ABSTRACT

Christine L. Barker Bouck. THE QUESTIONS OF HIGH SCHOOL STUDENTS WITH LEARNING DISABILITIES ABOUT ATTENDING COLLEGE (Under the direction of Dr. Daniel Boudah) Department of Curriculum and Instruction, December 2009.

Students with learning disabilities currently comprise the largest number of students with disabilities in the public schools. Despite this, very few of them go on to attend a four-year postsecondary institution. Because the numbers of students with learning disabilities in both the public schools and colleges are increasing, it is important to research effective methods of support for this population. However, in the past there has been little research done in this area. The purpose of this study was to examine the questions about college asked by high school students with learning disabilities of current college students with learning disabilities. Junior-level high school students in college preparatory curriculum assistance classes were asked to participate in this study. The questions asked by these high school students helped demonstrate the need for more direct transition support and education prior to high school graduation. The information gathered from this study can be used by high school and college personnel working with students with learning disabilities to develop curriculums and transition materials to help facilitate this change.
The Questions of High School Students with Learning Disabilities About Attending College

A Thesis

Faculty of the Department of Curriculum and Instruction

East Carolina University

In Partial Fulfillment

Of the Requirements for the Degree

Master of Arts in Education

in

Special Education

By

Christine L. Barker Bouck

December 2009
THE QUESTIONS OF HIGH SCHOOL STUDENTS WITH LEARNING DISABILITIES ABOUT ATTENDING COLLEGE

by

Christine L. Barker Bouck

APPROVED BY:

DIRECTOR OF DISSERTATION/THESIS:
Dr. Daniel Boudah

COMMITTEE MEMBER:
Dr. Annette Greer

COMMITTEE MEMBER:
Dr. Harold Griffin

COMMITTEE MEMBER:
Dr. Karen Voytecki

CHAIR OF THE DEPARTMENT OF CURRICULUM AND INSTRUCTION:
Dr. Patricia Anderson

DEAN OF THE GRADUATE SCHOOL:
Paul J. Gemperline, Ph.D.
There are a lot of people without whom I would never have finished this. I would like to thank my wonderful husband, Jason, for supporting me through this process. I couldn’t have done it without you. Thank you to my daughter, Elayna, for allowing Mommy to “do homework” uninterruptedly so many nights and weekends in a row. To my parents, John and Roseanne Barker, thank you for instilling a love of reading and for always supporting me. Last, but not least, I am grateful to God for providing me with such a wonderful support system.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIST OF TABLES</td>
<td>ix</td>
</tr>
<tr>
<td>CHAPTER 1: INTRODUCTION AND STATEMENT OF PROBLEM</td>
<td>1</td>
</tr>
<tr>
<td>CHAPTER 2: REVIEW OF THE LITERATURE</td>
<td>5</td>
</tr>
<tr>
<td>Literature Search Procedures and Selection Criteria</td>
<td>5</td>
</tr>
<tr>
<td>Aspirations of Students with Learning Disabilities</td>
<td>6</td>
</tr>
<tr>
<td>Postsecondary Preparation for Students with Learning Disabilities</td>
<td>8</td>
</tr>
<tr>
<td>Predictors of Success for Students with Learning Disabilities</td>
<td>11</td>
</tr>
<tr>
<td>Experiences of Successful College Students with Learning Disabilities</td>
<td>16</td>
</tr>
<tr>
<td>Discussion</td>
<td>19</td>
</tr>
<tr>
<td>Implications</td>
<td>21</td>
</tr>
<tr>
<td>Purpose of the study</td>
<td>21</td>
</tr>
<tr>
<td>CHAPTER 3: METHOD</td>
<td>22</td>
</tr>
<tr>
<td>Participants</td>
<td>22</td>
</tr>
<tr>
<td>Roles and Possible Biases of the Researcher</td>
<td>26</td>
</tr>
<tr>
<td>Study procedures</td>
<td>26</td>
</tr>
<tr>
<td>Data Collection</td>
<td>29</td>
</tr>
<tr>
<td>Instruments</td>
<td>30</td>
</tr>
<tr>
<td>Data Analysis</td>
<td>31</td>
</tr>
<tr>
<td>Organizing and preparing data for analysis</td>
<td>31</td>
</tr>
<tr>
<td>Cross-case analysis</td>
<td>32</td>
</tr>
<tr>
<td>Section</td>
<td>Page</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Inductive analysis</td>
<td>34</td>
</tr>
<tr>
<td>Member check</td>
<td>35</td>
</tr>
<tr>
<td>CHAPTER 4: RESULTS</td>
<td>36</td>
</tr>
<tr>
<td>Conditions</td>
<td>36</td>
</tr>
<tr>
<td>Kinds of Questions</td>
<td>39</td>
</tr>
<tr>
<td>Themes</td>
<td>40</td>
</tr>
<tr>
<td>Academics</td>
<td>41</td>
</tr>
<tr>
<td>Campus life</td>
<td>43</td>
</tr>
<tr>
<td>Trivia or personal</td>
<td>45</td>
</tr>
<tr>
<td>Supports and disability</td>
<td>46</td>
</tr>
<tr>
<td>Navigating campus</td>
<td>48</td>
</tr>
<tr>
<td>Health and wellness</td>
<td>48</td>
</tr>
<tr>
<td>Admissions and status</td>
<td>49</td>
</tr>
<tr>
<td>CHAPTER 5: DISCUSSION</td>
<td>51</td>
</tr>
<tr>
<td>Summary of Study Procedures</td>
<td>51</td>
</tr>
<tr>
<td>Summary of Results</td>
<td>54</td>
</tr>
<tr>
<td>Most Intriguing</td>
<td>55</td>
</tr>
<tr>
<td>Implications</td>
<td>57</td>
</tr>
<tr>
<td>Schools and educators</td>
<td>57</td>
</tr>
<tr>
<td>Curriculum design</td>
<td>59</td>
</tr>
</tbody>
</table>
TABLE OF CONTENTS CONT.

