Effects of Online/Face-to-Face Professional Development on College Faculty Perceptions of Disabilities

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THESIS

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To the students who struggle and do not believe in themselves, this is for you. Never stop believing or dreaming. You are the only ones who can decide what you can or cannot do. Think big, and good things will happen. Therefore, this dissertation is dedicated to all the students who struggle. Give it time, and you will succeed.
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I sat in a classroom in my early years, unable to read, write, or keep up with my peers. As they academically flourished, I sat in the back of the classroom, lost and frustrated, wondering if I too would someday read and write like they did. Being diagnosed with a learning disability allowed me to discover that just because I learned differently did not mean I could not learn at all. I knew I must do it in a way that worked for me. Little did I know that, one day, I would not only be able to read, but I would be writing a dissertation to receive a doctorate in the field that gave me the hope and the opportunity to keep up with my peers.

I have been given the gift of determination, strength, and incredible motivation to keep trying my best and never give up. For the teachers who believed in me and the teachers who did not, look at what I have accomplished. I am thankful and blessed to be able to complete this degree and could not have completed it without the tremendous support and love of my family, friends, committee members, and colleagues.

To my husband: You are my rock and my best friend. Thank you for allowing me the time to study, write, read, cry, and commit myself to this program, while you held the family together and always believed in me.

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much and hope that I have shown you what you can accomplish with hard work and dedication.

Anything is possible if you believe in yourself.

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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>A. Laws</td>
<td>3</td>
</tr>
<tr>
<td>II. REVIEW OF THE LITERATURE</td>
<td>13</td>
</tr>
<tr>
<td>A. Theoretical Framework</td>
<td>13</td>
</tr>
<tr>
<td>B. Faculty Development in Higher Education</td>
<td>16</td>
</tr>
<tr>
<td>C. Faculty Attitude toward Students with Disabilities</td>
<td>21</td>
</tr>
<tr>
<td>D. Students with Disabilities in Higher Education</td>
<td>32</td>
</tr>
<tr>
<td>1. Student Success Factors</td>
<td>32</td>
</tr>
<tr>
<td>2. Accommodations</td>
<td>36</td>
</tr>
<tr>
<td>3. Faculty Development Focused on Students with Disabilities</td>
<td>38</td>
</tr>
<tr>
<td>III. METHODS</td>
<td>48</td>
</tr>
<tr>
<td>A. Design</td>
<td>48</td>
</tr>
<tr>
<td>B. Settings</td>
<td>48</td>
</tr>
<tr>
<td>C. Participants</td>
<td>50</td>
</tr>
<tr>
<td>D. Professional Development</td>
<td>51</td>
</tr>
<tr>
<td>E. Instruments and Procedures</td>
<td>53</td>
</tr>
<tr>
<td>1. Pre-Survey</td>
<td>53</td>
</tr>
<tr>
<td>2. Face-to-Face Professional Development</td>
<td>54</td>
</tr>
<tr>
<td>3. Online Professional Development</td>
<td>55</td>
</tr>
<tr>
<td>4. Post-Survey</td>
<td>59</td>
</tr>
<tr>
<td>5. Data Analysis</td>
<td>57</td>
</tr>
<tr>
<td>a. Survey Data Analysis</td>
<td>60</td>
</tr>
<tr>
<td>b. Module Usage Data Analysis</td>
<td>61</td>
</tr>
<tr>
<td>c. Open Ended Questions Data</td>
<td>61</td>
</tr>
<tr>
<td>IV. RESULTS</td>
<td>63</td>
</tr>
<tr>
<td>A. Analysis of Knowledge</td>
<td>63</td>
</tr>
<tr>
<td>B. Analysis of Attitude</td>
<td>67</td>
</tr>
<tr>
<td>C. Potential Effects of Online Module Content</td>
<td>70</td>
</tr>
</tbody>
</table>
# TABLE OF CONTENTS

## CHAPTER | PAGE

V. **DISCUSSION** ................................................................. 72  
  A. Limitations and Future Research ................................. 74  
  B. Concluding Remarks ................................................. 77  

APPENDICES ............................................................... 80  
  Appendix A ............................................................. 80  
  Appendix B ............................................................. 93  
  Appendix C ............................................................. 106  
  Appendix D ............................................................. 109  

CITED LITERATURE ....................................................... 112  

VITA ................................................................. 120
# LIST OF TABLES

<table>
<thead>
<tr>
<th>TABLE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. MURRAY ARTICLES OVERVIEW</td>
<td>23</td>
</tr>
<tr>
<td>II. ONLINE MODULE</td>
<td>57</td>
</tr>
<tr>
<td>III. PAIRED SAMPLE STATISTICS QUESTION 1</td>
<td>64</td>
</tr>
<tr>
<td>IV. SCATTER PLOT OF PARTICIPANTS’ PRE-AND POST-SCORES QUESTION #1</td>
<td>66</td>
</tr>
<tr>
<td>V. PAIRED SAMPLE STATISTICS QUESTION #8</td>
<td>68</td>
</tr>
<tr>
<td>VI. SCATTER PLOT OF PARTICIPANTS’ PRE-AND POST-SCORES QUESTION #8</td>
<td>69</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------</td>
</tr>
<tr>
<td>ADA</td>
<td>Americans with Disabilities Act</td>
</tr>
<tr>
<td>IDEA</td>
<td>Individuals with Disability Education Act</td>
</tr>
<tr>
<td>IDEIA</td>
<td>Individuals with Disabilities Education Improvement Act</td>
</tr>
<tr>
<td>ITP</td>
<td>Individual Transition Plan</td>
</tr>
<tr>
<td>IEP</td>
<td>Individual Education Program</td>
</tr>
<tr>
<td>LD</td>
<td>Learning Disabilities</td>
</tr>
<tr>
<td>PD</td>
<td>Professional Development</td>
</tr>
</tbody>
</table>
I. INTRODUCTION

Because of legislation that has improved access to elementary and secondary schools, more students with disabilities have continued their education beyond the K-12 system. Postsecondary schooling for students with disabilities has increased dramatically over the last twenty years (Stodden, Whelley, Chang, & Harding 2001; Henderson, 2001; Foley, 2006; Lovett, Nelson, & Lindstorm, 2014). The new mandates and laws (e.g., Higher Education Act 2008, Individuals with Disability Education Act (IDEA), and American Disability Act (ADA) play an important role in the increase in attendance at the postsecondary level for students with disabilities. Students with learning disabilities have been the fastest growing population within the postsecondary system (Vogel, Leonard, Scales, Hayeslip, & Hermanson, 1998; Henderson, 2001; Stodden, Conway, & Chang, 2003; Foley, 2006). In fact, within the last three decades the learning disability population attending postsecondary school has significantly increased. Wagner, Newman, Cameto, Grarza, and Levine (2005) reported that an estimated twenty-three percent of all students with learning disabilities (LD) were enrolled in 2-year post-secondary schools, and eleven percent were enrolled in 4-year postsecondary schools. The National Center for Education Statistics (NCES) 2009 reported that, from the years 1978 to 2008, students with disabilities attending postsecondary institutions jumped from 2.6% to 10.85%. Unfortunately, however, university graduation rate for the students with LD and
ADD/ADHD is only about 28% (Gregg, 2009). The support system that needs to be in place for students with disabilities to thrive in these settings has not kept pace with these increases.

Stodden et al. (2001) describes the important differences between the k-12 and the postsecondary educational environments, with regard to supports and services for students with disabilities. One crucial difference lies in the amount of support provided in elementary and the secondary system, which is prescribed for students with IEPs, whereas in the postsecondary environment, students with disabilities are expected to assert themselves by self-disclosing to initiate the process of qualifying for services (Stodden, 2001). Compared to secondary school settings, the college context offers minimal contact with special educators, increased demands for independent academic completion, and increased expectations for self-advocacy and self-management of academic work (Stodden, 2001).

Currently, service providers at college university disability offices are charged with informing faculty about the needs of students with disabilities and providing suggestions for how to support them academically. The service providers are aware of current laws and understand the mandates that need to be followed (Shaw & Dukes, 2005), including the Americans with Disabilities Act (ADA), Individuals with Disabilities Education Act (IDEA), Individuals with Disabilities Education Improvement Act (IDEIA), Section 504 Rehabilitation Act and the 508 Higher Education Opportunity Act. Landmark laws have
played a key role in the K-12 system as well, contributing to the increase of students with disabilities attending higher education institutions. Lovett et al. (2014) remind educators that IDEA is designed to increase academic success, and ADA is designed to increase access for success. Beale (2005) suggests that the increase in numbers of students with learning disabilities in postsecondary schools is largely due to the academic preparation they received as a result of the enactment of P. L. 94-142 and more transitional planning support (IDEA). The efforts of postsecondary institutions toward providing adequate support and services for these students has also increased (Beale, 2005).

Laws pertaining to individuals with disabilities have influenced special education services in the K-12 system, in the postsecondary system and in day-to-day life. It is important that the laws are understood by the professionals working in the field to provide adequate services for persons with disabilities.

A. **Laws**

The features of each and differences among IDEA, IDEIA, and 504 can be better understood with descriptions of these laws (NJCLD 2007). The IDEA is the central U.S federal law for special education, which mandates schools to provide a free, appropriate program of education for each child with a disability (Zentall, 2014).

IDEIA is the most recent reauthorization of IDEA, signed into law in 2004, that stipulated further refinements in provision of special education services. This legislation streamlined some procedures and paperwork, and it also specified that all students with
disabilities must participate in all assessments conducted by local school districts with needed supports (Hyatt, 2007).

With IDEA and IDEIA in place in the K-12 system, individuals with disabilities have options for a quality education and increased rigor in current programing. Through the implementations of an individual education program (IEP) that also includes both testing and classroom accommodations and modifications (Conner, 2012). With increased requirements to offer quality education and opportunities for students with disabilities, more students with disabilities are able to continue their education past the K-12 system. Furthermore, the IDEIA (2004) requires that students have in place an Individual Transition Plan (ITP) and delineates post school outcomes, specifically one for postsecondary education and training.

In contrast, the Rehabilitation Act section 504 is an act to ensure that any federally assisted program or activity does not exclude on the basis of disability for someone who would otherwise be qualified. This includes persons with a physical or mental impairments that major life activities include walking, seeing, hearing, speaking, breathing, learning, working, caring for oneself, and performing manual tasks (AHEAD, 2012). This Act pertains to postsecondary institutions that receive federal funding as well, and they are required to provide access and reasonable accommodations to qualifying students with disabilities so that they can participate in college (Conner, 2005).
As college enrollments have increased for students with disabilities, understanding of these laws and the provision of support systems for students with disabilities to succeed has not kept pace (Vogel et al., 1998). US Department of Education National Center for Statistics (2013) reported that 10.9% of students enrolled in postsecondary institutions have a disability (Snyder, T. D., & Dillow, S. A. 2013). As more students with disabilities transition into the postsecondary setting, they are realizing that supports that were provided at the secondary school level are not typically available in the college setting (Stodden et al., 2001). Working with faculty to increase their knowledge and understanding of the laws, how disabilities effect learning, and how they can accommodate and support all students in the classroom may help promote success for students with disabilities in the postsecondary institutions.

There is little research regarding the professional development models that are effective with higher education faculty with regards to teaching to students who have disabilities. This study addresses the need for faculty to have better understandings and to increase their awareness of the nature of college students’ disabilities and potential for success, specific instructional strategies that can be used in higher education classrooms and basic understandings of relevant laws and policies.

During the past two decades, several studies utilized survey data to explore how university programs are responding to the increasing numbers of students with disabilities (Shaw, & McGuire, 1990; Stodden, et al 2001; Sharpe & Johnson, 2001). Stodden et al.
(2001) conducted surveys of offices for students with disabilities in postsecondary two and four year schools across the United States to understand the types of supports, frequency of provision, and variety of services that were being provided. Researchers distributed 1500 surveys to disability support coordinators requesting voluntary participation. Six hundred fifty disability support coordinators responded, yielding a 43% return rate. The survey assessed the types of supports offered and the kinds of assistive technology available to students at the respective universities. The authors reported differences in the range of support systems across higher education institutions. The support most frequency cited among participating schools, in terms of services offered, was provision of testing accommodations. Eighty-four percent of the university disability centers offered testing accommodations more than 75% of the time (Stodden et al., 2001). The next most cited supports were the use of note takers, personal counseling, and advocacy assistance, with more than 60% offering these services more than 75% of the time. Such trend of not offering disability diagnostic testing/psychological evaluation to determine presence of a disability was evident across the institutions, with less than 50% offering this service. Finally, assistive technology evaluation, along with real time captioning, was offered by fewer than 25% of the participating institutions.

Accommodation support services were also studied by Sharpe and Johnson, who conducted a “20/20” study where they looked at the bottom 20th and the top 20th percentiles of students in as a way to assess two and four-year institutions’ levels of “capacity” for providing services, programming, and technology supports (2001). Larger
institutions had more staff readily available, and accordingly, more services were provided. Larger institutions also served a wider range of disabilities compared to the smaller institutions. It is noteworthy that the presence of that faculty training, handbooks, consultation services, and general staff development was associated with higher rates of supports (Sharpe & Johnson, 2001).

Norlander et al. (1990) identified the needed competencies of both administrators and direct service personnel in implementing postsecondary support programs for students with learning disabilities. A total of 299 participants from a national sample responded to a survey that utilized a Likert-type 1-5 scale to gather data regarding their skills and knowledge relevant to their jobs (Norlander et al., 1990). The survey was sent by mail with a follow-up mailer. Surveys were analyzed for two sets of respondents: administrators and teaching specialists. Some respondents held both roles at their institutions. The study findings uncovered a wide range of knowledge and skills needed for personnel working as support staff at the postsecondary level. Examples of those knowledge and skills included identifying students’ needs, teaching students learning strategies and competency skills, designing and providing individual learning accommodations, and developing students’ social emotional skills. Personnel directly in contact with the students with LD at the postsecondary level reported a lack of several essential skills such as interpreting career and aptitude tests and assisting in formulating career based decisions (Norlander et al., 1990). These critical deficiencies are significant given the fact that they could directly affect students’ outcomes at the postsecondary level.
The National Joint Committee on Learning Disabilities (NJCLD) represents 350,000 members and over 13 different organizations devoted to advocacy for and knowledge about individuals with learning disabilities. In the fall of 2002, they convened a panel to address why there were differences between k-12 and postsecondary education with regard to the types and levels of supports for students with learning (NJCLD, 2007). The panel included at least one member from each NJCLD organization and invited guests from secondary schools, as well as lawyers, parents/guardians, psychologists, and postsecondary service providers. In its final report, the panel used the term “disconnect” to describe the current relationship between secondary schools and postsecondary institutions. For example, panel members found that appropriate IEP paperwork from K-12 school systems did not always pass smoothly to higher education institutions, and this transition step required that additional attention be given to current transitional plans. The paperwork used by the K-12 sector did not translate well to the postsecondary schools because the postsecondary institutions are not required to maintain IEPs for students with disabilities. They are only required to meet the reasonable accommodations for classroom demands.

