergraduate students, and opened up a potential line of exploration for those creating targeted information literacy instruction (please see Chapter 5 for specifics).
In examining phenomenology as a methodology more broadly, it is put forth here that it is perhaps one of the more interesting methodologies within qualitative research because its philosophy aligns closely with the methodology of the same name. However, it must be acknowledged that different branches of phenomenological thought exist (e.g. transcendental phenomenology, existential phenomenology, etc.—Giorgi, 2009; 1997; Moustakas, 1994; van Manen, 1990). Philosophically, the beginning of phenomenology is usually associated with German researcher Husserl, who believed that the experience was the source of all knowledge (Budd, 2009; Colaizzi, 1973; Giorgi, 2009; 1997; Wojnar & Swanson, 2007). Further, Husserl (as discussed in Giorgi, 2009) believed that within the everyday, mundane experiences of people, there are shared commonalities, or universal essences. It is these universal essences of shared experiences that phenomenologists seek to investigate (Colaizzi, 1978; 1973; Giorgi, 2009; 1997; Spinelli, 2005; Wojnar & Swanson, 2007). Indeed, the primary assumption in descriptive phenomenological research is that there are universal essences of an experience that participants in the experience will share and that by examining these essences, researchers can gain deeper understanding of these experiences. This allows researchers to become more ‘experienced’ themselves in understanding the phenomenon as a whole (Colaizzi, 1978; 1973; Giorgi, 2009; 1997; Moustakas, 1994; Spinelli, 2005).

In descriptive phenomenological studies, methods such as phenomenological reduction and synthesis/thematic analysis (explained in the “Data analysis” section) facilitate the creation of a more intuitive description of an experience (Colaizzi, 1978; 1973; Giorgi, 2009; 1997; Spinelli, 2005). Through the formulation of an exhaustive description of the phenomenon investigated after analysis concludes (the synthesis of the analysis process), the researcher can provide a holistic view of a lived experience, as described by participants in the study. In order
to create intricate, exhaustive descriptions of experiences from participant perspectives, Colaizzi (1978; 1973), Giorgi (2009; 1997), and Spinelli (2005) explain that research questions guiding descriptive phenomenological studies typically require formats which elicit descriptions of an experience in as complex and rich detail as possible, therefore a descriptive phenomenological research question must emblematize this focus. This study’s research question is included in Chapter 1, and repeated here:

**RQ:** How do the study’s participants (traditional undergraduate students enrolled in a remedial English class) explain and describe their academic information search process (AISP) experience:

a) During the process, and

b) Once the process has concluded and the final product (i.e. the research assignment) has been submitted for a grade?

In order to explore fully the complexities of a lived experience, data collection in descriptive phenomenological research draws from all or part of the following methods (described briefly in Hatch, 2002, and Wojnar & Swanson, 2007, and explained fully in Colaizzi, 1978; 1973; Giorgi, 2009; 1997; Shosha, 2012; and Spinelli, 2005):

- Protocol writing, in which participants are asked to write about their experience as completely as possible in a journal-type format,

- Interviews, in which the researcher asks about and discusses the experience from multiple perspectives with the participant/s, in order to draw out common elements or the experience’s universal essence/s,

- Observation, typically close observation for deeper understanding of the participant’s description and explanation of an experience, and
• Relevant experiential artifacts (the research assignment, for the purposes of this study) (Colaizzi, 1978; 1973; Giorgi, 2009; Hatch, 2002; Moustakas, 1994, Spinelli, 2005; Wojnar & Swanson, 2007).

As Budd (2009), Giorgi (2009), and Moustakas (1994) explain, phenomenology as a research approach can be challenging for researchers because the requirements for true phenomenological research seem almost positivist in their approach. Namely, the implementation of methods ensuring the separation of researcher from researched (particularly through continual bracketing) in the relation of the universal essence/s of the experience could be considered counter-intuitive from the qualitative perspective. In order for research to be truly phenomenological, universal essence/s must be presented as purely and as ‘unbiasedly’ as possible (Colaizzi, 1978; 1973; Giorgi, 2009; Spinelli, 2005; Wojnar & Swanson, 2007).

Moustakas (1994) adds that an important part of all qualitative research is heuristics, or self-inquiry, in that deep understanding of one’s own experiences helps one separate one’s feelings from those of the participants, while being mindful that although the two experiences are related, they should be kept conceptually separate. In order to maintain this separateness, crucial elements of the research process in descriptive phenomenological studies are the creation of a researcher’s Epoché before the study begins, the continual bracketing of researcher biases during the data collection process, and phenomenological reduction during the data analysis process, all of which were described earlier in this chapter (Colaizzi, 1978; 1973; Giorgi, 2009; 1997; Moustakas, 1994; Spinelli, 2005; Wojnar & Swanson, 2007).

For descriptive phenomenological research to appropriately ‘describe’ the universal essence of an experience, it is paramount that what is presented after analysis concludes represents the lived experience of participants, and not the experience as ‘seen’ by the researcher.
To this end, the researcher should include substantial accounts of bracketing and reflexivity in the final presentation of results for the purposes of maintaining and promoting trustworthiness in findings, as recommended by Colaizzi (1978; 1973) and Giorgi (2009; 1997). Additionally, van Manen (1990), although a proponent of hermeneutic phenomenological research, puts forth that cultural and contextual understanding of the backgrounds of participants is critical to understand participant descriptions of experiences with a phenomenon, similar to sentiments expressed by descriptive phenomenologists. The critical nature of this understanding is shared by Williamson (2005) and explored in detail within the conceptual framework included Chapter 2, supporting the understanding of participants’ AISP ‘ecology’ as part of the experience ‘whole’. Because this researcher’s background was very different from each of the study’s participants, acknowledging the researcher’s role while keeping it separate from the related essence of the experience, particularly in terms of participants’ ecological factors, was necessary in continually promoting the accuracy of reported results, and trustworthiness in the methods used to collect and analyze data from this study.

In terms of reporting the results of descriptive phenomenological data analysis, experiences are represented typically through the use of themes (Colaizzi, 1978; 1973; Giorgi, 1997; Moustakas, 1994; Shosha, 2012; Spinelli, 2005; Wojnar & Swanson, 2007). Themes become emblematic of these common essences shared with researchers by participants, and are thoughtfully and carefully derived from data collected during a phenomenological study. Spinelli (2005) explains that thematic statements are often used to help bring across the complexity of themes in reporting of results, and are typically a high-level summary of elements within an ‘essence’ of an experience. It is worth stating here that descriptive phenomenology seeks not to understand the ‘truth’ behind an experience (i.e. the experience as it actually occurs),
but rather where the commonalities of how something is experienced intersect from the perspective of participants (Colaizzi, 1978; 1973; Giorgi, 2009; 1997; Shosha, 2012; Spinelli, 2007), representing the universal essence/s of an experience through the presentation of themes. Indeed, as Wojnar and Swanson (2007) state, Husserl “considered [universal essence] … to represent the true nature of the phenomenon under investigation” (p. 174).

Reporting of themes is strengthened by the addition of anecdotes taken directly from participant interactions such as interviews. These anecdotes allow readers of such research to gain a deeper understanding of the complexities of various essences within the experience being described, and how themes created by researchers from the data collected from participants are reflective of the universal essence of the experience from participants’ perspectives. Again, the continual engagement in phenomenological reduction during the data analysis process is paramount when it comes to creating themes from the data, in that the researcher limits his or her own ‘color’ when it comes to deriving appropriately representative themes. More on specific data analysis procedures used for this study will be explained in the “Data analysis” section.

**Challenges of descriptive phenomenological research methods**

Despite the numerous strengths of descriptive phenomenological research described within this section, there are also noteworthy challenges that must be acknowledged, particularly for researchers in the field of library and information science. As was described in Chapter 1, phenomenography is a commonly used methodology by library and information science researchers examining a variety of information experiences. As Andretta (2007), Limberg (2000), Lupton (2008), and Maybee (2007) share, phenomenographical study asserts that the relationship between the research subject and the experience are intertwined, and therefore seeks to investigate the boundaries of variance, and not commonality, within an experience from the
perspective of all participants. Phenomenographical research was used by Bruce (1997) to explain the way information literacy is understood and enacted differently from a variety of perspectives, and by Lupton (2008) to understand the number of different ways undergraduate students approach information-seeking when finding information on which to write an essay.

Although understanding commonalities and shared essences of an experience from participants’ perspectives allows one to associate personal meaning with human experience, understanding differences and variations of an experience with specific participants, particularly where gaps in the literature exist (such as with at-risk academic groups like undergraduate students in remedial coursework), aids researchers in creating a foundation for further inquiry. Therefore, descriptive phenomenological understanding of an experience, although important in connecting participants to researchers in terms of understanding and relation (Colaizzi, 1978; 1873; Giorgi, 2009; Shosha, 2012; Spinelli, 2005; Wojnar & Swanson, 2007), falls short in explaining the true complexities of the variant, or uncommon facets of an experience.

Finally, as the “least social” of qualitative methods (Niesz, 2012), establishing the accuracy of the way an experience is recalled by participants is difficult. Because the focus of descriptive phenomenological research is on how participants relate the experience, and not on whether or not these relations are actual or indeed factual, determining whether such relations are wholly accurate is not completely possible, something explained by Colaizzi (1973), Giorgi (2009), and Spinelli (2005). However, what is possible is a careful analysis and presentation of the commonalities of the experience through the presentation of the emergent themes of the experience (Colaizzi, 1973; Giorgi, 2009; 1997; Moustakas, 1994; Shosha, 2012; Spinelli, 2005; Wojnar & Swanson, 2007). As explained previously, these emergent themes help highlight those
elements related by participants which may impact an experience positively or negatively, and therefore provide guidance on areas worthy of future study.

To conclude this section, this researcher puts forth that her use of descriptive phenomenological methods to investigate the complexities of the AISP experience of undergraduate students in a remedial English course at MidState University illuminated common themes extant in the investigated experience, which were previously un- or underexplored in the literature, as evidenced in Chapter 2. This researcher further asserts that the complexity of the experience investigated within this dissertation may not have been revealed had a methodology like phenomenography been used instead, and that future researchers interested in the information needs and behaviors of remedial undergraduate students should consider the use of descriptive phenomenology for the benefits described within this section.

The researcher’s role and ethical considerations

Part of ensuring trustworthiness in data collection and analysis is safeguarding the ethical nature of research throughout the study. To this end, this researcher drew on the wisdom regarding maintenance of ethical standards and boundaries in fieldwork from Colaizzi (1978; 1973), Englander (2012), Giorgi (2009; 1997), Moustakas (1994), and Schram (2003), and was mindful in implementing this wisdom throughout the dissertation study. This included collecting the data via numerous, triangulated means, and separating herself from the experience in the collection of the data and during its analysis. These approaches to ensuring a high standard of ethical conduct within the researcher’s study are described next.

Perhaps the biggest concern when maintaining ethical boundaries in qualitative inquiry is the researcher’s ability to “balance my research commitments with my desire to engage authentically those who are participating in the study” (Schram, 2003, p. 137). Prior to
conducting the dissertation study described herein, this researcher has read a great deal about the information search process from the user perspective in education and library and information science literature. Additionally, the researcher has also helped many an undergraduate student formulate his or her own information search process for a specific need during various work and academic commitments. However, as this study’s goal is the presentation of the AISP experience as described by participants in the study, this researcher took to heart Schram’s (2003) advice to engage in impression management and posturing in the researcher role throughout the process so as not to cross the boundary from ‘researcher’ to ‘librarian’ during the study. As will be discussed further in the “Data analysis” section, the processes of formulating an Epoché prior to beginning the study, continual bracketing during the study, and phenomenological reduction and reflexivity during the data analysis process (Colaizzi, 1978; 1973; Giorgi, 2009; 1997; Moustakas, 1994; Spinelli, 2005) allowed for meaningful and appropriate separation between ‘the researcher’ and ‘the researched’ throughout the study.

As described by qualitative research practitioners such as Hatch (2002), Merriam (2002), and Schram (2003), the triangulation of data collection methods allows a researcher to explore the complexities of an experience from a number of different perspectives, and adds depth and richness to the experience’s description, increasing the trustworthiness in the findings reported therefrom. To ensure the study described herein subscribed to high ethical standards, this researcher collected data via a number of methods (described later in this chapter). Although many descriptive phenomenologists recommend implementing member-checking of researcher-created experience descriptions with participants after analysis concludes to ensure the participants can ‘see’ themselves in the described experience (as shared in Colaizzi, 1978, 1973; Giorgi, 2009; Spinelli, 2005, and Wojnar & Swanson, 2007), this researcher was unable to
engage in member-checking, despite her best efforts (explained later in this chapter). However, in order to alleviate the impact the inability to follow through with member-checking may have had on the trustworthiness of presented findings, this researcher engaged in peer debriefing (Lincoln & Guba, 1985) to review the data at various stages in the analysis process, as a means to ensure trustworthiness in reporting in the absence of member-checking. Specifically, Lincoln and Guba (1985) describe peer debriefing as “a process of exposing oneself to a disinterested peer in a manner paralleling an analytic session and for the purpose of exploring aspects of the inquiry that might otherwise remain only implicit within the inquirer’s mind” (p. 308) and, as shall be described in context later, the peer debriefer did just that for this researcher.

Finally, as literature included in this dissertation on remedial undergraduate students explains, these students may experience more anxiety than their non-remedial peers. Therefore, this researcher considered it a crucial aspect of the study to continually pay attention to her impact on participants’ behaviors for the duration of the study. This included attempts to limit anxiety of participants as much as possible during close observation activities and in situ interviews by allowing for open and engaging conversation between researcher and participant during these data collection methods (please see Appendix G for more information). Also, in line with recommendations shared by the course instructor, participant interaction was limited as much as possible to occur within the classroom environment.

In order to limit any anxiety participants may have felt when detailing their out-of-class AISP experience in journal writing, specific but brief guidelines were given to participants on what this researcher expected from the journals (please see Appendix D). However, even in the creation of these guidelines, the goal was to limit researcher impact on the nature of information shared on the AISP experience in these journals as much as possible (more explanation of this
included in the “Data collection” section), and therefore participants were given a lot of leeway in how they chose to complete these journals. It is unfortunate that only two out of the six participants completed these journals (see the next section for more detail), but the participants who completed the journals indicated they found the guidelines helpful to their completion of same. Finally, the decision was made not to audio-record participant interviews or in-class observations. In this researcher’s previous experiences with remedial undergraduate students, she observed that audio-recording conversations made them feel very uncomfortable and unduly anxious. For this study, the researcher chose to dispense with audio recording and instead transcribe interviews immediately following each interview to promote accuracy and recall in the transcription. Also, audio-recording in-class observations would have violated the privacy of non-study participants, so detailed notes of these observations were kept and recorded immediately following each observation period to promote accuracy (please see Appendix G).

The specifics of the study’s data sources, as well as the collection and analysis procedures used within this study, are described in detail in the next section.

Data sources

Participants

Participants for the study included six students enrolled in the remedial English course ‘College Writing I Stretch’ at a regional campus of MidState University during the spring 2014 semester. The students from this course were identified as potential study participants in the early stages of this dissertation because a) they were enrolled in a remedial course, and b) one of the requirements for course completion is the submission of a research assignment, requiring students in the course to search for information that meets the needs of the research assignment. In describing the selection of participants for a descriptive phenomenological study, Englander
(2012) states: “[W]hen it comes to selecting the subjects for phenomenological research, the question that the researcher has to ask themselves is: Do you have the experience that I am looking for?” (p. 19). As this study sought to unveil the essence of the AISP experience of remedial undergraduate students, the students in this course represented a suitable population from which to request participants for the study, because they had direct experience with conducting an AISP for their research assignment, i.e. the phenomenon under investigation.

When recruiting study participants, this researcher respectfully requested that all members of the class consider participating so that as rich a participant group as possible could be obtained (i.e. the participants would include both traditional and non-traditional students—see “Definition of Terms” in Chapter 1 for further description of these student groups). However, only six students in the class chose to participate in the study, and all were traditional undergraduate students. Englander (2012), Merriam (2002), and Hatch (2002) discuss that as the goal of qualitative study is depth and richness in meaning, and not the quantitative goal of “how many?” (Englander, 2012, p. 21), this researcher asserts that the smaller participant group did not detract from the importance of study findings: “[I]f a researcher has a qualitative purpose and a qualitative research question, he or she seeks knowledge of the content of the experience, often in depth, to seek the meaning of a phenomenon, not “how many” people who have experienced such phenomena” (Englander, 2012, p. 21). Students in the course were asked to participate in the study during an in-class visit the first day of the course (March 7, 2014), and students were assured confidentiality in the study and in all reporting of results post-data collection. Those who consented to be a part of the study were given the required informed consent forms during this visit, which this researcher keeps in a locked filing cabinet in her home, per verbiage of same included in her institutional review board study application.
Regarding the demographics of study participants, three identified as Caucasian, and three identified as African-American. Further, four of the participants identified as female, and two identified as male. All participants in the study were under the age of 24, and five of the six participants were in their second semester of study at the regional campus of MidState University. Three of the six participants explained to this researcher that this was their second attempt to pass this course, all three having taken and failed the course the previous semester, although none of them had the course in the previous semester with the instructor of the course under investigation for this study. Further, four of the six participants indicated it was their intention to transition to the main campus of MidState University at some point in their academic degrees, and three of these four indicated they were currently attending courses at the regional campus of MidState University after being directed to do so by the main campus, in order to improve their grades. Although not all data collection methods were completed by all six participants, all six participants did participate in the interview, one of the most crucial data collection methods used in this and in other descriptive phenomenological studies.

As the course instructor did not believe ‘extra credit’ to be an appropriate incentive for this study, this researcher offered incremental financial incentives to participate in the study by way of MidState University bookstore gift cards. Specifically, gift cards in the amount of $10, $15, and $25 were given to study participants as they completed different stages of the study—$10 gift cards for completing the one-on-one interviews, $15 gift cards for completing the out-of-class AISP journals, and $25 when they met with this researcher to member-check their experiences in the created information profiles (which, as was explained earlier, did not occur because despite numerous follow-ups on this step, all study participants chose not to partake in this step of the study).
At all stages of the study, participants were informed that no undue harm or consequences would result should they choose not to participate further in the study, in keeping with appropriate ethical standards for such research endeavors (Hatch, 2002; Schram, 2003). Therefore, that all six participants chose not to meet to engage in member-checking despite numerous requests to do so (and despite the researcher’s explanation at the beginning of the study that this would be requested of them as the final requirement), was unfortunate. As explained, the solicitation of an independent reviewer of data at various stages in the analysis process was done in an attempt to alleviate any negative impact the lack of member-checking may have had on the overall trustworthiness of the study, and is similar to the approach taken by Shosha (2012) in the descriptive phenomenological study she undertook.

In regard to the course itself, this researcher identified earlier on in investigations of potential study venues that this particular remedial English course at MidState University included information literacy instruction components to help students complete their research assignment. However, in conversations with the course instructor prior to the study’s beginning, the instructor explained that information literacy instruction would be delivered by the course instructor herself, and not through a librarian or MidState University’s library services. The instructor shared that in the past she has used library assistance and/or library resources for this course and found these to be somewhat ineffective in helping students develop their AISP toward completing their assignment. She had instead created contextual information literacy components which she delivered throughout the course, based on recommendations from other instructors and best practices suggested by literature in the field of remedial student education.

This created an interesting situation for this researcher to observe in terms of understanding the impact of information literacy instruction on remedial undergraduate students’
AISP experience, and most particularly, the impact of non-librarian or library services-delivered information literacy instruction on the AISP experience as a whole, as evidenced by data collected during the study (please see the description of this instruction discussed in Chapter 4). As previous literature shared in this dissertation has shown, this area is relatively underexplored outside the shared perceptions of librarians on this type of non-library-aided instruction available in the literature. Therefore, recording the reception of such information literacy instruction was crucial in understanding more about the related AISP experience of participants in this study.

Specific data collection methods used in the study are discussed next.

Data collection

As was outlined earlier, descriptive phenomenology was selected as this dissertation study’s methodology in reaction to the lack of research examining remedial undergraduate students’ descriptions of their academic information search process experiences, conducted to meet the needs of a specific class requirement. The response to this dissertation’s research question (discussed in Chapter 4) comprises the universal essence/s of the AISP experience as described by this study’s participants—undergraduate students enrolled in a remedial English course at MidState University. It is the hope of this researcher that this study’s findings will create a more fundamental and practical understanding of this experience for educators of remedial students and for library and information science professionals, as well.

Data for the study were collected via a triangulation of methods which, as Hatch (2002), Merriam (2002) and Schram (2003) suggest, is a way to promote trustworthiness in qualitative study findings. Although some descriptive phenomenological studies use interviews only as a means of data collection (as described in Colaizzi, 1978; Giorgi, 2009; and Spinelli, 2005),
triangulated methods were used within this study to gain as much insight as possible into the entirety of the AISP experience for participants. To that end, data collection included:

1. ‘Point of contact’ interviews with study participants after the final research assignment was introduced,

2. Observation of study participants during class sessions, including during dedicated research/writing/workshop (i.e. lab) days so that participants’ AISP practices could be observed in situ,

3. Protocol writing (i.e. out-of-class AISP/information-seeking journals), and

4. Participants’ final research assignments (or artifacts of the experience), representing the conclusion of their AISP experience, and allowing this researcher to examine the way participants used information found during the AISP experience when completing their final assignments.

These methods are consistent with descriptive phenomenological approaches to data collection, such as those recommended by Giorgi (2009; 1997), Moustakas (1994), and Shosha (2012), and were discussed at length with the course instructor (personal communication with Professor Jane Smith1, Dec. 13, 2013) regarding the most feasible and least harmful ways to collect data from participants. As previous research cited within this dissertation has shown, remedial undergraduate students are typified as ‘at-risk’ students, and are prone to higher anxiety and more academic limitations than college-ready undergraduates. Therefore, all efforts were made by this researcher to approach study participants and the study itself with caution and consideration, and to limit participants’ anxiety as much as possible during data collection.

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1 Pseudonym used – including the course instructor’s name within this dissertation is irrelevant to the overall study.
Specifics on the data collection methods outlined above, including the ‘how’ and ‘why’ of these methods and how data were collected through each, are described in the tables below.

*Data collection methods and implementation*

Table 2

*Data collection through ‘point of contact’ interviews*

<table>
<thead>
<tr>
<th>Approach</th>
<th>In one-on-one interviews, participants were asked to describe the academic information search process they had implemented to find information for the final assignment. These interviews were informal and semi-structured and, although a framework of questions was used for purposes of consistency in this method’s approach to the interview (see Appendix C), this researcher paid close attention to what participants shared during this process and added questions, where appropriate, when something was said during the interview that warranted a more in-depth line of questioning.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rationale for the approach</td>
<td>Although all efforts were made to approach participants for interviews during lab days (as was the course instructor-recommended anxiety-reducing strategy), this was not feasible for all participants and therefore some were interviewed outside of class. In these instances, participants were asked to pick a quiet spot where they would feel comfortable answering questions, thereby minimizing their anxiety but allowing this researcher a quiet environment in which to hear participant responses for note-taking purposes, as no audio recordings were conducted.</td>
</tr>
<tr>
<td>Basis in the literature</td>
<td>Englander (2012) believes that typical qualitative interviewing methods are not aligned with the needs of descriptive phenomenological data collection methods, and advocates for an interviewing structure that enables the researcher to learn more about the phenomenon while not creating disparity between ‘the experience’ and ‘the experiencer:’</td>
</tr>
</tbody>
</table>
“Asking for a situation is vital since the discovery of the meaning of a phenomenon … needs to have been connected to a specific context in which the phenomenon has been experienced … It is not the empirical situation that is of interest to the phenomenological … researcher but the meaning of the phenomenon, however, the situation provides a context and meanings are context dependent” (Englander, 2012, pp. 25-26).

Additionally, van Manen (1990) believes that a phenomenological interview (what Rubin & Rubin, 2012, may call a “responsive interview,” p. 96) is a collaborative endeavor, which “tends to turn the interviewees into participants or collaborators of the research project” (p. 63), indicating the need for something more than a general framework of questions while conducting the interview. Finally, Rubin and Rubin (2012), in their discussion of the responsive interview, state “main questions assure that you cover each part of your research question and provide an overall structure to the interview, follow-up questions get depth and detail on events or steps in a process, as well as the meaning of concepts, and themes, whereas probes encourage the interviewee to keep talking and stay on topic, ask for clarification, or ask for evidence and examples” (p. 119). Appendix C represents the framework for the responsive interview which was utilized in this study and follow-up and probe questions were asked where appropriate.

Table 3

Data collection through observation of IL instruction and in-situ AISP implementation

| Approach | This researcher attended almost all class sessions and all of the lab/research days in order to observe course instructor-led information literacy instruction and to observe specific AISP practices implemented by students during lab days, as well as instructor assistance/intervention with same during participants’ AISP implementation on lab days. |
Rationale for the approach

Participant observation is a common practice in qualitative research and gives the researcher an opportunity to observe a studied phenomenon firsthand. It also provides context to the phenomenon, thereby broadening the researcher’s understanding of elements that impact the experience. As the experience is the focus of this study, understanding both the external and the ecological factors impacting the AISP experience of study participants (such as those described in Williamson’s [2005] model, discussed in Chapter 2) was deemed crucial in terms of gathering data from participants which described the totality of the experience.

Basis in the literature

In discussing ‘close observation’ as a data collection method in phenomenological studies, van Manen (1990) states: “Rather than observing subjects through one-way windows, or by means of observational schemata and checklists that function symbolically not unlike one-way mirrors, the human science researcher tries to enter the lifeworld of the persons whose experiences are relevant study material … the best way to enter a person’s lifeworld is to participate in it” (pp. 68-9). Additionally, van Manen (1990) says participant observation practices (such as the one described herein) allow the researcher to collect “anecdotes” (p. 69), which helps build context around a lived experience, and increases the researcher’s ability to understand more about the experience from participant perspectives.

Table 4

Data collection through protocol writing

| Approach | Study participants were asked to keep an out-of-class AISP experience ‘journal’ that documented their AISP activities performed outside of the classroom environment. Because the intention of this journal was to collect data on the ‘lived experience’ of the AISP experience outside of the classroom format, and therefore encourage as much free thinking as possible, prompts for what to include in the journal were basic and |
followed the format suggested by van Manen (1990) for obtaining rich data from protocol writing exercises. Participants were asked to a) describe the AISP as they conduct it outside of the classroom and during each occasion they conducted a search process, b) describe how they felt emotionally and physically during each search process, including using key terms (such as those discovered by Project Information Literacy, 2012) such as ‘anxious,’ ‘nervous,’ ‘confident,’ ‘confused,’ etc., c) describe anything else that occurred during each search process external to the process itself, such as an interruption of the search process, a change or abandonment in the search process due to dissatisfaction with results, and other considerations that may have drawn attention away from the search process or that were competing for time/attention during the search process, d) describe the environment in which they are conducting the search process, including how they feel in that environment (e.g. if they are in the college library, are there things distracting them from completing the search, etc.), and lastly, e) in a concluding entry, describe their view of the overall experience, including whether they believed the experience to have been successful or not, and whatever doubts/anxieties/emotions they are left with after the AISP was complete and they had submitted their research assignment.

Note: Only two of the six study participants completed the out-of-class AISP journal. However, their journal entries were processed as a part of the study’s data collection because of the insight they provided into the out-of-class AISP experience as a whole.

| Rationale for the approach | Examining the journal entries of AISP experiences outside of the classroom setting represented a more ‘honest’ account of what participants did and how they felt about information-seeking for a specific purpose when not being observed by their course instructor. Additionally, although only two of the six participants completed these journals, these entries added more detail to the overall AISP experience. |
**Basis in the literature**

As discussed in Colaizzi (1978), Giorgi (1997), and Spinelli (2005), and explained by van Manen (1990), protocol writing gives the researcher a textual form of data to investigate in terms of understanding more about human experience with a phenomenon, and provides an unobserved view into the experience from participants’ perspectives: “To gain access to other people’s experiences, we request them to write about a personal experience” (van Manen, 1990, p. 65).

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Table 5

**Data collection through artifacts**

<table>
<thead>
<tr>
<th><strong>Approach</strong></th>
<th>This step involved the collection of the final research assignments submitted by participants for later analysis.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rationale for the approach</strong></td>
<td>In order to understand the totality of the AISP experience of participants, it was deemed necessary to also view the product that constituted the culmination of that experience. In this case, analyzing the research assignments of participants allowed the researcher to compare the product to the described process, and add more depth to the overall experience.</td>
</tr>
<tr>
<td><strong>Basis in the literature</strong></td>
<td>Although Englander (2012), Moustakas (1994), and van Manen (1990) discuss various ‘non-people’ means of data collection in phenomenological studies, it is Hatch (2002) who provides a succinct definition of the use of artifacts as a means of data collection by quoting Hodder: “the intended and unintended residues of human activity, give alternative insights into the ways in which people perceive and fashion their lives” (Hodder, 1994, p. 304, in Hatch, 2002, pp. 24-5). Hatch (2002) adds that one advantage of artifact analysis is that “it does not influence the social setting being examined,” (p. 25), something this researcher considers to be a critical component in understanding the complexity of the AISP experience.</td>
</tr>
</tbody>
</table>
Specific data analysis procedures for this study are discussed in the next section.

**Data analysis**

Upon review of descriptive phenomenological data analysis methods and techniques described by Colaizzi (1978, 1973, and in Wojnar & Swanson, 2007), Englander (2012), Giorgi (2009; 1997), and Spinelli (2005), this researcher chose to use a modified version of Colaizzi’s method of analysis as the analysis frame for this study. As explained by Wojnar and Swanson (2007), there are four essential steps that must be taken in any study using descriptive phenomenology as its methodology: “a) bracketing, b) analyzing, c) intuiting, and d) describing” (Wojnar & Swanson, 2007, p. 175).

Although Giorgi’s method (2009; 1997) is often cited in high-level descriptive phenomenological research as the presiding analysis structure, this researcher opted not to attempt such a grandiose analysis schema in her early experimentations with descriptive phenomenological study. Rather than attempt to apply the complex structure of Giorgi’s method of data analysis to this study (as described in Giorgi, 2009, and, which is heavily influenced by phenomenological philosophy), a modification of Colaizzi’s (1978) Method of Analysis was used. This researcher determined this method was more appropriate for analyzing the type of information gathered during the study and for visually representing the findings of the study through the creation of a thematic representation of study findings model of the participants’ experience. Additionally, the four-step process of bracketing, analyzing, intuiting, and describing explained by Wojnar and Swanson (2007) is represented through the analysis process described below, and through the discussion of findings presented in Chapter 4.
**Epoché, bracketing, and phenomenological reduction**

In his examination of the phenomenological analysis process, Moustakas (1994) explains that phenomenological reduction is preceded by the Epoché, a Husserlian concept in which “we set aside our prejudgments, biases, and preconceived ideas about things” (Moustakas, 1994, p. 85). This philosophical reflection process conducted by the researcher on his or her prior experience/s with a phenomenon under investigation allows one to draw into focus those ‘prejudgments, biases, and preconceived ideas’ that exist within the researcher’s mind before beginning a study. As Colaizzi (1978; 1973), Giorgi (2009; 1997) and Moustakas (1994) explain, creating the Epoché is a crucial step in descriptive phenomenological studies because the process allows the researcher to have a very clear idea of those elements he or she carries into data collection, thereby separating the researcher’s perspective from that of the experience as it is related by research participants. Much of what has been addressed previously within this dissertation represents a significant portion of this researcher’s Epoché process, specifically the creation of the Theoretical Model of the AISP of the Millennial Undergraduate Student in Chapter 2. This model aided this researcher in the documentation of thoughts, feelings, and perspectives on the AISP experience of undergraduate students in a separate memo document before entering the research field (please see Appendix F for specific notes).

Moving, then, from the Epoché to phenomenological reduction (bracketing, having been discussed at length previously, will not be discussed here again), and in summarizing the nature of phenomenological reduction in the descriptive phenomenological analysis process, Giorgi (1997) states:

To enter into the attitude of the phenomenological reduction means to (a) bracket past knowledge about a phenomenon, in order to encounter it freshly and describe it precisely as it is intuited (or experienced), and (b) to withhold the existential
index, which means to consider what is given precisely as it is given, as presence, or phenomenon. No work can be considered to be phenomenological if some sense of the reduction is not articulated and utilized (p. 239).