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>High school curriculum</td>
<td>59</td>
</tr>
<tr>
<td>College curriculum</td>
<td>61</td>
</tr>
<tr>
<td>Transition to college</td>
<td>63</td>
</tr>
<tr>
<td>Limitations</td>
<td>66</td>
</tr>
<tr>
<td>Conclusion</td>
<td>68</td>
</tr>
<tr>
<td>REFERENCES</td>
<td>69</td>
</tr>
<tr>
<td>APPENDIX A: FIGURES FROM REVIEW OF LITERATURE</td>
<td>72</td>
</tr>
<tr>
<td>APPENDIX B: IRB PROPOSAL SUBMISSION</td>
<td>79</td>
</tr>
<tr>
<td>APPENDIX C: IRB APPROVAL LETTER</td>
<td>89</td>
</tr>
<tr>
<td>APPENDIX D: FIGURES FROM DATA ANALYSIS</td>
<td>91</td>
</tr>
</tbody>
</table>
LIST OF TABLES AND FIGURES

Differences Between High School and College Requirements………………… 73
Significant Differences Between High School and College Disability Support 74
Services........................................................................................................ 78
Average Satisfaction with Transition Services Provided for Students with Learning Disabilities Enrolled in Higher Education.......................................................... 75
Suggestions for Improvements in Transition Services............................... 76
Alignment of Nationally Identified Needs, Locally Identified Needs, and Academy Key Components to Meet Those Needs......................................................... 77
Recommendations at a Glance..................................................................... 78
Questions Asked in Study in Order and Separated by Location.................... 92
Original Student Questions......................................................................... 96
Clarification Student Questions................................................................. 99
Indigenous and Sensitizing Themes Identified........................................... 100
Prevalence of Themes in Questions............................................................ 101
Prevalence of Themes Separated by Original and Clarifying Questions........ 105
Prevalence of Themes................................................................................ 106
Questions, Findings, and Recommendations............................................... 107
Chapter 1: Introduction and Statement of the Problem