The panel also found that the existing documentation for high school students with disabilities who received support was not sufficient at the postsecondary level. The high school paperwork, which included either an Individual Education Program (IEP) and an Individual Transition Plan (ITP) or 504 plan, documenting the need for accommodations, was typically not considered appropriate by postsecondary programs or called for
accommodations that were not available at the postsecondary level. Postsecondary programs required information from standardized psychological assessments as evidence for eligibility. As of the 2004 reauthorization of IDEA, psychological assessments are not longer required during the latter high school years. This traditional form of eligibility documentation had been replaced at the secondary level with Response to Intervention (RTI) plan documentation that identified individual student accommodations and captured the effectiveness of these interventions for individual students over time. These disparate eligibility requirements have resulted in college students, who had documented disabilities in secondary school, losing needed support services or experiencing substantial delay in receiving such services at the postsecondary level (NJCLD, 2007).

Addressing the lack of availability or delay of appropriate services, the Association on Higher Education and Disability (AHEAD) organization responded with guidance on practices that would inform service providers of needed accommodations and how to gather the appropriate documents needed to support and justify the need for those accommodation and services. They concluded that their proposed framework was consistent with the letter and the spirit of the law and that it reflected legal and judicial thinking. It was also responsive to scholarly understandings of disability and its role in higher education (Supporting Accommodation Request: Guidance on Documents Practices, April 2012).
This set of recommendations described acceptable forms of documentation. The recommendations begin with *Primary Documentation*, which includes a student self-report and a personal interview conducted by the service provider, requiring the student to describe, in detail, what services he/she has utilized in the classroom. The information the student shares should include what did or did not work. *Secondary Documentation* is a written decision that the service provider gives based on the interview of the student. This means that the service provider must be well informed about the process and information being shared by the student, enabling a sound decision on programing design to be made. *Tertiary Documentation* includes records from the secondary institution used to help solidify all information shared during the interview. Such records are customized for each student and can include psychological evaluations, medical reports, teacher reports, individual educational plans, or 504 plans (AHEAD, 2012). During this entire process, it is most important that the postsecondary institution has a clear understanding of how the individual students’ disabilities have impacted the students in their past classroom experiences (AHEAD, 2012). The eligibility process for disability services cannot be “burdensome or have the effect of discouraging students from seeking protections” (AHEAD, 2012). Institutions must have a strong procedure and consistent practice in place to determine eligibility. This will require staff to have a solid understanding of what information is being gathered.

Based upon the belief that good planning from solid knowledge is critical to success at the postsecondary level, the NJCLD also hosted a national meeting (2002) on the topic of
documentation and paper work deemed critical and necessary to obtain adequate services at each level. Meeting participants addressed concerns raised in the 2002 NJCLD panel report. These concerns included (a) lack of mandates requiring high schools to provide all the documentation needed for success at the postsecondary level, (b) understanding why transition teams needed to prepare high school students for successful passage to the postsecondary level were not in place for many students, and (c) understanding why students with learning disabilities were unaware of the programming options at the postsecondary level. The NJCLD convened again during the spring of 2005, with representation from the secondary level, postsecondary level, legal guardians, advocates, professors and legal representatives. In their report with recommendations (NJCLD, 2007), a principle finding held that the federal laws mandating transition in K-12 public schools follow IDEA or Section 504 of the Rehabilitation Act of 1975, whereas postsecondary schools follow the Americans with Disabilities Act (ADA). This declaration about laws serving a critical role in the support of students with disabilities at all levels of education has also been noted by others (Norlander, Shaw, & McGuire, 1990, Vogel, Holt, Sligar, & Leake, 2008). The most recent effect the laws have had on postsecondary education is seen in the new Think College program currently being offered at twenty-seven institutions. The annual executive report (2012-2013) reviews the concept of students with Intellectual Disabilities having access to post-secondary education, which has empowered institutions to provide appropriate supports and programing options for this population. The organization is in its third year, and the national headquarters is held in Boston at UMASS.
The focus of THINK COLLEGE is to have post secondary institutions create meaningful programming with quality experiences, leading to positive outcomes for students with Intellectual Disabilities that include social emotion, and vocational education (Grigal, M., Hart, D., Smith, F. A., Domin, D., Sulewski, J., Weir, C. 2014).

With this increased need for higher education faculty to be more aware of ways to support students with disabilities in the classroom, a closer look at the level of current faculty perceptions of knowledge of relevant laws, students with disabilities, and necessary supports is needed. Further, how these perceptions may change professional development needs to be studied. This study assessed the effects of a professional development model designed to deepen the current understandings of faculty in higher education. The traditional face-to-face approach to professional development was expanded to include an online learning module. Specifically, the research questions addressed were:

Research Question 1: Does participants’ self-reported knowledge about laws and learning disabilities increase after participating in the professional development?

Research Question 2: Do participants’ self-reported attitudes regarding the ability of students with disabilities’ change after participation in the professional development?
II. REVIEW OF THE LITERATURE

In today’s post-secondary classrooms, faculty members will encounter a more diverse population of students than ever before. Many more students with identified disabilities are seeking college degrees. If these students are to be successful in higher education, faculty will be required to understand the needs of such students and to develop the pedagogical skills to meet those needs. In addition, those charged with faculty development in higher education must examine ways in which this critical information can be delivered effectively. This chapter examines existing research in the areas of adult learning, faculty development, faculty attitudes towards students with disabilities, students with disabilities in higher education and current practices in faculty development focused on students with disabilities in higher education. The purpose of this review was to summarize and describe the current literature related to the proposed research questions and to use this knowledge about students with disabilities and faculty understandings in higher education to generate the content of the training modules used in this study.

A. Theoretical Framework and Adult Learner

After reviewing some of the grounding theorists in adult education, both Cyril Houle (1950) and Malcolm Knowles (1973, 1990) reviewed the various theories of adult education and summarized their philosophy with the following statements: Houle (1950) wanted to understand why adults, who continue with education later in life, fall into one of these three categories.
1. They are goal orientated.

2. They are activity orientated.

3. They are learning orientated (Houle, 1972).

Knowles, (1950, 1990) made a claim to the Andragogy theory which links adult learning to the following concepts:

1. Change in one’s self-concept
2. Role of experiences
3. Readiness to learn
4. Orientation of Learning (Knowles, 1973)

Both of these researchers/theorists describe the adult learner as a focused, driven person who is ready to learn based on the needs they are currently experiencing. Both researchers/theorists realized that when the adult learner is centered and eager to engage with the material, learning can happen. Knowing the research on older learners is critical for designing professional development activities capitalizing on adults’ unique learning strengths and needs. For example, Knowles (1990) describes ways to educate the adult learner.

1. Adults are motivated to learn based on needs and interest.
2. Adult learning extends throughout one’s lifetime.
3. The main source of adult learning is experiences.

4. Successful outcomes for adult learning need to be self-directed.

5. Individual educational needs and differences increase as individuals grow older.

Similarly, Mackeracher (2004) found some of the same characteristics within her book describing the adult learner. Adults use life experiences, transferring prior knowledge and skills to what is currently happening (Mackeracher, 2004). Adult learners can handle more abstract thinking, and their learning must be based upon current life situations and future expectations (Mackeracher, 2004).

Understanding adult learners and their needs is important when providing instruction. Greg von Lehman (2011) makes suggestions in his paper on ways to meet the needs of this fast-growing group at his institution. Von Lehman (2011) goes on to describe the relationship that needs to be created, the flexibility of learning, additional resources, and an open door policy and how these elements are critical to the success of the program at the University of Maryland College. Adult learners are more focused on their goals and have specific reasons why they are learning what they are learning. They appear to be more focused than traditional undergraduate students (von Lehman, 2011). Having a variety of approaches to meet the needs of adult learners has proven to be successful for this institution. One of the most recent successful methods is the rapidly growing trend of online course options, including a variety of levels that give the advanced computer learner or the beginner appropriate leveling. By also offering the students options of when to
complete online work the adult learners are provided the needed flexibility to get the classwork accomplished.

The University of Maryland College offers training for all adult learners to become comfortable with the structure of the online method before classes begin, ensuring the transition back into the classroom as an adult learner is smooth (von Lehman, 2011). In addition to preparing the adult learner for coming back to school, the university spends time making sure the faculty working with the adult learner population has adequate training to understand the needs of adult learners.

Though von Lehman is discussing the student returning to the university, the lessons learned about considering different delivery methods and preparing faculty to work with a different population of students can be applied to faculty development for those faculty who have little experience with students with disabilities. Understanding the needs of adult learners is critical when developing training to help university faculty work successfully with students with disabilities in higher education. These theories framed the professional development that was offered to university faculty in this study.

B. Faculty Development in Higher Education

Clearly, a great deal of research argues for the importance of providing professional development opportunities for higher education faculty. As Harrison (2003) stated: “Instructors need to shift their focus away from merely providing instruction, and instead concentrate on facilitating learning by meeting the needs of the individual learner in the
classroom. Implicit in the use of learning strategies and learner centered instruction is the desire to empower students as learners, both within and beyond the classroom environments” (p.142). Instructors’ knowledge of classroom methods including graphic organizers, station learning, detailed syllabi, engaged lecture and discussion, and technology clips and video enhancement are additional ways to meet the needs of learners of the 21st century, especially the disabled population (Harrison, 2003; Ficten et al. 2001). A need to create a supportive working environment for students with disabilities is overdue, and the population continues to grow.

Obviously, universities are faced with many demands related to quality of instruction, current research, best practice technology integration, and meeting the needs of diverse populations (Sorcinelli, Austin, Eddy, & Beach, 2006). Faculty members play the most important role in the quality of higher education, and hence, it is critical that high quality faculty development be available to support and maintain faculty expertise and skill (Sorcinelli et al., 2006). In their book, Creating the Future of Faculty Development, Learning From the Past, Understanding the Present, Sorcinelli et al. (2006) describe their vision for faculty development. The authors pose four questions: (a) What are the structural variations among faculty development programs? (b) What goals, purposes, and models guide and influence program development? (c) What are the top challenges facing faculty members, institutions, and faculty development programs? (d) What are potential new directions and visions for the field of faculty development (Sorcinelli et al., 2006)?

Sorcinelli et al. (2006) reviewed the stages through which professional development
has evolved to its present state. The “Age of the Scholar” was intent upon improving scholarly knowledge. The field then went into the “Age of the Teacher,” which incorporated not only faculty, but also recognized that other employees within higher education institutions needed advanced training. It was during this stage that two national organizations were created: the Professional Organizational Development Network in Higher Education (POD Network) and the National Council for Staff, Program, and Organizational Development (NCSPOD). The next stage was the “Age of the Developer,” which witnessed an increase in participation in teaching and curriculum and support from both institutional funding and external funding. This prompted increased data collection to assess what faculty was learning during faculty development efforts. The “Age of the Learner” found more and more institutions with designated centers for faculty development and a variety of recognition across educational organizations for continued professional development support (Sorcinelli et al., 2006 p. 28). Concluding with the “Age of the Network,” Sorcinelli and colleagues described the most recent ways in which professionals work together, network, and problem solve to meet the current needs of faculty through professional development (pg. 28).

Change is evident in our current systems of professional development and new methods require acknowledgement of three forces of change that are ongoing: (a) “the changing professoriate, (b) the changing student body and (c) the changing nature of teaching, learning, and scholarship” (Sorcinelli et al. 2006, p. 161). They state that once institutions have recognized these forces and identified key developments and movements
toward successful professional development, anything is possible. Since the beginning of faculty development, the purpose has been to “improve the quality of education by working with faculty” (Sorcinelli et al., 2006, p. 19). In the current university environment, one size of faculty development will not fit all. The challenge will be to create more than one model and make choices specific to the content.

Brown and Green (2003) describe going to a professional development session in higher education while wearing pajamas in the comfort of their own homes as a way in which university professors could engage in learning or professional development. This proposed professional development would utilize the internet and university Blackboard system. These systems have been found to be cost efficient, flexible, self-directed, and participant-centered (Brown & Green, 2003). The use of online training is also cost efficient for a university as travel, parking, and hotel expenses are not required (Brown & Green, 2003). Within this online and face-to-face format, it is important to create a sense of collaboration, provide opportunities for discussion, and promote connections to other participants and other education professionals (Johnson, Aragon, Shaik, & Palma-Rivas, 2000). Research supports the idea that working in isolation is detrimental to faculty and that developing a sense of social connection is needed (Aragon, 2003). Englert and Rozendal (2004) looked at ways professional development could be included for the teacher and the researcher, so new practices could be implemented more quickly and effectively. The model these researchers created was in the following three parts:

A group of researchers at the University of Illinois Chicago described the need for connections among higher education faculty and the use of face-to-face meetings followed by sustained supports through distance learning that included shared readings, facilitating of connections among participants, and developing a sense of shared work and shared accountability to one another (Bay, Lopez-Reyna, & Guillory, 2011; 2012). Within their professional development model, the researchers incorporated writing action plans with specific measurable objectives, online resources for distance learning, and connections among participants and mentors during their commitment to program improvement of their teacher preparation.

These studies of faculty development in higher education provide guidance for creating training modules for the current study. Training needs to be varied to meet the needs of different faculty and provide opportunities to network. Participants should have opportunities to develop Knowledge-for Practice in small group discussion, Knowledge-in Practice in their own classroom and Knowledge-of Practice by reviewing research literature and reflecting upon their current practice (Englert et al. 2004). Finally, faculty participants need to have an opportunity to participate in face-to-face as well as distance learning.
C. Faculty Attitude towards Students with Disabilities

College opportunities became more available to students with LD after the passage of public law 101-476 in 1990, mandating students to participate in and prepare a formal transition plan (Vogel, Leyser, Wyland, & Brulle, 1999). This law opened more doors for students with learning disabilities, enabling the possibility of postsecondary education. Stated in the American Council for Education Health resource, the proportion of students with disabilities attending postsecondary education was 32%, which, compared to the early 70's, was 2.6% (Henderson, 1999). Researchers began to study what higher education institutions were doing to accommodate this population increase, particularly, what institutions were doing to promote success for students with LD. Also being studied was what understanding faculty members had regarding the law, policies, accommodations, and the rights of students with disabilities. One of the first studies set out to investigate self-reported attitudes and willingness to accommodate students with disabilities by faculty (Vogel et al., 1999).