Building on the strength of the Epoché and the continual bracketing process conducted during the study, phenomenological reduction assists in the separation of `researcher' from `researched' by allowing the researcher to consciously separate as much as realistically possible the expressed experience of participants from all other factors which may be a part of the study. Moustakas (1994) provides a rich and in-depth perspective on phenomenological reduction, which includes discussion on the nature of horizonalization (p. 95) and its role in the phenomenological reduction process. In Moustakas’ (1994) view, the process of “horizontalizing” (“every statement initially is treated as having equal value”—Moustakas, 1994, p. 97) goes hand-in-hand with the continual bracketing of one’s own notions regarding the phenomenon under investigation, and both are essential components of the reduction process. Specific notes which formed the bulk of this researcher’s phenomenological reduction process during analysis can be seen in Appendix H. The horizontalization process conducted during the analysis phase of this study and its implementation can be seen in the ‘Significant Statements’ table, part of the series of data analysis tables available in Appendix I.

In broadening the discussion on the nature of phenomenological reduction in order to explain its implementation with the data analysis portion of this study, both Giorgi (1997) and Moustakas (1994) talk about the nature of “textural description” (Moustakas, 1994, p. 96) as being emblematic of the reduction process. As Moustakas (1994) explains of textural description, “Such a description, beginning with the Epoché and going through a process of returning to the thing itself, in a state of openness and freedom, facilitates clear seeing, makes
possible identity, and encourages the looking again and again that leads to deeper layers of meaning” (p. 96). This researcher engaged in phenomenological reduction by a) continually being reflexive and bracketing her thoughts, opinions, and perspectives during the data collection process (see Appendix G), and b) engaging in horizonalization when analyzing statements and descriptions provided by research participants, which were documented separately from the information profiles, and saved as part of on-going analysis procedures in the ‘Significant Statements’ table. The separation of significant statements from each information profile afforded each statement value in the documentation process, thereby not unduly influencing the synthesis/thematic analysis processes conducted later (please see the final thematic map in Appendix J). In this way, the researcher increased the trustworthiness of the study by accounting as much as was possible for her perspective of the phenomenon in addition to accurately and fairly documenting the reflections on the phenomenon from others, while keeping the two separate during analysis.

Providing a final thought on the role of phenomenological reduction in descriptive phenomenological study, Giorgi (1997) says that descriptive phenomenology is a holistic process and therefore a researcher should “read through all of the data before beginning any analysis” (p. 243). This was done at length after information profiles for each participant were created and before horizonalization was implemented, and constituted the first official stage of analysis in the modified Colaizzi method of analysis, as shall be described later.

Thematic analysis and synthesis of analysis

Giorgi (2009; 1997) and Moustakas (1994) explain the thematic analysis and synthesis of analysis stages of descriptive phenomenological study slightly differently from one another in terms of best practices for implementation. However, their differing explanations provided
substantial detail for how best to conduct such analysis for this researcher. Based on their descriptions, this researcher engaged in synthesis of the various data analysis findings by creating an exhaustive description of the AISP experience of study participants, which appears in Chapter 4. This description was written after conducting thematic analysis to elicit the emergent descriptive phenomenological themes of the experience (see Appendices I and J), and prior to completing the final step in the study’s analysis process—the creation of a thematic representation of study findings model of the participants’ experience, presented in Chapter 4.

An overview of this researcher’s rationale for using Colaizzi’s (1978) Method of Analysis within this study, as well as the modifications made to the method during the data analysis process, are described and detailed next.

*Colaizzi’s (1978) Method of Analysis: A rationale*

As a proponent of the methods of descriptive phenomenology implemented by forefather theorists Husserl and Giorgi (Colaizzi, 1978, 1973; Shosha, 2012; Spinelli, 2005; Wojnar & Swanson, 2007), Colaizzi’s (1978) Method of Analysis builds descriptively upon the transcendental phenomenological attitude regarding the determination of the universal essence of a phenomenon (Giorgi, 2009). Most critically for this researcher’s needs (as was discussed in person in late August, 2014, with phenomenological researcher Dr. Kiersten Latham, who brought this method of analysis to this researcher’s attention), Colaizzi’s (1978) Method of Analysis was selected because it moves this ‘phenomenological attitude’ from the theoretical to the practical domain. This provided a means for this researcher to deconstruct each step of the universal essence determination process, while including data from a number of collection methods (including researcher-role collected data, such as the Epoché and bracketing/reflexivity notes), as was deemed appropriate for the study.
Wojnar and Swanson (2007) explain that “descriptive phenomenology is more useful for inquiry that aims to discover universal aspects of a phenomenon that were never conceptualized or incompletely conceptualized in prior research” (p. 177). As this researcher has asserted throughout this dissertation, the AISP experience of remedial undergraduate students is a significantly underexplored area in library and information science research, therefore the goals of descriptive phenomenological research are consistent with the end goals of this researcher’s study—a more in-depth and detailed understanding of the way the study’s participants experienced the AISP conducted to complete their course’s final research assignment.

Although Colaizzi’s (1978; 1973) research tends to focus on the field of psychology, he has also used descriptive phenomenological methods within this field to examine the concept of learning, specifically (Colaizzi, 1973). In reviewing Colaizzi’s (1978; 1973) writing on his descriptive phenomenological studies exploring the learning experience, he explains in great detail how his focus was not on the ‘reality’ of learning, but rather, on the perception of learning as it was experienced by participants. For this researcher, Colaizzi’s (1978; 1973) thoughts on this matter served as a reinforcing and edifying reminder throughout data collection and analysis that what would be presented after analysis would be the universal essence of the AISP experience as explained and described by participants, and not necessarily as it occurred or even as it was perceived to have occurred by this researcher—two very different perspectives, indeed.

Despite this identified/observed difference which may have occurred between experience and ‘reality’ for participants, this researcher reaffirms that it is the participants’ universal essence of this phenomenon that is decidedly absent from the research currently available. Therefore, the findings presented in Chapter 4 and which shall be discussed contextually and in terms of implications for the field in Chapter 5 may be both enlightening and useful to practitioners when
creating a foundation for future research, and when constructing guides/frameworks for targeted information literacy instruction. As explained by Giorgi (2009) in his rationale for the critical nature of descriptive phenomenology:

Once the philosopher believes that he or she has determined the essence of the phenomenon or state of affairs he or she is researching, the next obligation is to describe it as accurately as possible. … The major implication of this step is that description is favored rather than other philosophical alternatives. Description is the use of language to articulate the intentional objects of experience. This sense of description is contrasted with interpretation, which, in my view, is the use of language to articulate the intentional objects of experience with the help of some nongiven factor, such as an assumption, hypothesis, theory, or the like. Description is also contrasted with construction, which is not satisfied to stay strictly within the given, but uses imagination or other nongiven factors to either present or account for the objects of experience. Finally, description is contrasted with explanation, which attempts to account for what is presented, usually by employing factors that are not necessarily given or in terms of other known but nonpresent events (for example, causes). But its goal is not simply to exhibit what is given. All of the above alternatives are legitimate philosophical strategies for accounting for phenomena, but they follow from other philosophical criteria, not those of Husserlian phenomenology. In phenomenology, the exhibition of the given is the basis of its accountability (Giorgi, 2009, p. 89).

Specifics regarding the implementation of this modified method are provided next.
Modification of Colaizzi’s (1978) Method of Analysis

The table below represents a summation of the modified analysis procedures used within this dissertation study, based on Colaizzi’s (1978) suggested method of analysis for descriptive phenomenological study. Specifics of the implementation of the analysis process are discussed at length in the section following this one.

Table 6

A modification of Colaizzi’s (1978) Method of Analysis* (including pre-analysis actions)

<table>
<thead>
<tr>
<th>PRE-ANALYSIS ACTIONS</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Researcher creates the research question (Spinelli, 2005)</td>
<td>As presented in Chapters 1 and 3, the research question is: RQ1: How do the study’s participants (traditional undergraduate students enrolled in a remedial English class) explain and describe their academic information search process (AISP) experience: a) During the process, and b) Once the process has concluded and the final product (i.e. the research assignment) has been submitted for a grade?</td>
</tr>
<tr>
<td>b. Researcher “engages in structured, focused enquiry with each co-researcher” (Spinelli, 2005, p. 136) – data collection phase.</td>
<td>Data collection included in-class observation of information literacy instruction, in-lab observation of in situ AISP, one-on-one interviews, and the collection of final, ungraded research assignment papers from all participants (also known as the artifacts of the experience). Two of the six participants also submitted out-of-class AISP journals for data analysis.</td>
</tr>
</tbody>
</table>
c. Researcher creates an Epoché prior to entering the research field (Colaizzi, 1973; Giorgi, 1997; Moustakas, 1994).  
The Epoché is created prior to entering the research field as a means for the researcher to remove her biased perspective from observations as much as possible and to serve as a pre-analysis measure. This exercise is followed by engagement in phenomenological reduction, conducted during the formal analysis of study data process.

d. Researcher creates an information profile for each participant, which creates the units of analysis from which formal analysis is conducted (Colaizzi, 1978; 1973; Giorgi, 2009, 1997; Spinelli, 2005).  
The creation of an information profile for each participant was based on the initial review of collected data and was largely summative rather than analysis-driven. The information profiles constitute the primary units of analysis used by this researcher to investigate the AIS experience holistically, as accounted for from all means of data collection that occurred in the study.
### STEPS IN ANALYSIS PROCESS

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phenomenological reduction occurred in some measure within each step described below, as recommended by Colaizzi (1973), Giorgi (2009; 1997), and Spinelli (2005).</td>
</tr>
</tbody>
</table>

#### Note.
On the continual role of phenomenological reduction during the analysis process.

<table>
<thead>
<tr>
<th>1. Protocol reading.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Researcher reads each information profile multiple times to gain an-depth feel for or sense of the ‘whole’ of participants’ related experience.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. Extracting significant statements.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phrases or sentences which relate directly to the phenomenon under investigation (i.e. the AISP) and its development during the course are taken from the information profiles and put together in a ‘significant statements’ table (see ‘S.S. Analysis (SB)’ table in the data analysis tables series in Appendix I). This step was also undertaken by a peer debriefer, and the researcher checked her significant statements against those selected by the peer debriefer. Peer debriefing returned a selection of 91 statements from the information profiles, of which 88 of the same statements had been selected by this researcher—an agreement rate of 97%. After secondary review, this researcher added the three statements which appeared in the peer debriefing, but which had not been included during her significant statement extraction process. As described in Zhang and Wildemuth (2009), this high level of agreement regarding the significant statements representative of the experience under investigation indicates a strong level of</td>
</tr>
</tbody>
</table>
confirmability: an indicator of trustworthiness in qualitative study involving outside review, or peer debriefing. This was one of two analysis exercises involving peer debriefing for the purposes of increasing trustworthiness in the study.

3. Formulating meanings

Researcher “extracts or spell[s] out the meanings contained in each significant statement” (Spinelli, 2005, p. 136).

4. Extracting clusters of themes.

The grouping together of formulated meaning statements under thematic headings, which are representative of the commonalities between meaning statements included within the thematic cluster. Researcher compares clusters to data within the information profiles to ensure no meaning was inadvertently added to or taken away from the experience during the previous steps. Researcher also ensures that bracketing occurring during the analysis process has not unduly influenced the creation of thematic clusters, to increase trustworthiness of findings and appropriately engage in phenomenological reduction, as described previously in this table.

5. Creating an exhaustive description of the AISP experience of remedial undergraduate students.

Creation of emergent theme categories, representative of the commonalities formed by associating thematic clusters with representative, emergent themes of the experience. These emergent themes representing the universal essence of the AISP experience are listed with appropriate significant statements/participant quotes in a
thematic map (please see Appendix J) and, as described above, were created after thematic analysis of previous analysis steps was conducted. In this way, findings are put forth which represent the universal essence of the experience and are written up as an exhaustive description of the experience. As described previously, this exhaustive description also constitutes the synthesis of various data analysis findings, as recommended by Giorgi (2009; 1997) and Moustakas (1994).

6. Verifying the description. This is the second point in the analysis process where the inclusion of a peer debriefer promoted trustworthiness of study findings. For this step, the researcher submitted the exhaustive description (explained above) and the final thematic map to the peer debriefer, and the peer debriefer compared the exhaustive description and the emergent theme categories presented in the final thematic map, to the data within the information profiles. This was done to verify whether the experience of each participant is ‘seen’ within the emergent themes and the descriptors for each theme (Colaizzi, 1973; Spinelli, 2005; Wojnar & Swanson, 2007). The peer debriefer determined that the exhaustive description and the final thematic map accurately represented the AISP experiences of participants, as put forth in the original protocols (i.e. the information profiles).
7. Modelling the experience.

A thematic representation model of study findings of the participants’ experience, constituting a synthesis of the steps of analysis detailed previously, visually represents the universal essence of the AISP experience of study participants (Wojnar & Swanson, 2007).


Implementing the modification of Colaizzi’s (1978) Method of Analysis

Consistent with Colaizzi’s (1978) Method of Analysis, the stages of analysis will be presented as steps with each step’s implementation explained, its consequent implementation mapped to the relevant appendices in this dissertation, and the appropriate methodological literature included as it was used to guide analysis. As explained previously, Colaizzi’s (1978) Method of Analysis was modified to suit the needs of the analysis process of this study. However, guidance on modification was taken from others who had described implementations of this method in contemporary contexts, such as Giorgi (2009), Shosha (2012), Spinelli (2005), and Wojnar and Swanson (2007).

In part, the modification of Colaizzi’s (1978) Method of Analysis for the purposes of this study included ‘pre-analysis actions’ (as described in Spinelli, 2005). These pre-analysis steps included a) the creation of a research question, b) the researcher’s engagement in “structured, focused enquiry with each co-researcher” (Spinelli, 2005, p. 136), c) the creation of an Epoché prior to entering the research field and d) the creation of an information profile for each participant, which served as the primary stage of analysis for this study and from which ‘protocols’ for secondary analysis were formulated (Colaizzi, 1978; 1973; Giorgi, 2009; 1997; Spinelli, 2005).
Pre-analysis actions

The implementation of the first pre-analysis action (i.e. the creation of a research question guiding this study) was described in Chapter 1, and the research question itself appears there and in the table presented prior to this section. This researcher’s engagement in “structured, focused enquiry with each co-researcher” (Spinelli, 2005, p. 136), the second pre-analysis action, was discussed at length in the section within this chapter on data collection.

The third pre-analysis action was the creation of an Epoché prior to entering the research field, and is included in Appendix F. The fourth pre-analysis action was the creation of an ‘information profile’ for each participant. Information profiles were created from data collected during interviews with participants, and from observation of participants’ in-class and in-lab behaviors. As already discussed, the decision was made prior to the study that interviews and in-class observations would not be audio recorded. This decision was made in order to limit the anxiety felt by participants in the study, and to protect the privacy and confidentiality of those not involved in the study who might inadvertently be recorded during in-lab observation days. Rather, this researcher took detailed notes both during interviews and during observations, and transcribed these notes for clarity and accuracy immediately after each interview was conducted, and each class day’s observation concluded.

Although the information profiles themselves were not created until after the class observations ended, this researcher puts forth that the trustworthiness and representativeness of the information profiles is sound because of the careful and immediate transcription of the interviews and observations used as the basis for their creation, and the adherence to prescribed methods of collecting data during observations and interviews (as discussed in Colaizzi, 1978; Englander, 2012; Giorgi, 2009; and Rubin & Rubin, 2012).
Within the analysis process itself, this researcher implemented a modified, seven-step model of Colaizzi’s (1978) Method of Analysis, as it appears in various formats in Colaizzi (1973), Spinelli (2005) and Wojnar and Swanson (2007). These steps are:

1. Protocol reading,
2. Extracting significant statements,
3. Formulating meanings,
4. Extracting clusters of themes,
5. Creating an exhaustive description of the AISP experience of remedial undergraduate students,
6. Verifying the description, and
7. Modelling the experience.

Also discussed in this table prior to the presentation of steps was the implementation of phenomenological reduction throughout the analysis process.

The next section describes the specific implementation of the first six steps in the analysis process, with reference made to their accompanying tables within the appendices, as appropriate. As step seven constitutes the creation of a thematic representation of study findings model of the participants’ experience, this step, the model, and consequent discussion regarding its creation, appear in the ‘Findings’ section of Chapter 4.

Steps in the analysis process

In his chapter discussing a descriptive phenomenological approach to psychological research, Colaizzi (1978) details the procedural steps taken in his analysis of the phenomenon under investigation. This researcher adhered to these steps as much as possible, adding modifications where necessary and with guidance from other published research describing the
application of descriptive phenomenological analysis processes (such as those shared in Shosha, 2012; Spinelli, 2005; and Wojnar & Swanson, 2007).

*Step one: Protocol reading*

*Read all of the subject’s descriptions, conventionally termed protocols, in order to acquire a feeling for them, a making sense out of them.*


Step one involved the reading and re-reading of each of the information profiles created during the third pre-analysis action (described previously), so that this researcher could gain a deeper understanding and sense of the whole, or a ‘feel’ for what was expressed within (as suggested in Colaizzi, 1978, and in Spinelli, 2005).

Based on the recommendations of Dr. Latham regarding immersing oneself in the data before beginning analysis (personal communication, Dr. Kiersten Latham, August, 2014), this researcher read through each of the profiles three times before making any demarcations or notes regarding what could be extracted for the next step of the analysis process. This allowed this researcher to enter into a phenomenological mindset (as is recommended by Colaizzi, 1978; 1973; Giorgi, 2009; 1997; and Spinelli, 2005) before making decisions regarding which elements to extract from the information profiles. Additionally, this allowed for the phenomenological reduction process (described previously) to begin effectively, in that thoughts regarding the experience which could be considered biased were added to the phenomenological reduction document (please see Appendix H), and helped this researcher truly ‘see’ the experience of participants in the information profiles. After these readings were complete, this researcher moved on to step two, described next.
Step two: Extracting significant statements

Return to each protocol and extract from them phrases or sentences that directly pertain to the investigated phenomenon.


Analysis for step two was conducted in two parts: First by this researcher and second through peer debriefing. As explained previously, peer debriefing was included in the analysis process to enhance the trustworthiness of the study’s analysis procedures (Burla et al., 2008; Kurasaki, 2000; Lincoln & Guba, 1985; Zhang & Wildemuth, 2009), and to overcome any limitations placed on its trustworthiness by the lack of member-checking performed with study participants at the conclusion of the data collection phase of this study, as recommended by Colaizzi (1978; 1973) and Spinelli (2005). However, it is worth mentioning here that descriptive phenomenological authority Giorgi (1989) argued against the use of member-checking as a means of verifying trustworthiness of descriptive phenomenological study findings, purporting that asking study participants to step out of their ‘participant’ role and into the role of researcher was not only inappropriate, but also that participants were incapable of performing such analysis as they were not apprised of the study’s entirety, particularly its rationale and the experiences related to the researcher by other participants in the study. To that end, and despite this disagreement between proponents regarding the inclusion of member-checking in the descriptive phenomenological analysis process, this researcher believes that the addition of peer debriefing to overall analysis procedures used in this study strengthened its overall trustworthiness.

Drawing on the guidance of Spinelli (2005), after completing step one, this researcher then “extract[ed] those phrases or sentences that directly pertain[ed] to the investigated phenomenon so that by the end of this step [this] researcher ha[d] collected a list of significant
statements” (p. 136) from the information profiles. This included identifying and extracting statements made by participants pertaining to previous experiences with conducting scholarly research and academic information-seeking, previous course/college experiences where they encountered academic information-seeking, how the instructor and resources such as a writing support service factored into their AISP experience, how they felt about their abilities and information outcomes when conducting an AISP, and their general thoughts/emotions/feelings related to course instruction regarding academic information-seeking.

In accordance with Moustakas’ (1994) thoughts on how to appropriately undertake this portion of analysis, this researcher engaged in horizontalization of data elements, affording each statement equal weight or ‘value’ at extraction, and making decisions on their selection based primarily on their relevance to the AISP experience. Using this data analysis technique, this researcher extracted 148 statements overall from the six participant information profiles (please see the ‘S.S. Analysis (SB)’ table in the series in Appendix I).

This researcher then discussed the purpose of the study to the peer debriefer, i.e. to examine and describe the AISP experience of remedial undergraduate students, and asked the peer debriefer to read and reread each information profile and extract statements from each that he believed related directly to the AISP experience (essentially repeating steps one and two of the data analysis process described herein). The peer debriefer extracted 91 statements overall from the information profiles (please see the ‘S.S. Analysis (PD)’ table in the series in Appendix I). Comparison of this researcher’s analysis to the peer debriefer’s analysis revealed that 88 of the 91 statements he identified as relating to the AISP experience were present in this researcher’s analysis (for a reliability percentage of 97%). After examining the three statements identified by the peer debriefer which were not present in this researcher’s analysis and verifying
their representation of the experience under investigation, the decision was made to include them in analysis going forward. For specific comparisons made between this researcher’s analysis and the peer debriefer’s analysis, please see the ‘SB.PD Comparison’ table in the Appendix I series.

Step three: Formulating meanings

Try to spell out the meaning of each significant statement.


After the completion of comparative analysis as described in step two, the process of understanding the meaning behind each significant statement was undertaken, toward creating a formulated meaning unit from each significant statement. For this researcher, creating formulated meanings from the significant statements constituted one of the longer exercises within the greater data analysis process because of the precarious nature of this step’s impact on the study’s findings. To that end, this researcher endeavored to create succinct yet broadly representative formulated meaning units through in-depth exploration of participant quotes and descriptions as much as possible, while engaging in phenomenological reduction at the same time to ensure participant meaning was truly being represented in the formulated meaning units (considered paramount by Colaizzi, 1978, and Giorgi, 2009). As described in Spinelli (2005):

[T]his formulation of meanings, or movement from what is said to what is meant, is the most precarious interpretative part of the phenomenological research process and requires the researcher’s creative insight to both remain true to the [participant’s] statement while at the same time seeking to draw out of it its embedded, often implicit, meaning (p. 136).

At the end of this step, 151 formulated meanings had been created by this researcher, based on the 151 significant statements extracted from the information profiles (by both this
researcher and the PD—see the previous section for more detail). As much as possible, these meanings represent both the implicit and the explicit meanings of the experience as relayed by participants to this researcher. As a means to verify that these formulated meanings did not ‘add’ elements which did not exist previously, this researcher compared formulated meaning units to the information profiles, the Epoché (Appendix F), the in-class observation and bracketing notes (Appendix G), and the phenomenological reduction process (Appendix H). Accordingly, adjustments were made to formulated meaning units to ensure that this stage of analysis represented participant meanings inherent in the AISP experience as much as possible. Created formulated meanings appear in the ‘formulated meanings’ table in the series in Appendix I.

*Step four: Extracting clusters of themes (i.e. ‘thematic clusters’)*

*Repeat the above for each protocol, and organize the aggregated formulated meanings into clusters of themes.*


Based on the guidance of Colaizzi (1978; 1973), Giorgi (2009; 1997), Shosha (2012), and Spinelli (2005) primarily, this researcher undertook the monumental task of grouping like formulated meanings together into thematic clusters. From this process, 12 dominant thematic clusters were created. They were: 1) general perspectives on course instruction, 2) role of instructor assistance in AISP experience, 3) reported confidence in AISP skills/abilities, 4) AISP experience is simple/easy, 5) AISP experience is difficult/challenging, 6) how AISP is conducted/implemented, 7) feelings/emotions related to the AISP experience, 8) feelings/emotions related to the course overall, 9) previous course/college experiences, 10) previous AISP experience, 11) role of outside-class support in AISP experience, and
12) unique statements. These thematic clusters and their formulated meanings are displayed in the ‘thematic clusters’ table in the series included in Appendix I.

In his description of how to undertake this step in descriptive phenomenological analysis, Spinelli (2005) explained that “there may be formulated meanings that do not fall into clusters of themes in that they stand alone … these too are added to the final list of thematic elements” (p. 136). The formulated meanings which fit this criterion were included in the final ‘unique statements’ thematic cluster. This researcher must note here that despite their inclusion in the thematic clusters table, the ‘unique statements’ cluster is not included in the Final Thematic Map (please see Appendix J). Methodologically, these statements are more representative of phenomenographical findings, and although it is recommended that they be acknowledged (Spinelli, 2005), they were not included in final analysis for this study because they represented atypical, non-representative findings within the overall AISP experience of participants. As was detailed in Chapters 1 and 2 of this dissertation, a phenomenographic approach (see “Definition of Terms” in Chapter 1) to information research is common in library and information science. In accordance with recognizing this dominant research approach, this researcher explored the implications of the ‘unique statements’ to the overall study separately from those formulated meaning statements which could be grouped together logically, so as to adhere to the goal of the search for universal essences in descriptive phenomenological study.

Finally, included in the “Thematic clusters” table is a column which constitutes this researcher’s observations of the student’s final submission review. This review was undertaken to seek out evidence of each participant’s AISP implementation in their final assignment, constituting the ‘artifacts’ of the experience, as was described in the Data Collection section of this chapter. As such review was part of the study as originally proposed, these observations
were included within this table as a potential ‘13th’ category, which could then be factored into the emergent themes representing the AISP experience of participants. These observations were based on whether or not participants adhered to final assignment requirements, in terms of how they implemented information found through their AISPs. However, as a) the final assignment’s requirements were set by the course instructor, and b) although factually reviewed, researcher bias in terms of these observations could not realistically be ‘removed’ from the review process, this researcher chose not to include them in the final thematic map, opting to keep the AISP experience focused purely on the observed and related elements shared through the rest of the map. Instead, these observations will be explored in the discussion section at the end of Chapter 4, and the implications of these observations on the AISP experience, as related, within the appropriate section in Chapter 5.

This researcher’s thematic analysis process of creating emergent themes from analysis of thematic clusters and their associated formulated meanings, and an explanation regarding how these emergent themes constitute an exhaustive description of the AISP experience of remedial undergraduate students, is discussed next. A table summarizing the ‘thematic clusters to emergent themes’ analysis process is also included within this section.

*Step five: Creating an exhaustive description of the AISP experience of remedial undergraduate students.*

*The results ... are integrated into an exhaustive description of the investigated topic.*


Discussed in Colaizzi (1978; 1973), Giorgi (2009; 1997), Spinelli (2005) and Wojnar and Swanson (2007), the exhaustive description of the phenomenon under investigation is presented as a comprehensive “Statement” (Spinelli, 2005, p. 140), which emblematizes and expands upon
the inherent structure of the examined, lived experience investigated in a descriptive phenomenological study. As evidenced by the final thematic map in Appendix J, the exhaustive description of the AISP experience of remedial undergraduate students is comprised of eleven categories, consolidated within three emergent themes. A summary table of the emergent themes and their relevant categories or thematic clusters is below, and the introduction to the exhaustive description of the AISP experience follows.

Table 7

*Final Thematic Map - Summary Table*

<table>
<thead>
<tr>
<th>EMERGENT THEMES</th>
<th>THEMATIC CLUSTERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>The AISP experience is affected directly by internal elements related to the experience.</td>
<td>Reported confidence in AISP skills/abilities</td>
</tr>
<tr>
<td></td>
<td>AISP experience is simple/easy</td>
</tr>
<tr>
<td></td>
<td>AISP experience is difficult/challenging</td>
</tr>
<tr>
<td></td>
<td>How AISP is conducted/implemented</td>
</tr>
<tr>
<td></td>
<td>Feelings/emotions related to the AISP experience</td>
</tr>
<tr>
<td>The AISP experience is impacted indirectly by external elements related to the experience.</td>
<td>Previous AISP experiences</td>
</tr>
<tr>
<td></td>
<td>Role of instructor assistance in AISP experience</td>
</tr>
<tr>
<td></td>
<td>Role of outside-class support in AISP experience</td>
</tr>
<tr>
<td>The AISP experience is influenced by ecological factors outside of the immediate experience.</td>
<td>General perspectives on course instruction</td>
</tr>
<tr>
<td></td>
<td>Feelings/emotions related to the course overall</td>
</tr>
<tr>
<td></td>
<td>Previous course/college experiences</td>
</tr>
</tbody>
</table>
Based on the final thematic map presented herein, the AISP experience of the remedial undergraduate student is described as a complex, multi-faceted process, which is affected directly by internal elements related to the experience, impacted indirectly by external elements related to the experience, and by ecological factors outside of the immediate experience. This statement is but a brief overview of the totality of this experience (particularly, the specifics of each of the emergent themes). However, as the exhaustive description “Statement” (Spinelli, 2005, p. 140) of the experience represents key findings from this study, it is included in its entirety in ‘Findings’ in Chapter 4.

**Step six: Verifying the description**

This step typically involves a return to research participants for member-checking of created profiles of their experiences, and verification that what the researcher described accurately reflects their experience with the phenomenon under investigation. However, as discussed previously, this researcher was unable to secure verification from study participants, despite multiple requests. To that end, and as was included in the description of the implementation of step two of the analysis process, a peer debriefer (Lincoln & Guba, 1985) reviewed the exhaustive description as well. Specifically, the peer debriefer was asked to read through the exhaustive description of the AISP experience of study participants (provided in Chapter 4) and the final thematic map (see Appendix J), and compare his understanding of elements shared in these documents to the information in participants’ information profiles.

As suggested by Lincoln and Guba (1985), peer debriefing helps the researcher stay true to the reporting of participant experiences in explaining and describing the universal essence of the phenomenon under investigation. Specifically, Lincoln and Guba (1985) state “[t]he task of the debriefer is to be sure that the investigator is as fully aware of his or her posture and process
as possible (remembering that while it is not possible to divest oneself of values, it is at least possible to be aware of the role they play)” (p. 308). Following discussion with the peer debriefer regarding his review of the abovementioned elements, some adjustment to presentation and wording within these documents was made. Because this additional verification step was taken to enhance the trustworthiness of study findings, this researcher asserts that both the exhaustive description and the final thematic map (please see Appendix J) included within this dissertation accurately represent the lived AISP experience of the study’s participants.

As stated previously, the final step of the analysis process (Step seven: Modelling the experience) appears in ‘Findings’ in Chapter 4. The next section will expand upon issues of trustworthiness in the study, which have been touched on at various points in this dissertation.

**Issues of trustworthiness**

Because this study is not quantitative, nor is it grounded in post-positivist thought, trustworthiness is the terminology used to describe the rigor of the research process. Usage of this term was suggested in Hatch (2002), who asserted that the term validity is the realm of post-positivist researchers and therefore is deemed inappropriate as a descriptive term for qualitative investigation, a notion shared by Englander, 2012. As was described previously, triangulated data collection methods were used to ensure a broad, detailed examination of the AISP experience of participants. As Merriam (2002) explains, triangulation is a strong approach toward ensuring trustworthiness in qualitative research: “[F]rom an interpretive perspective, triangulation remains a principal strategy to ensure for validity and reliability” (p. 26). Even though Merriam (2002) uses validity and reliability as the terms describing rigor in qualitative research, it is asserted here that these elements are consistent with the term ‘trustworthiness’ for the purposes of this study.
Another consideration related to ensuring trustworthiness in the collected data was the incorporation of peer debriefing (Lincoln & Guba, 1985) at various stages in the data analysis process. As discussed previously, peer debriefing was added to this researcher’s analysis plan to replace the verification step of member-checking (or lack thereof) and continue the promotion of trustworthiness in study findings. Therefore this researcher sought the counsel and analysis review assistance of a peer debriefer because adding this process to analysis of collected data allowed this researcher to compensate for the limitations which may have been imposed by the lack of member-checking in the study. Specifically, peer debriefing at two different points during analysis added an air of “confirmability” (Zhang & Wildemuth, 2009, p. 313) to findings, in that confirmability is “the extent to which the characteristics of the data, as posited by the researcher, can be confirmed by others who read or review the research results” (Bradley, 1993, p. 437, in Zhang & Wildemuth, 2009, p. 313). Please see the ‘SB.PD comparison’ table in the data analysis tables series in Appendix I for more detail on specific researcher-peer debriefer comparisons made during data analysis for this study.

Finally, and as shared previously, this researcher’s bracketing and constant reflexivity during the collection process and engagement in phenomenological reduction during analysis (see Appendices G and H) were crucial steps in maintaining trustworthiness in this study. It is reiterated here that bracketing and phenomenological reduction are important tools which allow the phenomenological researcher to separate the lived experience of participants from the researcher’s experience of a phenomenon throughout the study, particularly in the analysis stage (Colaizzi, 1978; 1973; Giorgi, 2009; 1997; Shosha, 2012; Spinelli, 2005). In concluding the discussion on the need for continued bracketing and reflexivity to verify the trustworthiness of a qualitative study, this researcher includes a descriptive statement on such from Hatch (2002):
The capacities to be reflexive, to keep track of one’s influence on a setting, to bracket one’s biases, and to monitor one’s emotional responses are the same capacities that allow researchers to get close enough to human action to understand what’s going on … [r]eflexivity, “the process of personally and academically reflecting on lived experiences in ways that reveal deep connections between the writer and his or her subject” [Goodall, 2000, p. 137, cited in-text by Hatch, 2002], is essential to the integrity of qualitative research (pp. 10-11).