Students with learning disabilities currently comprise the greatest number of students in special education in the public schools. According to the US Department of Education, over 46% of students identified in the public schools as disabled have a specific learning disability (LD). In the 1995-1996 academic year, more than 892,000 students with disabilities were attending college, and students with learning disabilities made up the greatest portion of these students (Janiga & Costenbader, 2002). There are over thirty million children and adults in the United States with LD or attention deficit disorder (ADD) (Mooney & Cole, 2000). While the majority of these people have average or above average IQs, 38.7% of students with learning disabilities will drop out of high school. Of those who do graduate, 23% will attend a two year college & only 11% will attend a four year college (Scott, 2006). As the numbers of students with LD entering the postsecondary setting increase, it is essential that suitable transition services and training be offered before the students arrive on a college campus. This thesis will review and condense current understanding of the postsecondary experience for students with specific learning disabilities and discuss implications for further research.

Unfortunately, studies have shown that students with learning disabilities have higher dropout and unemployment rates and lower numbers of postsecondary participation than those of their non-disabled peers (Murray & Wren, 2003). According to the US Department of Health and Human Services, approximately 66% of all general education high school students have attended some college, while studies of students with learning disabilities indicate a postsecondary attendance of only 31% (Janiga &
Costenbader, 2002). Students with learning disabilities who do continue their education after high school are more likely to attend community colleges and career training centers than four year institutions (Murray & Wren, 2003). Regrettably, many students with learning disabilities are being discouraged from pursuing a college degree. Well-meaning counselors and teachers promote vocational educational opportunities over universities. Parents may not know all of the options and services available in the postsecondary setting, and sadly, many students feel inferior and may not believe they have the intelligence to succeed in higher education (Janiga & Costenbader, 2002). Staff and students also may feel that the services offered at colleges will somehow minimize the integrity of the work and the degree (Getzel & Thoma, 2008). Another factor in this phenomenon is the lack of involvement of students in their future planning (Tarleton & Ward, 2005). Research shows that there is a lack of simple and accessible information and that this proves to be a problem during transition for students with learning disabilities and their parents. Without access to and understanding of this material, it is difficult for students and parents to make decisions about their future (Tarleton & Ward, 2005).

As shown in Figure 1 in Appendix A, the differences between secondary and postsecondary settings are vast, requiring a completely different set of skills, and providing dissimilar services. These services change from parent or teacher drive to student initiated in college. This is yet another barrier preventing students with learning disabilities from entering and succeeding in college. The laws governing the services in each setting are also very different. Colleges and university disability support service
(DSS) offices are governed by two main laws, Section 504 of the Rehabilitation Act and the Americans with Disabilities Act of 1990 (ADA).

Section 504 of the Rehabilitation Act states that “No otherwise qualified handicapped individual in the United States shall, solely on the basis of his/her handicap, be excluded from participation in, be denied benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance,” (Department for Disability Support Services, 2008, p. 1). ADA provides people with disabilities the same protection afforded to other individuals on the basis of race, sex, national origin, and religion. Both of these acts provide for equal opportunity in employment, public transportation, government services, and education (East Carolina University’s Policy of Nondiscrimination, 2008).

However, the services provided by Section 504 and ADA can vary drastically from those of the Individuals with Disabilities Education Improvement Act (IDEA). This is the law which dictates services and procedures from birth through high school graduation. As illustrated in Figure 2, IDEA is much more extensive and involved with teachers and parents shouldering most of the responsibility for services, while ADA provides only for access and reasonable accommodations, both of which must be initiated by the student (Dell, 2004). IDEA can actually hinder students’ postsecondary success because it places full responsibility for services and advocacy on teachers and parents (Field, Sarver, & Shaw, 2003). Under IDEA, most students are passive observers and may be ill-prepared to make the transition to the student-driven services in college.
Without specific training in this area, they may not have developed the necessary self-determination skills and internalized structure to successfully advocate for their needs.