Vogel et al. (1999) investigated the attitudes of higher education faculty, specifically looking at how they accommodate students with disabilities, understand laws and legislation, and provide programming for students with disabilities. Participants from a Midwest doctoral granting institution recruited 1,050 faculty members to participate in this survey. “A Faculty Survey of Students with Disabilities” was modified from the original Leyser (1989) survey and was carefully constructed, using various phases of pilot data
collection, revision, and final survey construction, including feedback from experts in the field to increase its validity. This survey also included open-ended and multiple-choice questions.

The survey was divided into five sections: Contact with students with disabilities, Willingness to provide accommodations, Actual accommodations provided, Specific teacher candidate questions, and Open ended questions or comments made by the instructor related to these various topics (Vogel et al., 1999). Results indicated a general lack of understanding regarding laws and legislation, as well as current programming options and services that were available to students with disabilities in higher education.

Another key finding was related to the willingness of making accommodations. Faculty with higher degree status and higher rank were less willing to allow or make accommodations than other faculty, even though all faculty, when asked in isolation, stated they were open to making or allowing accommodations at some level. Thirty percent of the participants agreed that they were unaware of the law and policy that directly affected 504 plans. Faculty were generally unaware they could not legally counsel a student out of a particular field, solely based on the fact that they had a learning disability.

With an increasingly demanding world economy, would-be workers are being expected to further their education with postsecondary learning, whether they are students with LD or not. An ever-growing population of students with LD is entering colleges and universities, and in order to prepare them for the world that lies ahead, faculty
needs to be ready to attend to their needs. Murray and associates investigated the readiness of postsecondary faculty for students with LD and their willingness to accommodate them. Table 1 contains a summary of a decade’s worth of research findings from Murray and colleagues.

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<td>Murray, C., Flannery, B. K., &amp; Wren, C. (2008). University staff members' attitudes and knowledge about learning disabilities and disability support services. <em>Journal of Postsecondary Education and Disability</em>, 21(2), 73-90.</td>
<td>Research question: The study examined the attitudes of university staff toward students with learning disabilities (LD). Method: Survey Participants: 70 Findings: Professional development regarding students with LD and</td>
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<td>Research question: The study examined the relationship between faculty members’ prior training of disabilities, and faculty attitudes towards students with learning disabilities (LD). Method: survey Participants: 198 Results: Faculty who attended some form of disability workshops showed the most positive attitudes. The total number of training types experienced and time spent engaged in training was predictive of faculty attitudes (Murray et al., 2009).</td>
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<td>Research question: The study examined the relationship between faculty members’ prior training of disabilities, and faculty attitudes towards students with learning disabilities (LD). Method: Survey</td>
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Participated: 114

Results: The total number of training types experienced and time spent engaged in training was predictive of faculty attitudes (Murray et al., 2010).


Research question: The study developed and evaluated a means of measuring faculty perceptions toward students with disabilities.

Method: Survey

Participants: 289

Results: Showed more positive attitudes for accommodation provisions and for Universal Design principles among female, non-tenured, College of Education faculty or faculty who had prior disability training.

Lombardi, A., Murray, C., & Dallas, J. (2013). University faculty attitudes towards disabilities and inclusive instruction: Comparing two institutions. *Journal of Postsecondary Education and Disability,* Research Question: Study to compare the attitudes of two university faculties concerning students with disabilities and their understanding of inclusive instruction, specifically to gain information to "develop
**Method:** Survey  
Participants Full and part-time faculty members were among the participants at both universities and were emailed surveys (Lombardi et al., 2013). At the first institution a total of three hundred eighty-one were included in the study, and for the second institution a total of two hundred thirty-one were used (Lombardi et al., 2013).  
**Results:** Faculty had higher scores after attending professional development in all areas. The study also indicated that professional development offered in a variety of ways had a positive impact on the participants. The variety included multiple day sessions, full day sessions, half-day sessions, face-to-face, online, and newsletters. Lombardi and colleagues
suggested having formats for professional developments with "large and small chunks so faculty can access it in different ways" (p. 230).

Murray and his associates' studies have provided the field with a general understanding of what higher education faculty currently knows and what they feel their needs are by way of continuing professional development. Equally important, they have investigated the effectiveness of formats for providing the needed professional development. The following describes each of the studies in more detail.

Murray and colleagues investigated this line of research in four separate studies during the period of 2008-2010. Murray, Wren, and Keys (2008) developed the original survey instrument that was then reused for various research studies, in the years from 2008-2010. In the next few paragraphs the design and description of the tool is described in detail along with a discussion of the validity and reliability of the instrument. This same survey tool was used in the present research study to investigate the perceptions and knowledge gained by faculty after attending face-to-face and online modules of professional development.

Murray, Flannery, and Wren (2008) found that faculty attitudes were more positive toward students with learning disabilities than they had anticipated. Some key questions
in the survey measured the knowledge base of what a learning disability was, how or what type of accommodations were being provided at that time, overall understanding of available university support services at that time, and what additional resources or staff development could result in better understanding of the topic. The survey instrument was developed using a Likert scale and was intended to gather information on what faculty in higher education understood about the “general knowledge, accommodation provisions, willingness to accommodate, and knowledge of services” related to disabilities at the postsecondary level. It relied upon a five-point Likert scale (5 strongly agree and 1 strongly disagree with option of NB no basis for judgment) (Murray et al., 2008).

This original survey was developed in stages. Murray and his team began gathering information from the available research already conducted on this topic in order to find common themes that severed overarching ideas for the survey tool. Murray initially drew from research interview questions that had been developed by Houck (1992). Word adjusting, removal of repeat items, and additional questions were added. The Houck study (1992) had included a pilot with six participants that also assessed each item and checked for clarity and questions. The content validity was evaluated when assessed by asking specialists in the field and the director of disability services within the lead researcher’s university to review the instrument and make suggestions about the survey items (Murray et al., 2008). After noting suggestions and rewording some of the questions, both an underlying factor structure and exploratory factor analysis was conducted. Murray et al., (2008) reported,
“Results indicated that 3 of the 41 items had low initial commonalities and low factor loadings (i.e., below .40) on all factors so those items were removed” (Murray et al., 2008 pg. 98). “The final model contained 38 items and 12 factors, accounting for 57% of the variance in faculty responses. All factors had Eigenvalues greater than 1.0, and an examination of the scree plot indicated that this factor structure was appropriate” (pg. 98).

Murray et al., (2008) found the following reliability scores in each of the headings within the survey questions: of providing accommodations the internal consistency reliability factor was (a = .81), willingness to provide accommodations (a = .72), under general knowledge (a=.65), fairness and sensitivity contained (a=.72), knowledge of learning disabilities (a=.65), willingness to personally invest (a=.75), willingness to provide teaching accommodations (a=.74), resource constraints (a=.89) performance expectations (a=.73), and disclosure and believability (a=.70). Murray and the team of researchers did not provide an intervention or professional development when using this survey. Results from 72% of the faculty respondents indicated a strong desire to work with and accommodate students with learning disabilities. Ninety percent of the surveys indicated the faculty agreed that students with learning disabilities could succeed in postsecondary education. A discrepancy was found in how to guide students with disabilities to appropriate services offered at the university. Most faculty members responded as unaware of services available in their own university settings. The survey concluded that
there was a need for professional development on new strategies or accommodations that could be used in the classroom.

Training of faculty has been found to have an effect on faculty's willingness to provide accommodations to students in higher education (Murray, Lombardi, Wren, & Keys, 2009). Investigators surveyed 198 full-time faculty members in large, urban, and private institutions in the Midwest. The research purpose was to measure faculty attitudes and perceptions of students with learning disabilities in their institutional settings (Murray et al., 2009). Specifically, researchers were interested in the impact of prior experiences in disability-focused training at the postsecondary level. Data were analyzed with MANOVA procedures to explore the following areas: (a) willingness to provide exam accommodations (b) fairness and sensitivity (c) general knowledge (d) willingness to personally invest (e) willingness to make accommodations (f) invitation to disclose and personal action (h) provision of accommodations (Murray et al., 2009).

Areas of invited disclosure, personal action plan, and providing accommodations were associated with prior training (Murray et al., 2009). Murray and colleagues were also interested in what specific training helped with these changes. Faculty who had previously attended workshops, reviewed readings, and read training material showed higher ratings in most areas than those who had not.

Murray, Lombardi, and Wren (2010) looked specifically at the effects of disability focused training on the attitude and perceptions of university faculty. One hundred twelve
staff from a large Midwest university were selected to participate in a survey. Within this large institution, 250 students with learning disabilities were registered with the disability office at the time of the study. The survey included three parts: demographics, prior training experience, and items related to knowledge about and attitudes and perceptions toward students with LD. Prior training was positively related to higher knowledge, attitudes, and perceptions. The research question related to the type of training attended by the participants which yielded the most positive results indicated that workshops, direct courses, and staff training that had direct and intensive instructions related to disability awareness, demonstrated higher scores than faculty who did not participate in any faculty development (Murray et al., 2010).

Lombardi and Murray conducted another key study in 2011, evaluating faculty attitudes and the use of Universal Design for Learning when planning instruction to include university students with disabilities. Two hundred eighty-nine out of 1,084 full-time faculty participated, all from a medium-sized public research institution located in the Pacific Northwest. They were surveyed using the field test version of the expanded Cultural Awareness of Exceptional Learners. The survey contained three categories: (a) demographics about the participant, (b) previous disability training, and (c) questions related to the awareness of the needs and rights of students with disabilities in higher education.

Information from the study was gathered regarding faculty willingness to invest
time in and support students with disabilities, overall fairness, performance expectations, knowledge of law, accessibility and accommodations, and knowledge of campus supports and services targeted towards students with disabilities. The lowest ratings were found in the area of faculty knowledge of disability law and campus resources available to students with disabilities (Lombardi et al., 2011). Supporting the findings of previous studies, (e.g., Beilke, 1999; Vogel, 2008, Murray, 2009) this study also found that, overall, tenured faculty generally scored lower than non-tenured faculty, and faculty with previous training scored higher than those without prior training (Lombardi et al., 2011).

Based on the work of Vogel and Murray and their colleagues, it is important to acknowledge faculty attitudes toward students with disabilities and to recognize that many faculty have limited information about such students, the laws that govern individuals with disabilities and the best way to provide instruction. All of these factors must be considered when designing faculty professional development.

D. **Students with Disabilities in Higher Education.**

1. **Student Success Factors**

Hartman-Hall and Haaga (2002) explored why some students with LD seek out assistance and others do not. A combination of eighty-six graduate and undergraduate students with LD were recruited by advertisements, flyers, and announcements at a Washington, DC metropolitan school and were offered twenty dollars to participate or extra credit if enrolled in a psychology course. A series of data sets were collected by use of
interviews, Likert scale tests, and other testing scales. One set of interviews was conducted to determine what type of learning disability each participant had. A Likert scale was used to rate their level of academic and social skills and severity of the learning disability. An additional scale was given to determine level of self-esteem with the Self-Esteem Perception Profile for College Students (Neeman & Harter, 1986). Another test, the self-worth scale, was given to determine intellectual ability, scholastic competence, and social acceptance (Hartman-Hall et al., 2002). Some open-ended questions were given to the participants about their perceptions of learning disabilities. Participants were asked both true-false and short answer questions about hypothetical situations, where students were asking for accommodations and assistance to professors, to determine how they perceived the situations. Finally, data were collected with another brief interview about how they were to rate the level of services they were currently receiving at the university (Hartman-Hall et al., 2002). Results showed that out of the eighty-five participants, sixty-five percent were currently using services. The average GPA of the participants was at 3.11 out of a 4 point scale. Students were greatly affected by professors’ unwillingness to provide needed accommodations (Hartman-Hall et al., 2002). Students who had positive reactions from professors continued to seek out needed services, and those who had negative experiences did not continue to seek out needed services. These findings further highlight the need for faculty to understand the rights and needs of students with disabilities.

Foley (2006) described the need for self-advocacy skills by a students with LD. Understanding available services, being able to describe how their own personal
disabilities affected them in the classroom, and the students’ willingness to seek out assistance is important to their success in postsecondary settings. Foley (2006) asserted that the demands are greater in higher education for all students, and therefore, students that have better self-advocacy skills are likely to be more successful.

Knowing their own disabilities and what it means for them is vital for student success. Getzel and Thoma (2008) gave descriptive recommendations and also discussed successful strategies in the book *Going to College: Expanding opportunities for people with disabilities* (Getzel et al., 2008). Specifically, when students with disabilities were able to identify and accept their own abilities and describe those abilities to others, their level of success increased. One dimension that Garner (2008) shares with Getzel et al. (2008) is the importance of students being able to articulate what their needs are in the classroom. Self-determination skills, setting of realistic goals, and time management were important for students with LD. Garner (2008) states that the awareness by parents, educators, and the students of these skills and support services beyond secondary school have proven to be a valuable resource for students.

Another critical piece to this was the IDEA reauthorization of 2004 which assisted in better transition services for students with LD. Options of postsecondary school were discussed during transitional planning, and supports and services at the postsecondary schools increased (Garner, 2008). Colleges and universities also began engaging in programming design options, offering meaningful services and sometimes...
specific courses to assist students with disabilities. All these areas have been met with a
certain the level of success for students who are transitioning to postsecondary education.

Stories from three students with learning disabilities about their personal
successes and challenges in school were generated in a study by Garner (2008). She began
investigating the personal journey of students with disabilities from secondary to
postsecondary schooling in order to gain insight into what the students did to have a
successful transition. Participants described to staff and faculty their willingness to self-
advocate, and their personal needs for accommodations. All shared a level of confidence in
knowing what their own personal strengths and weaknesses were. They each also
surrounded themselves with peer and teacher support for the additional clarifying
questions related to course assignments, study preparation, and project assistance when
needed.