**Limitations of the study**

It is the nature of qualitative investigation that although it produces deep, rich, and meaningful data gathered through triangulation of methods and constant reflexivity and acknowledgment/documentation of personal bias and impact during the research process of a study, its focus on a non-specific or substantial population grouping renders it non-generalizable to the population at large (Hatch, 2002; Merriam, 2002; Schram, 2003). Despite this limitation, qualitative study was chosen as the methodology for this study due to the gap in the scholarly literature addressing the research problem and in order to create an exploratory, foundational framework and model for broader, more focused, and potentially quantitative study in this under-addressed area in future investigations (please see Chapter 5).

Additionally, selecting participants from only one remedial English course at MidState University could itself be viewed as a limitation because of the smaller sample size under investigation (i.e. six traditional undergraduate participants). However, although the impact of extraneous variables on a study are more of a consideration for quantitative study, it was felt that limiting the study to one class from one course specifically would be advantageous for deep and meaningful data collection, and would allow this researcher to observe the participants during
this process with more focus. This was indeed the case as explained throughout this chapter and despite the small participant rate of six students, triangulation of data collection methods allowed for rich information profiles regarding the AISP experience to be created for each of the six participants in the study. Therefore, although this researcher cannot assert that the findings of this study represent the AISP experience of all remedial undergraduate students, this researcher does assert that the findings are representative of the AISP experience of participants in the study, and can be used as foundational elements for further investigation in this area.

Another unanticipated limitation with data collection for the study was that only two of the six participants completed their out-of-class information AISP journals. However, these journals were included in data analysis because they did add another level of depth and detail to the overall investigation of the AISP experience of participants.

Finally, as a research methodology, descriptive phenomenology limits its focus to the universal essence/s of a shared experience related to the researcher by participants in the study (Colaizzi, 1973; Giorgi, 2009; Spinelli, 2005; Wojnar & Swanson, 2007), rather than the differences extant in that experience, as the variety of phenomenographic studies in in library and information science have explored previously (Andretta, 2007; Boon, Johnston, & Webber, 2007; Gross & Latham, 2011; Limberg, 2000; Lupton, 2008; Maybee, 2007; Richardson, 1999—also, see “Definition of terms” in Chapter 1 for a more complete description of phenomenography). This in itself could be viewed as a potential limitation or perhaps, a delimitation in that the boundaries of the experience were drawn succinctly post-analysis, in that the similarities of the AISP experience are the focus for this dissertation, and not the experience from unique participants’ perspectives.
Delimitations and Design Controls

In order to facilitate the creation of a thematic representation of study findings model of the participants’ experience (please see Chapter 4), it was deemed crucial for the research study to focus specifically on the commonalities of the research experience to develop as rich and meaningful a model as possible. However, this researcher also resolved to pay attention to non-universal findings outside of the immediate context of study findings, and included a section in Chapter 4 discussing how these elements could affect or impact future research in this area. This delimited primary descriptions of study findings to the universal essence of the experience, only.

As already explained, although descriptive phenomenological research approaches such matters differently than phenomenographical research does (such as in Andretta, 2007; Budd, 2009; Dowling, 2007; Limberg, 2000; Lupton, 2008; Maybee, 2007; and Richardson, 1999), the use of descriptive phenomenology methodology was viewed as being fundamental to the goals of this study: The creation of a holistic representation of the AISP experience of participants, providing a foundation for future research in this area, and for targeted information literacy instruction for remedial undergraduate students.

The next chapter presents findings from the study as revealed through the steps of analysis described within this chapter, as well as a discussion on how study findings respond to the research question posed in Chapter 1, and how these findings map to previous literature and the conceptual framework guiding this study, presented in Chapter 2.
Chapter IV

Research Findings

Introduction

This chapter presents major findings of the study, and includes an exhaustive description statement of the AISP experience of study participants, and the thematic representation of study findings model of the participants’ experience.

The exhaustive description of the AISP experience of remedial undergraduate students, a high-level summary of analysis findings, represents the synthesis of analysis produced from the data collected for this study—an important facet in the conclusion of analysis in descriptive phenomenological study, as described in the Data Analysis section of Chapter 3. The thematic representation of study findings model of the participants’ experience included after the explanation of step seven in the analysis process in this chapter was created by this researcher as the appropriate final result of a descriptive phenomenological study. Specifically, as stated by Wojnar and Swanson (2007), “[t]he end point of descriptive phenomenological investigation is to present a theoretical model representing the essential structures of [the] phenomenon under study” (p. 177). Building on the analysis process explained in Chapter 3, and the findings shared and discussed in this chapter, key dissertation conclusions, implications, and suggestions for future research will be discussed at length in Chapter 5.

The next section discusses the procedures undertaken by this researcher facilitating separation of herself from the experience of participants. As these processes have great bearing on how accurately a lived experience is presented by a researcher at the conclusion of a descriptive phenomenological study, this section moves the conversation from the specifics of their application, to how these processes factored into findings presented within this chapter.
Separating the ‘researcher’ from the ‘researched:’ Creation of the Epoché, and explaining the bracketing and phenomenological reduction processes

As was discussed at length in Chapter 3, creating the Epoché, continually bracketing one’s thoughts, emotions and biases during data collection, and rigorous implementation of a phenomenological reduction attitude during data analysis, are critical to the success of a descriptive phenomenological study’s findings (Colaizzi, 1978; 1973; Giorgi, 2009; 1997; Spinelli, 2005). Used as separation ‘tools,’ these processes were a means for this researcher to ensure constant reflexivity and consequently, a philosophical and rational separation of the researcher from the researched. In other words, each reflexive activity performed within the descriptive phenomenological tradition over the course of this study allowed this researcher to separate herself from the lived experiences as they were relayed to her by participants.

At the same time, engaging in these processes also allowed this researcher to appreciate the influence of personal experience with the phenomenon under investigation on her approach to the study and during data collection and analysis, without having this personal experience impede the accurate portrayal of participant experience in final descriptions of same. Indeed, as van Manen (1990) explains, “[to] be aware of the structure of one’s own experience of a phenomenon may provide the researcher with clues for orienting oneself to the phenomenon and thus to all the other stages of phenomenological research” (p. 57).

The definitions of these reflexive activities and the roles they play in descriptive phenomenological research which were provided in broad review in Chapter 3 will not be repeated here. Rather, this researcher will merely share that as van Manen (1990) so eloquently described, these activities allowed for an ‘orientation’ to the phenomenon outside of what she had experienced in professional practice. Because of this orientation and continual mental
separation of personal experience from observed/related experience, this researcher was able to ‘see’ things within the phenomenon under investigation that may otherwise have been missed or misinterpreted. As evidenced by this researcher’s pre-study Epoché (Appendix F), the bracketing notes written religiously during in-class observations (Appendix G), and her phenomenological reduction process conducted during the data analysis phase of this study (Appendix H), documenting pre-conceptions and biases of the experience throughout the study cleared the ‘research path’ for fuller, more in-depth exploration of participants’ described experiences. In this, facets of the experience that this researcher had not previously considered, observed, or thought to examine, were revealed in stark and complex fashion—to the full benefit of her intentions to create foundational research examining the AISP experience of remedial undergraduate students. Returning to thoughts shared by van Manen (1990) on the benefits of phenomenological inquiry: “When someone has related a valuable experience to me then I have indeed gained something, even though the “thing” gained is not a quantifiable entity” (p. 53).

These ‘gains’ are the findings from this study, which are presented next.

Findings

As discussed in Chapter 3, the exhaustive description “Statement” (Spinelli, 2005, p. 140) of the AISP experience of remedial undergraduate student participants in the study represents a comprehensive description and explanation of the experience from the participants’ perspective. It is a summative representation of this study’s critical findings.

The exhaustive description of the AISP experience of study participants

The AISP experience of study participants, i.e. remedial undergraduate students, is described as a complex, multi-faceted process that is a) affected directly by internal elements
related to the experience, b) impacted indirectly by external elements related to the experience, and c) influenced by ecological factors outside of the immediate experience.

This description encompasses the three emergent themes of the study, which are presented separately, and in consideration of the thematic clusters encompassing each theme. Further, participant quotes which appropriately reflect the nature of each emergent theme are included within the presentation of each. Although some research using descriptive phenomenological methodology presents participant perspectives separately, e.g. through the presentation of profiles of each participant involved in the study, this researcher determined that breaking out the individual participants in this way from the findings presented would detract from the holistic representation of the universal essence of the AISP experience for all participants. Rather, specific quotes reflecting the complexity of each theme are presented contextually within the broader interpretation of the theme itself.

Finally, a table reflecting the complexity of one of the themes was created as a means to explain the construction of the emergent themes presented herein. Complete documentation detailing the construction of the three emergent themes is available in Appendices I and J

**Emergent theme 1: The AISP experience is affected directly by internal elements related to the experience**

Internal elements which directly affected the participants’ AISP experience as it was conducted to satisfy particular requirements (such as the requirements of the participants’ final research assignment, completed for the course in which this study was housed) were those elements revealed through data analysis to have the most bearing on the experience as a whole. They included those elements relayed most often by participants during one-on-one interviews, and which occurred most frequently during participant observation. These elements appeared frequently in participant information profiles, and included:
• Participants’ reported confidence in their AISP skills or abilities:

• Whether the AISP experience overall was considered simple or easy, especially in terms of whether the participant believed finding information using an AISP was easy, or

• Whether the AISP experience overall was considered difficult or challenging in its implementation, its completion, or in its ability to produce relevant information at all,

• How the AISP was conducted and/or implemented, including how much time was spent on the AISP both in class and out, whether the AISP was conducted with focus or in tandem with distraction, and if there was an understanding of the ‘why’ behind the selection and use of keywords within academic resources [e.g. academic research databases]), and

• Feelings and emotions related to the AISP experience, such as confusion, apathy, anxiety, the sense of being overwhelmed, worry about lack of time, and concern over outcomes and sacrifices made to accommodate the needs of the AISP.

Some participants shared that they had a high level of confidence in their AISP skills or abilities, such as the participant who stated “Oh yeah, I’m very confident” when asked to describe her confidence level when performing AISP tasks to meet the needs of the final assignment, and further, that she found the AISP easy to implement toward finding information for the final assignment, and that “even if I find a little information, I still have information.” This same high level of confidence was expressed by two other participants in the study, both in terms of how they felt about implementing the AISP to find information for the final assignment, and in terms of their comfort level with the AISP concept as a whole.
However, other participants believed they had more to learn about implementing AISPs as they continued through their academic programs, such as the participant who shared that he felt he had a lot more to learn about conducting AISPs in the future: “It’s a longer process … I’m not comfortable with it right now and I’m sure I have more to learn about it.” When the same participant was asked why he was not comfortable with conducting an AISP, he explained “I don’t understand how to cite things … I’m just winging it” and that “I’m better doing hands-on work, with experience.”

Regarding the implementation of specific AISP procedures, such as looking for information within an academic research database to find relevant information for the final assignment, another participant indicated that he found the process as a whole frustrating and confusing: “I had to find keywords to plug in, but nothing came up. It was almost like a dead end.” This frustration spilled over into how the participant described other elements of the AISP experience for him, as he viewed the AISP experience as another requirement for the class which confused him, and limited his academic progress: “Every time we do it [learn more about academic requirements for future study], and try to turn … I feel like a tire stuck in the mud – I’m trying and trying and not getting anywhere … redoing things doesn’t help.” Although this particular participant’s level of frustration and confusion was not shared as extremely by other participants in the study, two of his fellow participants also indicated a general sense of frustration and confusion with the AISP experience overall, and particularly, that they knew that they would have to learn more about the process in future courses if they were to succeed in those courses, and beyond.

This theme encompasses those elements which had the most direct effect on the AISP experience for participants, as evidenced by the quotes from participants included above.
Although some participants indicated they had a high level of confidence in their AISP skills and abilities, others shared that the process made them uncomfortable, and that they knew they had more to learn about the AISP as a whole going forward. For this researcher, the crux of this theme was the emotion affecting the AISP experience for participants, both when they engaged in AISP tasks, and in terms of how they felt about the AISP as a whole. As shall be discussed in Chapter 5, future research could investigate ways to reduce anxiety associated with specific AISP tasks for remedial undergraduate students, toward more completely addressing those elements directly affecting the AISP experience for these students.

**Emergent theme 2: The AISP experience is impacted indirectly by external elements related to the experience**

External elements which indirectly impacted the participants’ AISP experience as it was conducted to satisfy particular requirements were those elements revealed through data analysis to have secondary bearing on the experience as a whole. These elements appeared less frequently than the elements described in the first emergent theme of study findings above, but were nonetheless quite apparent in participants’ information profiles. They included:

- Previous AISP experience of participants, i.e. whether an AISP had been conducted prior to its introduction in this course, and if it had, how that experience shaped attitudes and opinions of the process as a whole, either positively or negatively,

- The role of instructor assistance in the AISP experience, i.e. if the instructor’s assistance was sought, how the assistance as it related to conducting the AISP clarified or confused expectations, whether the instruction was believed to be effective in learning appropriate methods for conducting the AISP, and whether
the instructor’s assistance was effective or ineffective in guiding participant
AISPs to find relevant information, and

- The role of outside-class support in the overall AISP experience, i.e. the impact of
  writing support service staff assistance on overall confidence or lack thereof in
  adhering to assignment requirements, the search for guidance in using the AISP to
  complete the assignment from a trusted family member, and the perception of the
  impact of library instruction on overall understanding of the AISP experience.

As evidenced in the participants’ information profiles, most explained that they had prior
experience with academic information-seeking in some way. This included two participants who
indicated they had learned prior to college how to look for information for educational reasons,
another participant who had learned about conducting academic research during an in-class visit
to MidState University’s campus library (although this same participant said of the librarian’s
explanation of same that “he definitely talked more than he should have”), and the participant
who indicated being exposed to the concept when he took this course in the previous semester
from another instructor.

In the case of the participants who had learned about conducting an AISP prior to
attending MidState University, two expressed confidence in knowing how to perform an AISP to
meet the requirements of the final assignment for the course in which this study was housed
without seeking additional assistance, while the other indicated he frequently requested guidance
from the course instructor and his mother, whom he considered an expert on the matter because
she had a master’s degree and served as a writing tutor at another college campus. Another
participant in the study also described consulting her mother for assistance with completing the
AISP for the class, expressing that because her mother had a master’s degree, she believed her mother could help her most particularly with her “works cited.”

The four participants in the study who indicated they had sought the assistance of the course instructor to learn more about conducting the AISP to meet the needs of the final assignment had mixed reactions regarding the usefulness of doing so. Only two of the participants reported feeling that the course instructor’s assistance had helped them understand the process more completely, although both of these participants indicated they still found the process to be overwhelming and they knew they would require additional assistance at some point. The two participants who reported finding the course instructor’s assistance less than useful explained they found the assistance more confusing or frustrating than was necessary. Specifically, one participant said the instructor’s assistance often left her feeling “confused” and “stupid,” and specifically, that she found the instructor’s explanations regarding the final assignment hard to understand: “Like when she explained the works cited – [the instructor] made it harder than it actually was … which makes it more confusing.” The other participant shared that “asking for teacher’s help can confuse you more at times – make you feel more lost. The way she explains it [assignment requirements], it’s more confusing.” Further, the participant expressed a general frustration with the instructor’s assistance overall: “You think you’re going to get the help you need and then you ask for help and it’s completely confusing.”

Finally, although all six participants indicated they knew about support services outside of the course which could help them learn more about conducting AISPs to meet course requirements, only one participant shared his experience regarding consulting these resources in the past. Specifically, when taking this course in the previous semester, the participant indicated that based on the recommendation of the previous course’s instructor, he consulted the staff at
the campus writing support service for assistance. However, he was less than pleased with the outcome of this consultation: “It was a big failure – I don’t know if I would go back to them again [because] they gave the wrong advice.” Indeed, the participant explained that the advice given by the writing support service’s staff was so off the mark in terms of class requirements that when he shared his experience with the previous course instructor, he and the rest of his classmates were told they did not have to return to the writing support service for assistance. Therefore, the participant indicated he did not know whether he would return to this service for assistance in the future.

This theme emblematizes those elements which had an indirect impact on the AISP experience for participants, as evidenced by the quotes from participants included above. Although most participants indicated having prior experience with conducting an AISP to meet the needs of a class assignment prior to the one introduced in this course, the majority of these same participants also felt unable to complete the AISP on their own and sought assistance—two from their mothers and from the course instructor, and two referred to the course instructor alone. As described above, reactions to the assistance received from the course instructor was mixed, with only two participants believing the instructor’s assistance was helpful to them as they conducted their AISPs. However, these same two participants explained that they found the process overwhelming and would most likely need help with the process in future courses. The other two participants who sought the instructor’s assistance indicated that the assistance left them feeling more confused and frustrated than they were before receiving such assistance. And, as related above, although all participants had knowledge of outside support services which could assist them in learning more about conducting an AISP, only one participant had consulted such a service in the past, and his experience was overwhelmingly negative.
As shall be discussed in Chapter 5, future research could investigate specific and collaborative instructional methods to better serve the information needs of remedial undergraduate students, toward more completely addressing those elements indirectly impacting the AISP experience for these students.

*Emergent theme 3: The AISP experience is influenced by ecological factors outside of the immediate experience.*

Finally, ecological factors outside of participants’ immediate AISP experience were those factors revealed through data analysis to nonetheless influence the experience in some way. These factors were revealed during interviews with participants and in observation of their in-lab AISP tasks, and which came up in responses to questions asking about participants’ feelings about overall course instruction and how they felt about the course as a whole, and in discussion about their previous academic experiences outside of the course in which this study was housed. These factors included:

- General perspectives on course instruction, i.e. the influence of competing assignments in the course on the amount of time spent on the AISP for the final assignment, if course instruction overall led to enlightenment and inspiration or confusion and discomfort, or whether instruction was perceived to prepare participants for future academic work,

- Feelings and emotions related to the course overall, i.e. whether participants were excited and engaged by the course or frustrated and apathetic, whether teaching styles confirmed or conflicted with their worldviews and academic perspectives, or whether the course motivated them to think more in-depth about the subjects covered within, or left them feeling concerned about their abilities to succeed in future academic work, and
• Previous course or college experience, i.e. the perspective of a participants who had failed the course previously and therefore had to retake it vs. the perspective of a ‘first timer’ participant, whether previous college experience made the participant feel prepared for the rigor expected of the course or had left them with unrealistic expectations in this area, and whether time management had been learned and effectively applied to achieve school/life balance.

As indicated previously, at least two of the participants in this study had taken this same course in a previous semester and failed, and were therefore retaking the course in order to fulfill the academic requirements necessary before advancing to introductory college-level coursework. Therefore as one might imagine, these participants expressed different frustrations and anxieties to those of other participants who were taking this course for the first time. Although some participants expressed positive sentiments in relation to the three factors stated above, others shared negative sentiments and discussed their numerous concerns about the course in general, and non-AISP related course instruction in particular.

Three of the six participants shared that they felt the course was preparing them for future academic work, and that the course instruction, albeit somewhat overwhelming, was helping them prepare for the rigor that would be expected in other courses. In particular, one participant likened her experience in the course to a spiritual experience, stating “I literally feel like a Christian who just left church” in describing how she feels after each class session ends. The other two participants indicated that they appreciated the instructor’s one-on-one assistance with course assignments, and expressed overall that course instruction reinforced learning, both in terms of what was expected for the AISP, and in terms of other assignments (such as grammar assignments, etc.).
Further, all three of these participants shared that although previous academic experiences made them feel like they were solid students, this course in particular helped them appreciate where their academic skills would need work, and prepare accordingly, emblematized by the student who compared his minimal workload in high school to the heightened workload he felt he now had to manage at MidState University. How these ecological factors influenced the AISP experience despite falling outside of the experience itself was evidenced by these participants’ explanations of how they felt learning about conducting an AISP was preparing them for future assignments, and that the course overall was helping prepare them for future academic work. One of these participants in particular indicated he believed the standard of his academic work had improved substantially over the duration of the course, and that the multiple assignments also allowed him to appreciate the workload he would experience as he continued through his program of study.

However, as explained previously in this theme, there were three participants who expressed concern about course instruction and the course overall, both in relation to the AISP experience, and to their experiences outside of the course itself. In response to a question asking about how she felt about the instruction received to complete the AISP and other assignments in the course, one participant shared that she found the guidance they received on how to use lab time insufficient: “[The instructor] just throws us in the computer lab and I don’t know what we’re supposed to do.” Also, as explained in a previous theme, this same participant said that instruction and instructor assistance often made her feel “confused” and “stupid,” and that although she liked the course instructor, the course itself was “not really my cup of tea.” She explained further that she found the workload in the course to be unreasonable: “I have competing assignments as well,” and expressed that the lack of due dates for assignments in the
course syllabus for assignments often left her unsure of what was required and when. Of the other two participants who expressed concern, both had failed this course in the previous semester and although one was confident that she would succeed this time around, the other participant was not so sure. In his own words, “I hope I pass this class by some miracle.”

The detail included within this theme has attempted to show that ecological factors outside of the immediate AISP experience nonetheless influenced the way participants explained and described their AISP experience as a whole. Indeed, as this researcher well knows based on personal experience with academic frustration, one cannot compartmentalize feelings of anxiety, frustration, and confusion, and where these emotions arise in one area, so it is rational to conclude that they will arise and impact other areas in one’s life, as well. Further, that educational experiences outside of the course in which this study was housed, and instruction delivered in the course related to non-AISP requiring assignments nonetheless influenced the way participants related their AISP experience (as explored in the previous themes) was tangible through the way participants in this study discussed these factors. To that end, future research could attempt to create a more comprehensive list of ecological factors which could possibly influence the information needs and behaviors of remedial undergraduate students.

As discussed at the beginning of this section, this researcher created a table for the first emergent theme reflecting its complexity through presentation of its associated thematic clusters, and including a sample of the formulated meaning statements found within each thematic cluster. For a complete listing of all emergent themes and their correlating thematic clusters/formulated meaning statements, please see the final thematic map in Appendix J.
**Table 6:**

*Emergent theme 1, associated thematic clusters, and a sample of related formulated meaning statements.*

<table>
<thead>
<tr>
<th>EMERGENT THEME</th>
<th>THEMATIC CLUSTERS</th>
<th>SAMPLE FORMULATED MEANING STATEMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergent theme 1:</td>
<td>Reported confidence in AISP skills/abilities</td>
<td>Participant has prior experience with scholarly research, and is confident in the strength of her AISP skills. &quot;Oh yeah, I'm very confident.&quot;</td>
</tr>
<tr>
<td></td>
<td>Participant is confident in the strength of her academic research skills.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Participant is confident in the strength of her academic research skills, and found it easy to conduct a successful AISP for the final assignment.</td>
<td></td>
</tr>
<tr>
<td>The AISP experience is affected directly by internal elements related to the experience.</td>
<td>Participant believes the scholarly research process/AISP to be simple, in that any information found is still information - &quot;Even if I find a little information, I still have information.&quot;</td>
<td></td>
</tr>
<tr>
<td>AISP experience is simple/easy</td>
<td>Participant described his keyword choice as &quot;simple,&quot; and that he chose the keywords he used based on his information needs for the project.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Participant doesn't believe finding information during his AISP for the final assignment will be too challenging, but indicated his selection of the essay to revise could be an unwise selection for him.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Participant chose her revision essay based on the ease of completing the initial essay, and believed</td>
<td></td>
</tr>
<tr>
<td>AISP experience is difficult/challenging</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participant was having difficulty finding relevant scholarly resources for her selected revision assignment after conducting her AISP.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participant is still uncomfortable with the scholarly research process and AISPs after the class experience, and hopes he will learn more about it in future college classes. - &quot;It's a longer process … I'm not comfortable with it right now and I'm sure I have more to learn about it.&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participant does not like citations or the process of creating citations for an assignment, particularly because he felt that the instruction about creating and using citations given in class was confusing. &quot;I'm not a big fan of citations.&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participant is a 'hands-on' learner, and finds it more challenging to understand content that is taught non-contextually.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How AISP is conducted/implemented</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant is still investigating resources for her assignment.</td>
</tr>
<tr>
<td>Participant is actively involved in AISP process during class discussions, and has good instincts about IL skills.</td>
</tr>
<tr>
<td>Participant had a less difficult time finding scholarly resources for previous essays, during AISP 'practice.'</td>
</tr>
</tbody>
</table>
Participant's AISP included searching using a variety of keywords and keyword combinations in different scholarly databases.

Participant is able to intensely focus on the task at hand when engaged in her AISP for the class research assignment. - "I'm in the zone and I'm working on it."

Participant's self-documented, out-of-class AISP experience is different from her related in-class experience. Particularly, participant has trouble focusing on the AISP solely, and also feels pressure because of competing assignments. Finally, participant believes that minimal input into the assignment will suffice, as she is not invested in expending a lot of effort in her revision or her AISP.

Feelings/emotions related to the AISP experience

Participant has not expended a lot of effort outside of class on her AISP for the final research assignment.

Participant was confused by some of the information he found during his AISP, as it did not coincide with his personal beliefs on the subject he was researching - "some of the information made out that 'normal' had to do with money - that thing about unity, it's not about money."

Participant was not motivated to do an in-depth job for the research assignment for the course - either in learning about the AISP or putting in effort into the revision. However, he hopes to learn
more about performing scholarly research and completing AISPs in future courses.

Competing course/academic concerns was a major reason participant did not spend a lot of time or focus on the final assignment for the course.

The next section discusses the last step in the analysis process described in Chapter 3: the modelling of the AISP experience of study participants. This seventh step is included here because its implementation was the creation of a thematic representation of study findings model of the participants’ experience. Therefore, the next section provides the specifics behind how this thematic representation of study findings model was created, and includes a section comparing and contrasting this model to the theoretical model of the AISP of the Millennial undergraduate student presented in Chapter 2.

*Modelling the experience (Step seven in the modified Colaizzi (1978) Method of Analysis)*

The thematic representation of study findings model of the participants’ experience presented below was created by this researcher as the concluding step in the modified Colaizzi (1978) method of analysis used in this study. It is presented as a visual summary of the exhaustive description provided above, and more specifically, was created as a means to visually present the emergent themes of participants’ explained and described AISP experience.

Representing the multi-faceted categories within each theme, this model places the remedial undergraduate student participant at the ‘center,’ representing the descriptive phenomenological premise that the theoretical model of the experience is “a universal skeleton that can be filled in with the rich story of each informant” (Schonwald, 1998, in Wojnar & Swanson, 2007), as given in the emergent themes presented above. The totality of the experience as shared by ‘the rich story of each informant’ is represented by the shapes
surrounding the remedial undergraduate student center: the square representing the four internal elements directly affecting the AISP experience, the inner triangle representing the three external elements indirectly impacting the AISP experience, and the outer triangle representing the ecological factors outside of the immediate experience which nonetheless had influence on the experience and indeed, the participant him or herself.

This researcher asserts it is these three emergent themes which constitute the universal essence of the AISP experience of study participants. How this thematic representation of study findings model compares to the theoretical model in Chapter 2 shall be discussed after presentation of the thematic representation of study findings model, below.

A thematic representation of study findings model of the participants’ experience

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**Figure 5.** A thematic representation of study findings model of the participants’ experience
A comparison of models presented in this dissertation

As discussed previously in this chapter, the thematic representation of study findings model presented above represents the AISP experience of participants in this study only. However, this researcher nonetheless supports that it adds critical insight regarding this subject to the library and information science literature, and most particularly, the literature represented as a visual summary by the ‘Theoretical model of the AISP of the Millennial student’ included in Chapter 2, hereinafter referred to as ‘the Chapter 2 model’ for purposes of clarification. The model above will hereinafter be referred to as ‘the Chapter 4 model.’

In comparing the models to one another, one can see some similarity in the physical, affective (the emotions embedded within the AISP experience), and cognitive (the thoughts concerning the process and the content) aspects included in both models, as was originally discussed and presented in Kuhlthau’s (1991) Information Search Process (ISP) model. However, the most palpable difference between the two is the Chapter 2 model’s presentation of the various stages of the AISP experience, and the Chapter 4 model’s presentation of elements and factors associated with the AISP experience.

As explored through the presentation of ‘stages’ in the Chapter 2 model, although not linear, the process described is mostly procedural, as evidenced by the representation of the process as occurring in stages. Additionally, as explained within Chapter 2, elements within the various stages and indeed the stages themselves can be changed, reversed, or revised depending on a Millennial undergraduate student’s AISP needs, or his or her evaluation of the process within each stage. This visual representation was founded directly on descriptions of same included in the work of Dervin (1999; 1998; 1983), Kuhlthau (1991), and (T.D) Wilson (1999).

However, the Chapter 4 model represents the emergent themes of the AISP experience of study participants, which were more appropriately represented as internal elements, external
elements, and ecological factors, and which had varying levels of effect, impact, and influence on the AISP experience as related by participants. Specifically, the Chapter 4 model represents the AISP experience of participants as a continual, all-encompassing experience—in other words, a change cannot be made to one of the ‘emergent themes’ without change occurring to one or both of the other ‘themes.’ As opposed to changes in factors or steps comprising the various stages in the Chapter 2 model, changes within an emergent theme may have much more dramatic consequences for remedial undergraduate students. Hearkening back to the wisdom of Wilson (1983; 1977) included in Chapter 2 then, this researcher can see parallels between the universal AISP experience of participants in this study and how much of this experience could be affected, impacted, or influenced by a change in his or her personal information system. Additionally, as discussed in Kuhlthau’s (1991) exploration of the information search process, affective or emotional aspects of information-seeking (i.e. anxiety) play a defined role in the overall AISP experience of participants—directly, indirectly, and in relation to factors outside of the immediate experience influencing the experience itself, as discussed in the description of emergent themes of the experience presented in this chapter.

That this researcher chose to present the Chapter 2 model as procedural and stage-dependent was intentional, based on her understanding of the academic information search process as explored in literature available on the topic. Additionally, represented within the various stages are specifics related to the physical, affective, and cognitive aspects of information-seeking, as introduced in Kuhlthau’s (1991) ISP model, and how these aspects play out in each stage of the Chapter 2 model (i.e. how cognitive aspects may change between stages, how affective aspects may be heightened or decreased, etc.). However, as discussed above, the AISP experience of participants was more appropriately represented through the emergent
themes constituting the universal essence of the experience, which was not procedural or stage-dependent in the slightest. Further, although physical, affective, and cognitive aspects related to the AISP experience of participants are evident in the Chapter 4 model as well, one can see a stark difference between these aspects for research participants represented via this model, and the theoretical ‘Millennial student’ categorized in the Chapter 2 model.

Therefore, the Chapter 4 model’s illustration of the continual, all-encompassing nature of the AISP experience for study participants may add an appreciation for the possible depth and complexity of this experience for similar groups of students in future study, particularly in terms of the affective and cognitive differences between participants and college-ready undergraduate students in terms of their academic information-seeking experiences. Additionally, future research which explores the complexity of each theme presented in the Chapter 4 model may enable remedial instructors and library and information science professionals to be a little more targeted in their approach to information literacy instruction for remedial undergraduate students. More on possible directions for future research and how the study’s findings may impact the creation of targeted information literacy instruction will be discussed at length in Chapter 5.

**Regarding non-universal study findings (the ‘phenomenographical’ considerations)**

As mentioned above in the description of the analysis conducted to complete step four of the modification of Colaizzi’s (1978) Method of Analysis, when this researcher categorized formulated meanings into thematic clusters, a 12th cluster was identified: Unique statements. These seven statements, either shared by participants or observed in-class by this researcher, were related to the AISP experience as a whole. However, as they did not logically ‘fit’ within any of the other thematic clusters, nor did they appear to fit logically within the broader emergent themes of the study, these statements were not included in other categories.
As discussed previously in this dissertation, phenomenographical research, which explores the variance, and not the universal essence, of a lived experience, is a dominant line of inquiry in library and information science, particularly because these variant themes are used to inform professional practice, as was explained in Chapter 2. Because phenomenographical intentions are almost antithetical to descriptive phenomenological intentions, the implications of these unique statements were not explored in great depth for this study. However, they were included as a category within the ‘Thematic clusters’ table (see the series in Appendix I) for the purposes of transparency in reporting of analysis results, and to maintain high levels of trustworthiness which this researcher has endeavored tirelessly to maintain throughout the study described herein. Perhaps these ‘unique’ ideas could be explored further in future research into the information behaviors of remedial undergraduate students. However, that time is not now.