Because so few students with learning disabilities enter four-year institutions, little has been done to study the predictors of success for these students during college. What has been done indicates that these skills need to be established before high school and fine-tuned in the four years before postsecondary education begins, but often they are not (Garner, 2008). The limited research varies on what specific skills should be taught to students with disabilities. However, one characteristic of success for these students that appears repeatedly throughout the research is self-determination. As this population grows, additional research would provide needed information to secondary programs attempting to transition students to postsecondary education (Murray & Wren, 2003).

Students with learning disabilities currently make up the biggest group of students in special education. While the numbers of students with LD at the postsecondary setting are increasing, very few will go on to complete a college degree. In order to improve these statistics, it is imperative that students with LD are properly prepared for and supported during postsecondary education.

This study was undertaken to ascertain the types of questions students with learning disabilities have about attending a four-year university. It is hoped that by understanding the areas, which are still a mystery to these students, a curriculum can be developed which will adequately prepare them for this opportunity.
Chapter 2: Review of the Literature

Two main issues were identified as key for this research, university enrollment rates and performance in the university setting. This review attempts to describe some of those studies and their implications for further research.

Literature Search Procedures and Selection Criteria

The studies in this review were found or selected from journals dated 1978 to the present, although no article prior to 1999 was used. The search was conducted via computer through the multidisciplinary EBSCO Database system. Through EBSCO the following databases were searched: Academic Search Premier, Education Research Complete, ERIC, MasterFILE Premier, and PsycINFO. Several different searches were completed. The first was for a combination of the terms “learning disability,” “college,” and “transition.” The second search was for the terms “freshman,” “learning disability,” and “college.” Finally, the search that yielded the most valuable resources was for the terms “self-determination,” “college,” and “learning disability.”

A number of criteria assisted in narrowing down the articles to be used in the review. First, all of the studies had to involve students with learning disabilities. All of the research in the chosen articles related to students moving on to a four year institution after high school. Articles involving students transitioning into the work force or to a vocational training program, even in a college setting, were excluded. Also excluded were articles published prior to 1999 due to the concern of out of date information. In addition, articles which researched predictors of success and dealt with student
experiences, motivation, and characteristics were sought out. Articles which were qualitative in nature also were preferred for their descriptive contributions.

All searches were done via computer and no paper investigation into journals was done. Peer-reviewed research articles and educational reports were the major source of information included in the investigation. Three articles that did not fit these criteria were used to provide background information. One book was also used for statistical information. Book chapters, periodicals, and dissertations were excluded from use.

Examination of the articles revealed several patterns in the findings. To fit these patterns, the research studies reviewed in this paper are organized into four categories: 1) aspirations of students with learning disabilities, 2) postsecondary preparation for students with learning disabilities, 3) predictors of success for students with learning disabilities in the postsecondary setting, and 4) experiences of successful college students with learning disabilities.

**Aspirations of Students with Learning Disabilities**

In spite of all of the educational advancements that have been made in recent years, students with learning disabilities still wrestle with the preparation for and the completion of postsecondary education and employment (Rojewski, 1999). Teens with LD are less mature and have different career exploration skills than their non-disabled peers. This can ultimately lead to lower rates of employment in adult life (Rojewski). Students with learning disabilities in 8th and 10th grades are less likely to look into high prestige careers than their non-disabled peers. Female students with LD are particularly at
risk for low aspirations. They are three times more likely to report no desire to attend college than their counterparts without disabilities (Rojewski).

Rojewski surveyed students with and without learning disabilities in 8th grade and followed up with them in 10th grade, 12th grade, and finally, two years after high school. Initial selection of these students was based on a two-part stratified sample. In the first part, a variety of schools were chosen. Schools which had high minority enrollment were over-sampled in order to ensure that certain minorities were sufficiently represented. In the second part, a random sample of students within the schools made up the second strand. Twenty-four eighth grade students from each school were randomly selected to be part of the study. Rojewski found that 81.2% of males with LD and 68% of females had graduated from high school, compared to 90.1% of non-disabled males and 91.9% of females. Less than one-third of men and one-fourth of women with LD were in a post secondary setting compared to one-half of males and 55.6% of females without disabilities.