DaDeppo (2009) investigated factors related to success for students with LD.
Her study reviewed the theoretical framework based upon Tinto’s Social Integration Model.
This concept considers how students with learning disabilities are integrated both
academically and socially within their learning communities and how that integration
impacts their success at the postsecondary institution. A total of ninety-seven freshman
and sophomore participants with learning disabilities took part in this study to answer the
following question: “What impact does the academic and social integration have on the
academic success and intent to persist of college freshman and sophomores while
controlling background characteristics and precollege achievement variables?” (DaDeppo, 2009, p. 124) Information was gathered about each participant, including high school GPA, ACT or SAT scores, and demographic information, including gender, year in school, mother’s and father’s levels of education, race & ethnicity, major, place of residence, age, and grade of initial diagnosis. After the information gathering process, a survey developed by Milem & Berger (1997), called *The Freshman Year Survey*, was used to measure academic and social integration. All data were compiled and collected fall and spring semesters of the 1994 academic year. This research study found that students were making social connections, were active within their school communities, and were finding that equal distribution of time spent socializing and attending to academic studying (DaDeppo, 2009)

2. **Accommodations**

The process of transitioning a student from the K-12 system to the postsecondary system can be overwhelming for the typical student, but when a student with a disability has to learn a new system, including support network, rules, procedures, and personnel with whom to work, another layer of frustration is added, along with the general challenge that comes with beginning college.

The process of receiving accommodations was reviewed by Kurth and Mellard (2006). They investigated fifteen different university sites and a total of one hundred eight participants were asked to complete a survey about their satisfaction with
the process of obtaining accommodations, as well as factors affecting the choice of accommodations. Of the 108 on 104 of the participants took part in a focus group with open-ended questions about the effectiveness of accommodations used in postsecondary education (Kurth & Mellard, 2006). The mean scores from the Likert scale revealed that the process used in selecting an accommodation was rated 4.08 out of a 5.0 scale, and the accommodation that was provided was rated 4.18 out of 5 (Kurth & Mellard, 2006). These results showed that students were engaging with the process and making it work for them. Within the focus group interviews, participants described the importance of one's ability to communicate about his/her disability with professors as an important trait. The participants also described the need for individualization within disability groups. What one person with a visual impairment might need may not be the same for a person with a learning disability, for example (Kurth & Mellard, 2006). The independence of understanding their own individual needs and asking for accommodations for those needs were critical findings for the level of comfort the student felt towards receiving appropriate supports at the postsecondary level (Kurth & Mellard, 2006).

Another line of research explored college students’ individual experiences with the process of accommodating their academic needs. Cawthon and Cole (2010) asked 110 students with LD to complete a survey about their accommodation use, opportunities and barriers faced during the transition, knowledge they had regarding their disabilities and available services, and their self-advocacy strategies. Researchers used a mixed method approach to analyze the data. Results indicated that students did not utilize the
same supports they used in the secondary setting. The most common supports used at the postsecondary schools were the use of extended time and quiet space. Twenty-one percent of students reported it difficult to obtain accommodation support services (Cawthon et al., 2010). Participants stated that the lack of faculty support was the main reason why some accommodations were not obtained. Eighty-four percent of participants were able to tell researchers when they were first diagnosed with a learning disability, but ninety-one percent of participants did not recall having an Individual Educational Program (Cawthon et al., 2010). Nearly the same number of participants did not recall transitional planning or supports in place at the secondary school to assist them with the transition to postsecondary school. However, final findings showed that 110 participants received more accommodations in postsecondary school than in secondary. This could be due to the rigor of exams and content, or that the Office of Disabilities was offering these services at a higher rate. With numbers being high for their lack of understanding of their own Individual Education Programs, students were still able to get the supports they needed to be successful at the postsecondary school. Efforts of the disability service providers and the level of self-advocacy skills displayed by students with disabilities played an important role in the success that the student had in higher education (Cawthon et al., 2010).

Much like the Kurth and Mellard (2006) study, student satisfaction with current programing was studied by Mytkowicz and Goss (2012). A fee-based support program for students with LD was created by Mytkowicz and Goss (2012) to gather information from fourteen participants (junior and seniors with LD or ADD), who
completed at least one to six semesters of the fee based support program. The interviews included discussions about how the program impacted their education at that particular institution. Areas discussed by the participants included the level of climate safety and care, relationships between students and faculty, and growth in the areas of self-authorship, and self-determination (Mytkowicz & Goss, 2012). Success of the program was described by most of the participants, and the important metacognitive conversations the participants had with faculty mentors contributed to a high level of success. Researchers gathered information on the importance of understanding one’s disability, being supported in an institution, and being able to apply specific accommodations and supports to benefit outcomes in the classroom.

Ultimately, it is not only the system that needs to support the students with disabilities, but the students, themselves, need to be actively involved in their own success. Students clearly have better success when they feel supported by faculty and when faculty are willing to provide accommodations for those students to help their productivity and success. In order to ensure the system and faculty provide what the students need, however, the students with disabilities need to clearly understand their own disabilities, what they need to be successful, and be able to speak up for what they need in the classroom.

3. **Faculty Development Focused on Students with Disabilities**

Students with disabilities understanding their own needs and goals is crucial
to their success, but just as important is the ability of faculty to understand the needs and goals of those same students and provide for them. Information was gathered from students, faculty, stakeholders, and professional development consumers by a team of researchers who wanted to gain insight into “both what people think and why they think the way that they do” (Burgstahler & Doe, 2006 p. 73). Specifically, they sought to discern if the connection exists between the experiences of the faculty and the students, knowledge faculty learned about including students, and the type of professional development options available to faculty to effectively teach students with disabilities (Burgstahler & Doe, 2006).

To address these links, fourteen focus groups from across fourteen different institutions, for a total of seventy-two participants, were conducted. Sessions were video recorded.

Focus group interviews for faculty included scripted questions in the following topics:

1.) Experiences of faculty and students with disabilities
2.) Content needs of faculty
3.) Professional development delivery preferences of faculty and administrators

Questions during the focus groups for students included the following topics:

1.) Participants’ experience receiving accommodations and working with instructors
2.) Student impressions of how faculty members could better fully include students with disabilities into their courses (Burgstahler et al., 2006)

The focus group discussions were transcribed and analysis was conducted to
identify themes in the data. This process was conducted in stages with categories carefully selected and a codebook was created for use in analysis. Using a grounded theory approach and “progressive focusing” of categories (LeCompte, Preissle, & Tesch, 1993; LeCompte & Schensul, 1999), subcategories such as knowledge, attitudes, and skills were identified (Burgstahler et al., 2006). The results contained interesting and useful information. Faculty reported enjoying students who were confident in what they needed for accommodations and frustration with students who would self-disclose but not be able to respond to questions related to what they needed for support in the classroom. Frustration was also expressed when faculty continued to support and be flexible, but students would not complete the work (Burgstahler et al., 2006).

From the students’ perspective, frustration levels were high, reporting unreliable interpreters, poor note takers, inaccurate film captioning, and long processing time for getting books on tape (Burgstahler et al., 2006). A novel finding, expressed by faculty was in regard to removal of equipment or desks for accessibility in a classroom. Faculty members were unaware of whom to contact to have removed equipment added back to the room. They also referenced the lack of knowledge regarding innovative pedagogy, e.g., lack of teaching methods beyond lectures toward more engaging teaching methods, as well as understanding specific related accommodations, since their academic background was in research and content (Burgstahler et al., 2006). Students generally felt supported and comfortable in working with faculty, reporting very few random negative situations with some faculty regarding accommodations.
The theme of faculty need for training highlighted the importance and usefulness of a variety of training methods. Faculty informed researchers of, including use of web based training, face-to-face, memos, seminars, workshops, video seminars, and brief printed materials. The faculty were interested in information about current laws, regulations, and best practices for students with disabilities in higher education (Burgstahler et al., 2006). They also suggested types of professional development options could include hands-on, short activities, presentations as part of larger meetings, longer seminars, peer tutoring, web resources, and videotaped presentations (Burgstahler et al., 2006).

Burgstahler, et al. 2006 suggested the following options for training:

1. Multiple delivery options (e.g., shorter and larger on-site training, online training, videotapes, and printed materials) should be made available with similar content so that faculty can select options that work for them.

2. Short training sessions should be incorporated into departmental and other regular meetings.

3. Content should be available online and or in text reference format for independent reference.

4. One-to-one support and technical assistance should be provided to faculty members, as specific situations arise.

More research is still needed in this area to determine the effectiveness of
specific training formats. The Association on Higher Education and Disability (AHEAD) has taken this charge and has begun to move postsecondary institutions in the direction of positive outcomes for students with disabilities, but this research is still in its beginning phase. Not only has Burgstahler made a clear case that faculty want and need additional information and support regarding students with LD at the postsecondary level, but both he and Murray and colleagues agree that faculty need focused training on LD in multiple formats. While Burgstahler focuses his efforts on training faculty and Murray focuses his efforts on determining faculty levels of training, the present study addressed the need to couple the training types with the survey to assess the effects of training on faculty knowledge and perceptions of students with LD at the postsecondary level.

In another innovative model, Vogel, Holt, Slinger, and Leake (2008) found that respondents were interested in learning opportunities to gain information in the areas of practice, attitudes, and topics of interest, as well as alternate forms of staff development, including a “24/7 online model.” This form of online module was a fresh trend in staff development and yielded significant positive results based upon what participants ranked in a series of options. The most regarded option was the 24/7 availability of an expert to contact, either through an online system or by phone, then one-on-one consulting, a face-to-face workshop or onsite presentation, and the least regarded was a distance learning course, teleconference, or a non-credit short course. Another form of faculty development from this same study included a version of personal videotaped interviews with students, giving feedback about experiences with faculty in higher education. This was then included
into the online 24/7 module for the faculty to view/listen. This had a positive influence on faculty and changed their behavior about students with disabilities in their classrooms. The change was measured with a survey conducted in year one, and the same survey conducted in year three. Results from year one of self-reports of faculty knowledge yielded an average of 1.96 on a six-point Likert scale with 254 participants. In year two, an average was 3.96 on the six-point Likert scale with 109 participants. Although the number of participants fell across the 2 years, growth was still evident for those who continued, while it is possible that only those with more favorable opinions and experiences continued with the study, the findings are encouraging. Faculty commented about the personal connection they made after viewing such intimate dialogue from the students interviewed (Vogel et al., 2008). The faculty also encouraged researchers to add a “one on one consultative” piece to the staff development, encouraging even more positive results (Vogel et al., 2008). The researchers in this study also had strong support from their university administration; this influenced the results as it became a part of the faculty evaluation process. This study included the introduction of a standard welcoming statement added to the syllabi. The students with disabilities who were interviewed indicated they felt welcomed. This reportedly influenced students to reach out to the faculty, to self-disclose, and to seek supports. The results from this study are encouraging and showed significant gains in faculty understanding of how to handle students with disabilities in their classrooms.

Overall, this study documented positive results in attitudes, practice, and knowledge and in alternate ways of staff development (Vogel et al., 2008).
Park, Roberts, and Stodden (2012), at the University of Hawaii, also conducted a study to investigate how professional development would enhance faculty attitudes, knowledge, and skills when working with students with disabilities. They conducted a three-day summer institute that included a panel of experts and opportunities for the participants to engage in conversation, reflection, and practice of materials presented (Park et al., 2012). After completing the summer institute, the participants were asked to conduct a culminating project. Examples of projects included drafting of new policy, working on integrations to an online course, and writing of different case studies with accommodation options to share with other faculty (Park et al., 2012). Pre-and post-interviews were conducted for this study. The results indicated positive change in classroom accommodations and increased knowledge about disabilities. Evidence of the positive change included information adjusted on syllabi, universal design strategies implemented in the classroom, and the use of technology supports (Park et al., 2012).

Finally, Phillips, Terras, Swinney, and Schneweis (2012), reviewed faculty knowledge of providing services to students with disabilities when teaching an online course. As in other studies, the results showed that some faculty members were unaware of what accommodations should be embedded within their courses. Findings included a need for faculty to receive training and assistance in the development of courses to help meet the needs of students with disabilities.
Professional development and training play an important role in a faculty member’s understanding and knowledge of students with disabilities. The research strongly suggests that faculty are in need of more training and that they desire the support (Baker et al., 2012). In summary, faculty have inquired about ways to gather the information they need to enhance their practice in the classroom, to better support students with disabilities. The use of both face-to-face and online training is a newer approach and faculty evaluations of its effectiveness have not been adequately tested.

Based upon the review of literature, the researcher discovered a need for a professional development module, utilizing meaningful face-to-face sessions and an online module. The researcher set out to create positive change in the higher education institution for students with disabilities.

The purpose of the present study was to examine faculty self-reports about their knowledge and perceptions of students with disabilities in higher education. The effectiveness of a professional development model that offered both face-to-face and online format was studied using a pre-and post-test design. The researcher also looked at frequency data collected from the online module that included frequency of use and topics that were accessed. The following research questions were addressed.

Research Question 1: Does participants’ self-reported knowledge about laws and learning disabilities increase after participating in the professional development?
Research Question 2: Do participants’ self-reported attitudes regarding the ability of students with disabilities’ change after participation in the professional development?
III. METHODS

A. Design

This study was designed to assess the effects of participating in a professional development model that include a face-to-face and online module components. To measure the participants' self-reported knowledge and attitude before and after the professional development would provide information about possible effects of the professional development. Murray and his colleagues have refined the use of the survey tools to gain insight regarding college faculty's knowledge, attitude and services of information (Murray et al., 2008, Murray et al., 2009, Murray et al., 2010, Lombardi et al., 2011, Lombardi et al., 2013). This study utilized a pretest/posttest design was used to compare participants’ self-reports of knowledge and attitude before and after the professional development intervention. The independent variable in this study was the professional development experiences. The dependent variables were knowledge and attitudes towards college students with disabilities in higher education, measured with pre-and post-surveys, as well as the usage data from the online module.

B. Setting

Participants in this study were recruited from a small private university in the Midwest. Within this institution “traditions of liberal learning, values and preparation for professional work come together with synergy that gives the university its educational identity and focus” (Institutional Report, 2013). This university offered over eighty
undergraduate majors and programs and twenty-five graduate programs. At the time of the study, 210 full-time faculties were on staff and 6,525 students were enrolled at the main campus (Institutional Report, 2013).

Since 2003, this institution has seen an increase from 28 self-identified students with disabilities out of 4,470 (0.6% of the student enrollment), to 128 self-identified students with disabilities out of 6,525 (.9%) in 2013 (University Institutional Report, 2013). The population of students with disabilities included students with learning disabilities, attention deficit disorder, Asperger’s syndrome, physical disabilities, hearing impairments, minor vision discrepancy, and mental health disabilities. The institution has been working on a new strategic plan for the 2014-2018 academic school years. During the writing stages of the strategic plan, various conversations among administrators, instructors, deans, and staff expressed the need for better awareness and understanding about what support services can and should be offered to students with disabilities in higher education. The administration formed a committee of “experts” from around the university to begin clarifying services and identifying a clearer statement for what services are needed. One of the recommendations of this Disability Awareness Committee was to offer professional development regarding definitions of disability, current disability laws, and the current disability services that are available to students at this institution.