A discussion of study findings a) in response to the study’s research question, b) within the context of the relevant literature and the conceptual framework presented in Chapter 2, and c) in recognition of limitations experienced during the study, and concludes this chapter.

**Discussion**

*Responding to the study’s research question*

As included in Chapters 1 and 3, this study’s research question asked how participants in the study described throughout this dissertation explained and described their AISP experience both during the process and once the process had concluded and they submitted their final research assignment, for which the AISP was conducted. To that end, and in response to this research question, this researcher puts forth that the AISP experience of remedial undergraduate students in this study was explained and described by them as:
• An experience impacted during the process by emotion, instructor expectations and instructional clarity, perception of ease or difficulty in its implementation, personal motivation, prior experience, and the success or failure of external support systems, and

• An experience influenced by a range of emotions including confidence, frustration, anxiety, and confusion, and one which left participants anxious and uncertain about their success in the course and in future academic pursuits after the process concluded via submission of the final research assignment.

This complex and multi-faceted experience was further explained by participants to be influenced by how useful they perceived direct assistance with the AISP to be (such as that provided by the instructor), whether or not they felt confident or anxious about their AISP abilities and skills, and how the way they conducted the AISP would affect their performance in the course as a whole, particularly for those who had taken and failed the course during the previous semester.

The largest categories created in final analysis represent the factors which these participants explained and described had the most bearing on their AISP experience: The creation and implementation of the AISP to meet the needs of the final course assignment (and whether or not they believed it had been successful in meeting these needs), the feelings and emotions related to both the AISP experience and the course for which it was conducted (of which anxiety, pressure, confusion, and the sense of being overwhelmed were related the most by participants), and the role instructor assistance with conducting the AISP played in their overall understanding and comfort level with the AISP experience.
That emotions like uncertainty and anxiety can affect negatively a person’s information search process is not a new concept for library and information science professionals, having been explored at length by information researchers like Dervin (1999; 1998; 1983; and with Nilan in 1986), Kuhlthau (1991; 1987), Williamson (2005), (P.) Wilson (1983; 1977) (T.D.) Wilson (1999), and many others, as explained in Chapter 2. However, what findings from this study revealed, and which this researcher has not previously seen explored in great detail in the scant research available on the information experiences of remedial undergraduate student, is the emergence of a concept which this researcher refers to succinctly as academic hopelessness.

As related through participants’ description and explanation of the AISP experience in response to this study’s research question, and as was apparent across the three emergent themes representing the universal essence of this experience, the influence that a general sense of academic hopelessness has on a) how these students engage in learning tasks like conducting A ISPs, b) how and who they ask for assistance (and whether or not they believe that assistance helps or hurts them in the long run), and c) their feelings and emotions related to learning tasks like A ISPs, and their learning experiences as a whole, is both profound and limitless. Based on the rich and detailed description of their AISP experience provided by participants, and based on the complexity of each of the emergent themes described previously in this chapter, this researcher asserts that this study’s finding defined as academic hopelessness is twofold: 1) the concept of academic hopelessness and its ramifications for remedial educators and library and information science professionals is perhaps the most significant contribution this study makes to the current literature available on the information needs and behaviors of remedial undergraduate students, and 2) as represented by specific quotes from participants included within each of the
emergent themes, for remedial undergraduate students, academic hopelessness could be biggest impediment to learning academically appropriate information-seeking skills.

One area in which academic hopelessness was revealed as encompassing the AISP experience of participants was through their explanation and description of the assistance they sought to complete the AISP, and consequently the final assignment for the course. That some participants indicated they sought out the assistance of the assigned course instructor in conducting their AISP at multiple points during the process, while acknowledging they sometimes found her direction ‘confusing’ and, even more interestingly, that the instructor’s assistance did not always help them understand the process any more (or find information any more efficiently), was of particular interest to this researcher. Indeed, it seems from what was related by participants in terms of the ‘why’ of continually seeking out the instructor’s assistance, was an appreciation for the instructor’s willingness to assist students as they engaged in the process and completed their projects.

Through commentary provided by participants, the instructor’s continual willingness to consult with them during the AISP experience seems to have shown participants that the instructor had a vested interest in their success, and appeared to be the primary motivating factor for their continual return—positive outcomes (or lack thereof) aside. Additionally, that two of the participants indicated relying on their mothers for assistance in completing their tasks (hearkening back to the information on personal information systems and cognitive authorities [Wilson, 1983; 1977] provided in Chapter 2) is also telling in this domain. This researcher surmises that when participants in the study felt supported in their AISP tasks, their general feeling of academic hopelessness was temporarily diminished. However, as was apparent in discussions about anticipated outcomes for the final assignment and for the course as a whole,
this general feeling returned when participants talked about the uncertainty they felt regarding their final assignment, and the anxiety they felt about future courses.

This researcher reasserts that although the role of emotions like anxiety on the AISP experience of undergraduate students in general has been explored at length in previous literature, that the remedial undergraduate student AISP experience is vastly unexplored. Therefore, prior to this study this researcher had no idea of the role emotions like anxiety might play in the AISP experience of participants, although she surmised it would be present (as explained in the Epoché included in Appendix F). However, that emotions like anxiety, frustration, and confusion negatively affected the AISP experience for participants was just the tip of the study findings iceberg for this researcher. As explained above, what emerged most strongly through final analysis and has been detailed at length in this section was the overarching sense of academic hopelessness of participants, both in how they explained and described their AISP experience, and in how they talked about their academic progress beyond the course in which this study was housed. It is reiterated here that it is this finding that this researcher puts forth may be one of the most valuable contributions of this study to both the library and information science and the remedial education literature. Additionally, it is this finding this researcher believes firmly is worthy of continued exploration in future studies.

Researcher review of AISP experience artifacts

As the discussion provided above is limited to information which answers the research question posed earlier in this dissertation, this next discussion point explains this researcher’s final submission review observations and is separate from the response to the research question. However, as explained earlier, although this researcher could not separate herself from her observations of participants’ performance in their final research assignments, she could separate
these observations from the exhaustive description of the AISP experience of participants. Therefore, final submission review observations are discussed here.

Of the six participants in this study, four of them included some evidence within their assignments of the information retrieved during the AISP, conducted to complete the assignment. For these four, this inclusion was appropriate in spirit, but incorrect in practice, as all four failed to adhere to the assignment-required MLA citation of information style, both in terms of in-text citations and quotations and in listing sources used at the end of the paper as well. Although it is clear that these four participants did not meet all the requirements for the final assignment, it is also clear that they were able to understand the overall role the AISP experience played in that final assignment, and include their AISP results in their final assignments in some way. The other two participants showed no evidence of the use of AISP results in their final assignments, therefore this researcher concludes that these participants were unable to translate the purpose of the AISP into practice.

Lastly for this chapter, this researcher will discuss briefly how study findings correlate to theories described within the conceptual framework presented in Chapter 2.

*Mapping study findings to the conceptual framework*

As described in Chapter 3, determining this study’s conceptual framework and this researcher’s creation of the theoretical model of the AISP of the Millennial undergraduate student constituted a crucial pre-study reflexive exercise. This was undertaken so that this researcher could approach the research field with as clear and ‘unsullied’ a perspective of the AISP experience as possible, and be keenly aware of what participants related to the researcher in terms of their descriptions and explanations of the AISP experience. It is telling, therefore, that many of the same factors present in some of the framework’s theories were also present
within the AISP experience as explained and described by research participants, although some critical differences did occur, as shall be explored in Chapter 5.

The review of literature examining the AISP experience for different groups of undergraduate students provided in Chapter 2 revealed that emotions like uncertainty, anxiety, and frustration could play a role in participants’ AISP experience. Specifically, research studies examining academic information-seeking, such as those conducted by Gross and Latham (2007), Jerabek et al. (2001), Jiao et al. (2004; 1996), Kwon (2008) and Kwon et al. (2007), Malvasi et al. (2009), Onwuegbuzie et al. (2004), and Van Kampen (2004), revealed that these emotions negatively impacted participants’ experience. Perhaps one of the most well-regarded lines of inquiry into the role of emotion on information-seeking by undergraduate students is that created and built upon by Kuhlthau (1991; 1987), which was included in this researcher’s conceptual framework because of its insight and contributed value to the research in this area. Additionally, participants in earlier research studies by Dervin (1999; 1998; 1983; and with Nilan in 1986), Williamson (2005), (P.) Wilson (1983; 1977) (T.D.) Wilson (1999), and many others discussed in Chapter 2 indicated that emotions related to the AISP experience were significant (and often negative) factors in their overall information-seeking experiences.

As required of descriptive phenomenological analysis, this researcher noted prior to the study that she believed emotion was a significant factor in the information search process because of previous study findings, and attempted to remove this bias from her research lens as much as possible throughout the study (please see the Epoché in Appendix F). Nonetheless, as emerged during analysis of this study’s data, findings revealed the AISP experience of study participants was impacted by emotions like anxiety and uncertainty in a variety of ways. Indeed, participants explained and described many instances where emotion (particularly negative
emotions like anxiety, confusion, and frustration) influenced their undertaking of AISP tasks significantly. Additionally, as explored within the emergent themes presented earlier in this chapter, other elements such as the role ‘cognitive authorities’ (e.g. the course instructor and, in the case of two participants, their mothers) played in the overall AISP experience, and the ecological factors outside of the experience which nonetheless influenced it also affected the way the AISP experience was explained and described by participants. To that end, how emergent themes from study findings map to the conceptual framework of the study presented in Chapter 2 is presented next.

*Blair’s (1990) “Point of Futility” and Wilson’s (1983; 1977) Personal Information Systems and Cognitive Authority theories*

In summation of the major points discussed under this heading in Chapter 2, Blair (1990) found that users of information retrieval (IR) systems could reach a mathematically calculable ‘futility point,’ determined by including variables such as the amount and variance of search terms used within a search in an IR system, and the amount and relevance of results retrieved by the IR system in response to a user’s information request. This futility point is an information point of no return, and often signifies an abandonment of the user’s information search.

Wilson’s (1983, 1977) work explored the concept of a personal information system (PIS), a three-tiered information system through which most people acquire information that informs, supports, and guides them in regard to how they live their lives. This system is comprised primarily of cognitive authority sources, those sources which a person has deemed essential to the provision of information to meet the needs of one of the three tiers in their information system. Many of a person’s cognitive authority sources are incorporated in their early life, and often include close family members and/or respected peers. When change is suggested to either
a cognitive authority source or a personal information system as a whole, either due to a failure to ‘perform,’ or a change in worldview, anxiety and mental trauma often results.

As shown in this study’s research findings, the early work of Blair (1990) and Wilson (1983; 1977) can be seen in the description and explanation of participants’ AISP experience. Notably, this includes a) anxiety and confusion expressed by participants in terms of how to implement search processes within academic databases (or IR systems) and a feeling of futility resulting from the failure to find any appropriate information, or a feeling of being overwhelmed when finding too much information, b) recognition of the importance of identified cognitive authority sources in helping participants complete AISP tasks—sources such as writing support services, the library, and, as was the case for two participants, their mothers, and c) the disappointment some participants felt when a cognitive authority source let them down (e.g. the ‘wrong advice’ provided to one participant by campus writing support service staff, and the confusion some participants felt after seeking AISP assistance from the course instructor).

These correlations indicate that a future research project examining remedial undergraduate student information behaviors within the context of work by Blair (1990) and Wilson (1983; 1977) may be worthwhile and highly informative.

*Kuhlthau’s (1991) Information Search Process (ISP) Model*

Of all the elements presented in Kuhlthau’s (1991) ISP model, the few which were seen the most within this study’s findings were a) the non-linear AISP experiences relayed by participants during interviews, and observed in situ by this researcher during lab days, b) the challenges participants encountered in formulating fully their information needs for the final assignment before engaging in AISP tasks, and c) the limiting emotions of anxiety, uncertainty, and frustration participants exhibited throughout the AISP experience.
Again, examining the impact of emotions like uncertainty and anxiety on remedial undergraduate student information behavior may inform and build upon the foundational ISP work of Kuhlthau (1991) in future research.

*Williamson’s (2005) Ecological Theory of Human Information Behavior*

As stated in the description of Williamson’s (2005) ecological theory in Chapter 2, and repeated here, Williamson (2005) put forth that one cannot understand a person’s information needs unless they understand that person’s “ecological framework” (p. 130). Indeed, this researcher observed firsthand the role ecological factors played on the AISP experience as described and explained by research participants. Factors such as participants’ perspectives of the usefulness of the course to their overall academic experience, their feelings and emotions concerned the class as a whole, and the roles played by previous college experiences (and previous experiences with this course specifically, for those who were taking it for a second time, having failed it previously) all had tangible influences on the relation of participant’s AISP experiences to this researcher, particularly their positive and negative emotions and sentiments toward the AISP experience and its impact on their final grades.

This researcher asserts that much can be learned about the remedial undergraduate student experience by examining the impact of ecological factors on their experiences, and this researcher would like to explore this line of inquiry in future research.

Summary of study findings, conclusions, implications for practitioners, and suggestions for future research will be discussed in Chapter 5—the concluding chapter of this dissertation.
Chapter V  
Summary, Conclusions, and Recommendations

Introduction

From the very beginning of this researcher’s doctoral program when the study described herein was still a kernel of an idea, it was her intention to pursue a line of inquiry that would increase her awareness for how academically at-risk undergraduate students (like those in remedial courses) find, use, and understand the incorporation of information for academic pursuits. As discussed previously, this researcher’s professional experiences with and observations of similarly defined groups of students led her to believe that they were not without promising and malleable ability—in terms of information literacy, or in terms of their educational pursuits as a whole. Indeed, what this researcher had observed was missing from their academic experiences was not ability, but skill. Most notably, many students this researcher encountered appeared to lack the information literacy skills that would help them complete academic assignments appropriately, and did not recognize that acquiring these skills would assist them in both completing academic assignments, and progressing academically.

As stated in the Chapter 1, research shows that a student’s strong information literacy skills are positively correlated with his or her implementation of a strong academic information search process (AISP) (Boon, Johnston, & Webber, 2007), and further, that a strong AISP is “intertwined” (Salisbury and Karasmanis, 2011, p. 43) with a student’s learning in general. As the AISP experience described and explained by remedial undergraduate student study participants indicated, most believed that knowing more about conducting an appropriate AISP would help them succeed in future academic efforts. Additionally, those participants who indicated having the most trouble finding information during their AISPs to meet the
requirements of the final assignment were the same participants who failed to produce any evidence of AISP findings in their final assignments (researcher observation review comments of participants’ final submissions were included in the “Discussion” section in Chapter 4). Finally, these same participants also shared feelings of hopelessness and concern for their academic performance beyond the course in which the study was housed, particularly because both participants had already failed the current course once. As shared in the discussion in Chapter 4, it is this latter finding that most concerns this researcher, and which she asserts is perhaps the most significant contribution this study makes to the gap in the literature regarding the information needs and behaviors of remedial undergraduate students. The summary of this dissertation study’s findings is presented next.

**Summary of findings**

Because the findings of this study were detailed specifically and contextually in Chapter 4, this section shall present this researcher’s brief summary of how the study findings described in this dissertation compare to and contrast with the research currently available on the AISP experience of undergraduate students.

As discussed in Chapter 4, the AISP experience of study participants was explained and described by them to be a complex and multi-faceted entity that is a) affected directly by internal elements related to the experience, b) impacted indirectly by external elements related to the experience, and c) influenced by ecological factors outside of the immediate experience. These findings are similar to those of other research studies investigating academic information-seeking of undergraduate students. However, this researcher asserts that the way these effects, impacts, and influences shaped the AISP experience of participants contributes broader insight into the experience for those working with remedial undergraduate students, and therefore supports the
importance of this study’s contribution to literature in the library and information science and remedial education fields.

Despite previous literature discussing the role of emotion on academic information-seeking for undergraduate students, new insight into this area for this researcher is the influence that a general sense of academic hopelessness has on remedial undergraduate students, as explored in “Discussion” in Chapter 4. Specifically, that academic hopelessness affects a) how these students engage in learning tasks like conducting AISPs, b) how and who they ask for assistance (and whether or not they believe that assistance helps or hurts them in the long run), and c) their feelings and emotions related to learning tasks like AISPs, and their learning experiences as a whole, was illuminating. Additionally, that satisficing behavior was exhibited by participants in this study in tandem with emotional ebbs and flows during the AISP, connects with what has been published regarding the rationale behind satisficing in undergraduate student information-seeking. Specifically, as described by Becker, 2003; Nicholas et al, 2009; Prabha et al., 2007; Vakkari, 2005; and Warwick et al., 2009, satisficing is a method implemented by information seekers to reduce anxiety, and is emblematic of the high levels of information anxiety some students experience during the AISP process. This concept is represented quite poignantly through the quote of the participant who resorted to conducting a Google search when her academic research database searching failed to produce results: “Even if I find a little information, I still have information.”

Also interesting to this researcher was the fact that instructor assistance and instruction in regard to the AISP had a significant impact on the way participants explained and described their experience, as discussed in Chapter 4. Finally, that ecological factors like participant perspectives on the overall nature of course instruction, their feelings and emotions related to the
course overall, and their previous experiences, either with this particular class or with higher education in total, influenced profoundly how students explained and described their AISP experience, reflects tangible connections to the research examining human information behavior performed by Williamson (2005), and which was included within this researcher’s conceptual framework presented in Chapter 2.

How these findings influence what this researcher now knows about the AISP experience and what findings say about the current state of associated research will be discussed next.

Conclusions

This section will discuss those particular study findings that were completely beyond this researcher’s understanding or comprehension of the AISP experience prior to entering the research field and indeed, prior to concluding this dissertation.

These findings include:

a) The concept of ‘academic hopelessness’ as experienced by research participants and which revealed itself during synthesis of analysis results, which revealed itself to not only impact participants’ their AISP experience as explored in the study, but also their self-reported predictions of their performance in future academic work,

b) The role seeking the assistance of support services (instructor, out-of-class, and, in the case of two participants, their mothers) played in how participants proceeded with their AISPs, whether they believed that assistance increased their understanding of the overall process or not, and
c) The influence of ecological factors on participants’ related AISP experience and their attitudes toward academic information-seeking in general, and how these factors framed their mental and emotional processes as part of the AISP itself.

*Exploring the impact of academic hopelessness on participants’ AISP experience*

As discussed in Chapter 4, during analysis this researcher began to identify specific statements within each of the categories and within the broader emergent themes of the experience which suggested that participants’ AISP experience was affected by more than their motivation to learn about the process and complete assignment requirements. Indeed, included within participant descriptions of how they conducted their AISP to meet final assignment requirements were statements like “I feel I could get a good grade but it’s a toss-up,” “time is working against us now,” “you think you’re going to get the help you need and then you ask for help and it’s completely confusing,” “it was kind of overwhelming because there were so many things to learn,” “you don’t always know what to do with this,” and “I feel like a tire stuck in the mud – I’m trying and trying and not getting anywhere.”

Although most of the participants in the study indicated that they were not particularly motivated to learn a great deal about how to conduct an AISP to complete their final assignment and believed that their current skills in the area of academic information-seeking were sufficient to fulfill the requirements of the final assignment for the course, this researcher ‘saw’ in their explanations a greater sense of academic hopelessness, which emerged as a finding of the study naturally and completely separate from this researcher’s understanding of the experience. Because some of the study’s participants had already taken and failed this course once, this researcher observed during their in-lab AISP tasks and in their descriptions of the information
they found to include in the final assignment that most felt what they were doing would leave them in no better academic position once the course in which this study was housed ended.

As this researcher indicated in Chapter 4, it is clear that there was significant misunderstanding of final assignment requirements and therefore none of the six participants completed the assignment according to requirements. However, as this researcher also observed during in-lab AISP tasks conducted by students, these students displayed a fairly stable range of information literacy abilities which, with the introduction of more skills-based instruction (as detailed in this researcher’s bracketing notes), could be strengthened and assist them in conducting stronger and more efficient AISPs to meet the requirements of future assignments.

This researcher discussed previously in this dissertation that she believed remedial undergraduate students were not without the ability to learn appropriate information literacy skills. However, as observed over the course of this study, this researcher asserts that it is the strength of these skills that currently impedes participants’ appropriate academic implementation of things like AISP procedures. In her article exploring the impact of low-level skills on academic information-seeking behavior, Gross (2005) asserts that competency theory explains a great deal of this behavior in students’ implementation. Specifically, Gross’ (2005) competency theory predicts that “individuals with low levels of information-seeking skills would be unlikely to seek training or assistance when faced with an information-seeking task and would tend to be satisfied with their own (low-level) performance” (p. 155). Although this researcher concedes Gross’s (2005) theory could explain how some students operate in this area, as her observations with the participants in the study show, competency theory does not adequately explain the impact that academic hopelessness has on participants’ low-level information-seeking behavior. As will be explained further in the next section, most participants in this study recognized their
lack of skill in the AISP experience as a whole and sought out assistance with same through multiple sources. However, most participants in this study expressed that these sources did nothing to ‘help’ them, and therefore these sources failed to counter participants’ underlying sense of academic hopelessness—the prevailing feeling that they were “tires stuck in the academic mud” of their remedial status.

This researcher asserts that knowing more about the sense of academic hopelessness as it is experienced by remedial undergraduate students is paramount for educators of these students. This is because study findings revealed that this sense had a profound effect on participants’ mental processes as they related to learning skills for tasks like AISPs, and on their general academic outlook beyond the course in which the study was housed. Indeed, whether it is increasing their information literacy skills or their academic skills as a whole, it is put forth here that remedial undergraduate students will not be able to move beyond the institutionally designated idea of ‘being remedial’ without intervention which helps them tackle their internal sense of academic hopelessness.

During an international conference at which this researcher presented in August, 2014, eminent scholar in library and information science field, Michael Buckland, suggested that this researcher’s dissertation study findings could be used to develop critical motivation theory as it relates to remedial undergraduate student information behavior (personal communication, Michael Buckland, August 9, 2014). The development of such a theory could be crucial in understanding how motivation impacts remedial undergraduate students’ sense of academic hopelessness, and vice versa. More on how this could be explored by this researcher and others will be discussed in the ‘Suggestions for future research’ section later in this chapter.
Exploring the facets related to support service assistance for the AISP

As discussed in the previous section, the finding related to participants’ use of support service assistance to complete their final assignment (and learn more about the AISP) contradicts Gross’ (2005) premise behind competency theory. Indeed, as shared by participants in the study, not only did most of them know their AISP skills were not ‘up to snuff’ to complete the final assignment, but most of them also acknowledged that learning more about the process was critical for their success in future academic work. Verbatim quotes such as “This is not a pointless assignment – I think it will be helpful down the road,” “[the final assignment] helped me better understand what to do in the future,” and “It’s a longer process … I’m not comfortable with it right now and I’m sure I have more to learn about it” indicate that most participants appreciated the long-term reasons and benefits for learning how to conduct and AISP, and therefore did their best to learn the extent of its implementation in the course.

To this researcher, these statements seemed contradictory to statements the same participants made regarding their lack of motivation to learn everything they could about the AISP to complete final assignment requirements, and their relayed feelings of confusion and frustration with the process as a whole. However, a possible explanation for these contradictory statements emerged as this researcher processed the data concerning participant requests for assistance from the course instructor, and from external support services.

When asked where they may go for assistance regarding learning more about the AISP beyond this course, a few of the participants shared that they felt the writing support service and perhaps the library could assist them in learning more about conducting the AISP as a whole. However, these statements were made hesitantly, as if they were unsure whether or not this was the case. For one participant, the assistance he received from the writing support service was more of a hindrance to his understanding of conducting an AISP than a help. The participant
explained he had sought the assistance of staff in the writing support service when enrolled in this course previously, and that “it was a big failure. I don’t know if I would go back to them again [because] they gave the wrong advice.” The participant also explained that when he shared the details of his experience with the staff at the writing support service with the previous course’s instructor, the instructor validated his concerns about the “failure” of the writing support service staff to help, and told the participant he did not need to return to the writing support service for further assistance.

That these participants are willing to seek external support for their academic needs and have such negative experiences is greatly troubling to this researcher. Furthermore, that participants suggest support resources may be useful to them in the future, but are not sure whether these support services can actually help them, indicates to this researcher that there is a definite communication breakdown between the needs of remedial undergraduate students, and the ways support services can and do assist them. That these participants despite expressed feelings of academic hopelessness seek assistance and then have such negative encounters is considered by this researcher to be unacceptable.

Tellingly, that participants who sought out the assistance of the course’s instructor in completing their final assignments felt similarly confused after assistance was received is also troubling. As one participant shared, “Asking for teacher’s help can confuse you more at times – make you feel more lost.” Therefore this researcher asserts that the same disconnect participants expressed exists between the needs which drove them to seek external support and the nature of the external support they received, also exists between the assistance provided by the instructor in terms of conducting the AISP, and its effectiveness (or lack thereof) in clarifying expectations for participants and helping them conduct their AISPs. This finding is somewhat validating for
this researcher in that it supports her supposition that information literacy instruction as a whole is ineffective if what is taught is only what the instructor believes should be taught, and it is not responsive to the expressed needs of students (as explained and described by participants in this dissertation study). More on the implications this finding has for practitioners and targeted information literacy instruction will be discussed in the ‘Implications’ section in this chapter.

*Exploring the influence of ecological factors on participants’ AISP experience (and their predicted academic outlook)*

As the categories included under the emergent ‘Ecological factors’ theme imply, there are three areas surrounding the AISP that had bearing on the way participants explained and described their overall experience. These are a) participants’ general perspectives on course instruction, b) participants’ feelings and emotions related to the course overall, and c) how previous experiences with this course (for those who had failed it before) and with their higher education experience to date influenced their current understanding and implementation of the AISP to meet final assignment requirements. Indeed, as was suggested by Williamson (2005), understanding a person’s information behavior extends beyond an exploration of the behavior itself. The influence ecological factors have on this behavior must be examined, as well, in order for someone to understand the true extent of the experience.

Williamson’s (2005) supposition (as explained in Chapter 4) is born out in the further exploration of this particular finding. It is also extended by the specifics of the influence the three ecological factors shared above, had on how participants explained and described their AISP experience. Particularly, most participants felt that having to navigate the instructional style of a new instructor of the course (if they had taken the course previously) increased their anxiety as they struggled to learn about AISP tasks, and how the information retrieved from these tasks could be used to meet the requirements of the final assignment. Additionally,
competing assignments in the course in which this study was housed (e.g. learning more about
the mechanics of scholarly writing) quickly frustrated participants, as they found these
assignments to be overwhelming and voluminous and, as expressed under the ‘previous
course/college experience category,’ limited their ability to complete competing assignments in
other courses, as well. This frustration and anxiety spilled over into their AISP experience for
many participants, particularly those who felt that instructions for conducting an AISP received
in the current course were ineffective in helping them complete the AISP.

The verbatim quote from the participant who explained that “[the instructor] just throws
us in the computer lab and I don’t know what we’re supposed to do” characterizes this shared
frustration quite succinctly for this researcher, as does another participant’s expressed sentiment
that although he believed the class as a whole was helpful to his continued academic progress,
that certain class requirements (such as grammar revision) negatively affected his performance.
Indeed, this same participant was doubtful that his performance in the class to date would make
any difference to the outcome: “I hope I pass this class by some miracle.” Finally, even the
participant who seemed the most engaged in the course as a whole, and in the AISP experience
particularly, indicated that she felt overwhelmed when conducting the AISP to meet the
requirements of the final assignment, and indicated that she would probably feel overwhelmed
again when tasked with completing an AISP in future courses. Therefore this researcher asserts
that for remedial undergraduate students, ecological factors (like those shared above) which
surround their AISP experience may negatively impact their ability to complete AISPs
successfully, and in an even more profound way than their college-ready peers. Such exploration
is therefore rife with opportunity in future research.
The findings shared above and how they have broadened this researcher’s understanding of the AISP experience of participants and the larger role this experience plays in their predicted academic outlook have greatly influenced this researcher’s future research direction (as shall be described in the ‘Suggestions for future research’ section of this chapter). Additionally, this researcher asserts that these findings have great bearing on the way professionals in library and information science and remedial education should create and implement future information literacy instruction provided to these students, and the implications such instruction might have for their continued academic progress. The implications these findings suggest for the latter area shall be discussed next.

**Implications for practitioners and for targeted information literacy instruction**

On October 6, 2014, this researcher was fortunate to attend a seminar presented by Ken Bain, author of the *What the best college teachers do*, and self-proclaimed scholar of effective practices in higher education instructional methods from around the world. During this seminar, Bain shared that many students do not succeed in higher education because they are not motivated to do so because of a variety of factors (Bain, 2014). As this researcher had seen the evidence of the deleterious effects of a lack of motivation on student academic performance in her own teaching experiences, she was particularly interested in what Bain (2014) shared about motivating unmotivated students. Particularly, Bain (2014) said that for demotivated students to become motivated, instructors need to convince them of three things:

1. Students need to believe that what they are learning has a greater purpose, and that it has calculable relevance to their continued performance in academic study,

2. Students need to believe they can do what is asked of them by the instructor, and must be given the ability to practice skills/requirements introduced in a course in
an ungraded environment first, before being asked to submit evidence of learning
of the skill/requirement for a grade, and finally,

3. Students need to feel a deep sense of autonomy and control over their own
educational experiences.

For this researcher, Bain’s (2014) statements regarding how to motivate students were
illuminating. Particularly, the statement this researcher found the most compelling was the one
which related to a student’s creation of a deep sense of autonomy and sense of control in terms of
their own educational experiences. In previous conversations with remedial undergraduate
students during academic advising appointments, this researcher learned that these students felt
like much of their educational future was out of their control, and to them, this was incredibly
disheartening and discouraging. Similarly, as findings explored previously in this chapter
exhibited, participants in the study described in this dissertation expressed a sense of academic
hopelessness in their descriptions of their AISP experience, and in relation to their studies as a
whole. Further, most participants described encountering negative experiences when seeking
assistance to complete their AISPs, having negative emotions related to conducting the AISP
because of various ecological factors, and significant feelings of frustration, confusion, being
overwhelmed, and, in the case of one participant, stupidity, which occurred during the AISP
experience, and in tandem with their experience with the course as a whole.

As already stated in this dissertation, this researcher supports the idea that collaborative
partnerships between remedial educators and library and information science professionals are
highly necessary when providing information literacy instruction. This is because the
pedagogical ‘fruits’ of these collaborations often lend themselves to contextual integration of
said instruction into coursework. Additionally, these collaborations can produce more well-
rounded and, most critically, directly applicable information literacy instruction to students (as discussed in the plethora of literature presented in Chapter 2, regarding the benefits of collaborative information literacy instruction to instructors and students, alike).

However, it is the reality that such collaborations are not common-place, for a variety of reasons, as stated in the discussion when reviewing the research in this area in Chapter 2. In an intellectual summation of two of the primary reasons behind lack of collaborations between undergraduate faculty members and academic librarians, Badke (2010) shares:

a) Not only is there a misunderstanding on behalf of many faculty members that technological proficiency equates to information literacy proficiency (and therefore, they believe evidence of technological proficiency in their students is also evidence of the proficiency with information literacy skills), but also,

b) (As was also discussed in Breivik and Gee, 2006), “faculty pedagogy seeks to maintain control of the classroom, thus making it difficult for librarians to encroach into faculty held territory” (Badke, 2010, p. 137), despite evidence provided by researchers like Smith & Dailey (2013) that such partnerships often have positive outcomes for students, instructors, and librarians.

This researcher asserts that her findings support the need for collaborative information literacy instruction now more than ever, particularly in terms of the specific information literacy instruction delivered to remedial undergraduate students. As participants in the study shared, they were so unclear on AISP procedures and how the outcomes of the AISP factored into the requirements for the final assignment that it caused them a great deal of confusion, particularly when instructor assistance in this area provided no more clarity on what was required.
In reiterating the second of Bain’s (2014) statements from the opening of this section, this researcher speculates that participants in the study may have been demotivated to learn more about how to conduct an AISP within the confines of the course, because the results of in-lab AISP tasks (as observed by this researcher) were often less than fruitful. More frustratingly for the students, those that sought the guidance of the instructor in improving their chances to find information through AISP tasks were often disappointed, especially when the instructor could not explain to participants why her suggested AISP strategies did not work. Had a collaborative lecture discussing how to conduct an AISP and subsequent hands-on tutorial been delivered jointly by the instructor and an academic librarian, it is possible that the hands-on assistance portion of the participants’ related AISP experience alone may have been dramatically different.

As explored in the literature on this area presented in Chapter 2, and reiterated by Weller Swanson (2014) in the published volume exploring the many merits of multidisciplinary collaborations between faculty and librarians, these collaborative partnerships are effective in helping students understand AISPs specifically, because the skills are taught contextually (meeting the objectives of the faculty member in completing assignments), and in tangible ways (through the guidance of library research authorities). Therefore, this researcher asserts that one of the major implications of study findings for practitioners and for targeted information literacy instruction delivered to remedial undergraduate students is that future instruction should involve collaborative partnerships as much as possible, to more appropriately meet the needs of these students. Integrating the premise of Bain’s (2014) first statement, then, into this argument, this researcher asserts that remedial undergraduate students will gain a much broader appreciation for the greater purpose and continued relevance of academic information-seeking if information literacy skills are taught contextually in their courses. Additionally, if these skills are taught in
tandem with assignment requirements, and explained by those with the means to expand upon the ‘continued relevance’ aspect of scholarly research, then remedial undergraduate students will have a greater chance of understanding its utility overall. Collaborative partnerships are an ideal environment for creating such conditions, and this researcher reasserts her supposition that study findings imply more consideration for such partnerships should be given by both library and information science professionals, and by remedial educators.

To conclude this section, this researcher returns to the third statement made by Bain (2014) stated at the beginning of this section: that students need to feel a deep sense of autonomy and control over their own educational experiences. Indeed, it is this statement that resonated most with this researcher, as the underlying sense of academic hopelessness in study participants had already started to emerge during the data analysis process of her study at the time. Additionally, that much of this hopelessness was seated in the lack of control participants expressed dominated their course experience, allowed this researcher to appreciate that perhaps the best way to overcome participants’ described lack of control was to give control of their educational experiences back to them. This follows with Bain’s line of reasoning by restoring their sense of educational autonomy.

To that end, this researcher asserts that these study findings imply that if targeted information literacy instruction is to be effective for remedial undergraduate students, it must fulfill two criteria:

1. It must be multimodal (i.e. it must be provided to students in a variety of pedagogical formats, and through a variety of instructional modes, e.g. in person, online, etc.), so that students can ‘select’ different information literacy instruction elements based on their learning needs for the particular instructional task, and
2. It must restore a sense of control and autonomy to the student, indeed, it may even be self-instructed.

In her book describing best practices for helping remedial undergraduate students succeed academically, Rollins (2014) explains that both educators and administrators in higher education may be incredibly reluctant to give these students control over their own learning. Specifically, she explains that their observation of the issues these students face (such as “smaller vocabularies, lower reading levels, and gaps in basic skills,” Rollins, 2014, p. 95) may make the idea of student control of learning seem ludicrous. To compensate for these observed ‘deficiencies,’ “the tendency may be, rather to assign [remedial undergraduate students] more individual seatwork—to give them lower-level work that they can handle” (Rollins, 2014, p. 95).

However, as Rollins (2014) explains, “already-frustrated students and tedium do not mix well,” (p. 95), and further, that “struggling students may have poor self-esteem and hold low expectations for themselves” (p. 95), something this researcher has shown first-hand in explaining the concept of academic hopelessness that emerged in study findings. Therefore, as explored by numerous researchers on the topic of student-controlled learning and whose promotion this researcher supports, a modicum of educational control given to remedial undergraduate students may increase their sense of educational autonomy and directly combat their feelings of academic hopelessness and consequently their dismal academic outlooks.

As put forth by Mithaug, Mithaug, Agran, Martin, & Wehmeyer (2007), proponents of self-instruction pedagogy, “early studies suggest … that choice opportunities [such as those provided through multimodal learning components] and self-regulation are necessary for autonomous learning and performance in school and beyond” (p. 67). Based on this researcher’s previous experience working with remedial undergraduate students in information literacy
instruction sessions, and based on all she has seen through the findings of this study, she believes firmly that multimodal, autonomous information literacy instruction delivered in collaborative partnership (with instructors, librarians, and other external support services as appropriate) will be the most successful means to help remedial undergraduate students develop strong information literacy skills. This researcher asserts that the need for change in current information literacy instruction of remedial undergraduate students, as expressed by participants, constitutes the most pressing implication of her study findings. This researcher also believes that the necessary change should come in the form of multimodal, collaborative instruction, which helps to restore remedial undergraduate students’ sense of educational autonomy, and aids them in overcoming the limitations imposed on their mental and academic progress by their sense of academic hopelessness.

The next section explores additional suggestions for future research endeavors which may aid both library and information science and remedial education professionals in more broadly meeting the information needs of remedial undergraduate students.

**Recommendations for future research**

Because suggested future lines of inquiry, for both this researcher and for others in the field of library and information science and remedial undergraduate education, are sprinkled liberally throughout this chapter, they shall be discussed in summative form herein.

*How academic hopelessness impacts information behavior and future academic performance*

The first suggestion comes from the concept explored earlier in this chapter, which was noted as one of the more critical findings of this researcher’s dissertation study: The impact of the concept of academic hopelessness on the information behaviors and future academic performance of remedial undergraduate students. Indeed, as discussed in the ‘Summary of
findings’ and ‘Conclusions’ sections of this chapter, participants in this researcher’s study revealed that academic hopelessness was a major factor in their AISP experience specifically, but also in their predictions for their own academic futures.

As discussed previously, academic hopelessness appeared to negatively impact participants’ self-reported, predicted future academic performance quite significantly. Therefore, this makes it plain for this researcher that investigation into how its influence can be limited on remedial undergraduate students’ academic information-seeking behaviors is only the first step in this line of inquiry. Indeed, this researcher asserts that more library and information science professionals and remedial educators should investigate the impact of academic hopelessness on remedial undergraduate students’ academic experiences as a whole. If it bears out that academic hopelessness is one of the biggest impediments to these students’ abilities to persist toward graduation, then those invested in the academic success of these students must determine how it can be minimized or perhaps even eliminated, in order to more appropriately navigate these students through their programs of study.

**Effective instructional support for remedial undergraduate student information tasks**

The second suggestion involves further exploration into what constitutes effective instructional support for students completing information tasks, such as an AISP. As discussed previously, participants in the study were very motivated to seek assistance that would help them complete the final assignment for the course, and that would help them learn more about conducting the AISP. However, as shared through the verbatim quotes provided, this instruction (both external and internal to the course) appeared to do more harm than good. Now that this study has provided a foundational understanding of how remedial undergraduate students experience academic information-seeking, this researcher hypothesizes that further exploration
into how support services can best meet the needs of these students is crucial in aiding the
development of strong information literacy skills, and consequently enhancing their continued
academic progress as they persist toward graduation.

*Blair (1990), Wilson (1983; 1977), and the remedial undergraduate student*

The third suggestion was explored briefly in Chapter 4: An examination of how remedial
undergraduate student information behaviors as a whole are affected by a) their interactions with
information retrieved from academic research databases (a la the work established by Blair, 1990), and b) the cognitive authorities that form their personal information systems (a la Wilson, 1983; 1977). Specifically, this researcher surmises that an investigation into how cognitive
authorities shape a remedial undergraduate student’s understanding of the role academic
information plays in their overall academic progress would be illuminating to library and
information science professionals, particularly in how they work with students at various stages
of their programs of study. As discussed previously, two participants in this study regularly
consulted their mothers for assistance with their academic information-seeking and scholarly
writing, noting that they did so because their mothers had advanced degrees and they believed
therefore their mothers could provide them with a high level of assistance. This shows that the
role of cognitive authorities in the information behaviors of these students are highly valued and
respected. How this respect and value for guidance provided by cognitive authorities could be
harnessed in the higher education environment is certainly worthy of future research.

*The influence of ecological factors on remedial undergraduate student information behaviors*

The fourth suggestion involves further exploration into the specific influence that
ecological factors have on the general academic behaviors of remedial undergraduate students.
As discussed in the ‘Conclusions’ section of this chapter, this researcher asserts that much can be
learned about the remedial undergraduate student academic experience by examining the impact of ecological factors on these experiences. For library and information science professionals specifically, examining how ecological factors inform the way remedial undergraduate students perform information tasks (such as academic information-seeking and the incorporation of scholarly information into academic assignments) will give these professionals greater insight into the ways and means these factors can be either built upon or countered, depending on whether the overarching influence of these factors is positive or negative. This researcher particularly would like to pursue this line of inquiry in her current position as an instructional design librarian for the University of Akron, as she believes it will greatly inform the development of instructional components for the various embedded librarian programs currently underway in freshmen courses.

The impact of emotion on remedial undergraduate student information behavior

The final suggestion drawn from findings in this dissertation involves the recommendation for further study, by this researcher and others, into the impact of emotions like uncertainty and anxiety on remedial undergraduate student information behavior. This research could build upon the foundational ISP work of Kuhlthau (1991), but it could also be expanded far beyond Kuhlthau’s (1991; 1987) work. Indeed, such research could incorporate what is now known about the impact of particular emotions like frustration and confusion on information tasks, building upon the findings of the study shared in this dissertation. Also, this line of inquiry could be expanded to include consideration of findings from those research studies exploring the effects of information anxiety on the information behavior of undergraduate students, as was discussed in Chapter 2. This researcher intends to engage in such research herself because of how crucial she believes a greater understanding of these emotions will be to
the library and information science field as a whole. Therefore, a potential next step in her research agenda is the creation of a quantitative instrument (similar to the adapted Library Anxiety instrument used in the study described in Blundell & Lambert, 2014) which can more broadly assess the particular information anxieties experienced by remedial undergraduate students, toward helping practitioners limit these anxieties and ultimately, helping remedial undergraduate students persist toward graduation.

Final thoughts

This researcher recently discovered the following quote by Ignacio Estrada, courtesy of one of her greatest ‘cognitive authorities’ (her mother): “If a child can’t learn the way we teach, maybe we should teach the way they learn.”

Although this researcher does not consider the remedial undergraduate student participants of her study to be children, she does find the quote to be illuminating to her deeper understanding of their AISP experience as a whole. As stated previously, findings from this study indicated that one of the biggest frustrations shared by study participants in the relation of their AISP experience was the way they were taught to conduct the AISP. Notwithstanding that some participants had previous experience with conducting an AISP, even these participants felt frustrated during the experience, particularly when they sought extra assistance to complete the AISP and consequentially found this assistance to be no more helpful in clarifying what needed to be done that the original instruction offered during the course in which this study was housed.

At the end of this dissertation, one of the biggest take-aways for this researcher is this: Minimal information is available on the general information experiences of remedial undergraduate students primarily because library and information science research has considered these experiences primarily from the perspective of practitioners, and not from the
perspective of participants. Indeed, as the comprehensive report of this researcher’s study has put forth, how practitioners currently teach information literacy instruction to remedial undergraduate students is very often at odds with the self-reported information needs of these students. Therefore, if both library and information science professionals and remedial educators want to be more pedagogically effective in helping remedial undergraduate students succeed, they and this researcher as well need to do a better job of regularly asking remedial undergraduate students what they believe their information needs to be.

In conclusion, it is asserted herein that findings from this study have created a solid foundation upon which future research into remedial undergraduate student information behaviors can continue to build. She plans to continue investigating best practices for teaching remedial undergraduate students “the way they learn,” and she intends to do so by conducting future studies that incorporate explorations of these students’ lived experiences in different areas of their academic lives. It is her hope that practitioners in both library and information science and remedial education will continue to explore the findings presented in this dissertation from a number of perspectives. Most of all, this researcher hopes that at least one remedial undergraduate student’s educational experience will be improved because of what was learned from the experiences explained and described by participants in this study.
APPENDICES
Appendix A: IRB approval notification

BLUNDELL, SHELLEY

From: Richmond, Aileen on behalf of RAGS Research Compliance
Sent: Wednesday, March 05, 2014 10:14 AM
To: ZHANG, YIN; BLUNDELL, SHELLEY
Subject: IRB Level I, category 2 approval for Protocol application #14-135 - please retain this email for your records

RE: Protocol #14-135 - entitled “A phenomenological investigation of the information search process of undergraduate students enrolled in a remedial English course: Implications for targeted information literacy instruction”

The Kent State University Institutional Review Board has reviewed and approved your Application for Approval to Use Human Research Participants as Level I/Exempt from Annual review research. Your research project involves minimal risk to human subjects and meets the criteria for the following category of exemption under federal regulations:


This application was approved on March 4, 2014.

***Submission of annual review reports is not required for Level I/Exempt projects.

If any modifications are made in research design, methodology, or procedures that increase the risks to subjects or includes activities that do not fall within the approved exemption category, those modifications must be submitted to and approved by the IRB before implementation.

Please contact an IRB discipline specific reviewer or the Office of Research Compliance to discuss the changes and whether a new application must be submitted.
http://www.kent.edu/research/researchsafetyandcompliance/irb/index.cfm

Kent State University has a Federal Wide Assurance on file with the Office for Human Research Protections (OHRP); FWA Number 00001853.

If you have any questions or concerns, please contact us at Researchcomplaince@kent.edu or by phone at 330-672-2704 or 330.672.8058.

Respectfully,
Kent State University Office of Research Compliance
224 Cartwright Hall | fax 330.672.2658

Kevin McCreary | Research Compliance Coordinator | 330.672.8058 | kmccrea1@kent.edu
Paulette Washko | Manager, Research Compliance | 330.672.2704 | Pwashko@kent.edu

For links to obtain general information, access forms, and complete required training, visit our website at www.kent.edu/research.
Appendix B: Informed consent to participate in a research study form

Informed Consent to Participate in a Research Study

Study Title: A phenomenological investigation of the information search process of undergraduate students enrolled in a remedial English course: Implications for targeted information literacy instruction.

Principal Investigator: Dr. Yin Zhang, School of Library and Information Science, Kent State University
Co-investigator: Shelley Blundell, Ph.D. candidate, Communication and Information, Kent State University

You are being invited to participate in a research study. This consent form will provide you with information on the research project, what you will need to do, and the associated risks and benefits of the research. Your participation is voluntary. Please read this form carefully. It is important that you ask questions and fully understand the research in order to make an informed decision. You will receive a copy of this document to take with you.

Purpose: This dissertation research study seeks to find out more about the academic information-seeking activities of students enrolled in a remedial English course as they complete an academic assignment, toward understanding more about the information-seeking experience of these students. Knowing more about this process for students enrolled in remedial courses will allow educators and librarians to work together and create targeted information instruction for these students, addressing their actual information needs, and aiding their academic progress through their degrees of study.

Procedures
Participants in this study will be asked to actively participate in two collection procedures, and one follow-up meeting. The collection procedures include: 1) individual, in-class interviews, wherein the co-researcher will ask about their information-seeking activities for the research assignment they are completing as they look for information, and 2) keeping a journal (either electronic, or written) of their out-of-class information-seeking activities for the assignment. Guidelines for completing this journal will be brief, and participants are asked to make a journal entry each time they look for information for the assignment outside of class. The researcher will also be observing any instruction participants receive that instructs them on how to complete the research assignment, and reviewing research assignments of participants after a grade for the course has been submitted, to see how the information search process for the assignment translated into the completion of the assignment itself.

The follow-up meeting will be held between the researcher and individual participants in the study after the course has concluded. The researcher will share with each participant information
she has collected about their information-seeking experience, and ask the participant to examine
the information and identify whether the information is accurate in terms of relaying the
participant’s actual experience. Participants will also be asked a few follow-up questions about
their experience, toward relating their experience in research results as wholly and as accurately
as possible.

The co-researcher has no impact on course outcomes whatsoever, and no influence over any
course grading or submitted assignments.

Benefits
This research will not benefit you directly, unfortunately. However, your participation in this
study will help us to better understand specific information needs of students enrolled in
remedial coursework, toward improving the experience of students in these courses at a number
of levels. This may include informing educators and librarians on best practices when designing
instruction that specifically addresses the needs of students enrolled in remedial undergraduate
coursework.

Risks and Discomforts
There are no anticipated risks beyond those encountered in everyday life for study participants.
If at any point you feel undue anxiety as a result of being a part of this study, please inform the
researcher at sblundel@kent.edu. You are free to withdraw from the study at any time if you feel
your participation is causing you undue academic stress.

Privacy and Confidentiality
Although for the purposes of consistency in data collection participant identities cannot be
anonymous, your information and identity are confidential, and only those directly involved in
the study (the co-researcher and the principal investigator) shall know of your identities.

Your study related information will be kept confidential within the limits of the law. Any
identifying information will be kept in a secure location and only the researchers will have
access to the data. Research participants will not be identified in any publication or presentation
of research results; only aggregate data will be used.

Your research information may, in certain circumstances, be disclosed to the Institutional
Review Board (IRB), which oversees research at Kent State University, or to certain federal
agencies. Confidentiality may not be maintained if you indicate that you may do harm to yourself
or others.

Compensation
All participants in the study shall receive compensation by way of university bookstore gift cards
at numerous points in the study. Study participants shall receive a $10 gift card after the in-class
interview has been completed, a $15 gift card after they have submitted their journals at the end
of the course, and a $25 gift card after they have cross-checked their information with the
researcher for accuracy purposes, and added concluding thoughts to this information. This
amounts to $50 total in gift card value.
**Voluntary Participation**
Taking part in this research study is entirely up to you. You may choose not to participate or you may discontinue your participation at any time without penalty or loss of benefits to which you are otherwise entitled. You will be informed of any new, relevant information that may affect your health, welfare, or willingness to continue your study participation.

Choosing not to participate in this study will in no way impact your progress or grade in this course.

**Contact Information**
If you have any questions or concerns about this research, you may contact Principal Investigator Dr. Yin Zhang at 330-672-0010, or via email at yzhang4@kent.edu, or co-researcher Shelley Blundell at sblundel@kent.edu. This project has been approved by the Kent State University Institutional Review Board. If you have any questions about your rights as a research participant or complaints about the research, you may call the IRB at 330.672.2704.

**Consent Statement and Signature**
I have read this consent form and have had the opportunity to have my questions answered to my satisfaction. I voluntarily agree to participate in this study. I understand that a copy of this consent will be provided to me for future reference.

________________________________  ___________________
Participant Signature  Date
Appendix C: ‘Point of contact’ interview framework

The questions presented here are a framework for the ‘point of contact’ interviews that shall be conducted with study participants during lab days. However, they are not the only questions that shall be asked (for justification of this, please refer to Table 2), and where necessary, this framework shall be amended post-data collection.

1) Tell me a little about yourself – your educational background, if this is your first time in college, etc.

2) How do you feel about this class (or, being in this class) in general?

3) How do you feel about this research assignment in general?

4) Have you done research like this before? If so, could you describe that experience/those experiences? How does your previous experience compare or differ from this one?

5) How did you choose the topic you are researching?

6) How do you feel about your information search? Do you feel it has been successful? If not, why not?

7) Have you approached anyone for help with this assignment? If so, who, and how come?

8) How do you feel when you’re searching for information for this assignment (either in class or out of class)? Are there any particular aspects of this assignment that stand out for you? If so, what are they, and can you describe why they stand out for you?

9) How do you think your search for information is going so far? Do you feel you are getting enough information to meet the needs of the assignment?
   a. (PROBE IF NO) If not, any idea why? What will you do now? Would you consider changing your research assignment topic?

10) What emotions do you feel when looking for information in general? For an academic assignment? For fun or for your own information?

11) Is there anything else about this experience you would like to share with me? Be as brief or as detailed in your description as you would like.
Appendix D: Out-of-class AISP Journals – Entry guidelines

For this part of the study, I am asking you to a) write a journal entry each time you look for information for Essay 3 (the research essay) outside of class time (e.g. if you look for information out of class on three separate occasions, you will have three separate journal entries, etc.), and b) write a final journal entry once you have finished looking for information for Essay 3. Please submit your journal entries to me as an electronic Word document at 

sblundel@kent.edu by 11:59 p.m. on Thursday, May 1 (the day before Essay 3 is due).

When you save your entries, please title your file “Lastname_Journal” (e.g. Blundell_Journal). You will receive a $15 university bookstore gift card for completing and submitting the journal by May 1.

Looking for information journal entry directions

For each journal entry, I would like you to please answer the following questions:

1) Where are you? (e.g. at home, in the Stark library, etc.)

2) What is happening around you? (e.g. Is it noisy or quiet, are you doing multiple things at the same time or just looking for information for the essay, are there other things competing for your attention, such as friends or family members, etc.?) Is there anything else going on while you’re searching for information for your essay? (e.g. a sudden interruption, have to go to class, pressed for time, at work, etc.)

3) What keywords are you using to look for information for your essay? Has this changed from the keywords you used in class? If so, why did you change keywords?

4) What resource or resources are you using to look for information for your essay? (Google, Google Scholar, an academic research database, in a journal or a book, etc.)? Has this changed from the resource or resources you used in class? If so, why did you change resource/s?

5) How do you feel while you’re looking for information for your essay? (e.g. confident, anxious, nervous, disappointed, stressed, etc.)

6) Or, is there anything else you would like to add about this particular information search time?

Final journal entry directions

After you are finished looking for information outside of class for Essay 3, please complete a final journal entry on your overall experience searching for information for the essay, both in class, and outside of class. Some questions to consider for this entry:

a) Do you feel you understood the requirements of the essay? Why or why not?

b) Do you feel you know more about looking for information to complete similar essays or assignments in the future? Why or why not?

c) If you needed help of any kind for the essay, to whom did you go for help?

d) What kind of grade do you believe you will earn on the essay? Explain your response.

e) What other assistance could have been offered to help you complete the essay? (e.g. a visit to the library, looking at more resources, more time, etc.)
f) Any final thoughts on your information search experience for this class/for your essay?

You may complete each entry, including the final entry, in any way that makes you feel the most comfortable. Therefore, you may write your responses in list form, as short sentences, in paragraph form, etc. Please record your responses electronically using Microsoft Word, and be sure to put your full name and the number of each entry (e.g. if it is your first journal entry, it will be “Journal Entry 1”) in the top left of the page. For the final entry, put “Final entry” instead of “Journal Entry number”). An example format for your journal entries is below. Please feel free to contact me with questions at any time during this process at sblundel@kent.edu. In the email subject line, please type “Question about journal for study.”

Mike Smith
Journal Entry 1

Questions (please type answers below each question)

1) Where are you?

2) What is happening around you? Is there anything else going on while you’re searching for information for your essay?

3) What keywords are you using to look for information for your essay? Has this changed from the keywords you used in class? If so, why did you change keywords?

4) What resource or resources are you using to look for information for your essay? Has this changed from the resource or resources you used in class? If so, why did you change resource/s?

5) How do you feel while you’re looking for information for your essay?

6) Is there anything else you would like to add about this particular information search time?
Appendix E: Out-of-class AISP journal entries

Participant 2

Journal Entry 1

1.) I am in the computer lab of the main hall at kent stark

2.) I’m very pressed for time, going to attempt to find at least four articles before I start working on another subject. And my mind is a little scattered. I’ve been slacking the past couple weeks and have a lot of work to catch up on. This is also my first time working on this assignment at all, outside of class time. And people keep texting me but I’m trying to only respond after I complete each article.

3.) For my hiddin curriculum I used the words Physical, education, teaching methods. For my cultural artifact I looked up working class.

4.) Kent’s library source

5.) I feel fine no pressure or anything just taking the time to find the articles that are out there.

Participant 2

Journal Entry 2

1.) I am in the kent stark main hall computer lab.

2.) It’s not noisy, you can hear a few people talking and keys being pressed but that’s about it. And I’m totally focused on this assignment right now, no distractions. No one’s texting me, and I’m not on facebook. Just total focus

3.) Wealth, psychoses, male employees, blue collar, white collar, wealth, gender stereotypes, male role, socioeconomics, masculinity

4.) Kent starks database

5.) No I feel fine. Nothing particular, I just have work to do. Which that was the last of it so I guess I feel good.

Participant 2

Final Journal

A) Yea, when I finally did understand the assignment due to receiving the six papers we had to fill out, then I understood that this assignment wasn’t going to be too much to handle.

B) Same as I knew before, because I had to do a research paper my senior year in high school.

C) No
D) Hopefully a B, because I honestly don’t know how much of an effort I’ll put towards this paper.
E) Nothing

Participant 6

For each journal entry, I would like you to please answer the following questions:

1) Where are you? (e.g. at home, in the Stark library, etc.) Home

2) What is happening around you? (e.g. Is it noisy or quiet, are you doing multiple things at the same time or just looking for information for the essay, are there other things competing for your attention, such as friends or family members, etc.? ) Is there anything else going on while you’re searching for information for your essay? (e.g. a sudden interruption, have to go to class, pressed for time, at work, etc.) In my dining room silently with no distractions.

3) What keywords are you using to look for information for your essay? Has this changed from the keywords you used in class? If so, why did you change keywords? Teen Pregnancy, Teens, Media. the same terms I used in school

4) What resource or resources are you using to look for information for your essay? Kentlink. (Google, Google Scholar, an academic research database, in a journal or a book, etc.) ? Has this changed from the resource or resources you used in class? If so, why did you change resource/s? I tried logging into kentlink and it will not let me at home.

5) How do you feel while you’re looking for information for your essay? (e.g. confident, anxious, nervous, disappointed, stressed, etc.? ) Stressed since it will only work at school giving me little time to do it as a full time student working part time, I cannot be at school that long when I have prior engagements.

6) Or, is there anything else you would like to add about this particular information search time? Just that it is hard to have to research but not be able to get it on my computer at home.
Appendix F: Epoché

Epoché (transcribed notes on thoughts/musings prior to the beginning of the study)

RESEARCHER THOUGHTS/NOTED BIASES PRIOR TO ENTERING FIELD

- Students who test into remedial classes experience more anxiety than their peers (academic, information, otherwise). OBSERVED PERSONALLY, ALSO SEEN IN RESEARCH.
- Students may overestimate their abilities in information-seeking, based on previous ‘successes’ with poor information-seeking strategies, and therefore feel no need to seek assistance to correct these strategies, not recognizing their inability or lack of academic skills (Gross & Latham, Competency Theory, etc.).
  - Could be true – I have often observed this during my own instruction with students, and have seen how some students prefer to Google things rather than look at databases for information, even immediately following instruction … but do students really believe they ‘know what they’re doing?’ I’m not sure …
- Students also can’t assess the ‘information competency’ of others, due to their inability to recognize their own lack of ability when it comes to information-seeking.
  - This bears out often in group discussions, as I have observed … but what of group discussions conducted by instructors and facilitated by librarians? I’ve noticed marginal differences in the way these turn out – however, I’ve often seen how students rely on the advice of their classmates … even when that advice leads them down the wrong path. What gives with that, anyway?
- Students in this course have additional concerns that may not necessarily be shared by college-ready undergraduate students (previous education experiences, financial concerns, anxiety levels, worrying about their performance in this class and what it may mean for future college classes, etc.).
  - In prior experience working with remedial students, some of them shared with me things that they believed hampered their ability to succeed – things like transport or lack thereof, young children (and oftentimes a single parent caring for the young child/children with minimal support), work commitments and workplaces/employers who don’t necessarily care about ‘school coming first’ and
students feel they must be at work or risk losing their jobs. I’ve also had a few of these students tell me they feel ‘stupid’ and instructors from other remedial classes have made them feel even more stupid … I wonder if this will bear out in this study, too? NOT AN EASY THING FOR ANYONE TO ADMIT FEELING.

- May have additional feelings related to testing into these courses that impact their emotional state, or their willingness to be in the course at all. Some may have failed this course before, and may be even MORE disgruntled about being in the course.
- May not know where to go for assistance if needed, and may be reluctant to ask for help at all. Whether it be of the instructor or of a friend … do they ask for help?
- Possibly disgruntled, confused, angry, upset, or otherwise emotionally affected by being placed into the course – could impact the effort they put toward the course itself. May not be willing to expend any extra effort, energy on classwork/homework/tasks, etc.
- May feel hopeless, helpless, etc.
  - Not just in terms of completing the assignments, but in terms of their academic progress overall. Noticed this many times, have heard this related by my remedial instructor colleagues, too.
- Information-seeking – assuming it will be shallow, may have learned ‘good’ strategies but forgotten them or put them aside for quicker, less taxing searches that allow them to satsifice in their information-seeking for academic assignments.
  - Might be the case if there is a quick turnaround/deadline expected, too. Breland and Breland – return to what we ‘know,’ despite training. BEARS OUT?
- May resist being a part of this research? I will be sure to reiterate participation or not, my study has zero impact on their performance or grades in the course.
  - As Frank and I found when we tried to survey remedial undergrads in our study, there may be a high unwillingness to participate (however, I’m hoping that financial incentives provided may change this a bit).
- GENERAL FEELINGS: Curiosity, but also nervous … what if students feel like my presence is overwhelming? What if they resent my wanting to study what they do, think that I’m being rude/insulting? How do I counter that? ALWAYS BE RESPECTFUL.
- How I will handle student questions about AISP – “That’s a really great question. I want to be sure you get the best assistance possible as it relates to what is expected of you, so if
you like I will pass along your message/question to the instructor, or else leave you to ask the instructor yourself, if you prefer?”

- DON’T GET INVOLVED!!! Write it on my hand as a reminder if I have to – THIS IS NOT MY CLASSROOM.

- Manage my expectations – meaning, inspect ‘nothing,’ observe ‘everything’ – eyes wide open … even with what I know, what is there that I don’t know? What am I seeing and how am I seeing it differently? RESPECT MY ‘SEPARATE’ ROLE IN THE FIELD.

- Manage instructor expectations (particularly because I know her) – not here to “help” students, here to “see” their experience – describe their experience – document their experience … continually refer student questions to her.

- Overall – be compassionate, but not ‘research blind,’ respectful but aware, engaged but not overwhelmed/immersed … OBSERVE/DOCUMENT EXPERIENCE AS IT IS RELATED BY PARTICIPANTS. MY OBSERVATIONS ARE SECONDARY.
### Appendix G: In-class observation and bracketing notes

**College Writing I Stretch (Blundell) – Spring 2014**

<table>
<thead>
<tr>
<th>Date</th>
<th>Bias/subjective notes</th>
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<tbody>
<tr>
<td>3/7/2014</td>
<td>*Pre-course chatter: Students say they are “low motivated” to be in class or complete academic assignments for class because there is no credit being offered for this course.</td>
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<td>*General feeling from students is that they are not motivated to be in the course, and that they are frustrated and annoyed by the assignments.</td>
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<td>*Some students indicated they did feel they improved over time – were more attuned to required elements, better able to read critically, constructively.</td>
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<td>*Students said they found readings difficult and boring, but professor joked with them and explained how they can make it fruitful for themselves.</td>
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<td>*Professor begins course by telling students this course is a “clean slate” – can improve on their performance from prior course (Intro. To College Writing Stretch).</td>
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<td>*Also explains that course will be more difficult than first course. Must meet certain standards to excel, and pass writing course and move onto College Writing II.</td>
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<td></td>
<td>*Advises students to reduce anxiety and work toward succeeding in this course by getting ahead of the assignments, preparing for the end of the class NOW.</td>
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<td>*“Developing confident, strong, responsible college writers” (professor to students).</td>
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<td>*Professor asks students about toughest part of getting their practice writing points – students respond “getting it done!”</td>
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<td>*There is an in-class discussion about best practices for engaging in academic reading – professor makes distinction about how different people choose different times to read effectively (e.g. morning, evening etc.) based on their “ecology.”</td>
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<td>*Professor gives students a revision of effective reading strategies introduced in first course, engages students in discussion of this topic.</td>
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<td>*Professor reiterates that “being here” is one of the most important aspects of the class, and encourages students to use the Writing Center.</td>
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<td></td>
<td>*Prof. introduces first writing assignment for the course (non-info-seeking required). Drills right down to the way the assignment should be formatted in Word.</td>
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<td>*Gives students freedom to explore why things are the way they are in assignments.</td>
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<td><em>Goes over basic grammar and punctuation rules.</em></td>
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* }
*Students turned in their Essay 2 assignment today, and were workshopping what they had done previously to better develop their understanding of writing mechanics. Some seem confused, and many do not have their previous assignments with them to evaluate during class time.

*Prof. talks about periodicals, but doesn’t necessarily explain definition clearly – includes newspapers and magazines within her definition of ‘periodicals,’ which are not traditionally considered periodicals – appears to confuse some students even more.

*During discussion on academic journals, students appear somewhat confused by this notion, and also somewhat nervous when told the reading/comprehension level for articles is higher. One or two students indicate they have used academic journals before, and explained the challenges they had with the articles.

2nd half of class in lab

*Most students seem distracted and to not be paying attention to what Prof. is explaining about hand-on assignments.

*Only a few students participate in discussion during this period.

*During lab time, a student (study participant AC) asks if you can use cited sources from an article to do further research – in my opinion, this reflects higher level thing that some who work with remedial students doubt they have! Also consults thesaurus for synonyms without being prompted – further evidence?