A proposal to the university’s professional development committee for its annual May Institute Staff Development was accepted, and local IRB at the institution was secured,
prior to the institute being conducted. A total of 210 full-time faculty members were invited to participate in the study.

C. **Participants**

Participants were 16 university faculty and staff who agreed to be a part of the study, with 15 who completed all data collection requirements. This represented 7% of the 210 potential participants. The participants were faculty from the colleges of Education (20%), Arts and Sciences (40%), and Nursing (13%). Three of the participants were library staff representing 27% of the participants.

With regard to the number of years participants had been employed in higher education, 6% reported 1-5 years, 6% percent reported 6-10 years, 33% reported 11-15 years, 13% reported 16-20, and 40% reported that they had been working in higher education 21 years or more. Regarding employment status, 73% were full-time faculty, 20% were full-time research librarians, and 6% represented adjunct faculty.

Members of the University who participated in the professional development sessions during the 3-day Institute were paid a small stipend of forty-dollars and were provided breakfast and lunch on any given day. The participants in this study attended the 5-hour session titled *Faculty Knowledge and Understanding of Students with Disabilities in Higher Education* in addition to the forty-dollars, a five-dollar Starbucks gift card was given to each participant upon completion of the pre-and-post surveys for this study. No university member was required to attend any particular session during the May Institute
professional development, but all were strongly encouraged to attend sessions throughout the 3 days.

All university faculty members were sent an email from the University Faculty Development committee to inform them of the May Institute Professional Development options. Within this email, a description of each of the professional development options was provided. Faculty members were asked to register for the May Institute online. A more detailed email and a paper flyer were sent the week prior to help promote the professional development. Participants were asked to sign consent to participate form to authorize use of the data collected from the pre-and-post assessments, as well as responses to open ended questions throughout the face-to-face and online portion of the professional development. Random code numbers were assigned to protect identity of the participants.

D. **Professional Development/Intervention**

The Disability Awareness Committee recommendations for professional development, on the online module was created by one of its members (the investigator) and presented to them in early spring 2014. Selected members of the committee were then given access to the online module and asked to individually review it in more detail. Within those members they provided written feedback. Additionally, the module was presented by the Investigator in a doctoral seminar (where the investigator was enrolled) and received feedback regarding formatting, clarity, and additional topics for inclusion to be added to
the module. After all written feedback was used to update the module materials another round of feedback was solicited from a separate small group of colleagues (outside of the Disability Awareness Committee) to view and provide additional feedback about usefulness and clarity of the online module. Written feedback was sent from the small group of participants, and additional categories were created to organize the material, and more strategy based instruction materials were added.

Based on the content of the online module, the Investigator designed a face-to-face professional development (PD) training session titled *Faculty Knowledge and Understanding of Students with Disabilities in Higher Education*. Hence, the PD incorporated the practices of combining face-to-face interaction with continued online supports and opportunities for participants to connect with the material, as well as with each other, similarly as described by Bay et al. (2011; 2012). This PD was aligned with the principles outlined by Sorcinelli et al. (2006), including online components that attended to multi-leveled and multi-tiered needs, as well as in-house and outside experts to share their knowledge about working with students with disabilities in higher education. The PD was designed to be consistent with notions of “creating or sustaining a culture of teaching excellence,” “responding to individual faculty members’ needs,” and “advancing new initiatives in teaching and learning” (Sorcinelli et al., 2006, p. 43).

The professional development was offered in two phases: a face-to-face traditional one-day session; and then access to an online module to expand on the topics. Topics
included relevant special education laws, descriptions of reasonable accommodations, and descriptions of available university services for students with disabilities.

E. **Instruments and Procedures**

1. **Pre-survey**

The survey created by Murray et al. (2008) was adapted to assess the effects of professional development on faculty knowledge and perceptions. This survey consisted of 27 items, representing 66% of the original survey items used by Murray et al. (2008) (see page 28 for information regarding reliability and validity of survey). Three demographic questions in the beginning and three open-ended questions at the end the questions elicited additional information, specific to this study, what was not a part of the Murray, et al surveys (see Appendix A). Specifically, they asked for a definition of LD, What features did they learn by attending the face-to-face, and an example of an accommodation used in the classroom. The pre-survey was completed at the beginning of the PD session, just after reviewing the purpose of the study and signing IRB consent forms to participate in the study. Paper copies were used at this point. Each of the forms had a unique code number which the participants were asked to note, and they were instructed to use the code number when logging into the modules. Participants who did not choose to participate in the study (n=1) were assured they could continue in the face-to-face session.
2. **Face-to-Face Professional Development**

The face-to-face portion of the professional development was prepared and presented by the Investigator and the current director of the Disability Office. The Investigator had eight years of teaching experience as Assistant Professor in special education, teacher education, and ten years teaching experience in the K-12 sector. The content included current laws, information about various disabilities, current strategies and accommodations for the professors in higher education, and available technology resources. The disability coordinator had thirty years of experience working as a disability coordinator for the institution. She described current supports offered on campus and through the resource center.

The face-to-face session was conducted over a five hour period within one day. The five hours were broken up into sections. As a number of researchers have reported (e.g., Montrosse, 2011; Bay, Lopez-Reyna, & Guillory, 2012; Allen & Seaman, 2013), best practices for professional development include listening to the participant and making the training relevant and responsive to their specific needs. In an effort to be more responsive to the participants, the session began with polling the faculty participants regarding their purposes for attending and areas of specific interest. Emphasis during the face-to-face and extra discussion was placed upon specified areas, and the online modules were double checked to assure coverage of their areas. Information was added, for example, regarding how to provide supports within science labs, as per one participant’s request.
A PowerPoint presentation format was used to guide the presentation, including discussion, about what disability is, current laws, what services were currently offered at this particular institution, and examples of classroom accommodations. (See Appendix D for Agenda). This portion of the professional development included small and large group discussions, independent learning experiences, and demonstrations of various teaching approaches (e.g., math and science content scenarios and appropriate accommodations were presented). The researcher also stopped often to check for understanding, clarifying questions the participants might have had. Some options for learning included reading materials, video clips, and guiding questions. The audience had the opportunity to engage with other participants during the face-to-face session and reflect on their own practices. At the end of the session, the participants were introduced to the additional online resources that were available to them after leaving the professional development session itself.

3. **Online Professional Development Modules**

The second phase of the professional development was in an online module, designed to reinforce the topics covered during the face-to-face session and to provide more details. Additional resources and information were available, with the intent of responding to the needs of various participants for further development of their understandings. Based on a review of the pre-survey results, it was apparent that the range of knowledge among the participants was from a beginning stage of understanding of
students with disabilities in higher education to some with more advanced skills and knowledge. Hence, the module included the same main topics with information about special education laws, descriptors of reasonable accommodations, and available resources at this particular institution. The module was made available via the university Blackboard site. All participants had been previously trained in the use of Blackboard as part of their employment duties. The sections of the online modules with a preview of some of the video resources, research articles, and discussion sections were demonstrated visually at the end of the face-to-face session. This was followed by instructing the participants to log into the modules, using their given access codes, prior to leaving the session. Each submitted an entry in a discussion board. Table 1 provides a brief description of the contents of the Online Module.
## TABLE II
BLACKBOARD HOSTED ONLINE CONTENT

<table>
<thead>
<tr>
<th>Online Module</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Conversations:</strong></td>
<td><strong>First Conversation (May):</strong> What did you learn from the face-to-face session? And What is something you need to learn more about, based upon today’s experience? (Entered at the end of face-to-face session) <strong>Second Conversation (June):</strong> Have you had a student with a disability in your classroom? What supports were needed? What supports did you implement? What did you struggle with? (Participants received email announcements from Blackboard informing them of new conversation question posted) <strong>Third Conversation (Aug):</strong> What features did you like within the online module? How could the module improve? Define the term Learning Disability. What did you learn by attending the face-to-face presentation and working with the online module? Please provide an example of an accommodation that can be made for a student with a learning disability.</td>
</tr>
<tr>
<td><strong>Voice Interviews</strong></td>
<td>To experiences from students with disabilities on campus about positive and negative ways faculty had worked with them in the classroom. (Participants received email announcements from Blackboard informing them of this option)</td>
</tr>
<tr>
<td>---------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Participants had an opportunity to listen audio recordings.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Post-Secondary Research</strong></th>
<th>• Accommodations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants could download or review online.</td>
<td>• University Support System</td>
</tr>
<tr>
<td></td>
<td>• Higher Education Disability Systems</td>
</tr>
<tr>
<td></td>
<td>• Law</td>
</tr>
<tr>
<td></td>
<td>• Best Practice Research</td>
</tr>
<tr>
<td></td>
<td>• Transition Systems from K-12 to Higher Ed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Discussion board, briefs, and videos, and other</strong></th>
<th>• Accommodations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants could access a variety of sources per topic</td>
<td>• Assessment</td>
</tr>
<tr>
<td></td>
<td>• Assistive Technology</td>
</tr>
<tr>
<td></td>
<td>• Behavior Management</td>
</tr>
<tr>
<td></td>
<td>• Differentiated Instruction</td>
</tr>
<tr>
<td></td>
<td>• Content Instruction</td>
</tr>
</tbody>
</table>
During the three-month online module period, the researcher posed various discussion questions and was readily available to respond to participants’ questions and/or need for additional information. The researcher praised faculty progress and encouraged others to continue to review information provided to them. These simple and encouraging nudges came in the form of email blasts and verbal online message boards. The discussion questions were posted, and email blasts to all participants happened once a month over a three-month period of time.

4. **Post-survey**

The post-survey instrument contained the same survey items as the pre-survey. Participants completed this post-survey (n=15) months after the face-to-face PD session and after having interacted with the online module. There were four additional open-ended questions (see Appendix B). The open-ended questions elicited definitions of Learning Disability, an example of an accommodation for a student with a Learning Disability, what the participants felt they learned from attending the face-to-face session and the online module, and suggestions about how the online module could be improved.
The participants were asked to complete the online post-survey within the module at the beginning of the fall term, three months after having attended the face-to-face session.

5. **Data Analysis**

Data consisted of pre-and-post survey response, frequency and duration of online modules usage based on Blackboard data tracking system, and responses to open-ended questions in pre-and post-surveys. Survey data were entered into SPSS. Accuracy of data entry was triple-checked by others who had experience in data entry. Errors that were found were re-entered and re-checked. Blackboard data were downloaded from the available summary report. The tracking system from the online module generated summaries for individuals and whole group usage per topics. These data represented frequency and duration, in minutes, of module usage. Responses to the open-ended questions were all typed into tables that included each of the participants’ written responses to all of the pre-and post-survey questions. These data were then analyzed.

a. **Survey Data Analysis.** Item 1 (*Please select the statement that best describes your personal understanding of current knowledge, policy, laws, accommodation, and programing options for students with disabilities in higher education today*) was selected as representative of faculty Knowledge, and Item 8 (*I believe that students with disabilities can be successful at the university level*) was selected as representative of faculty Attitude. Fifteen participants completed the pre-and post-surveys, face-to-face training, and online module access summary. Pre-and post-test scores were compared using paired t-tests.
b. **Module Usage Data Analysis.** The tracking system from the online module generated summaries for individuals and whole group usage per topics. These data represented frequency and duration, in minutes, of module usage. Data were arranged according to frequency per topic, duration per topic, from highest to lowest (or no usage). Next, data for each of the 15 participants were displayed in a table to include all online module access frequency and total time.

c. **Open-ended Questions Data.** Using a grounded theory approach to analyze the data (Miles, Huberman, & Saldaña, 2013; Corbin & Strauss, 2014) was conducted by the investigator to identify the themes and patterns. Beginning with the initial phase of tagging ideas and thoughts that were expressed in the responses, codes were developed to then read and re-read all the responses. As codes were noted, themes were considered (e.g., summertime access of modules, comments of low levels of knowledge, acknowledgment of faculty responsibility for accommodating students). A second person, with expertise in qualitative data analysis, completed independent analysis of 25% of the data set. This second coder, identified similar code (with slight variance in labeling of the code) with the exception of one code. After discussion and clarification, the investigator continued independently to code the entire data set and to generate themes. The themes were very similar to the codes.

Similarly, the responses to the open-ended questions from the post-survey were transcribed and coded for themes the same way as the pre-survey data was generated. Having an expert review 25% of the data independently and had another discussion with the investigator
about similarities in coding and slight differences in some. The investigator then continued independently to code the entire data set and to generate remaining themes.
IV. RESULTS

The purpose of this study was to examine the effects of professional development on higher education faculties' self-reports about their knowledge and perceptions of students with disabilities by combining face-to-face with online supports. Using a pre- post-test design, in combination with descriptive data from open-ended survey items and the Blackboard tracking system data for online module usage, this study specifically asked the following questions:

The following research questions were addressed.

Research Question 1: Does participants' self-reported knowledge about laws and learning disabilities increase after participating in the professional development?

Research Question 2: Do participants' self-reported attitudes regarding the ability of students with disabilities change after participation in the professional development?

A. Analysis of Knowledge

Question number 1 asked respondents to rate their levels of knowledge regarding policy, laws, accommodations, and program options for students with disabilities in higher education, on a 5 point scale. In the pre-survey, 0% rated themselves in the “highly knowledgeable” category and 20% rated themselves “somewhat knowledgeable.” By comparison, on the post-survey 87% indicated “highly knowledgeable” or somewhat knowledgeable.” Only thirteen percent of the respondents in the post-survey did report to “have limited knowledge” or “have no knowledge.”
TABLE III

PAIRED SAMPLES STATISTICS FOR ITEM #1

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>N</th>
<th>Standard Deviation</th>
<th>Standard Error Mean</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q 1 pre</td>
<td>1.00</td>
<td>15</td>
<td>.000</td>
<td>.000</td>
<td>P&lt;.0001</td>
</tr>
<tr>
<td>Q 1 post</td>
<td>3.06</td>
<td>15</td>
<td>.593</td>
<td>.153</td>
<td></td>
</tr>
</tbody>
</table>

These results suggest that Faculty Knowledge and Understanding in the Professional Development Module increased the participants’ self-reported knowledge toward college students with disabilities. Found within Table 3, question number 1 in the knowledge category of the pre-survey scored a mean of 1.00, and the post-survey mean was 3.06. The results of a t-test, comparing the two sets of scores for item number 1, were significant with a p-value of .0001.