Additional lab observations:

*Study participant TH appears to be quite self-sufficient in developing a search strategy, and uses resources independently.

*Other students need a lot more assistance and instruction from prof. (including study participants RH, JJ, and AK) as they work.

*Prof. asks class if they have used resources for papers before, and if so, what kinds of sources they have used. Students indicated they have used – peer response journals, books, interviews, websites, and videos in the past as sources.

*Prof. asks if students have used a magazine or a newspaper before – explains that they will use them for this assignment.

*Prof. asks if students have heard of an academic journal, and explains to students what these are. Explains they typically are published quarterly or annually, and explains that difference between magazines and newspapers (which she refers to as general readership periodicals) and academic journals are the type of content published within.

*Prof. explains that the hallmark of magazines and newspapers are about content (length of pieces, inclusion of ads, reading/comprehension level of pieces), the inclusion of images (typically lots of images) and how often they are produces. Also, explains that journalists write magazine and newspaper content, editors review them, and media companies publish the content.

*Prof. then moves to explaining difference between magazines/newspapers and academic journals. Explains that AJ content is produced by experts in the field (e.g. doctors write for medical journals, etc.) – content produced by scholarly experts in the field, have advanced degrees, and articles are published by academic or professional journals within or respected by “the academy.” Also explains peer review and the point of this step in the academic journal publishing process. Explains that specialized language is used in articles, that they are longer, the content is more complex and that the comprehension level requires is more challenging than that required of magazines and newspapers.

*Prof. moves on to a discussion of keywords and the role they play in conducting a search for information, particularly when looking for information in academic journals.

*Explains that synonyms and combining keywords can help make search results more relevant, and limits information retrieved to a manageable amount.

*Prof. asks students to find keywords from a previous essay, and tells them they will then go and
do a hands-on assignment using keywords in the computer lab. Encourages them to look at their thesis statements from previous essays, and pull out keywords from themes expressed in statements.

2nd half of class in lab

*Prof. directs them to the regional campus library homepage, and into the “Finding articles” page.

*Starts talking about resources they can use, shows them the resources that won’t be appropriate, and encourages students to participate in discussion on why they aren’t appropriate.

*Prof explains how shuffling keywords as you establish which ones work and which ones don’t will help return better search results, and will minimize the number of returned results.

(Study participant TH): When asked about her process, she explained she was looking for information related to her previous essay, and that she was using the keywords ‘favoritism, athletes, privileged’ to find information on these themes (taken from her thesis statement). As she goes through the returned results, she clicks on suggested keywords within results, and does surface-level analysis of returned results.

(Study participant AC): While searching, accesses the thesaurus tool through Google to find synonyms for her search terms/keywords without being prompted.

(Study participant JJ): Uses the references at the end of an article he has found to look for other resources to use. Uses keywords ‘high school, athletes, popularity.’

(Study participant RH): Explains he is working through his citations to see if any of them will be relevant as he searches for more information.

(Study participant SL): Spends a great deal of time reading through abstracts of returned results to assess their usefulness, she explains.

*Prof. walks all students through the process of saving retrieved searches and relevant articles for later use.
4/9/2014

*Study participant TH tells prof. she has ordered an article from ILL for use later (without being prompted) – further evidence of higher order info-seeking skills?

*Study participant RH indicates he found three sources of information during his search … but no sources appeared to have been found during lab time?

*Students mention during class that prof. doesn’t respond to emails – and that this makes them feel unsupported in the class.

2nd half of class in lab

*Study participants SL and AK are having a discussion about how ‘advanced’ HS students were treated better than they were during their time in HS, and both had personal experiences of this to share. They said because of this, they don’t necessarily consider themselves “smart.”

*Students as a whole seem very distracted during lab time.

*Most students are looking at the information they have returned, and trying to figure out what they are supposed to do with it. Scholarly resources and their use are not necessarily explained again, and it appears that they need to be.

*During discussion of ILIAD use, Prof. doesn’t seem to know as much about the system as she thinks she does … sometimes makes process more complicated for students than it needs to be, and it appears to frustrate students a lot.

*Individual work in lab appears to be challenging for most students, and they are easily distracted from the task at hand. However, study participant JJ is working on his assignment by himself, and he appears to be trying to focus on his task despite distraction from other classmates.

*Both AC and TH have been pretty self-sufficient thus far, pick up the skills needed to complete the lab assignment quickly, and are

*Class discussion starts by talking about what was learned during lab searches for information during the previous class.

*Also a discussion on why searches may have failed. Students answer with the following: *Keywords – usage returned too many results for information, need to refine them as they go along.

*Prof. has brief discussion on LoF.C subject headings, and what they are/how they work. Indicates they can also be used as keywords in searches for information and will help them narrow the retrieved results.

*Brief discussion of how Interlibrary Loan works (prompted by TH’s explanation of ordering an article through ILL), and how saving a citation beforehand can help references later (esp. when putting them into Word).

*Many in the class explain they are now waiting for ILL materials they have ordered.

*Study participant AC is asked to come up and pull up her library account so prof. can show students how to order an ILL material through OhioLINK and ILIAD.

*Prof. points out three elements in ILIAD system – outstanding requests, electronically received articles, and cancelled requests. AC wasn’t able to find the article she ordered so prof. indicates they will search for it again during lab time in the second half of class.

*Prof. is walking them through looking for articles/scholarly resources for previously written essays before working on searches for Essay 3.

2nd half of class in lab

*Discussing keywords that would return better results for searches.

*Students return a number of results, study participant AK especially seems to assess “usefulness” of articles by looking article titles.

*Study participant AC working on finding information and learning how to save information (such as an abstract) into Word. Uses keywords ‘advertisement and income,’ and ‘discretionary
content to keep working on them without prof.’s help.

*However, JJ, AK, SL, and RH appear to be having a lot more trouble with the task than their peers, especially when revising keywords used.

*Lose two study participants who had previously signed up – they have not been in class for almost two weeks – brings total participants down to six.

Income.’ Prof. walks her through the ILIAD process as she searches.

*Study participant JJ is reading through an article he has retrieved, and looking at its citation.

*Prof. is working with RH on finding information – explaining what information returned means (such as, what a book review is, how to find an abstract, etc.) – Prof. explains that RH is learning how to find sources, so he can carry that knowledge forward through his studies.

<table>
<thead>
<tr>
<th>4/14/2014</th>
<th>*Prof. sometimes refers to multiple information sources as ‘databases,’ which is not correct – could confuse students more.</th>
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<tbody>
<tr>
<td></td>
<td>*Frequent absences and tardiness within the class make instruction and continual building of information literacy skills problematic for students – often forget what they have learned between their last attendance and now.</td>
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<td></td>
<td>*Made the choice NOT to observe student searching in the lab today – they appeared too anxious in my presence, and I didn’t want to stop them from doing their work – perhaps this is because instead of the “closed” lab environment in which they had worked before, they were redirected to the open student lab, where others were watching them as well.</td>
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<thead>
<tr>
<th>4/18/2014</th>
<th>*Once again, tardiness and attendance is a major issue in this class – definitely affects participation, particularly during the first portion of class.</th>
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<tr>
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<td>*Only three study participants were in class today.</td>
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<td></td>
<td>*During writing workshop portion of this class, students appear to be getting frustrated and the sense of resistance they feel to doing assignments such as this one is becoming palpable. Prof. also appears to be frustrated, her tone is getting terse. Prof. then moves class from a group discussion to one-on-one work and assistance from her – is this a walk to calm these frustrations? This tactic does seem to lessen student anxiety a great deal.</td>
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<td>*Class begins – Prof. asks students to pull out their former essay drafts and underline “icky sentences” – ones that she says make them feel ‘uncomfortable’ for some reason. Has them underline these sentences in their drafts.</td>
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<td></td>
<td>*Prof. then has each student pick a sentence they had chosen and write it on the board in the front of the class. Workshops each sentence with all students to emphasize rules of grammar and punctuation (e.g. subject/verb agreement, 1st vs. 3rd person, indefinite agreement, expanding vocabulary and learning different words).</td>
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<td>*Prof. explains that writing is all part of the academic research paper process. (Mentions to students that she knows they hate these assignments the most, but that they are the most important if they are to improve.)</td>
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</table>
Throughout class, students appear to be anxious and frustrated – not sure if it is because of the assignment itself, or because of their feelings about the course in general.

| 4/21/2014 | *When final essay assignment is introduced, AK and RH express vocally how unimpressed they are with the final assignment. AC and SL missing today – frequently absent. Only TH is in class regularly. |
|           | *Prof. explains that the final essay for the course will be a revision of one of their three in-class essays completed in the previous course. She explains that for the next class period, students must bring in a descriptive, typed and double-spaced brief, explaining which they think they are going to revise and why, and explains they must give specific examples in regard to why this was the essay chosen, and their plan for revision, i.e. what the student will do to make the selected essay better in the final draft. |

| 4/23/2014 | *Out of the seven students who attended the class today, only two had completed the assignment they were to submit today (explanation of essay revision). When asked what abstract means, students seem reluctant to answer. Although RH tends to be in class fairly regularly, he is often quite late. Consistently throughout course – despite complicated nature of the information sometimes explained by the prof., very few students take notes – of study participants, only TH and JJ appear to take notes, ever. |
|           | *Today’s class focused on more in-depth scholarly information-seeking, and learning how to use library resources. *Prof. pulls up a scholarly resource, shows students the detail of it, reads the abstract and explains to students how the abstract can explain the detail of an article, and then pulls up the article itself. *Explains that students will need to submit six articles (two for each of their three previous essays) to get the full points for their ‘scholarly resource’ assignment in the course. For the essay they choose to revise for Essay 3, they must submit two scholarly articles they found with their revision. |
|           | *Prof. continues to explain the elements of a scholarly article, including what separates a scholarly article from a popular press article (e.g. newspaper article). Explains to students that ideas from article must be cited in their essays with a parenthetical citation, and also, that students can quote appropriate phrases from articles, which must be cited in their essays. |

| 4/29/2014 | *Students in general seem far behind on all assignments, with the exception of TH. During the break, JJ made the following comment: “I spoke to someone in the College Writing I class and they don’t have to do any of this – and their final exam is a paper.” Possibly indicates that students don’t necessarily understand WHY they are in this |
|           | *Prof. begins class by talking about how to incorporate scholarly articles into an essay. *Also discusses how to cite sources using a style (such as MLA) for their essays. *Brief discussion with class on what plagiarism means, and refers students to specific page in the MLA handbook for a further definition. Prof. |
course … which is problematic, and could explain why so many of them seem frustrated and low motivated (evident through their in-class behaviors such as talking and texting), their constant distraction from tasks at hand, etc.

explains that students can use someone else’s ideas in three ways: Direct quotation, paraphrasing, or summary (typically a larger piece, or of a whole article).

*Prof. encourages discussion from students regarding the nature of paraphrasing, and its role in the scholarly citation/writing process.

*Prof. indicates that students should go back through their scholarly articles and find quotes within sources that support the points they make in their essays.

*Prof. indicates that the place quotes/paraphrases are included in an essay is where they supports the points you are attempting to make.

*Prof. ends the lesson by explaining how scholarly resources are included in a “Works Cited” page at the essay’s conclusion. Explains that this final page is part of the scholarly documentation process. Also explains the difference between a print source, and an electronic source.

END OF IN-CLASS OBSERVATION
Appendix H: Phenomenological reduction process (conducted during data analysis)

Before beginning/creating info profiles:

- SO FRUSTRATED – Not just me, students too … so many things going on in the class … how does anyone get through all of it? NO WONDER remedial students feel like these classes are a waste of time!
- Separate observation notes from interview notes – BE CLEAR ON WHICH IS WHICH
- Try and include as many ‘verbatim’ quotes as possible throughout analysis – will be useful for both the thematic cluster/emergent theme portion of analysis, and when creating exhaustive description of experience to accompany model.
- ONLY TWO OF SIX GAVE OOC/AISP JOURNALS (aargh) – be sure to include these journal entries in analysis, but note that this is the case (only 1/3 of study participated).
- Be clear, concise, go back to notes if necessary – don’t forget the inclusion of peer debriefing in significant statement and final thematic map stages of analysis!

Random thoughts/biases/acknowledgments which occurred during analysis process

- CANNOT IMAGINE how students face challenges … and still handle moniker of ‘remedial’ – clear that it bothers them … should the concept be separated/amended/changed? Self-guided educational autonomy?
- Two of six participants indicated they are ‘very confident’ in their AISP abilities/skills … (competency theory a la Gross?) – seeing them in class, they appeared to be comfortable with basic information-seeking within Google … but beyond that (within databases specifically) they seemed to flounder – mismatch? BE SURE TO KEEP THIS FEELING TO MYSELF … but pay attention to their descriptions vs. final assignment performance upon further review.
- In re-reading the information profiles, it seems that instructor assistance was viewed as both a help and a hindrance – sometimes by the same student. Specifics revealed as to why this is the case? YES.
  - Future study should include a breakdown of instructional methods … inappropriate for the goals of this study (RE: focus on participant experience
ONLY, per descriptive phenomenological requirements), but may be worth investigating from a case study or educational ethnography angle?

- Anxiety abounds from numerous sources – including competing concerns in other courses … fair to ask students to perform remedial work (and consequently the many building remedial assignments) while enrolled in traditional college classes? Does this set students up for unrealistic workload expectations (pro/con?)?

- More longitudinal study is needed in this domain – how did students get here? What do they believe led them here? **FUTURE INTERPRETIVE PHENOMENOLOGICAL ANALYSIS STUDY IDEA**: What does it mean to you to be considered a ‘remedial’ student? How do you relate to your ‘remedial’ peers? ‘Non’ remedial peers?

- Emotions of AISP affected by a number of factors – performance in previous class (if this is their second go-around), instructor’s teaching style, believing they know what they’re doing in the AISP but despite not returning relevant results … not changing that opinion? **HOW DO WE (LIS instructors) COUNTER THIS?**

- Time – competing courses – difficulties understanding instructional style – ‘challenging’ assignment elements (grammar exercises, etc.) … all seem to play a role in overall approach to AISP – synonymous with Williamson (2005) and concept of ecological factors related to information behavior?

- Although probed within many of the interviews, responses not very clear/question skirted regarding how students feel performance in this course is different from previous course (if they had taken the course before), and whether or not they’ll be successful.

- Some claims that particular instruction needed to finish AISP was not taught/received – nearly all of these things were addressed (I was there!) … high absence rate **DEFINITELY** affected understanding of some in terms of conducting AISP.

- Lab time problematic for some – would this be different if it were structured? Guided?

*After reviewing participants’ final research assignments:*

Some ‘got’ it in theory, but didn’t fulfill all requirements (failure to conform to MLA citation style, didn’t include work from information within text, etc.) – others … no evidence at all of research having an impact on revised final assignment. Sigh. How is this fixed?!?
Appendix I: Data Analysis Tables

1) Significant Statement analysis comparison document [Title: SB.PD Comparison]

<table>
<thead>
<tr>
<th>TC#</th>
<th>Significant statements</th>
<th>L#</th>
<th>PG#</th>
<th>LN#</th>
<th>NOTED BY PD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>When she is in class, she is engaged and participates in class discussions.</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Uses 'lab time' to do scholarly research, and consults with peers for suggestions and guidance on research (as well as the instructor sometimes).</td>
<td>1</td>
<td>1</td>
<td>7-8</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Participant indicated she had been in this course in the previous semester, but that the course before was more hands-on, and they had a book they could refer to for course materials.</td>
<td>2</td>
<td>1</td>
<td>16-17</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Participant indicated that she &quot;doesn't feel the men in class know anything&quot;</td>
<td>3</td>
<td>1</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Participant indicated she is often frustrated by the way [the men in the course] act.</td>
<td>3</td>
<td>1</td>
<td>20-21</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>She said she has issues with the way the men in the class behave.</td>
<td>3</td>
<td>1</td>
<td>21-22</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>She feels a gender bias exists on campus.</td>
<td>3</td>
<td>1</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Participant stated she visit the Tutoring Center for help in the previous course, and felt that the English tutoring she received was better than the math tutoring she had received during that same semester.</td>
<td>3</td>
<td>1</td>
<td>22-25</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Participant said that when it comes to asking for assistance, she &quot;would prefer a woman to help,&quot; because she &quot;doesn't relate to males.&quot;</td>
<td>3</td>
<td>1</td>
<td>25-26</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Participant indicated that she would revise her Cultural Artifact essay for the final assignment.</td>
<td>4,7</td>
<td>2</td>
<td>31-32</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Participant said her topic was a fad or a &quot;dance craze,&quot; and &quot;how men see women as a sexual object [sic].&quot;</td>
<td>4,7</td>
<td>2</td>
<td>32-33</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Participant said she was still in the process of finding scholarly resources for the essay revision at the time of the interview.</td>
<td>4,7</td>
<td>2</td>
<td>33-34</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Participant indicated she had asked the instructor [for help with research], who &quot;is giving phrases to help find information.&quot;</td>
<td>4,7</td>
<td>2</td>
<td>35-37</td>
<td></td>
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<tr>
<td>1</td>
<td>Overall, participant said she doesn't find scholarly research very challenging: &quot;Even if I find a little information, I still have information.&quot;</td>
<td>4,7</td>
<td>2</td>
<td>37-39</td>
<td></td>
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<tr>
<td>1</td>
<td>Participant added that she had performed scholarly research in the past during high school and, when asked about how she feels about conducting scholarly research overall and her proficiency with it, she said &quot;Oh yeah, I'm very confident.&quot;</td>
<td>4,7</td>
<td>2</td>
<td>39-41</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Throughout interview, participant indicated she feels confident about her skills with academic research in general, and believes she will do well in this course as a whole, and most particularly for the final essay.</td>
<td>13</td>
<td>2</td>
<td>46-47</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>FINAL PAPER COMMENT: INCLUDES A CITATION WITHIN TEXT [ALTHOUGH NOT IN MLA FORMAT, AS WAS REQUIRED], BUT DOES NOT INCLUDE A WORKS CITED PAGE AT THE END OF THE ESSAY.</td>
<td>1</td>
<td>1</td>
<td></td>
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<tr>
<td>2</td>
<td>Frequently uses 'lab time' to do scholarly research for her essays, and seems interested in the process as a whole.</td>
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<td>1</td>
<td>10-11</td>
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<tr>
<td>2</td>
<td>She consults resources that may assist her in her search (such as an online thesaurus) without prompts from the instructor, and asks questions about citing sources. E.g. During a class discussion on research, she asked the</td>
<td>1</td>
<td>1</td>
<td>11-15</td>
<td></td>
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</tbody>
</table>
Participant said her experience in the class overall has been enlightening: "I literally felt like a Christian who just left church," she said, discussing how she feels after attending each of the classes for this course.

Participant explained that she had done "a legitimate research paper project" before, but that "the paper was for research" purposes only.

When asked about her experience with the assignment for the [study] course, participant said "I feel like this project is much less challenging" than the previous research project she had done in high school.

In discussing performing scholarly research for the class assignment, participant stated she was "having a hard time finding scholarly resources for revision" and overall felt like she was finding very little relevant information for her topic.

Participant said "I had an easier time finding resources" for the previous essays as a part of the assigned preparation exercise for the final assignment (i.e. lab time given to students to search for scholarly resources with instructor assistance).

Describing her search process for scholarly resources, participant said she searched different keywords, and tried different databases for information with the same keywords.

Participant said she was "barely giving up any time or effort for this essay," stating that she believed what she found during lab time was sufficient.

"I did my entire revision in one day."

In terms of the time the final assignment for the course was introduced, participant said "I feel that introducing the essay two weeks before [the end of the course] was a bit off, but when [the instructor] explained why, it made sense."

Participant said of the class in general that she feels it is "invigorating, enlightening."

When describing her emotions when looking for scholarly research for the final assignment, participant stated "I'm in the zone and I'm working on it."

Background context: "I felt there was something different about me from everybody else."

Participant said she is able to easily approach people, and thinks this makes her different from her peers.

"I'm a learner - I love learning … and psychology is the biggest mystery of my life and I can't wait to learn about it."

**JOURNAL ENTRY:** 1) I'M VERY PRESSED FOR TIME, GOING TO ATTEMPT TO FIND AT LEAST FOUR ARTICLES BEFORE I START WORKING ON ANOTHER SUBJECT 2) MY MIND IS A LITTLE SCATTERED 3) I'VE BEEN SLACKING THE PAST COUPLE WEEKS AND HAVE A LOT OF WORK TO CATCH UP ON 4) THIS IS ALSO MY FIRST TIME WORKING ON THIS ASSIGNMENT AT ALL OUTSIDE OF CLASS TIME 5) PEOPLE KEEP TEXTING ME BUT I'M TRYING TO ONLY RESPOND AFTER I COMPLETE EACH ARTICLE 6) I'M TOTALLY FOCUSED ON THIS ASSIGNMENT RIGHT NOW, NO DISTRACTIONS. NO ONE'S TEXTING ME, AND I'M NOT ON FACEBOOK. JUST TOTAL FOCUS 7) WHEN I FINALLY DID UNDERSTAND THE ASSIGNMENT DUE TO RECEIVING THE SIX PAPERS WE HAD TO FILL OUT, THEN I UNDERSTOOD THAT THIS ASSIGNMENT WASN'T GOING TO BE TOO MUCH TO HANDLE. 8) [IN TERMS OF THE GRADE SHE EXPECTS TO RECEIVE FOR THE
<table>
<thead>
<tr>
<th>#</th>
<th>Line(s)</th>
<th>Analysis</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td><strong>FINAL ASSIGNMENT</strong> - HOPEFULLY A B, BECAUSE I HONESTLY DON'T KNOW HOW MUCH OF AN EFFORT I'LL PUT TOWARDS THIS PAPER.</td>
<td></td>
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<tr>
<td>3</td>
<td>Final Paper Comment: No evidence of the use of scholarly sources in the final paper (no in-text quotes or citations, no works cited page at the end of the paper).</td>
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<td>3</td>
<td>Uses 'lab time' to search for scholarly information, based on instruction.</td>
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<td>3</td>
<td>Participant indicated that although this is his second semester in college; it is the first semester he has taken English requirements. He has taken both of the English stretch courses this semester.</td>
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<td>3</td>
<td>Participant stated in high school, he wasn't really motivated to do a lot of work, but when I got here [to MidState] ... I had to [because college] was a little more challenging, whereas he felt his high school experience had not been as challenging, and the workload he had previously experienced in high school was great increased when he came to college.</td>
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<tr>
<td>3</td>
<td>In terms of how he deals with the workload increase, participant said &quot;my time management skills had to be improved a lot - I just wasn't used to all the workload.&quot;</td>
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<td>3</td>
<td>Participant said he struggled at first with the workload transition, but &quot;I've done a lot better in my [2nd] semester.&quot;</td>
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<td>3</td>
<td>Speaking about English, participant said &quot;I always thought it was one of my stronger suits,&quot; but feels this class in particular has prepared him for further college work.</td>
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<td>3</td>
<td>Participant feels the course instructor was &quot;very demanding - I liked it - and I respected that [the work] was more demanding.&quot;</td>
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<td>3</td>
<td>Participant said his high school classes were less demanding, and that the homework given was minimal compared to that of his workload at college.</td>
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<td>3</td>
<td>Participant said that he believes the course has better equipped him for future study: &quot;I feel like it's challenged me a lot more ... I feel like I'm ready for any other class.&quot;</td>
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<tr>
<td>3</td>
<td>Participant said he had not done any scholarly research in high school, but that he had done some kind of research in elementary school, involving scholarly resources.</td>
<td></td>
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<tr>
<td>3</td>
<td>&quot;I don't understand how to cite things - I was just winging it.&quot;</td>
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</tr>
<tr>
<td>3</td>
<td>Participant indicated he appreciated the instruction in the class regarding scholarly research, particularly in learning how to use research databases.</td>
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<tr>
<td>3</td>
<td>Participant stated he read his first essay from the last part of the first English stretch course (part I of the 2-part stretch series) and in comparing it to the revised version [completed in this class], he felt he had definitely gained a lot between the two essays.</td>
<td></td>
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<tr>
<td>3</td>
<td>In terms of assistance, participant stated he had asked his mother to review his essay (which he says he asks her to assist him with regularly) and said &quot;my mom felt I'd improved a lot ... I was unsure [before this assignment] how to do [research and citations] correctly.&quot;</td>
<td></td>
<td></td>
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<tr>
<td>3</td>
<td>Participant explained he asked his mother for help because she has a master's degree, and is a writing coach and instructor at the main campus of MidState University.</td>
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</table>
After submitting the paper for the course, participant said of scholarly research "it's a longer process," and "I'm not comfortable with it right now and I'm sure I have more to learn about it," which he believes will happen in future classes.

When doing research for his assignment, participant said he used the keywords "American family" and "normal," and found a lot of information about higher income families vs. lower income families.

Of the information he found after his research, participant said he felt that some of the information made out that 'normal' had to do with money, to which he responded "That thing about unity, it's not about money."

When asked why he chose the keywords he used to search for information, participant said he was unsure he would find the information he was looking for under TV. Specifically, he wasn't sure he would find anything about the Sopranos and his topic (the 'normal' American family and traditional family values), and "didn't want to veer off topic" by including too many keywords in his search.

In terms of asking for assistance with the assignment, participant said that other than meeting with the course instructor, he also turned to his mother: "She helped me revise."

In terms of who he might consult for assistance with future research projects, participant said "Maybe the library?" indicated that he thought there must be people over there who know about database searches.

Participant indicated he is generally motivated to do well in his college classes.

Participant explained although he was not particularly motivated to do an in-depth job with the research assignment for this course; he hopes to improve and learn more about performing scholarly research in the future.

"I really do care about doing well"

Participant explained he was not particularly focused on the essay itself for this course, citing competing concerns in other courses as one reason for not focusing on the essay.

"I'm not a big fan of citations," and said the in-class instruction regarding citations was quite challenging to comprehend.

Felt that students in the course were given a lot of information to consume in the abstract, and explained that he doesn't necessarily learn well this way.

Participant said he learns best in a workshop-style environment, and felt that the day they were given instruction on citations with examples would have been better spent composing citations and learning more about research in the lab environment: "I'm better doing hands-on work, with experience," and said the time they spent in the lab doing just that was very helpful to him.

Participant said he feels the class as a whole has made him more capable of handling the next academic phase.

**FINAL PAPER COMMENT:** INCLUDES A 'WORKS CITED' PAGE WITH REFERENCES/SCHOLARLY RESOURCES (SOME OF THEM), BUT DOESN'T INCLUDE ANY IN-TEXT COMMENTS, CITATIONS, OR INDICATIONS THAT THESE SOURCES INFORMED HIS COMPLETION OF THE ASSIGNMENT.

Has stated he has problems with assignments during class discussions.

Does use 'lab time' to do research, but often finds himself distracted.

Stated this is the second time he has taken this course, and hopes to pass this one (as he failed the previous course by only a few points).

Participant stated he had originally planned to go straight to the main campus of MidState, but then he received a letter saying he should come to MidState's regional campus first to improve his grades.
Participant stated that he "had to take this class again," as he had failed the course previously.

Of this class, participant said that they cover "a lot of the same stuff but [the instructor] teaches class in a very different way," further explaining that he found it hard to adjust to the instructor's teaching style.

Of the class, participant said "some stuff is confusing," especially "talking about grammar and punctuation rules ... I had to comprehend and understand what she meant."

For the final assignment, participant stated he was thinking of revising either his Hidden Curriculum essay or his Cultural Artifact essay because he had challenges finding information for his Ad Analysis essay. Particularly, he said he felt the resources he found for the AA essay were "too old," and explained he had a lot of difficulty finding resources in the databases suggested in class.

Participant explained he finds the class research assignment to be very challenging, but that the most challenging assignment of the course for him had been the first essay submitted for the course: "It might have been my worst essay."

In comparison, although participant said he had challenges finding resources in general, he "[doesn't] think the final essay will be as difficult," but that in terms of the essay he has selected for revision, that "it could backfire."

Participant said he is very concerned about the final essay, especially failing the essay, because it would mean he will fail the course again.

Participant indicated that for the final assignment in the previous course he had visited the Writing Center for assistance, but that "it was a big failure - I don't know if I would go back to them again."

When asked about his experience with the WC, participant said he felt the WC made his work more challenging, because he felt the staff didn't pay attention to the guidelines for the paper he shared, and that "they gave wrong advice."

When the participant shared his experience with the previous instructor, the instructor informed the students that the WC had indeed gotten the guidelines wrong, and that they didn't have to return for assistance.

When discussing his final essay, participant said he had found resources for his revision, but that he "doesn't remember what they are, really."

When asked more about his selection for revision, participant said "If I use [CA for the third essay], I feel I could get a good grade but it's a toss up."

In terms of his final paper, participant explained that what may trip him up academically would be "not hitting the points [the instructor] wants me to hit."

When asked if he had consulted another resource for his final essay, participant said he had asked the instructor, but "Asking for teachers' help can confuse you more at times - make you feel more lost." Additionally, participant said "the way [the instructor] explains it (i.e. the parameters of the assignment), it's more confusing."

When prompted to discuss his emotions related to asking for assistance from the instructor, particularly assistance to complete the final assignment, participant said "It's completely frustrating. You think you're going to get the help you need and then you ask for help and it's completely confusing."

However, participant stated that after repeated visits for assistance to the instructor for the final essay asking for further explanation of the assignment's requirements, that he did find it "a little bit more easily understanding - [the instructor] broke it down a lot more.

In terms of his experience in the class and whether he found it helpful overall, participant said "A little bit, yes - as a whole, it was helpful - but the [grammar/punctuation rules] messed everyone up."
After the class, participant said he now finds scholarly research "a little bit easier," and that "I think I have somewhat of an upper hand" if he has to perform scholarly research in the future.

However, in returning conversation to his search for information for the AA essay, participant said "the only thing that kind of concerns me is [the inability to find resources] for the Ad Analysis essay."

Participant said he was frustrated with the process as a whole, because "I had to find keywords to plug in, but nothing came up. It was almost like a dead end."

Participant explained that as they were primed for the final assignment by being instructed to find scholarly resources for all their previous essays, that it was a frustrating process for a number of reasons especially when the instructor was assisting them.

"Even when she tries to help us, and we still don't find things, I feel like it will count against us," because he said there is no partial credit for attempting scholarly research - students either find resources or they don't.

In talking more about his feelings about scholarly research and its relationship to the final assignment, participant said "Time isn't exactly on our side," and that the felt like they had to learn "a lot of stuff in a short amount of time."

In going through these classes, and learning the facets required for further academic study, including learning how to do scholarly research, participant said "Every time we do it [i.e. learn more about academic requirements for future study], and try to turn ... I feel like a tire stuck in the mud - I'm trying and trying and not getting anywhere."

"Redoing things doesn't help."

As the deadline approached, participant said he feels like "time is working against us now."

Overall, participant said he has found the experience of learning how to do scholarly research frustrating, even more so in this second class, because of learning to adjust to a new teaching style, as well as expanding on the necessary tools required for further academic study.

"I hope I pass this class by some miracle."

FINAL PAPER COMMENT: NO EVIDENCE OF THE USE OF SCHOLARLY SOURCES IN THE FINAL PAPER (NO IN-TEXT QUOTES OR CITATIONS, NO WORKS CITED PAGE AT THE END OF THE PAPER).

Often gets frustrated during class, and doesn't often participate in discussions.

Does not typically take notes or otherwise engage with material. Sometimes seems flustered when asked to submit assignments that are due.

Of the class itself, participant stated "it's pretty simple, some stuff" but also said that "it's hard to tell when things are due - it would be helpful if due dates were on the syllabus."
Participant said she finds it hard to keep up with required turn-in dates because of the lack of information on the syllabus.  

Participant said she would prefer if they were "focusing on one kind of teaching - not focusing on a bunch of different ways."  

"I like [the instructor] as a teacher, but not the class - it's not really my cup of tea."  

Of the research assignment for the class, participant said "it's really confusing," referring back to the teaching style of the course instructor and the lack of due dates for different assignments due in the course that makes focusing on one thing difficult for her.  

"There are a whole bunch of different parts that are due and you don't know when they're due."  

"I have competing assignments as well" and explains further that requirements for the course are not explained very well on the syllabus.  

Participant couldn't indicate whether she had done this kind of research in the past or not, but said she did feel like it was more challenging because of so many other assignments due around the same time in the class.  

Participant said she chose to revise her CA essay for the final assignment, however, she found the scholarly research portion of the final assignment challenging for a number of reasons. Although participant indicated the concept of research was "not that hard," she felt the instructor "could make it easier and clearer what she wants."  

Specifically talking about the lab time students were given to conduct scholarly research, participant said "[the instructor] just throws us in the computer lab and I don't know what we're supposed to do."  

"If she set dates everything would be easier - if she set dates, we could focus on one thing at a time."  

When asked why she chose to revise her CA essay for the final assignment, participant answered "because I feel like that was the easiest essay for me to do," and further indicated she felt it would therefore be the easiest essay for her to revise.  

In terms of performing research to meet the requirements of the final assignment, participant said "finding information was easy".  

She explained further she found her information mostly online, "I Googled it," but that she also went through a few of the databases suggested in class.  

Participant indicated she used "American norms of gymnastics" and "stereotypes" as her information search keywords, because she felt that those keywords would give her the most useful information.  

During class lab time, participant said the instructor "suggested keywords, but didn't explain why," so she chose to continue on with her own keywords instead of using those suggested by the instructor.  

When asked if she had approached anyone for assistance with the final assignment and/or performing scholarly research, participant said she has gone to her mother for help because "she's getting her master's, and she can help with my works cited."  

Participant said she often felt "confused" and "stupid" during the class, particularly because of how the instructor explains things to the class.  

Of the instructor's explanations: "Like when she explained the works cited - she made it harder than it actually was, which makes it more confusing."  

Participant said during information-seeking, particularly for the final assignment, that she is "pretty confident" and said she found it easy to find information for the final assignment.
Participant said it would have been harder to find information for one of the other essays, because she believed they were harder topics. "There was a lot of stuff [found when she conducted scholarly research for the other class essays] that didn't apply to my essay topics."

**FINAL PAPER COMMENT:** PARTICIPANT INCLUDED A QUOTE IN THE TEXT OF THE PAPER, BUT WITH NO AUTHOR/CITATION INFORMATION WHATSOEVER (IDENTIFIED AS A QUOTE ONLY BY HER USE OF QUOTATION MARKS). ALSO, ALTHOUGH A REFERENCE OF SOME KIND IS INCLUDED ON THE FINAL PAGE OF THE PAPER, NEITHER ARE SCHOLARLY RESOURCES, AND FURTHER, THERE IS NO CLEAR INDICATION OF A CITATION STYLE USED.

**Participant included a quote in the text of the paper, but with no author/citation information whatsoever (identified as a quote only by her use of quotation marks). Also, although a reference of some kind is included on the final page of the paper, neither are scholarly resources, and further, there is no clear indication of a citation style used.**

<table>
<thead>
<tr>
<th>6</th>
<th>Submits assignments in a timely fashion, consistently presents drafts for review and correction throughout class.</th>
<th>1</th>
<th>1</th>
<th>4-5</th>
<th>ADDED FROM PD NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Uses 'lab time' to search for scholarly information, based on instruction.</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>✓</td>
</tr>
<tr>
<td>6</td>
<td>Other students in the course consistently approach her for assistance with assignments, asking for clarifying explanations, reviewing their work for accuracy, etc.</td>
<td>1</td>
<td>1</td>
<td>7-8</td>
<td>✓</td>
</tr>
<tr>
<td>6</td>
<td>Participant likes the small class structure because she felt it was &quot;easier to talk to my professors.&quot;</td>
<td>2</td>
<td>1</td>
<td>15-16</td>
<td>✓</td>
</tr>
<tr>
<td>6</td>
<td>&quot;You can one-on-one talk to [the course instructor] because the class isn't so big.&quot;</td>
<td>2</td>
<td>1</td>
<td>22-23</td>
<td>✓</td>
</tr>
<tr>
<td>6</td>
<td>&quot;I feel this class is preparing me for other classes.&quot;</td>
<td>2</td>
<td>1</td>
<td>25</td>
<td>✓</td>
</tr>
<tr>
<td>6</td>
<td>Participant explained her experience in this class was the first time she had done any scholarly research, and the assignment &quot;helped me better understand it,&quot; particularly &quot;having it relate to my essays.&quot;</td>
<td>4</td>
<td>2</td>
<td>29-31</td>
<td>✓</td>
</tr>
<tr>
<td>6</td>
<td>When asked about her experience conducting scholarly research, participant said &quot;this is really hard,&quot; further explaining how difficult it was for her to find information on some of her topics.</td>
<td>4</td>
<td>2</td>
<td>31-33</td>
<td>✓</td>
</tr>
<tr>
<td>6</td>
<td>Participant said the course instructor helped her with developing search strategies, in referring her to specific databases, and showing her how to reference different keywords.</td>
<td>4</td>
<td>2</td>
<td>33-35</td>
<td>✓</td>
</tr>
<tr>
<td>6</td>
<td>Participant said the course instructor was &quot;able to answer my questions and break it down,&quot; especially when she had questions about what an academic journal is, and as she learned more about abstracts and keywords.</td>
<td>4</td>
<td>2</td>
<td>35-37</td>
<td>✓</td>
</tr>
<tr>
<td>6</td>
<td>When asked about her opinion on the purpose of scholarly research, particularly for the class assignment, participant said the articles she found were &quot;more in detail,&quot; and they were &quot;backed by facts rather than opinions.&quot;</td>
<td>4</td>
<td>2</td>
<td>38-40</td>
<td>✓</td>
</tr>
<tr>
<td>6</td>
<td>Participant said she believes scholarly research &quot;usually comes out of colleges I guess you could say.&quot;</td>
<td>4</td>
<td>2</td>
<td>40-41</td>
<td>✓</td>
</tr>
<tr>
<td>6</td>
<td>Participant explained that the instructor for this class is the only professor she talks to in general.</td>
<td>9</td>
<td>2</td>
<td>44</td>
<td>✓</td>
</tr>
<tr>
<td>6</td>
<td>Participant said she has used the Writing Center in the past.</td>
<td>9</td>
<td>2</td>
<td>46</td>
<td>✓</td>
</tr>
<tr>
<td>6</td>
<td>Participant said her First Year Experience [freshman orientation] class took a trip to the library where they talked about library resources.</td>
<td>9</td>
<td>2</td>
<td>46-48</td>
<td>✓</td>
</tr>
<tr>
<td>6</td>
<td>Participant said during that class session she remembers they were shown KentLINK and OhioLINK, and shown how to send articles to themselves via email.</td>
<td>9</td>
<td>2</td>
<td>48-49</td>
<td>✓</td>
</tr>
</tbody>
</table>
In response to questions about her experience during the library session, participant said "I'm sure there was [more/useful information] but not that I remember - he [the librarian who conducted the session] definitely talked more than he should have."

Participant said she felt far too much information was presented during the library session for students to remember in the long term.

Participant explained she felt the scholarly research assignment "helped me better understand what to do in the future."

Participant said she was unsure where she could go for help with future assignments, saying "Maybe the professor, or the Writing Center? I'm sure those people could help me."

When asked to explain her feelings toward the scholarly research assignment in the class, participant said that when it was first introduced in class, "it was kind of overwhelming because there were so many things to learn," and that they had to "find all the keywords."

Participant said when the assignment was introduced in class, "there was no computer in front of us as [the course instructor] explained all the information - we had to remember what all the information was, and that's why I wrote it down."

After doing hands-on exercises conducting scholarly research during lab time, participant said "I feel less overwhelmed now about research," but indicated she will probably feel overwhelmed again when the students are given more information about the final essay requirement for the class.

Of scholarly research in general, participant said "It's a lot of information and you don't always know what to do with this."

Of the final assignment itself, participant said "this is not a pointless assignment - I think it will be helpful down the road."

Participant said for future experiences, "we won't have to teach ourself [sic]."

JOURNAL ENTRY: 1) KEYWORDS CHOSEN FOR ASSIGNMENT - TEEN PREGNANCY, TEENS, MEDIA, THE SAME TERMS I USED IN SCHOOL (MEANING THE SAME KEYWORDS SHE USED DURING LAB TIME GIVEN FOR SCHOLARLY RESEARCH IN CLASS), 2) I TRIED LOGGING INTO KENTLINK AND IT WILL NOT LET ME AT HOME 3) I'M STRESSED SINCE IT WILL ONLY WORK AT SCHOOL GIVING ME LITTLE TIME TO DO IT AS A FULL TIME STUDENT WORKING PART TIME - I CANNOT BE AT SCHOOL THAT LONG WHEN I HAVE PRIOR ENGAGEMENTS 4) IT IS HARD TO HAVE TO RESEARCH BUT NOT BE ABLE TO GET IT ON MY COMPUTER AT HOME.

FINAL PAPER COMMENT: INCLUDES A QUOTE WITHIN THE TEXT OF THE PAPER, BUT CITES IT INCORRECTLY - ONLY USES ONE QUOTE IN THE WHOLE PAPER. DOES INCLUDE WORK CITED IN FINAL PAGE BUT THIS IS ALSO CITED INCORRECTLY.
## Formulated Meanings analysis [Title: Formulated meanings]

<table>
<thead>
<tr>
<th>TC#</th>
<th>Significant statements</th>
<th>Formulated meanings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>When she is in class, she is engaged and participates in class discussions.</td>
<td>Active class participant</td>
</tr>
<tr>
<td>1</td>
<td>Uses 'lab time' to do scholarly research, and consults with peers for suggestions and guidance on research (as well as the instructor sometimes).</td>
<td>Participant takes advantage of in-class opportunities to conduct AISP with instructor assistance.</td>
</tr>
<tr>
<td>1</td>
<td>Participant indicated she had been in this course in the previous semester, but that the course before was more hands-on, and they had a book they could refer to for course materials.</td>
<td>Participant has two experiences with the same course, but feels this course lacks practicality of previous course.</td>
</tr>
<tr>
<td>1</td>
<td>Participant indicated that she &quot;doesn't feel the men in class know anything&quot;</td>
<td>Participant believes men in class do not contribute to overall learning.</td>
</tr>
<tr>
<td>1</td>
<td>Participant indicated she is often frustrated by the way [the men in the course] act.</td>
<td>Participant annoyed by actions of men in class.</td>
</tr>
<tr>
<td>1</td>
<td>She said she has issues with the way the men in the class behave.</td>
<td>Participant believes there to be a discrepancy between the way men and women are treated on campus.</td>
</tr>
<tr>
<td>1</td>
<td>She feels a gender bias exists on campus.</td>
<td>Participant has sought assistance from support services, and believed the English tutoring she received was more effective than the math tutoring she sought.</td>
</tr>
<tr>
<td>1</td>
<td>Participant stated she visit the Tutoring Center for help in the previous course, and felt that the English tutoring she received was better than the math tutoring she had received during that same semester.</td>
<td>Participant prefers receiving assistance from females, because she doesn't relate to males.</td>
</tr>
<tr>
<td>1</td>
<td>Participant said that when it comes to asking for assistance, she &quot;would prefer a woman to help,&quot; because she &quot;doesn't relate to males.&quot;</td>
<td>Participant describes her assignment selection.</td>
</tr>
<tr>
<td>1</td>
<td>Participant indicated that she would revise her Cultural Artifact essay for the final assignment.</td>
<td>Participant explains context/subject of assignment.</td>
</tr>
<tr>
<td>1</td>
<td>Participant said her topic was a fad or a &quot;dance craze,&quot; and &quot;how men see women as a sexual object [sic].&quot;</td>
<td>Participant is still investigating resources for her assignment.</td>
</tr>
<tr>
<td>1</td>
<td>Participant said she was still in the process of finding scholarly resources for the essay revision at the time of the interview.</td>
<td>Participant sought out the advice of the instructor in terms of conducting research.</td>
</tr>
<tr>
<td>1</td>
<td>Participant indicated she had asked the instructor [for help with research], who &quot;is giving phrases to help find information.&quot;</td>
<td>Participant believes the scholarly research process/AISP to be simple, in that any information found is still information.</td>
</tr>
<tr>
<td>1</td>
<td>Overall, participant said she doesn't find scholarly research very challenging: &quot;Even if I find a little information, I still have information.&quot;</td>
<td>Participant has prior experience with scholarly research, and is confident in the strength of her AISP skills.</td>
</tr>
<tr>
<td>1</td>
<td>Participant added that she had performed scholarly research in the past during high school and, when asked about how she feels about conducting scholarly research overall and her proficiency with it, she said &quot;Oh yeah, I'm very confident.&quot;</td>
<td>Participant is confident in the strength of her academic research skills in general.</td>
</tr>
<tr>
<td>1</td>
<td>Throughout interview, participant indicated she feels confident about her skills with academic research in general, and believes she will do well in this course as a whole, and most particularly for the final essay.</td>
<td>Participant is confident in the strength of her academic research skills in general.</td>
</tr>
</tbody>
</table>
Participant's self-reported level of confidence with the strength of AISP skills does not match the level of academic work completed for the assignment.

Participant frequently uses 'lab time' to do scholarly research for her essays, and seems interested in the process as a whole.

She consults resources that may assist her in her search (such as an online thesaurus) without prompts from the instructor, and asks questions about citing sources. E.g. During a class discussion on research, she asked the instructor if she found a good source, could she consult the sources cited by the article's author for more information.

Participant said her experience in the class overall has been enlightening: "I literally felt like a Christian who just left church," she said, discussing how she feels after attending each of the classes for this course.

Participant said she had done "a legitimate research paper project" before, but that "the paper was for research" purposes only.

When asked about her experience with the assignment for the [study] course, participant said "I feel like this project is much less challenging" than the previous research project she had done in high school.

In discussing performing scholarly research for the class assignment, participant stated she was "having a hard time finding scholarly resources for revision" and overall felt like she was finding very little relevant information for her topic.

Participant said she was "barely giving up any time or effort for this essay," stating that she believed what she found during lab time was sufficient.

"I did my entire revision in one day."

In terms of the time the final assignment for the course was introduced, participant said "I feel that introducing the essay two weeks before [the end of the course] was a bit off, but when [the instructor] explained why, it made sense."
Participant said of the class in general that she feels it is "invigorating, enlightening."

When describing her emotions when looking for scholarly research for the final assignment, participant stated "I'm in the zone and I'm working on it."

Background context: "I felt there was something different about me from everybody else."

Participant said she is able to easily approach people, and thinks this makes her different from her peers.

"I'm a learner - I love learning … and psychology is the biggest mystery of my life and I can't wait to learn about it."

Participant's general class experience is invigorating and enlightening.

Participant says she is able to intensely focus on the task at hand when engaged in her AISP for the class research assignment.

Participant believes she is 'different' from other people around her.

Participant finds it easy to approach people, and believes this sets her apart from her college peers.

Participant enjoys the learning process and is looking forward to further study in her chosen academic field (psychology).

JOURNAL ENTRY: 1) I'M VERY PRESSED FOR TIME, GOING TO ATTEMPT TO FIND AT LEAST FOUR ARTICLES BEFORE I START WORKING ON ANOTHER SUBJECT 2) MY MIND IS A LITTLE SCATTERED 3) I'VE BEEN SLACKING THE PAST COUPLE WEEKS AND HAVE A LOT OF WORK TO CATCH UP ON 4) THIS IS ALSO MY FIRST TIME WORKING ON THIS ASSIGNMENT AT ALL OUTSIDE OF CLASS TIME 5) PEOPLE KEEP TEXTING ME BUT I'M TRYING TO ONLY RESPOND AFTER I COMPLETE EACH ARTICLE 6) I'M TOTALLY FOCUSED ON THIS ASSIGNMENT RIGHT NOW, NO DISTRACTIONS. NO ONE'S TEXTING ME, AND I'M NOT ON FACEBOOK. JUST TOTAL FOCUS 7) WHEN I FINALLY DID UNDERSTAND THE ASSIGNMENT DUE TO RECEIVING THE SIX PAPERS WE HAD TO FILL OUT, THEN I UNDERSTOOD THAT THIS ASSIGNMENT WASN'T GOING TO BE TOO MUCH TO HANDLE. 8) [IN TERMS OF THE GRADE SHE EXPECTS TO RECEIVE FOR THE FINAL ASSIGNMENT] - HOPEFULLY A B, BECAUSE I HONESTLY DON'T KNOW HOW MUCH OF AN EFFORT I'LL PUT TOWARDS THIS PAPER.

Participant's out of class AISP experience is somewhat different from her in-class experience. Particularly, participant explained she has trouble focusing on the AISP solely, and also that she feels pressure because of competing assignments. Finally, participant believes that minimal input into the assignment will suffice, as she is not invested in expending a lot of effort in her revision or AISP.

FINAL PAPER COMMENT: NO EVIDENCE OF THE USE OF SCHOLARLY SOURCES IN THE FINAL PAPER (NO IN-TEXT QUOTES OR CITATIONS, NO WORKS CITED PAGE AT THE END OF THE PAPER).

Although participant indicated she had found information for her final assignment, evidence of this is not found in her final assignment.

Participant takes advantage of in-class opportunities to conduct AISP with instructor assistance.

Uses 'lab time' to search for scholarly information, based on instruction.

Although this is the participant's second semester in college, it is his first semester completing remedial English requirements.
Participant stated in high school, he "wasn't really motivated to do a lot of work, but when I got here [to MidState] … I had to [because college] was a little more challenging," whereas he felt his high school experience had not been as challenging, and the workload he had previously experienced in high school was great increased when he came to college.

Participant's high school experience was very different from his current college experience, it terms of workload and motivation to expend effort toward assignments. Particularly, participant feels much more is required in terms of motivation and workload in the college environment.

In terms of how he deals with the workload increase, participant said "my time management skills had to be improved a lot - I just wasn't used to all the workload."

Participant's time management skills had to be improved to accommodate the increased workload in college.

Participant said he struggled at first with the workload transition, but "I've done a lot better in my [2nd] semester."

Participant felt adjusting to the increased workload expectation was challenging for him at first, but believes he has a better handle on this in his second semester.

Speaking about English, participant said "I always thought it was one of my stronger suits," but feels this class in particular has prepared him for further college work.

Participant had always believed English was one of his stronger academic subjects, but believes this class in particular has showed him ways to improve and therefore he feels more prepared for future college-level work.

Participant feels the course instructor was "very demanding - I liked it - and I respected that [the work] was more demanding."

Participant believed the course instructor's work expectations to be very rigorous, but appreciated the level of rigor and structure.

Participant said his high school classes were less demanding, and that the homework given was minimal compared to that of his workload at college.

Participant felt like his high school workload was less demanding, and that homework expectations were minimal, as opposed to the workload he has encountered thus far in college.

Participant said that he believes the course has better equipped him for future study: "I feel like it's challenged me a lot more … I feel like I'm ready for any other class."

Participant believes class has both challenged him and prepared him for future academic work as well.

Participant said he had not done any scholarly research in high school, but that he had done some kind of research in elementary school, involving scholarly resources.

Participant's only previous experience with scholarly research had been in elementary school.

"I don't understand how to cite things - I was just winging it."

Participant did not understand the citation process and described his completion of same as 'winging it.'

Participant indicated he appreciated the instruction in the class regarding scholarly research, particularly in learning how to use research databases.

Participant appreciated the in-class instruction on performing scholarly research and using academic databases.

Participant stated he read his first essay from the last part of the first English stretch course (part I of the 2-part stretch series) and in comparing it to the revised version [completed in this class], he felt he had definitely gained a lot between the two essays.

In comparing the essays from the first part of the course to the second part of the course (particularly, the very first essay to the revised final assignment); the participant felt he had improved a great deal in his skills/abilities over the course.

In terms of assistance, participant stated he had asked his mother to review his essay (which he says he asks her to assist him with regularly) and said "my mom felt I'd improved a lot … I was unsure [before this assignment] how to do [research and citations] correctly."

Participant relies on his mother's assistance and advice for school assignments.
<table>
<thead>
<tr>
<th>Participant explained he asked his mother for help because she has a master's degree, and is a writing coach and instructor at the main campus of MidState University.</th>
<th>Participant's mother has a graduate degree and is a professional writing coach at a subsidiary campus of MidState.</th>
</tr>
</thead>
<tbody>
<tr>
<td>After submitting the paper for the course, participant said of scholarly research &quot;it's a longer process,&quot; and &quot;I'm not comfortable with it right now and I'm sure I have more to learn about it,&quot; which he believes will happen in future classes.</td>
<td>Participant is still uncomfortable with the scholarly research process and AISPs after the class experience, and hopes he will learn more about it in future college classes.</td>
</tr>
<tr>
<td>When doing research for his assignment, participant said he used the keywords &quot;American family&quot; and &quot;normal,&quot; and found a lot of information about higher income families vs. lower income families.</td>
<td>Participant's keyword choice is simple and was chosen based on his information needs for the project.</td>
</tr>
<tr>
<td>Of the information he found after his research, participant said he felt that some of the information made out that 'normal' had to do with money, to which he responded &quot;That thing about unity, it's not about money.&quot;</td>
<td>Participant was confused by some of the information he found during his AISP, as it did not coincide with his personal beliefs on the subject.</td>
</tr>
<tr>
<td>When asked why he chose the keywords he used to search for information, participant said that he was unsure he would find the information he was looking for under TV. Specifically, he wasn't sure he would find anything about the Sopranos and his topic (the 'normal' American family and traditional family values), and &quot;didn't want to veer off topic&quot; by including too many keywords in his search.</td>
<td>Participant's keyword selection process was based on his internal understanding of what keywords would find what information, and didn't want to choose too many keywords or different keywords for his AISP in the fear that he would receive information inappropriate for his needs.</td>
</tr>
<tr>
<td>In terms of asking for assistance with the assignment, participant said that other than meeting with the course instructor, he also turned to his mother: &quot;She helped me revise.&quot;</td>
<td>Participant has sought out the assistance of both the course instructor and his mother in completing his assignment.</td>
</tr>
<tr>
<td>In terms of who he might consult for assistance with future research projects, participant said &quot;Maybe the library?&quot; indicated that he thought there must be people over there who know about database searches.</td>
<td>When asked to consider alternate AISP assistance resources for future classes, participant said perhaps the library could help him with AISP needs in the future, but seemed unsure about his answer.</td>
</tr>
<tr>
<td>Participant indicated he is generally motivated to do well in his college classes.</td>
<td>Participant is internally motivated to excel in college.</td>
</tr>
<tr>
<td>Participant explained although he was not particularly motivated to do an in-depth job with the research assignment for this course; he hopes to improve and learn more about performing scholarly research in the future.</td>
<td>However, for this course (and the final research assignment in particular), the participant was not motivated to put in a lot of effort - either in the AISP, or in the revision. He hopes to learn more about academic research and completing AISPs in future courses.</td>
</tr>
<tr>
<td>&quot;I really do care about doing well&quot;</td>
<td>Participant does care about succeeding in college.</td>
</tr>
<tr>
<td>Participant explained he was not particularly focused on the essay itself for this course, citing competing concerns in other courses as one reason for not focusing on the essay.</td>
<td>Participant cited competing course/academic concerns as a reason for not spending a lot of time or focus on the final assignment for the course.</td>
</tr>
<tr>
<td>&quot;I'm not a big fan of citations,&quot; and said the in-class instruction regarding citations was quite challenging to comprehend.</td>
<td>Participant does not like citations or the process of creating citations for an assignment, particularly because he felt that the instruction about creating and using citations given in class was confusing.</td>
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</tbody>
</table>
| 3 | Felt that students in the course were given a lot of information to consume in the abstract, and explained that he doesn't necessarily learn well this way.  
Participant is a 'hands-on' learner, and when content is taught non-contextually, he finds it more challenging to understand that content. |
| 3 | Participant said he learns best in a workshop-style environment, and felt that the day they were given instruction on citations with examples would have been better spent composing citations and learning more about research in the lab environment: "I'm better doing hands-on work, with experience," and said the time they spent in the lab doing just that was very helpful to him.  
Participant feels he is a better workshop-style learner, and believed he was able to comprehend the scholarly research process (including creating/using citations) much more effectively when students were given time in the computer lab to implement task. |
| 3 | Participant said he feels the class as a whole has made him more capable of handling the next academic phase.  
Participant believes the class has prepared him for future college work. |
| 3 | FINAL PAPER COMMENT: INCLUDES A 'WORKS CITED' PAGE WITH REFERENCES/SCHOLARLY RESOURCES (SOME OF THEM), BUT DOESN'T INCLUDE ANY IN-TEXT COMMENTS, CITATIONS, OR INDICATIONS THAT THESE SOURCES INFORMED HIS COMPLETION OF THE ASSIGNMENT.  
Participant fulfills part of the assignment requirement (works cited page), but does not complete the 'including research in the essay revision' portion of the assignment in his submission - reiterates his general confusion with the role of research and citations in the assignment process. |
| 4 | Has stated he has problems with assignments during class discussions.  
Participant expresses difficulty he has with completing assignments when given the opportunity to discuss this during class. |
| 4 | Does use 'lab time' to do research, but often finds himself distracted.  
Participant does use lab time to work on research, but finds himself distracted during this time as well. |
| 4 | Stated this is the second time he has taken this course, and hopes to pass this one (as he failed the previous course by only a few points).  
Participant had taken and failed this course previously, and hopes he passes the course this time, although he is nervous about it. |
| 4 | Participant stated he had originally planned to go straight to the main campus of MidState, but then he received a letter saying he should come to MidState's regional campus first to improve his grades.  
Participant is studying at the regional MidState campus to improve his grades before transitioning to the main MidState campus, based on communication of the need to do so from aforementioned campus. |
| 4 | Participant stated that he "had to take this class again," as he had failed the course previously.  
Participant reiterates having failed the course previously and therefore being required to retake the course. |
| 4 | Of this class, participant said that they cover "a lot of the same stuff but [the instructor] teaches class in a very different way," further explaining that he found it hard to adjust to the instructor's teaching style.  
Although some of the content between the courses is similar, participant believes the current teaching style to be very different, and he found it challenging to adjust to the teaching style of the current instructor. |
| 4 | Of the class, participant said "some stuff is confusing," especially "talking about grammar and punctuation rules … I had to comprehend and understand what she meant."  
Participant finds some of the course content confusing, particularly content covering the mechanics of college-level writing. |
| 4 | For the final assignment, participant stated he was thinking of revising either his Hidden Curriculum essay or his Cultural Artifact essay because he had challenges finding information for his Ad Analysis essay.  
Particularly, he said he felt the resources he found for the AA essay were "too old," and explained he had a lot of difficulty finding resources in the databases suggested in class.  
Part of the participant's rationale for choosing which essay to revise for his final assignment was the concern for the lack of current information he found as it related to other essays he could have chosen to revise for the final assignment. |
Participant explained he finds the class research assignment to be very challenging, but that the most challenging assignment of the course for him had been the first essay submitted for the course: "It might have been my worst essay."

Participant found the idea of the research assignment challenging overall, but also had issues with the essays throughout the course, particularly the first required essay, which he believed was his worst assignment.

In comparison, although participant said he had challenges finding resources in general, he "[doesn't] think the final essay will be as difficult," but that in terms of the essay he has selected for revision, that "it could backfire."

Participant doesn't believe finding information during his AISP for the final assignment will be too challenging, but indicated his selection of the essay to revise could be an unwise selection for him.

Participant said he is very concerned about the final essay, especially failing the essay, because it would mean he will fail the course again.

Participant was very concerned about his final assignment, because a failing grade on the assignment would mean a failing grade on the course (and, as stated earlier, he has already failed this course previously).

Participant indicated that for the final assignment in the previous course he had visited the Writing Center for assistance, but that "it was a big failure - I don't know if I would go back to them again."

In the previous course, participant sought the assistance of a writing support service. However, the experience was so disappointing and unsuccessful to the participant that he expressed doubt about returning to them for help in the future.

Participant said he had found resources for his revision, but that he "doesn't remember what they are, really."

Participant recalled finding resources for his revision, but not what the resources were or the information they provided.

Participant believes revising the essay he chose could earn him a good grade, but that he is also unsure whether this will be the case.

Particularly, participant believes his inability to meet instructor expectations of the assignment could earn him a poor grade.

When the participant shared his experience with the previous instructor, the instructor informed the students that the WC had indeed gotten the guidelines wrong, and that they didn't have to return for assistance.

In sharing his WSS experience with the previous course instructor, the participant said the instructor agreed with his assessment of their poor service, and told him and his classmates they did not need to return to the WSS for assistance.

When discussing his final essay, participant said he had found resources for his revision, but that he "doesn't remember what they are, really."

Participant recalled finding resources for his revision, but not what the resources were or the information they provided.

When asked about his selection for revision, participant said "If I use [CA for the third essay], I feel I could get a good grade but it's a toss-up."

Participant believes revising the essay he chose could earn him a good grade, but that he is also unsure whether this will be the case.

In terms of his final paper, participant explained that what may trip him up academically would be "not hitting the points [the instructor] wants me to hit."

Particularly, participant believes his inability to meet instructor expectations of the assignment could earn him a poor grade.

When asked if he had consulted another resource for his final essay, participant said he had asked the instructor, but "Asking for teachers' help can confuse you more at times - make you feel more lost."

Additionally, participant said "the way [the instructor] explains it (i.e. the parameters of the assignment), it's more confusing."

Participant indicated he also consulted the instructor for assistance with the final assignment, but feels her guidance is often confusing to him, and limits his understanding of what is required of the final assignment even further.

When prompted to discuss his emotions related to asking for assistance from the instructor, particularly assistance to complete the final assignment, participant said "It's completely frustrating. You think you're

Participant explained that he was frustrated by the assignment and the process of asking for help to complete it, because the 'help'
going to get the help you need and then you ask for help and it's completely confusing.

provided left him more confused and unsure how to complete the assignment.

However, participant stated that after repeated visits for assistance to the instructor for the final essay asking for further explanation of the assignment's requirements, that he did find it "a little bit more easily understanding - [the instructor] broke it down a lot more.

Despite this confusion, participant kept returning to the instructor for assistance, and that after repeated meetings gained a little more understanding of the assignment requirements.

In terms of his experience in the class and whether he found it helpful overall, participant said "A little bit, yes - as a whole, it was helpful - but the [grammar/punctuation rules] messed everyone up."

Participant believes the class as a whole has been helpful to his academic progress, but that certain content required in the class (such as grammar revision) negatively affected his performance and the performance of his classmates.

After the class, participant said he now finds scholarly research "a little bit easier," and that "I think I have somewhat of an upper hand" if he has to perform scholarly research in the future.

Participant felt the class has helped him understand AISPs more clearly, and believes this will give him an edge when performing AISPs for future classes.

However, in returning conversation to his search for information for the AA essay, participant said "the only thing that kind of concerns me is [the inability to find resources] for the Ad Analysis essay."

Despite feeling easier about conducting scholarly research overall, participant still concerned about the preparation for the final assignment (i.e. finding research for other essays) in that he didn't find information for one of them.

Participant said he was frustrated with the process as a whole, because "I had to find keywords to plug in, but nothing came up. It was almost like a dead end."

Participant explained that his AISP included finding keywords to search for information, but that he did not find any information, and felt his AISP led him to a 'dead end.'

Participant feels the preparation for the final assignment (i.e. practicing 'research skills' by finding scholarly research for other essays) made the AISP experience frustrating for him, particularly when the instructor helped students do so.

"Even when she tries to help us, and we still don't find things, I feel like it will count against us," because he said there is no partial credit for attempting scholarly research - students either find resources or they don't.

Participant discussed that his frustration was rooted in the lack of recognition via a grade for participating in the AISP as a whole, particularly when the instructor helped students conduct an AISP and still no information was found - believed this was unfair and failed to recognize the learning involved with developing an AISP in the first place.

In talking more about his feelings about scholarly research and its relationship to the final assignment, participant said "Time isn't exactly on our side," and that the felt like they had to learn "a lot of stuff in a short amount of time."

Participant felt time was a major factor in how he performed in the final assignment, specifically, that he had too little time to conduct his AISP for the assignment.

In going through these classes, and learning the facets required for further academic study, including learning how to do scholarly research, participant said "Every time we do it [i.e. learn more about academic requirements for future study], and try to turn ... I feel like a tire stuck in the mud - I'm trying and trying and not getting anywhere."