Table 4 represents how each participant’s scores varied for question number 1 in the pre- and post-survey related to the knowledge category about current knowledge, policy, laws, accommodations, and programing options for students with disabilities in higher education. Participant number 6 showed decrease from pre-to post-survey. When also comparing data collected on frequency of time spent within the online module that participant was also within the category of clocking less than one hour of online usage. Whereas, participants 5, 8, 10, and
11 showed greater gains for this question from pre-to post-survey and had also spent between 1 to 5 hours of time within the online module.
*Select the statement that best describes your personal understanding of current knowledge, policy, laws, accommodations, and programing options for students with disabilities in higher education today.

Data from the responses to the open-ended survey questions, as well as the online conversations, were analyzed to uncover the themes in the participants’ comments relevant to their knowledge. This contributed to a better understanding of their knowledge and continued needs, both immediately after the PD session and after the 3 months of additional time, during
which they accessed the online modules. Based on the responses from the open-ended questions during our conversation online at the end of the face-to-face session about what they learned from coming to the presentation, 8 out of 15 specifically wrote about the laws they were unaware of prior to attending the face-to-face session and their new found knowledge of those laws. Examples of some of the comments by respondents included: “I learned more about the laws, and what is offered here on campus,” “By learning about the laws, I am able to personally know what my role is in the classroom,” and “Before coming I had no idea that the laws were connected to my job.” Only 5 of the 15 participants added details to the open ended questions at the end of the post-survey.

B. **Analysis of Attitudes**

Question number 8 ("I believe that students with disabilities can be successful at the university level") asked faculty to indicate their agreement with this item on a 5 point scale. In the pre-test 80% responded “strongly agree” or “agree,” post-survey ratings indicated 100% “strongly agree” or “agree.” A paired t-test for Item #8 indicated a significant difference between the pre-survey rating and the (M=3.86) and the post-survey (M = 4.66), t (df) =14. The results of a t-test with a p-value of < .013.
Table 7 represents how each participant score varied from question number 8 in the pre-and post-survey related to the attitude category. Participants 8 showing the greatest change whereas participant number 11 had no change from pre-to post-survey. Participant 8, also spent between 1 to 5 hours of time within the online module.
* I believe that students with disabilities can be successful at the university level.

The online conversations revealed 10 of 15 respondents making comments related to attitude in the post-survey. Some examples of the comments made are the following: “The face-to-face session has encouraged me to be more deliberate inviting students into safe conversation, about making a plan that works for the both of us, and providing more one on one time,” “On a couple of the articles and discussions within the online module, I read how the professors are engaging more than what I have offered. It spoke about not just offering a drive by conversation but allowing for a deliberate 20 minute touch-base office hour time for the student to feel more
connected,” and, “I learned more about the challenges that a student faces with a disability and how, due to the lack of knowledge that I have as a professor and lack of skill, the disability is more inflated because of me. This I learned and now am aware to fix it.” These responses confirm that the participants’ attitude and knowledge changed during the course of the face-to-face session and with the material provided in the online module. By the instructors learning the impact they have on students with disabilities profound, they realized that changes can happen in their instruction or conversations they have with students with disabilities, allowing them to better meet the needs of those students.

Similarly, the post-survey open-ended questions showed the respondents gaining a deeper understanding and connection after reflecting upon what they learned, and how it impacted them. One respondent stated, “The exercises hit me profoundly. Placing myself in the students’ shoes felt Lasaiillian to me. I could feel my own self-consciousness in college classroom decades ago overwhelming me. I knew then that I had to make changes in my classroom lecture and format.” The researcher also was informed that the summer session did not work for everyone, with 7 out of the 15 indicating they lacked commitment to the online module. This informed the researcher that offering more sessions during the school year would be a better option for maximum participation. Five of the 15 participants stated that school year sessions would be preferred.

C. **Potential effects of Online Module content**

It is beyond the scope of this study to map the connections between changes in knowledge and attitude with what might have been gained from using the online module content.
Usage levels of each of the sections, however, may provide some insight regarding information that may have had an effect on the reported changes, evident in the survey responses. Using the tracking device within Blackboard, frequency and duration of use for each of the topics were determined. Of the 15 participants 55% accessed the Post-secondary research section, 30% spent time within the Conversation section, 10% accessed the Voice Interviews, and 0% opened the general information that included videos, information, briefs, etc. Within the online modules, 7 of the participants logged into the system for one hour or less, whereas, 8 of the participants logged in between one and five hours. Among the comments made by the respondents that logged on for under an hour, half of them noted that they had not spent sufficient time looking at the online content, even though they felt the content was important. Some of the participants who spent more than an hour on the modules wrote, “The time spent with the online material during the summer allowed me to focus on just this and not be distracted,” “The online allowed me to learn at my own pace and search for the things I needed, and when I wanted,” and “It allowed me to engage with the material after getting an overview of the content from the face-to-face. Very informative.
V. DISCUSSION

Society today encourages students to pursue higher education in order to become successful in the modern world. We need to understand more fully the findings that some students with disabilities are more successful in higher education than others. One important indicator of students’ academic success has been found to be university faculty knowledge, skills, and understanding of students with disabilities (Vogel, Leyser, Wyland & Brulle 1999, Vogel, Holt, SliBar, & Leake, 2008; Murray, Wren, & Keys, 2008; Murray, Lombardi, Wren, & Keys, 2009; Murray, Lombardi, & Wren, 2010, Troiano, Liefield, & Trachtenberg, 2010). The present study assessed this using a survey designed to examine faculty self-reports about their knowledge and perceptions of students with disabilities in higher education.

The effectiveness of a PD model using a combination of traditional face-to-face format and an on-line module was assessed using a pre-post-test design. The results of this study indicate that the participating faculty members increased in their knowledge about the laws, definitions, and policies and changed positively in their attitudes toward the ability to succeed among students with disabilities. There was also evidence of changes in attitudes regarding their ability to make accommodations for students with disabilities in higher education after participating in the face-to-face and online professional development. Clearer understandings regarding the features of the PD intervention that were most effective are still needed. Participants were not asked whether they felt they
learned more from the face-to-face portion, the online portion, or whether a combination of
the two was the best option. Results of this study support the call for more information
related to servicing students with disabilities in higher education (Houck et al., 1992;
Murray et al., 2009; Burgstahler et al., 2006, and Vogel et al., 2008).

This study differed from others in that it offered a face-to-face as well as online PD,
preparing faculty to meet the needs of individuals with disabilities in higher education. This
new information, not seen in previous research, shows a professional development model
with multiple facets, addressing various learning preferences. Findings indicate that
offering the summer online module was not as productive for all participants, resulting in a
low number of participants actively engaging with the material over the three-month
period from pre-to post-survey. Evidence from a combination of the open-ended questions,
conversations in the online and face-to-face sessions, and/or pre-and post-surveys,
indicated an increase in knowledge of and/or changed attitudes toward working with
students with disabilities in higher education. It was unclear, however, if the changes in
knowledge and attitude are attributable to the face-to-face session, to the online module, or
to neither.

No prior PD training of this intensity, for the purpose of disseminating knowledge
about students with disabilities, had been previously offered at this particular university.
The results clearly suggest that there is a continued need for faculty to be provided with PD
that will increase their knowledge and understandings about students with learning
disabilities in higher education. They need to understand the relevant laws and policies, what disabilities are and how they affect the learning and college experiences of students, and how they can support these students in their own classrooms. It is evident that the participants in this study were positively affected and that they became more knowledgeable and sensitive to the needs of students with disabilities. This is consistent with previous studies (Burgstalher et al., 2009; Henderson, 2012; Humphrey et al., 2011; Lombardi et al., 2013; Murray et al., 2008; Vogel et al., 2008; Zang et al., 2009), although none previously offered this variety of professional development.

A. **Limitations and Future Research**

The design of the study involved the use of pre-and post-survey, approach which implies several threats to the validity of the study. Threats to validity occur when the participant is exposed to information and situations outside of the study. The time between the pre-and post-test allows for uncontrollable outside forces. (e.g. news reports, social media, reports, family friend or relative being diagnosed with disability) Some threats to internal validity also occurred because participants volunteered, so that could be causal bias because they were willing to change or gain information about the topic. Another threat to internal validity affects of testing with the use of pre-and post-survey design. When participants took the pre-test it might of affected the post-test because they knew what the goal of the study was as well as the content of the survey instrument (Huitt, Hummel, KaeckLast, 1999).
The primary limitation of this study was the lack of a control group to more accurately assess the effects of the professional development intervention. This has specific implications for the external validity with regard to generalizing the results. With a larger number of participants, they could be randomly assigned to a “treatment” or a “control” group. Pre-test data would be collected from both groups, followed by intervention for one group, and then post-test data from both groups. This study lacked that control to be able to draw these inferences of what was really learned in either just the face-to-face or online resources. When repeating this study this step should be included to make it a stronger study.

Another limitation of the study involves the use of a five-hour long face-to-face professional development PD intervention. It is questionable whether the length of time had a negative effect on the participants due to fatigue or other reasons for possibly losing attention and interest. Future research needs to address the question of time frame that is acceptable to the participants. This might be addressed by comparing a shorter (e.g., 2-hour) PD session to a 5-hour or by directly including in the post survey, an open-ended question regarding the participants’ opinions about the length of the PD. A related feature of the intervention that needs further exploration is the actual content of the face-to-face session to determine what aspects in terms of content and delivery form were most useful and effective in teaching and changing attitudes, for example. This level of multiple treatment interference could have also affected the validity by the face-to-face and online
module participants. Future researchers need to consider this multi-level treatment before conducting further research.

The low number of participants limited the power of the statistical analysis procedures. Numbers of participants could have been increased by offering multiple days and times instead of limiting the participants to one day option only. The PD could also be offered to single departments at a convenient time agreed upon by faculty that might include policy meetings, or department professional growth days. Allowing the larger groups to agree on a time instead of offering a set time without their input would likely increase participation in the future.

Regarding external validity, additional research is still needed across institutions and across regions of the United States to determine the features of professional development that are most effective. Additional research is still needed across institutions and across regions of the United States to determine the features of professional development that are most effective. Working with some of the professional organizations and networks within the field of higher education at national conferences to try and offer it across various regions and institutions would be beneficial. An effective approach may be through the disability offices across institutions to gain access to multiple schools and offering this professional development. The content of the PD would need to be developed in collaboration with faculty and disability support staff within the institution.
Finally, research is needed to determine what the participants are actually learning, what they say about what they know and believe before, during, and after by continuing the professional development for an extended time period during the academic school year. By following up with the faculty with interviews, observations, and other qualitative and quantitative data sources such as the content of syllabi, a clearer sense of the extent to which the faculty actually apply what they learn can be documented.

B. Concluding Remarks

It is clear that students with disabilities have greater opportunities in the U.S. educational system than ever before. On a personal level, as a student with a learning disability, navigating the everyday challenges of the educational post-secondary system was not only difficult, but when faculty did not know the laws and requirements of their own institution regarding how to teach and support my specific learning styles and my need for reasonable accommodations, it made the post secondary journey unbelievably difficult. I was often perplexed by the blank stares I received from many faculty members when I disclosed to them my disability and my request for extra time, note takers, and pre-teaching of material. The standard response of “if you are here, you don’t need anything special from me” caused me to think I was the only student with a learning disability to have attended college. Either I was a pioneer, or educators at the university level did not know about students with learning disabilities; or quite possibly due to their lack of knowledge, they did not feel prepared or otherwise inclined to provide accommodations. I
quickly learned that I was, in fact, among growing numbers of college students with learning disabilities and that I needed to learn more so that I could advocate for my needs as well as those of others. This led me to reading the current research literature about the topic and learning that, for the most part, there is a lack of knowledge among faculty about laws, appropriate accommodations, practices in the college classroom, and services offered within the institutions for students with disabilities. This lack of knowledge and understanding on the part of college faculty has been well documented in the literature and there are a great many faculty members across the nation that are strong advocates for students with disabilities. They represent, however, a very small fraction of the college/university faculty. The present study utilized a model of combining face-to-face and online professional development including personalized consultation via online platform. Future PD can incorporate these features along with monthly informal meetings, and other forms of support for ongoing development.

The effects of IDEA on early and school-age education have led to larger numbers of students with disabilities having successful post secondary transitions. Doors have opened up to increased opportunities for post secondary education as part of planning for the future. The results of mandates stipulated in IDEA, such as transitional planning, have seen in the involvement of university/college faculty and the development of support programs and services in these settings. Students with disabilities across the country need and deserve faculty to have at least the basic knowledge and insight on how to work with students with disabilities, allowing those students to fully reach their potential. On the flip
side, college faculty need and deserve supports in becoming more knowledgeable and skilled in providing the education that will increase the success rates of students with disabilities.
Appendix A

Pre survey

Thank you in advance for your time. The data that we are gathering would be used to inform the researcher of what the current status is of knowledge and attitudes towards students with disabilities in higher education. This is so that we can continue to offer faculty developments and supports for areas such as; willingness and knowledge to make accommodations, understand disability law; knowledge of campus supports related to disability services, and interest and need for professional development. All responses are anonymous and would be held in strict confidence. This survey should take about thirty minutes to complete.

Please place an X on the line indicating your participation.

Do you wish to be a part of the study: ___yes or ___no?

1. Select the statement that best describes your personal understanding of current knowledge, policy, laws, accommodation, and programing options for students with disabilities in higher education today.

   a. Highly knowledgeable
   b. Somewhat knowledgeable
   c. Have limited knowledge
   d. Have no knowledge
   NB. No basis for judgment
2. What College do you work for? Select one.
   a. Business
   b. Nursing
   c. Education
   d. Arts and Sciences
   e. Other

3. How many years of experience do you have working in higher education? Please select one.
   a. 1-5
   b. 6-10
   c. 11-15
   d. 16-20
   e. 21+

4. What is your employment status?
   a. Staff
   b. Adjunct
   C. Full-time faculty
   d. Part-time faculty
   d. Other

5. I know what the term “Learning Disability” means.
   1. Strongly Disagree
   2. Disagree
   3. Neutral
4. Agree  
5. Strongly Agree  
NB. No basis for Judgment

6. I am familiar with Section 504 of the Rehabilitation Act as it applies to students with disabilities in college. 
   1. Strongly Disagree  
   2. Disagree  
   3. Neutral  
   4. Agree  
   5. Strongly Agree  
NB. No basis for Judgment

7. I am familiar with the Americans with Disabilities Act (ADA) as it applies to students in college.  
   1. Strongly Disagree  
   2. Disagree  
   3. Neutral  
   4. Agree  
   5. Strongly Agree  
NB. No basis for Judgment

8. I believe that students with disabilities can be successful at the university level.  
   1. Strongly Disagree  
   2. Disagree
3. Neutral
4. Agree
5. Strongly Agree
NB. No basis for Judgment

9. I believe that students with learning disabilities are reluctant to disclose their disability to me.
   1. Strongly Disagree
   2. Disagree
   3. Neutral
   4. Agree
   5. Strongly Agree
   NB. No basis for Judgment

10. I would like more information about the needs of students with disabilities at this university.
    1. Strongly Disagree
    2. Disagree
    3. Neutral
    4. Agree
    5. Strongly Agree
    NB. No basis for Judgment

11. I believe that students with learning disabilities are able to compete academically at the university level.
1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree
NB. No basis for Judgment

12. Students with learning disabilities attend postsecondary schools at rates proportionate to the rates of post-secondary attendance among students who do not have disabilities.