Participant feels that in all the experiences he has had with trying to learn about scholarly research and AISPs in particular, he never gets anywhere. Particularly, participant believes scholarly research continually leads him to 'dead ends,' and that he feels 'like a tire stuck in the mud.'
<table>
<thead>
<tr>
<th>Page</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>&quot;Redoing things doesn't help.&quot;</td>
</tr>
<tr>
<td></td>
<td>Participant believes revisions do not assist in helping him better understand scholarly research or AISP experiences any better.</td>
</tr>
<tr>
<td>4</td>
<td>As the deadline approached, participant said he feels like &quot;time is working against us now.&quot;</td>
</tr>
<tr>
<td></td>
<td>Participant believed that time had a negative impact on his ability to complete the final research assignment.</td>
</tr>
<tr>
<td>4</td>
<td>Overall, participant said he has found the experience of learning how to do scholarly research frustrating, even more so in this second class, because of learning to adjust to a new teaching style, as well as expanding on the necessary tools required for further academic study.</td>
</tr>
<tr>
<td></td>
<td>Participant felt no more comfortable with the scholarly research process after this class, and explained he felt even more frustrated by his second experience with this class because of the instructor’s teaching style, and having to learn new things about conducting research.</td>
</tr>
<tr>
<td>4</td>
<td>&quot;I hope I pass this class by some miracle.&quot;</td>
</tr>
<tr>
<td></td>
<td>Participant is not overly optimistic about his chances for passing the course a second time.</td>
</tr>
<tr>
<td>4</td>
<td><strong>FINAL PAPER COMMENT:</strong> NO EVIDENCE OF THE USE OF SCHOLARLY SOURCES IN THE FINAL PAPER (NO IN-TEXT QUOTES OR CITATIONS, NO WORKS CITED PAGE AT THE END OF THE PAPER).</td>
</tr>
<tr>
<td></td>
<td>Participant did not refer to or cite any scholarly sources in his final paper - a requirement of the revision.</td>
</tr>
<tr>
<td>5</td>
<td>Often gets frustrated during class, and doesn't often participate in discussions.</td>
</tr>
<tr>
<td></td>
<td>Participant often expresses frustration during class time, and very rarely participates in class discussions.</td>
</tr>
<tr>
<td>5</td>
<td>Does not typically take notes or otherwise engage with material. Sometimes seems flustered when asked to submit assignments that are due.</td>
</tr>
<tr>
<td></td>
<td>Participant seems anxious and disengaged in the class.</td>
</tr>
<tr>
<td>5</td>
<td>Of the class itself, participant stated &quot;it's pretty simple, some stuff&quot; but also said that &quot;it's hard to tell when things are due - it would be helpful if due dates were on the syllabus.&quot;</td>
</tr>
<tr>
<td></td>
<td>Although participant believes most of the course content is simple, she finds the lack of syllabus guidance on when to submit assignments frustrating.</td>
</tr>
<tr>
<td>5</td>
<td>Participant said she finds it hard to keep up with required turn-in dates because of the lack of information on the syllabus.</td>
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<tr>
<td></td>
<td>This lack of syllabus guidance on submission deadlines made it challenging for participant to comply with turn-in dates.</td>
</tr>
<tr>
<td>5</td>
<td>Participant said she would prefer if they were &quot;focusing on one kind of teaching - not focusing on a bunch of different ways.&quot;</td>
</tr>
<tr>
<td></td>
<td>Participant believes the instructor's teaching style is too variant, and this frustrates her.</td>
</tr>
<tr>
<td>5</td>
<td>&quot;I like [the instructor] as a teacher, but not the class - it's not really my cup of tea.&quot;</td>
</tr>
<tr>
<td></td>
<td>Although participant likes the instructor, she does not like the class or the content covered within it.</td>
</tr>
<tr>
<td>5</td>
<td>Of the research assignment for the class, participant said &quot;it's really confusing,&quot; referring back to the teaching style of the course instructor and the lack of due dates for different assignments due in the course that makes focusing on one thing difficult for her.</td>
</tr>
<tr>
<td></td>
<td>Participant found the final research assignment as challenging as the rest of the course, particularly in terms of the instructor's various teaching styles.</td>
</tr>
<tr>
<td>5</td>
<td>&quot;There are a whole bunch of different parts that are due and you don't know when they're due.&quot;</td>
</tr>
<tr>
<td></td>
<td>Participant again discussed her anxiety over not knowing when different elements of assignments are due, because of the lack of due dates listed in the syllabus.</td>
</tr>
<tr>
<td>5</td>
<td>&quot;I have competing assignments as well&quot; and explains further that requirements for the course are not explained very well on the syllabus.</td>
</tr>
</tbody>
</table>
|      | Participant explained she has assignments to complete in other courses that compete against the required assignments for this course, and that the lack of due date guidance on the syllabus for assignments...
<table>
<thead>
<tr>
<th>Participant couldn't indicate whether she had done this kind of research in the past or not, but said she did feel like it was more challenging because of so many other assignments due around the same time in the class.</th>
<th>Participant was unsure whether she had prior scholarly research or AISP experience, but believed that multiple assignments due at the same time in this course made the process more challenging overall.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant said she chose to revise her CA essay for the final assignment, however, she found the scholarly research portion of the final assignment challenging for a number of reasons. Although participant indicated the concept of research was &quot;not that hard,&quot; she felt the instructor &quot;could make it easier and clearer what she wants.&quot;</td>
<td>Participant explained she did not feel she had trouble finding research during her AISP for the final assignment - rather, she felt the challenge of the assignment was the lack of clarity of instructor expectations for the final assignment, and that this made the research portion more challenging.</td>
</tr>
<tr>
<td>Specifically talking about the lab time students were given to conduct scholarly research, participant said &quot;[the instructor] just throws us in the computer lab and I don't know what we're supposed to do.&quot;</td>
<td>Participant felt the instructor provided too little guidance in terms of what they were to do for their AISPs during lab time.</td>
</tr>
<tr>
<td>&quot;If she set dates everything would be easier - if she set dates, we could focus on one thing at a time.&quot;</td>
<td>Participant felt the lack of set due dates for assignments was a significant challenge to her academic success in the course.</td>
</tr>
<tr>
<td>When asked why she chose to revise her CA essay for the final assignment, participant answered &quot;because I feel like that was the easiest essay for me to do,&quot; and further indicated she felt it would therefore be the easiest essay for her to revise.</td>
<td>Participant explained that she chose her revision essay based on the ease of completing the initial essay, and believed that this would therefore be the easiest assignment for her to revise.</td>
</tr>
<tr>
<td>In terms of performing research to meet the requirements of the final assignment, participant said &quot;finding information was easy&quot;.</td>
<td>Participant explained that finding scholarly research during her AISP for the assignment was easy.</td>
</tr>
<tr>
<td>She explained further she found her information mostly online, &quot;I Googled it,&quot; but that she also went through a few of the databases suggested in class.</td>
<td>Participant used a Google search to find some information for her essay, but also looked for information in some of the academic research databases suggested during in-class lab/research time.</td>
</tr>
<tr>
<td>Participant indicated she used &quot;American norms of gymnastics&quot; and &quot;stereotypes&quot; as her information search keywords, because she felt that those keywords would give her the most useful information.</td>
<td>Participant explained she selected her keywords based on her estimation of the keywords' ability to help her find the most useful information to complete the final assignment.</td>
</tr>
<tr>
<td>During class lab time, participant said the instructor &quot;suggested keywords, but didn't explain why,&quot; so she chose to continue on with her own keywords instead of using those suggested by the instructor.</td>
<td>During the in-class lab time, the instructor suggested keywords for the participant to use in her search but didn't explain the rationale for suggesting those keywords, so she conducted her AISP using only her own keywords.</td>
</tr>
<tr>
<td>When asked if she had approached anyone for assistance with the final assignment and/or performing scholarly research, participant said she has gone to her mother for help because &quot;she's getting her master's, and she can help with my works cited.&quot;</td>
<td>Participant asked her mother for assistance in completing the final assignment, because her mother is pursuing a graduate degree, and the participant believed her mother could help her with the 'works cited' portion of the assignment in particular.</td>
</tr>
<tr>
<td>Participant said she often felt &quot;confused&quot; and &quot;stupid&quot; during the class, particularly because of how the instructor explains things to the class.</td>
<td>Participant explained that the instructor's explanations of course assignments and requirements often made her feel confused and stupid, and left her with heightened anxiety.</td>
</tr>
</tbody>
</table>
Of the instructor's explanations: "Like when she explained the works cited - she made it harder than it actually was, which makes it more confusing."

Participant said during information-seeking, particularly for the final assignment, that she is "pretty confident" and said she found it easy to find information for the final assignment.

Participant said it would have been harder to find information for one of the other essays, because she believed they were harder topics.

"There was a lot of stuff [found when she conducted scholarly research for the other class essays] that didn't apply to my essay topics."

<table>
<thead>
<tr>
<th>Participant included a quote in the text of the paper, but with no author/citation information whatsoever (identified as a quote only by her use of quotation marks). Also, although a reference of some kind is included on the final page of the paper, neither are scholarly resources, and further, there is no clear indication of a citation style used.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant is vigilant about submitting class assignments on time, and revising drafts of assignments with instructor assistance numerous times before final submission.</td>
</tr>
<tr>
<td>Participant takes advantage of in-class opportunities to conduct AISP with instructor assistance.</td>
</tr>
<tr>
<td>Participant is respected by her peers, and is often asked for help with assignments, and with clarifying expectations.</td>
</tr>
<tr>
<td>Participant enjoys the smaller class environment because she finds it easier to communicate with her instructors.</td>
</tr>
<tr>
<td>Participant feels she can talk to her instructors one on one because of the small class sizes.</td>
</tr>
<tr>
<td>Participant believes this course is preparing her for future college courses.</td>
</tr>
<tr>
<td>Participant had no scholarly research experience prior to this course, but she feels the course has helped her understand its purpose, especially having it housed within the context of revising previous assignments.</td>
</tr>
</tbody>
</table>
When asked about her experience conducting scholarly research, participant said "this is really hard," further explaining how difficult it was for her to find information on some of her topics.

Participant said the course instructor helped her with developing search strategies, in referring her to specific databases, and showing her how to reference different keywords.

Participant said the course instructor was "able to answer my questions and break it down," especially when she had questions about what an academic journal is, and as she learned more about abstracts and keywords.

When asked about her opinion on the purpose of scholarly research, particularly for the class assignment, participant said the articles she found were "more in detail," and they were "backed by facts rather than opinions."

Participant said she believes scholarly research "usually comes out of colleges I guess you could say."

Participant explained that the instructor for this class is the only professor she talks to in general.

Participant said she has used the Writing Center in the past.

Participant said she felt far too much information was presented during the library session.

Participant explained she felt the scholarly research assignment "helped me better understand what to do in the future."

Participant said she was unsure where she could go for help with future assignments, saying "Maybe the professor, or the Writing Center? I'm sure those people could help me."

When asked to explain her feelings toward the scholarly research assignment in the class, participant said that when it was first introduced, participant felt quite overwhelmed by the concept of conducting an AISP, particularly learning the elements associated with it (such as developing keywords, etc.).
in class, "it was kind of overwhelming because there were so many things to learn," and that they had to "find all the keywords."

Participant said when the assignment was introduced in class, "there was no computer in front of us as [the course instructor] explained all the information - we had to remember what all the information was, and that's why I wrote it down."

Participant took many notes when the instructor introduced the AISP in class because there was no computer in front of them on which they could implement what was being discussed, and she felt she had to remember everything that was being discussed so she could implement it later.

After doing hands-on exercises conducting scholarly research during lab time, participant said "I feel less overwhelmed now about research," but indicated she will probably feel overwhelmed again when the students are given more information about the final essay requirement for the class.

After gaining some experience with creating and implementing an AISP during in-class lab time, participant felt less anxious about the process, but said she would most likely feel overwhelmed once more when all the requirements for the final assignment were introduced in class.

Of scholarly research in general, participant said "It's a lot of information and you don't always know what to do with this."

Participant's AISP experience in the class produced a lot of information and she was unsure what to do with all of it.

Of the final assignment itself, participant said "this is not a pointless assignment - I think it will be helpful down the road."

In terms of the final assignment, participant did believe it was relevant to her continued academic study, and that it would help her perform similar tasks more effectively in future courses.

Participant said for future experiences, "we won't have to teach ourself [sic]."

Because the instructor assisted the participant in understanding and implementing the AISP, she feels she won't have to try and learn the process on her own in future courses.

**JOURNAL ENTRY:** 1) **KEYWORDS CHOSEN FOR ASSIGNMENT - TEEN PREGNANCY, TEENS, MEDIA, THE SAME TERMS I USED IN SCHOOL (MEANING THE SAME KEYWORDS SHE USED DURING LAB TIME GIVEN FOR SCHOLARLY RESEARCH IN CLASS), 2) I TRIED LOGGING INTO KENTLINK AND IT WILL NOT LET ME AT HOME 3) I'M STRESSED SINCE IT WILL ONLY WORK AT SCHOOL GIVING ME LITTLE TIME TO DO IT AS A FULL TIME STUDENT WORKING PART TIME - I CANNOT BE AT SCHOOL THAT LONG WHEN I HAVE PRIOR ENGAGEMENTS 4) IT IS HARD TO HAVE TO RESEARCH BUT NOT BE ABLE TO GET IT ON MY COMPUTER AT HOME.

Participant tries to implement same AISP at home as she used at school, but lack of access to technology is preventing her from continuing her AISP and, as she works part time, she explained that the situation caused her undue anxiety and made her concerned about completing it.
3) Thematic Clusters to Emergent Themes analysis [Title: TC to Emergent Themes]

<table>
<thead>
<tr>
<th>THEMATIC CLUSTERS</th>
<th>EMERGENT THEMES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reported confidence in AISP skills/abilities</td>
<td></td>
</tr>
<tr>
<td>AISP experience is simple/easy</td>
<td></td>
</tr>
<tr>
<td>AISP experience is difficult/challenging</td>
<td>The AISP experience is affected directly by internal elements related to the experience.</td>
</tr>
<tr>
<td>How AISP is conducted/implemented</td>
<td></td>
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<tr>
<td>Feelings/emotions related to the AISP experience</td>
<td></td>
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<tr>
<td>Previous AISP experiences</td>
<td></td>
</tr>
<tr>
<td>Role of instructor assistance in AISP experience</td>
<td>The AISP experience is impacted indirectly by external elements related to the experience.</td>
</tr>
<tr>
<td>Role of outside-class support in AISP experience</td>
<td></td>
</tr>
<tr>
<td>General perspectives on course instruction</td>
<td></td>
</tr>
<tr>
<td>Feelings/emotions related to the course overall</td>
<td>The AISP experience is influenced by ecological factors outside of the immediate experience.</td>
</tr>
<tr>
<td>Previous course/college experiences</td>
<td></td>
</tr>
</tbody>
</table>
Appendix J: Final Thematic Map

### Emergent Theme 1: The AISP experience is affected directly by internal elements related to the experience

<table>
<thead>
<tr>
<th>Reported confidence in AISP skills/abilities</th>
<th>AISP experience is simple/easy</th>
<th>AISP experience is difficult/challenging</th>
<th>How AISP is conducted/implemented</th>
<th>Feelings/emotions related to the AISP experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant has prior experience with scholarly research, and is confident in the strength of her AISP skills. &quot;Oh yeah, I'm very confident.&quot;</td>
<td>Participant believes the scholarly research process/AISP to be simple, in that any information found is still information - &quot;Even if I find a little information, I still have information.&quot;</td>
<td>Participant was having difficulty finding relevant scholarly resources for her selected revision assignment after conducting her AISP.</td>
<td>Participant is still investigating resources for her assignment.</td>
<td>Participant has not expended a lot of effort outside of class on her AISP for the final research assignment.</td>
</tr>
<tr>
<td>Participant is confident in the strength of her academic research skills.</td>
<td>Participant described his keyword choice as &quot;simple,&quot; and that he chose the keywords he used based on his information needs for the project.</td>
<td>Participant is still uncomfortable with the scholarly research process and AISPs after the class experience, and hopes he will learn more about it in future college classes. - &quot;It's a longer process … I'm not comfortable with it right now and I'm sure I have more to learn about it.&quot;</td>
<td></td>
<td>Participant was able to complete her entire revision in one day.</td>
</tr>
<tr>
<td>Participant is confident in the strength of her academic research skills, and found it easy to conduct a successful AISP for the final assignment.</td>
<td>Participant doesn't believe finding information during his AISP for the final assignment will be too challenging, but indicated his selection of</td>
<td>Participant does not like citations or the process of creating citations for an assignment, particularly because he felt that the instruction about creating and using</td>
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</table>

Participant was confused by some of the information he found during his AISP, as it did not coincide with his personal beliefs on the subject he
the essay to revise could be an unwise selection for him. citations given in class was confusing. "I'm not a big fan of citations."

| Participant chose her revision essay based on the ease of completing the initial essay, and believed that this would therefore be the easiest assignment for her to revise. | Participant is a 'hands-on' learner, and finds it more challenging to understand content that is taught non-contextually. | Participant's AISP included searching using a variety of keywords and keyword combinations in different scholarly databases. | Participant was not motivated to do an in-depth job for the research assignment for the course - either in learning about the AISP or putting in effort into the revision. However, he hopes to learn more about performing scholarly research and completing AISPs in future courses. |

<p>| Participant explained that finding scholarly research during her AISP for the assignment was easy. | Participant is a better workshop-style learner, and was able to comprehend the scholarly research process (including creating/using citations) much more effectively when students were given time in the computer lab to practice task. | Participant is able to intensely focus on the task at hand when engaged in her AISP for the class research assignment. - &quot;I'm in the zone and I'm working on it.&quot; | Competing course/academic concerns was a major reason participant did not spend a lot of time or focus on the final assignment for the course. |</p>
<table>
<thead>
<tr>
<th>When given the opportunity to discuss things during class, participant expresses the difficulty he has with completing assignments.</th>
<th>Participant's self-documented, out-of-class AISP experience is different from her related in-class experience. Particularly, participant has trouble focusing on the AISP solely, and also feels pressure because of competing assignments. Finally, participant believes that minimal input into the assignment will suffice, as she is not invested in expending a lot of effort in her revision or her AISP.</th>
<th>Participant does not like citations or the process of creating citations for an assignment, because he felt the instruction regarding creating and using citations given in class was confusing.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part of participant's rationale for choosing the essay he did to revise was his concern for the lack of current information he found as it related to the other essays he could have chosen to revise for the final assignment.</td>
<td>Participant did not understand the citation process - &quot;I don't understand how to cite things - I'm just winging it.&quot;</td>
<td>Participant is a better workshop-style learner, and was able to understand the scholarly research process (including creating/using citations) much more effectively when the students were given time in the computer lab to practice task.</td>
</tr>
<tr>
<td>Participant found the idea of the research assignment challenging overall, but also had</td>
<td>In comparing his essays from the first part of the course to the second part of the course</td>
<td>Participant does use lab time to work on research, but finds himself distracted</td>
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<td>Issues throughout the course, particularly the first required essay - &quot;it might have been my worst essay.&quot;</td>
<td>(particularly, the very first essay to the revised final assignment), participant believes he has improved a great deal in his skills/abilities over the course (writing, etc.). &quot;I've definitely gained a lot between the two essays.&quot;</td>
<td>During this time, as well.</td>
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<td>Participant found the final research assignment as challenging as the rest of the course, particularly in terms of the instructor's various teaching styles.</td>
<td>Participant's keyword selection process was based on his understanding of what keywords would find what information, and didn't want to choose too many keywords or specific keywords like &quot;TV&quot; for his AISP in the fear that he would receive inappropriate information for his needs - &quot;I didn't want to veer off topic.&quot;</td>
<td>Participant believes revising the essay he chose for the final assignment could earn him a good grade, but he is also unsure whether this will be the case - &quot;I feel I could get a good grade but it's a toss-up.&quot;</td>
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<td>Participant's AISP experience for the final assignment was particularly challenging, made more so by the fact that it was difficult for her to find information on the</td>
<td>Participant doesn't like the citations or the process of creating citations for an assignment, because he felt the instruction about creating and using</td>
<td>The class has helped the participant understand AISPs more clearly, and &quot;I think I have somewhat of an upper hand&quot; if he must perform AISPs for future classes.</td>
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<tr>
<td>topics she was</td>
<td>citations given in class was confusing.</td>
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<td>exploring.</td>
<td>Participant is a 'hands-on' learner, and he finds it more challenging to understand content that is taught non-contextually.</td>
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<td>Despite feeling easier about AISP's overall, participant is still concerned about the preparation for the final assignment because he didn't find information while conducting his practice AISP for one of the essays during lab time. &quot;I had to find keywords to plug in, but nothing came up. It was almost like a dead end.&quot;</td>
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<td>Participant believes he is a better workshop-style learner, and was able to understand the AISP experience (including creating/using citations) much better when given time in the computer lab to explore his AISP - &quot;I'm better doing hands-on work, with experience.&quot;</td>
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<td>Time was a major factor in how participant prepared for the final assignment. Specifically, participant had too little time to conduct his AISP for his final assignment - &quot;Time isn't exactly on our side.&quot;</td>
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<td>Participant uses lab time to work on research, but often finds himself</td>
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<td>In going through the remedial English courses and learning about what is required</td>
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distracted during this time, as well.

to conduct an AISP to meet assignment requirements, participant believes he never gets anywhere. "Every time we do it [learn more about academic requirements for future study], and try to turn … I feel like a tire stuck in the mud – I’m trying and trying and not getting anywhere ... redoing things doesn't help."

Participant remembered finding resources for his revision essay, but not what the resources were or the information they provided.

Revisions do not help participant better understand scholarly research or conducting AISPs any more thoroughly - "Redoing things doesn't help."

Participant's AISP included finding keywords to search for information, but he did not find any information. "I had to find keywords to plug in, but nothing came up. It was almost like a dead end."

"Time is working against us now," regarding participant's ability to complete the assignment according to requirements.

Participant used a Google search to find some Participant was no more comfortable with
Participant selected her keywords based on her estimation of the keywords' ability to help her find the most useful information to complete the final assignment.

Participant chose the essay to revise for the final assignment based on her evaluation of how challenging it would be to find information for the essay - she believed it would have been more challenging to find information for the other essays.

Participant found information when engaging in AISPs during in-class lab time for her other essays, but the information she found was not relevant.

Participant believes the final research assignment "helped me better understand what to do in the future" regarding how to conduct an AISP.

Participant believes/understands scholarly research to be

When the final assignment was first introduced, participant was overwhelmed by
detailed, fact-based writing.

the concept of conducting an AISP - "It was kind of overwhelming because there were so many things to learn [such as the need to] find all the keywords."

Participant also believes scholarly research comes from higher education institutions, primarily.

Participant took many notes when the instructor introduced the AISP in class because there was no computer in front of them on which they could implement what was being discussed, and she felt she had to remember everything that was being discussed so she could implement it later.

Participant took many notes when the instructor introduced the AISP in class because there was no computer in front of them on which they could implement what was being discussed, and she felt she had to remember everything that was being discussed so she could implement it later.

Participant's AISP experience conducted in class produced a lot of information and "you don't always know what to do with this."
Participant's AISP experience conducted in class produced a lot of information and "you don't always know what to do with this."

Participant believed learning how to conduct an AISP during this class will be relevant to her continued academic study - "This is not a pointless assignment - I think it will be helpful down the road."

Participant tries to implement same AISP at home as she used at school, but lack of access to library resource technology at home prevented her from continuing her AISP and, as she works part time, the situation caused her a great deal of anxiety and made her concerned about completing the assignment on time. "I'm stressed since [technology] will only work at school giving me little time to do it as a full time student working part time - I cannot be at school that long when I

Because the instructor helped participant understand how to conduct an AISP for an academic assignment, "we won't have to teach ourself [sic]" in future courses how to conduct AISPs.
Participant tries to implement same AISP at home as she used at school, but lack of access to library resource technology at home prevented her from continuing her AISP and, as she works part time, the situation caused her a great deal of anxiety and made her concerned about completing the assignment on time. "I'm stressed since [technology] will only work at school giving me little time to do it as a full time student working part time - I cannot be at school that long when I have prior engagements - It is hard to have to research but not be able to get it on my computer at home."
### Emergent Theme 2: The AISP experience is impacted indirectly by external elements related to the experience

<table>
<thead>
<tr>
<th>Previous AISP experience</th>
<th>Role of instructor assistance in AISP experience</th>
<th>Role of outside-class support in AISP experience</th>
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<tbody>
<tr>
<td>Although participant has prior AISP experience, she had not completed &quot;a legitimate research paper project&quot; before - &quot;the paper was for research only.&quot;</td>
<td>Participant takes advantage of in-class opportunities to conduct AISP with instructor assistance.</td>
<td>Participant sought assistance from academic support services in previous courses, and believes the English tutoring she received was more effective than the math tutoring she received.</td>
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<tr>
<td>Participant found class research assignment less challenging than her previously completed AISP assignment.</td>
<td>Participant sought out the advice of the instructor in terms of conducting research.</td>
<td>Participant relies on his mother's assistance and advice for college assignments, because participant's mother has a graduate degree and is a professional writing coach at another campus of MidState.</td>
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<td>Participant's previous experience with AISP was in elementary school.</td>
<td>Participant takes advantage of in-class opportunities to conduct AISP with instructor assistance.</td>
<td>When asked to consider alternate AISP assistance resources he may consult in future classes, participant said perhaps the library could help him but seemed unsure if this was the case.</td>
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<tr>
<td>Participant was unsure whether she had any prior AISP experience.</td>
<td>Participant takes advantage of in-class opportunities to conduct AISP with instructor assistance.</td>
<td>In his previous course, the participant sought the assistance of the campus writing support service. However, the participant said &quot;it was a big failure - I don't know if I would go back to them again&quot; because &quot;they gave the wrong advice.&quot;</td>
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<tr>
<td>Participant believes a lot of useful information was probably explained and lost during the first year experience library session because so much information was included in the session, and the librarian &quot;he definitely talked more than he should have.&quot;</td>
<td>Participant has sought out the assistance of both the course instructor and his mother in completing his assignment.</td>
<td>Participant felt the staff didn't pay attention to the assignment guidelines he shared with them.</td>
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</table>
Instructor's guidance is often confusing to the participant, and limits his understanding of what is required of the final assignment even further - "Asking for teacher's help can confuse you more at times - make you feel more lost. The way she explains it [assignment requirements], it's more confusing."

In sharing his WSS experience with the instructor of the previous iteration of this course, the instructor confirmed the participant's assessment of the WSS' poor service, and told him and his classmates they did not need to return to the WSS for further assistance.

Despite this confusion, participant kept returning to the instructor for assistance, and after repeated meetings, gained a little more understanding of the assignment requirements.

Participant asked her mother for assistance in completing the final assignment, because her mother is pursuing a graduate degree and she believes her mother can help her with the 'Works Cited' portion of the assignment.

Participant is frustrated by the assignment and the process of asking for help to complete it, because the 'help' provided left him more confused and unsure of how to complete the assignment - "It's completely frustrating. You think you're going to get the help you need and then you ask for help and it's completely confusing."

Participant has sought assistance from the WSS previously.

Participant's frustration was rooted in the lack of recognition via a grade for participating in the AISP as a whole, particularly when the instructor helped students conduct an AISP and still no information was found - participant believed this was unfair, and failed to recognize the learning involved in developing an AISP in the first place.

Participant has visited the on-campus library as a part of her first year experience/orientation course.

Participant said during in-class lab time, the instructor suggested keywords for her to use, but didn't explain the rationale for suggesting

Participant remembers that during her FYE session, they were shown how to use intra- and interlibrary catalog systems, and were
those keywords, so she conducted her AISP using only her own keywords. taught how to email journal articles to themselves.

<table>
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<tr>
<th>Particularly, participant believed the instructor's explanation of the 'works cited' process made her and her classmates more confused about what was required, and found the process more challenging than it should have been because of this.</th>
<th>Participant didn't believe the students who attended the FYE library session would be able to retain all the information presented during the session.</th>
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<tbody>
<tr>
<td>Participant is vigilant about submitting class assignments on time and revising drafts of assignments with instructor assistance, numerous times before final submission.</td>
<td>In terms of where she would go for assistance with future AISPs or assignments, participant would possibly return to the WSS or to the instructor for relevant course - &quot;Maybe the professor, or the Writing Center? I'm sure those people could help me.&quot;</td>
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<tr>
<td>Participant takes advantage of in-class opportunities to conduct AISP with instructor assistance.</td>
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<td>The instructor helped the participant develop her AISP, particularly in terms of helping her select keywords, and showing her different resources in which to search.</td>
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<td>Instructor clarified different elements of scholarly research for participant, and answered a lot of her questions about the AISP experience.</td>
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<td>Because the instructor assisted participant in understanding and implementing the AISP, she believes she won't have to try and learn the process on her own in future courses.</td>
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<tr>
<td>General perspectives on course instruction</td>
<td>Feelings/emotions related to the course overall</td>
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<td>Participant believes the course instructor's work expectations to be very rigorous, but appreciates the level of rigor and structure.</td>
<td>Participant at first believed the introduction of the research assignment two weeks before the class' end was out of line with the way the rest of the course had been conducted, but understood the rationale for doing so after the instructor's explanation regarding why it was introduced later than other assignments.</td>
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<td>Participant appreciated the in-class instruction on performing scholarly research and using academic databases.</td>
<td>Participant believes men in class do not contribute to overall learning experience.</td>
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<td>Particularly, participant believes his inability to meet instructor expectations for the assignment could net him a poor grade.</td>
<td>Participant annoyed by the actions and behavior of the men in the class.</td>
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<td>Participant was no more comfortable with the scholarly research process after this class and felt even more frustrated by his second experience with the class because of the instructor's teaching style and having to learn new things about conducting research.</td>
<td>Participant takes advantage of in-class opportunities to conduct her AISP with instructor assistance, and is interested in the process.</td>
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<td>Participant believes the instructor's teaching style is too variant, and this frustrates her.</td>
<td>Participant is actively involved in AISP process during class discussions, and has good instincts about IL skills.</td>
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<td>Participant likes the instructor, but does not like the class or the content covered within it.</td>
<td>Participant is enlightened by her overall experience in the course, and equates her attendance to a feeling of spiritual fulfillment - &quot;I literally feel like a Christian who just left church.&quot;</td>
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<td>Participant found the final research assignment as challenging as the rest of the course, particularly in terms of the instructor's various teaching styles.</td>
<td>Participant describes her general class experience as invigorating and enlightening.</td>
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<td>Participant did not feel she had trouble finding research during the AISP for the final assignment - rather, she felt the challenge of the assignment was the lack of clarity of instructor expectations for the final assignment, and this made the research portion more challenging for her.</td>
<td>Participant believes the class has prepared him for future college work.</td>
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<tr>
<td>Participant felt the instructor provided too little guidance in terms of what they were to do for their AISPs during lab time. - &quot;[the instructor] just throws us in the computer lab and I don't know what we're supposed to do.&quot;</td>
<td>Although participant believes some of the content between the courses is similar, the teaching style is very different to him in this class, and he found it challenging to adjust to the teaching style of the current class' instructor.</td>
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<tr>
<td>Participant explained that the instructor's explanations of course assignments and requirements often made her feel confused and stupid, and left her with heightened anxiety.</td>
<td>Participant finds some of the course content confusing, particularly content covering the mechanics required of college-level writing.</td>
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<tr>
<td>Participant took many notes when the instructor introduced the AISP in class because there was no computer in front of students on which they could practice what</td>
<td>Participant is concerned about his final assignment, because a failing grade on the assignment means a</td>
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<tr>
<td>was being taught - participant felt she had to remember everything that was being discussed so she could implement it later.</td>
<td>failing grade on the course (and he has already failed this course once).</td>
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<td>Participant believes the class as a whole has been helpful to his academic progress, but certain class requirements (such as grammar revision) have negatively affected his performance.</td>
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<td>The class has helped participant understand how to conduct AISPs more clearly, and he believes this will give him an edge when performing AISPs in the future.</td>
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<td>Participant is not overly optimistic about his chances for passing the class - &quot;I hope I pass this class by some miracle.&quot;</td>
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<td>Participant often expresses frustration during class time, and very rarely participates in class discussions.</td>
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<td>Participant appears anxious during class time.</td>
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<tr>
<td>Although participant finds most of the course content simple, she finds the lack of due dates on the syllabus frustrating.</td>
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<tr>
<td>A lack of guidance on assignment submission deadlines available on the syllabus made it challenging for participant to submit assignments on time.</td>
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Participant is frustrated by instructor's variant teaching style.

Participant does not like the class or the content covered within - "I like [the instructor] as a teacher, but not the class - it's not really my cup of tea."

Participant has high levels of anxiety over not knowing when different elements of assignments are due because of the lack of due dates listed in the syllabus.

Participant has assignments to complete in other courses that compete for her time and focus, and the lack of due date guidance on the syllabus for assignments in this course made meeting deadlines even more challenging and frustrating for her - "I have competing assignments as well."

"If she set dates, everything would be easier - if she set dates, we could focus on one thing at a time."

Participant is vigilant about submitting class assignments on time, and revising drafts of assignments with instructor assistance numerous times before final submission.

Participant enjoys the smaller class environment because she finds it easier to communicate with her instructors.
Participant feels she can talk to her instructors one on one because of the small class sizes.

Participant had no prior AISP experience, but feels this course has helped her better understand its purpose, especially as it is taught within the context of revising previous writing.

Participant communicates only with this course's instructor regularly.
References


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