   1. Strongly Disagree
   2. Disagree
   3. Neutral
   4. Agree
   5. Strongly Agree
   NB. No basis for Judgment

13. I believe that I am sensitive to the needs of students with disabilities at this university.

   1. Strongly Disagree
   2. Disagree
   3. Neutral
   4. Agree
   5. Strongly Agree
   NB. No basis for Judgment
14. University admissions requirements are modified for students who have indicated that they have a learning disability.
   1. Strongly Disagree
   2. Disagree
   3. Neutral
   4. Agree
   5. Strongly Agree
   NB. No basis for Judgment

15. I think it would be appropriate to allow a student with a verified disability to substitute an alternative course for a required course if the substitution did not dramatically alter the program requirements.
   1. Strongly Disagree
   2. Disagree
   3. Neutral
   4. Agree
   5. Strongly Agree
   NB. No basis for Judgment

16. I am willing to spend extra time meeting with a student with a verified disability to provide them with additional assistance as needed.
   1. Strongly Disagree
   2. Disagree
   3. Neutral
   4. Agree
   5. Strongly Agree
NB. No basis for Judgment

17. I am familiar with the Resource Center (e.g. LARC) on campus that helps support students with disabilities at this university.
   1. Strongly Disagree
   2. Disagree
   3. Neutral
   4. Agree
   5. Strongly Agree
   NB. No basis for Judgment

18. The university has an accessible collection of reference materials about students with disabilities.
   1. Strongly Disagree
   2. Disagree
   3. Neutral
   4. Agree
   5. Strongly Agree
   NB. No basis for Judgment

19. I believe I make appropriate individual accommodations for students who have disclosed their disability to me.
   1. Strongly Disagree
   2. Disagree
   3. Neutral
4. Agree
5. Strongly Agree
NB. No basis for Judgment

20. Students with disabilities will not receive any support services at this university unless they disclose their disability.
   1. Strongly Disagree
   2. Disagree
   3. Neutral
   4. Agree
   5. Strongly Agree
   NB. No basis for Judgment

21. When students with disabilities are having difficulties, I am uncertain about where I can find additional supports at this university.
   1. Strongly Disagree
   2. Disagree
   3. Neutral
   4. Agree
   5. Strongly Agree
   NB. No basis for Judgment

22. Currently, in my role, I do not have sufficient knowledge to make adequate accommodations for students with disabilities.
1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

NB. No basis for Judgment

23. I receive adequate support from my department, program, or unit in working with students who have verified disabilities.
   
   1. Strongly Disagree
   2. Disagree
   3. Neutral
   4. Agree
   5. Strongly Agree

   NB. No basis for Judgment

24. When students have to complete paperwork or forms for my office, I invite every student to be sure to request assistance if needed.

   1. Strongly Disagree
   2. Disagree
   3. Neutral
   4. Agree
   5. Strongly Agree

   NB. No basis for Judgment
25. I would be prepared to read paperwork or forms aloud and explain them, if requested.

   1. Strongly Disagree
   2. Disagree
   3. Neutral
   4. Agree
   5. Strongly Agree

   NB. No basis for Judgment

26. I would be prepared to make a tape recording with an oral version of the paperwork or forms that would be available in my office.

   1. Strongly Disagree
   2. Disagree
   3. Neutral
   4. Agree
   5. Strongly Agree

   NB. No basis for Judgment

27. If I were working with a student who had disclosed their disability to me, I would be willing to remind them more than once about a scheduled appointment.

   1. Strongly Disagree
   2. Disagree
   3. Neutral
   4. Agree
   5. Strongly Agree

   NB. No basis for Judgment
28. I would like more information about referral procedures for students with disabilities at this university.
   1. Strongly Disagree
   2. Disagree
   3. Neutral
   4. Agree
   5. Strongly Agree
   NB. No basis for Judgment

29. I would be interested in attending additional staff development sessions related to the needs of students with disabilities.
   1. Strongly Disagree
   2. Disagree
   3. Neutral
   4. Agree
   5. Strongly Agree
   NB. No basis for Judgment

30. I would be interested in attending a panel presentation where students with disabilities share personal information about their experiences in college.
   1. Strongly Disagree
   2. Disagree
   3. Neutral
   4. Agree
5. Strongly Agree
   NB. No basis for Judgment

31. The advising staff for each school/college should receive an orientation to the needs of students with disabilities in higher education.
   1. Strongly Disagree
   2. Disagree
   3. Neutral
   4. Agree
   5. Strongly Agree
   NB. No basis for Judgment

32. What would you like to learn by coming to this face-to-face presentation?

33. Define the term Learning Disabilities.

34. Provide an example of an accommodation that can be made for a student with a learning disability.
The survey is modeled after:

Appendix B

Post survey

Thank you in advance for your time. The data that we are gathering would be used to inform the researcher of what the current status is of knowledge and attitudes towards students with disabilities in higher education. This is so that we can continue to offer faculty developments and supports for areas such as; willingness and knowledge to make accommodations, understand disability law; knowledge of campus supports related to disability services, and interest and need for professional development. All responses are anonymous and would be held in strict confidence. This survey should take about thirty minutes to complete.

Please place an X on the line indicating your participation.

Do you wish to be a part of the study: ___yes or ___no?

1. Select the statement that best describes your personal understanding of current knowledge, policy, laws, accommodation, and programming options for students with disabilities in higher education today.
   a. Highly knowledgeable
   b. Somewhat knowledgeable
   c. Have limited knowledge
   d. Have no knowledge
   NB. No basis for judgment

2. What College do you work for? Select one.
a. Business  
b. Nursing  
c. Education  
d. Arts and Sciences  
e. Other  

3. How many years of experience do you have working in higher education? Please select one.  
a. 1-5  
b. 6-10  
c. 11-15  
d. 16-20  
e. 21+  

4. What is your employment status?  
a. Staff  
b. Adjunct  
c. Full-time faculty  
d. Part-time faculty  
e. Other  

5. I know what the term “Learning Disability” means.  
   1. Strongly Disagree  
   2. Disagree  
   3. Neutral  
   4. Agree  
   5. Strongly Agree
NB. No basis for Judgment

6. I am familiar with Section 504 of the Rehabilitation Act as it applies to students with disabilities in college.
   1. Strongly Disagree
   2. Disagree
   3. Neutral
   4. Agree
   5. Strongly Agree
   NB. No basis for Judgment

7. I am familiar with the Americans with Disabilities Act (ADA) as it applies to students in college.
   1. Strongly Disagree
   2. Disagree
   3. Neutral
   4. Agree
   5. Strongly Agree
   NB. No basis for Judgment

8. I believe that students with disabilities can be successful at the university level.
   1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree
NB. No basis for Judgment

9. I believe that students with learning disabilities are reluctant to disclose their disability to me.
   1. Strongly Disagree
   2. Disagree
   3. Neutral
   4. Agree
   5. Strongly Agree
   NB. No basis for Judgment

10. I would like more information about the needs of students with disabilities at this university.
   1. Strongly Disagree
   2. Disagree
   3. Neutral
   4. Agree
   5. Strongly Agree
   NB. No basis for Judgment
11. I believe that students with learning disabilities are able to compete academically at the university level.
   1. Strongly Disagree
   2. Disagree
   3. Neutral
   4. Agree
   5. Strongly Agree
   NB. No basis for Judgment

12. Students with learning disabilities attend postsecondary schools at rates proportionate to the rates of post-secondary attendance among students who do not have disabilities.
   1. Strongly Disagree
   2. Disagree
   3. Neutral
   4. Agree
   5. Strongly Agree
   NB. No basis for Judgment

13. I believe that I am sensitive to the needs of students with disabilities at this university.
   1. Strongly Disagree
   2. Disagree
   3. Neutral
   4. Agree
   5. Strongly Agree
   NB. No basis for Judgment
14. University admissions requirements are modified for students who have indicated that they have a learning disability.
   1. Strongly Disagree
   2. Disagree
   3. Neutral
   4. Agree
   5. Strongly Agree
   NB. No basis for Judgment

15. I think it would be appropriate to allow a student with a verified disability to substitute an alternative course for a required course if the substitution did not dramatically alter the program requirements.
   1. Strongly Disagree
   2. Disagree
   3. Neutral
   4. Agree
   5. Strongly Agree
   NB. No basis for Judgment

16. I am willing to spend extra time meeting with a student with a verified disability to provide them with additional assistance as needed.

   1. Strongly Disagree
   2. Disagree
   3. Neutral
4. Agree  
5. Strongly Agree  
NB. No basis for Judgment

17. I am familiar with the Resource Center (e.g. LARC) on campus that helps support students with disabilities.
   1. Strongly Disagree  
   2. Disagree  
   3. Neutral  
   4. Agree  
   5. Strongly Agree  
   NB. No basis for Judgment

18. The university has an accessible collection of reference materials about students with disabilities.
   1. Strongly Disagree  
   2. Disagree  
   3. Neutral  
   4. Agree  
   5. Strongly Agree  
   NB. No basis for Judgment

19. I believe I make appropriate individual accommodations for students who have disclosed their disability to me.
1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree
NB. No basis for Judgment

20. Students with disabilities will not receive any support services at this university unless they disclose their disability.

1. Strongly Disagree
2. Disagree
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4. Agree
5. Strongly Agree
NB. No basis for Judgment

21. When students with disabilities are having difficulties, I am uncertain about where I can find additional supports at this university.

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree
NB. No basis for Judgment
22. Currently, in my role, I do not have sufficient knowledge to make adequate accommodations for students with disabilities.
   1. Strongly Disagree
   2. Disagree
   3. Neutral
   4. Agree
   5. Strongly Agree
   NB. No basis for Judgment

23. I receive adequate support from my department, program, or unit in working with students who have verified disabilities.
   1. Strongly Disagree
   2. Disagree
   3. Neutral
   4. Agree
   5. Strongly Agree
   NB. No basis for Judgment

24. When students have to complete paperwork or forms for my office, I invite every student to be sure to request assistance if needed.
   1. Strongly Disagree
   2. Disagree
   3. Neutral
   4. Agree
   5. Strongly Agree
25. I would be prepared to read paperwork or forms aloud and explain them, if requested.
   1. Strongly Disagree
   2. Disagree
   3. Neutral
   4. Agree
   5. Strongly Agree

NB. No basis for Judgment

26. I would be prepared to make a tape recording with an oral version of the paperwork or forms that would be available in my office.

   1. Strongly Disagree
   2. Disagree
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NB. No basis for Judgment

27. If I were working with a student who had disclosed their disability to me, I would be willing to remind them more than once about a scheduled appointment.

   1. Strongly Disagree
   2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

NB. No basis for Judgment

28. I would like more information about referral procedures for students with disabilities at this university.
   1. Strongly Disagree
   2. Disagree
   3. Neutral
   4. Agree
   5. Strongly Agree

NB. No basis for Judgment

29. I would be interested in attending additional staff development sessions related to the needs of students with disabilities.

   1. Strongly Disagree
   2. Disagree
   3. Neutral
   4. Agree
   5. Strongly Agree

NB. No basis for Judgment
30. I would be interested in attending a panel presentation where students with disabilities share personal information about their experiences in college.
   1. Strongly Disagree
   2. Disagree
   3. Neutral
   4. Agree
   5. Strongly Agree
   NB. No basis for Judgment

31. The advising staff for each school/college should receive an orientation to the needs of students with disabilities in higher education.
   1. Strongly Disagree
   2. Disagree
   3. Neutral
   4. Agree
   5. Strongly Agree
   NB. No basis for Judgment

32. What features did you like within the online module?

33. How do you think the module could be improved?
34. Define the term Learning Disabilities.

35. Provide an example of an accommodation that can be made for a student with a learning disability.

36. What did you learn by attending the face-to-face session and the online module?
Appendix C

Dear Participant:

My name is Jennifer Buss. I am a faculty member of Lewis University in the College of Education. I am a doctoral student at the University of Illinois at Chicago. You are invited to participate in a research project entitled: Faculty Attitudes and Knowledge Towards Students with Disabilities in Higher Education. The purpose of this survey is to investigate current attitudes/knowledge that faculty and staff have toward students with disabilities in higher education. The information gathered here will help the researcher design and implement supports for faculty, staff, and students at the University to support Disability Studies. Lewis University's institutional Review Board has approved this study.

The following study methodology is the use of a pre-and-post survey. It was developed to ask you a few questions regarding what your current knowledge is about students with disabilities, what the current laws are related to special education in higher education, and what our current services are that we offer at this institution. It is our hope that this information can inform the researcher what the current status is of knowledge and attitudes so that we can offer faculty development and supports for areas that are needed related to this topic. There are no identified risks from participating in this research.

The survey is anonymous. Participation in this research is completely voluntary, and you may refuse to participate, without consequence. The survey will take approximately thirty minutes to complete. Everyone would receive compensation of forty dollars for attending the professional development, whether they agree to be in the study or refuse. An additional five-dollar gift card to
Starbucks would be issued upon completion of the pre-survey and post-survey and for participating in the research study. Responses to the survey would only be reported in aggregated form to protect the identity of respondents and be used for the researcher's dissertation and for a professional paper and presentation. Neither the researcher nor the university has a conflict of interest with the results. The data collected from this study would be kept in a locked cabinet for three years.

To insure safe and proper research procedures, auditors of the Lewis University Institutional Review Board and regulatory authority (IES) would be granted direct access to the research data without violating the confidentiality of the participants. Further information regarding the research can be obtained from the principal researcher, Jennifer Buss, bussje@lewisu.edu. If you wish further information regarding your rights as a research participant, you may contact the Lewis University Institutional Review Board Administrator, Dr. Stephany Schlachter, Office of the Provost, schlacst@lewisu.edu 815-836-5639.

If you would like to know the results of this research, contact Jennifer Buss, bussje@lewisu.edu, 815-836-5627. Thank you for your consideration. Your help is greatly appreciated.

Your signature below indicates that you have read the above information, are at least 18 years of age, and agree to participate in Faculty Attitudes and Knowledge Towards Students with Disabilities in Higher Education.

_______________________________
Printed Name
Appendix D

Agenda: May Institute

Welcome

- Introductions
- Purpose of Study

Intro-Letter IRB

Pre-survey

Perceptions of Disability and Laws

- Ableism
- Media and Disabilities Group activity
- What is 504
- What is American Disabilities Act (ADA)
- What is Higher Education Act
- Defining Disabilities
- Misunderstood minds activity
- The Scroop affect
What are the current services offered at Lewis?

- Learning Resource Center (LARC) Resources
- LARC Procedures
- Tutoring Services
- Writing Center
- Counseling Center
- Classroom options and supports

What are reasonable accommodations?

- Testing accommodations
- Reading accommodations
- Writing accommodations
- Processing accommodations
- Attention accommodations

Lunch

Module Intro Computer Lab

- Content Section
- Discussion Board
- Video
**Modules Guided Practice**

- Discussion Board IRIS Modules
- Independent Work

**Wrap Up/ Professional Development Evaluation**
CITED LITERATURE


Brown, A., & Green, T. (2003). Showing up to class in pjs or less. The fantasies and realities of online. Professional Development Courses for Teachers. 76, 148-151.


CITED LITERATURE (continued)


114
CITED LITERATURE (continued)


LeCompte, M. D., Preissle, J., & Tesch, R. (1993). Ethnography and qualitative design in educational research.


CITED LITERATURE (continued)


117


Smith, D. D., Tyler, N., Montrosse, B. E., Young, C., & Robb, S. M. (2011). Special Education Faculty Needs Assessment Study Implications. *Claremont Graduate University (NJ1).*


1. Academic Degrees, Licenses and Credentials

Currently enrolled  University of Illinois Chicago, Chicago, IL
- PhD. Special Education
- All course work completed
- Anticipated completion this academic school year
- Dissertation topic: Faculty perceptions of students with disabilities in higher education

May, 2000  Aurora University, Aurora, IL
- Masters Educational Leadership
- Major: Administration
- Entitlements: Administration Certificate/Supervision
- Illinois Type 75

May, 1996  Illinois State University, Normal, IL
- Bachelor of Science in Education
- Major: Special Education
- Entitlements in: Learning Disabilities, Behavior Disorders, Educable Mentally Disabled
- Illinois Type 10, certificate LD, BD, MMI K-12

May, 1993  Joliet Junior College, Joliet, IL
- Associate’s Degree
2. Professional Experiences

Higher Education

2008-Present  Lewis University College of Education Assistant Professor, Special Education Department

2005-2006  Lewis University College of Education Adjunct Professor, Special Education Department

2006  Illinois State University, College of Education, Student Teacher Supervisor

Public/Private School

2005-2006  Timberline Knolls Academy, Academic Coordinator, Lemont, IL

1999-2005  District 204, Neuqua Valley High School, Naperville, IL, Multi-needs Instructor, Supervisor for Instructional Assistants, Head Cheerleading Coach

1997-1999  District 204, Hill Middle School, Naperville IL, Inclusion Facilitator, Lead Special Educator 1998-1999
1996-1997 Jackson Middle School, Inclusion Facilitator, Villa Park, IL

3. **Recent Teaching Duties**

- **54-242** Foundations Teaching and Learning 2005-present
- **54-357, 54-577** Exceptional Learners in Inclusive Communities 2005-present
- **54-471, 54-571** Instructional Reading Grades 4-12 2007-present
- **54-510** Foundation Teaching and Learning 2005-present
- **54-513** Development and Characteristics of Learners 2008-present
- **54-565** Technologies for Learning 2007-2008
- **54-584** Supervisor for student teachers 2005-present
- **54-366** Special Education Law 2014-present
- **54-517** Instructional Strategies 2014-present
- **54-367** Autism 2014-present

4. **Professional and Academic Association Memberships**

- Council for Exceptional Children
- Teacher Education Division CEC
- National Education Association
- Associated Colleges of Illinois
- Best Buddies Illinois, Lewis Chapter
- Illinois Reading Council
- Will County Reading Council
• Learning Disabilities Association

5. Professional Service and Partnerships

Service to University

• University Service Learning Committee
• Scholars Task Force
• University Academic Affairs
• University United Way Committee 2010-2014
• Delta Sigma University Faculty Executive Committee
• Disabilities awareness task force 2011-2012
• Attended Exploring Lasallian Mission training summer, 2013
• Best Buddies Organization

Service to College

• Academic Affairs 2008-2014
• Technology Committee 2010-present
• Diversity Committee 2009
• Partnership service coordinator for San Miguel for Lewis University 2009
• Mentoring Teaching Seminar Committee Member
• KidzFest College of Education Chair 2010-2014
• Homecoming Chair for College of Education 2011
• Ten Year College of Education Celebration Committee Member
• National Council for Accreditation of Teacher Education subcommittee member
• Fairmont Literacy Night Coordinator
• Co-Chair Coordinator EdTPA for the College of Education
• Clinical Coordinator search committee member

123
• Attended and received certification for trainer for Protecting God’s Children

Service to Department

• Revised course syllabus for Foundations of Teaching and Learning to blended format
• Created course/program proposal for 54-304, with Elizabeth Sturm 2009
• Obtained donation of $10,000 of assistive technology equipment with Elizabeth Sturm
• College of Education representative to service learning university committee 2012-present
• Team member Transforming Special Education Teacher Preparation grant
• Student advising 2009-present
• Reorganized assessment tools with department for CEC report
• Assisted writing SPA reports 2010-present
• Assisted with training faculty on Smart boards
• Assisted with training faculty on use of IPADS
• Created partnerships for department service learning opportunities
• Created partnerships for department field experience
• Assisted with partnership with San Miguel School Chicago
• Attended SOAR for scheduling future students summer 2008-present
• Attended campus visit days each semester 2008-present

K-12 Partnerships and Participation

Created School Partnerships

• Created four school partnerships working with buildings on Response to Intervention Support (RTI)
Mokena elementary School, Mokena
Troy Craughwell School, Joliet
Milne Grove School, Lockport
St. Jude School, Joliet

Consulting Work All Saints Academy, Naperville, IL 2011-present

• Created and implemented an inclusion program for student with disabilities in catholic school setting.
• Coordinated training session for faculty, parents, and administrators
• Created curriculum for multi-needs students

Consulting Work St. Raphael's, Naperville, IL 2012-present

• Created and implemented an inclusion program for students with disabilities in Catholic school setting.

Service to Professional Organizations

• American Association of Colleges for Teacher Education reviewer of submissions for presentations for Spring 2012, Spring 2013, Spring 2014
• Learning Disability Advisory National Board for Catholic Schools
• Pearson online individual educational plan reviewer, Spring 2014

Service to the Community
St. Mary’s School, Plainfield, IL 2009-present

- Volunteer/Instruction for the religious special education program at St. Mary Immaculate Church, Plainfield
- Home and School Association Member St. Mary Immaculate Church, Plainfield 2009-present
- Home and School Association Vice President for the 2014-2015 school year
- Marriage preparation facilitator St. Mary Immaculate Church, Plainfield
- Child care volunteer at St. Mary Immaculate Church, Plainfield
- Church greeter, St. Mary Immaculate Church, Plainfield
- Room parent volunteer, St. Mary School, Plainfield
- Gala/bration fundraiser volunteer, St. Mary Church Plainfield
- Walk-A-Thon fundraiser sponsorship volunteer, St. Mary Church Plainfield

Other

- Raised $2,500 for cancer research and climbed the Willis tower
- Member of Joliet Junior Women organization
- Special Olympic volunteer
- Advocate for special needs families
- Daybreak Shelter volunteer 2008-present
- Principal for the Day Chicago Public Schools book drive over 1,000 books collected 2008
- Big Brothers Big Sisters of Will County 1996-1999

6. Professional Development

Scholarly Writing

Buss, J. J. (Fall, 2014). Faculty perceptions of students with disabilities in higher education, Dissertation (In progress) University of Illinois Chicago, IL.
Buss, J.J. (Summer, 2013). *Students with Disabilities interviews about service providers in higher education*, Pilot Study University of Illinois Chicago, IL.


**Grants**

- Transforming Special Education Teacher Preparation Grant ACI
- Member of the Truants Alternative and Optional Education Program (TAOEP) Grant. Lincoln School, Joliet, IL.

**Professional Presentations**

Buss, J. J. (Spring, 2015). *Attitudes and perceptions on students with disabilities in higher education*. Poster Session International Learning Disabilities, Chicago, IL (proposal accepted).


(proposal accepted).


Buss, J.J. (Spring, 2014). *Faculty perceptions of students with disabilities.* May Institute, Lewis University, Romeoville, IL.

Buss, J.J. (Spring, 2014). *Scholars.* May Institute, Lewis University, Romeoville, IL.

Buss, J. J. (Spring, 2014). *Parent advocacy,* Presenter to Parents at New Lenox School District 122, New Lenox, IL.


Buss, J. J. (2014) *Faculty perceptions of students with disabilities in higher education.* Brown Bag Lecture, College of Education Lewis University, Romeoville, IL.

Buss, J. J. (Fall, 2013). *Behavior management,* Presenter to Faculty at St. Isadore, Bloomingdale, IL.


Buss, J. J. (Spring, 2013). *Service learning putting it into practice*, Presented at Lincoln School, Joliet, IL.


Buss, J. J. (Fall, 2012). *Faculty attitudes and perceptions of students with disabilities in higher education*, Poster session TED conference, Grand Rapids, Michigan.

Buss, J. J. (Summer, 2012). *IPAD, iPhone use in the classroom*, Presented at Associated Colleges of Illinois, Science and Math Academy, Aurora, IL.

Buss, J. J. (Summer, 2012). *Including multi-needs students in catholic classroom*, Presented to Faculty at St. Raphael’s, Naperville, IL.

Buss, J. J. (Spring, 2012). *IPAD, iPhone use in the classroom*, Presented to Will County Reading Association, Lewis University, Romeoville, IL.

Buss, J. J. & Roberts, C. (Spring, 2011). *Building academic connections beyond the classroom*, May Institute Lewis University, Romeoville, IL.

Buss, J. J. (Spring, 2011). *Service learning with rti partnerships*, Presented to Lewis University Service Learning Committee, Romeoville, IL.

Buss, J. J. (Spring, 2010). *Service learning with rti partnerships*, Presented to Lewis University Service Learning Committee, Romeoville, IL.

Buss, J. J. (Spring, 2010). *School partnerships*, Presented at Associated Colleges of Illinois, Chicago, IL.

Buss, J. J. (Spring, 2010). *Partnership working with rti*. Presented to Faculty, District 159 Mokena, IL.


Buss, J. J. & Pearce, E. (Spring, 2010). *Building academic connections beyond the classroom*, Presented at May Institute Lewis University, Romeoville, IL.

Buss, J. J. (Fall, 2008). *Improving the quality of life of special needs people*, Presented at Lewis University, Romeoville IL.
Buss, J. J. (Fall, 2008). *Communicating with your children*, Key Note Speaker Merit School of Music, Chicago, IL.

Buss, J. J. (Fall, 2008, 2009). *ADD/ADHD*, Key Note Speaker Barnes Noble Teacher Appreciation week, Joliet, IL.

Buss, J. J. (Fall, 2007, 2009). *Study skills strategies*, Presented to Best Buddies Organization, Lewis University, Romeoville IL.

Buss, J. J. (Fall, 2007). *IEP staffing*, Presented to Plainfield Parent Group, Plainfield, IL.


Buss, J. J. (Spring, 2006). *Parent rights*, Presented to Grundy County Parent Group, Morris, IL.

Buss, J. J. (Spring, 2006). *Inclusion*, Presented to Grundy County Parent Group, Morris, IL.

Buss, J. J. (Fall, 2005). *Success with learning disabilities*, Presented to Parents, District 204, Naperville, IL.

Buss, J. J. (Fall, 2005). *Working with parents*, Presented to Faculty at District 204, Naperville, IL.

Buss, J. J. (Spring, 2005). *Working with instructional assistants*, Presented to Faculty at District 181, Westmont, IL.

Buss, J. J (Spring, 2005). *Inclusion models*, Presented to Faculty at District 88A, Joliet, IL.

Buss, J. J. (Fall, 2004). *Co-teaching, inclusion, modifications*, Presented to University of St. Francis teacher candidates, Joliet, IL.

Buss, J. J. (Fall, 2004). *Co-teaching*, Presented to Faculty at District 88A, Joliet, IL.

Buss, J. J. (Spring, 1996). *Learning disabilities in the college classroom*, Presented to Illinois State University Faculty, Bloomington, IL.

*Workshops or Training Sessions Attended*
• Elm, Romeoville, IL June, 2013.
• Will County Reading Association Winter Session 2012, 2013, 2014.
• Keys to Successful Flipping, Robert Morris University, Chicago, IL. Spring, 2013.
• Illinois State University EdTpa training session.
• Lewis University Graduate Reading Course 52-524-9, Summer 2012.
• Addressing the Common Core Standards While Supporting Local Curricular Goals, Crete Monee, IL. Fall, 2011.

• Online/Blended Teaching Course, Romeoville, IL.
• Online/Blended Course Development and Design, Romeoville, IL.
• Generating and Assessing Student Learning Outcomes, Romeoville, IL. Spring, 2009.
• Assessment Academy, Romeoville, IL. Fall, 2009.
• Integrating Assistive Technology throughout the curriculum, Tinley, IL. Spring 2008.
• Aurora University 12 Graduate Credit Hours, 2003, 2004.

Awards/ Nominations

• Will County Farm Bureau Foundation scholarship award recipient, 2013
• National Honor Society nomination University of Illinois Chicago, Spring 2013
• University of Illinois Chicago tuition scholarship recipient Spring 2012, 2013
• P.E.O International Women Helping Women Organization, Women of the year nomination, Kane County Chapter, Spring 2012
• Rewards and Recognition Award Winner Lewis University, 2008
• Big Brother Big Sister Volunteer/ Big Brother Big Sister Couple of the Year Award Winner 1997
• Kelly Stockhouse Award Winner ISU 1996