In addition to gathering these statistics, the researcher examined descriptive and background variables, personality attributes, academic achievement as measured in standardized tests, and educational and occupational aspirations. When all of the numbers were compiled and analyzed, Rojewski identified eight predictor variables which could be used to accurately classify where students without disabilities were post high school. These variables were:

1. Composite academic achievement
2. Occupational aspirations
3. Educational aspirations
4. Socioeconomic status
5. Self-esteem
6. Locus of control
7. High school program
8. High school outcome

The results were not the same for students with LD. Only three of the variables showed any significance in predicting which individuals were in school or working. Educational aspirations in 12th grade were the most noteworthy variable with high school program and high school outcome also strong factors.

Overall, the researcher found that students with LD aspire to less prestigious jobs than those of their non-disabled peers. This can possibly be attributed to lower expectations, effects of social bias, or low self-esteem. In addition, students with learning disabilities may have lower expectations about the types of education and careers available to them after graduation. The restrictive influence of these lower objectives should be taken into account when planning transition for the student. It is imperative that educational opportunities are not abolished early and appropriate choices for postsecondary life can be made and planned for.

**Postsecondary Preparation for Students with Learning Disabilities**

More and more students with learning disabilities are graduating from college and entering post-secondary settings (Gil, 2007). Many of those students do not know which services are available to them. Understanding each aspect of the transition process and
extensive preparation are key to a smooth transition from high school to the post-secondary setting (Gil, 2007). In addition, students with disabilities need to know and understand their rights and responsibilities. Once this is done, they need to be equipped with a range of academic skills which should be instilled beginning in middle or early high school (Gil, 2007). Key among these skills are self-determination and self-advocacy. Effective transition planning will assist in addressing these needs (Gil, 2007).

One of the most crucial elements to the success of students with learning disabilities at the postsecondary level is the transition service and education they receive before leaving high school. Janiga & Costenbader (2002) mailed three-sectioned surveys to 174 special service coordinators at colleges and universities throughout New York State. Forty-one percent of those surveyed responded with the first mailing yielding 54 responses and a second resulting in 20 additional surveys.

The first section gathered demographics for the schools such as the total enrollment, type of institution, degrees offered, the ratio of students with disabilities to staff, special services cost and types, and the number of students who identified themselves as learning disabled. Section two looked at the satisfaction the coordinators felt with the transition services that had been provided to their students before arriving at college. Each statement in this section was rated on a 5 point Likert scale with the higher numbers indicating a higher satisfaction. Section three consisted of open-ended questions designed to elicit suggestions for methods secondary schools can use to better prepare students with LD and to estimate the success rate of those students at the respondent’s institution.
Students with disabilities made up an average 3.4% of the total enrollment at the institutions which responded to the survey. The student to staff ratio was highest at public universities, averaging 93:1, and lowest at religiously affiliated schools with an average of 22:1. Services included extended time on tests, note takers, readers for tests, alternative testing situations, recorded books, tutors, advocating for students with faculty and staff, individual counseling, scribes, assistive technology labs, study skills seminars, and pre-registration; only four of the schools charged a fee for any services (Janiga & Costenbader, 2002).

One of the most significant findings of the study was the level of dissatisfaction the respondents felt with the services and preparation their students had received in high school. The total satisfaction score was 2.8. A score was also computed for each individual question, the results of which can be seen in Figure 3. The highest level of satisfaction was with the status of the students’ most recent assessment (3.45) while the lowest was with students’ self-advocacy skills (2.18).

A majority of service support providers, 66.7%, identified lack of self-advocacy skills as an area in which their students need to improve. Other suggestions such as understanding of students’ strengths and weaknesses and learning about laws governing college services would also fall under the category of self-determination. Self-advocacy skills assist students in independent functioning. According to the researchers, students who are without those skills are lost when they assume responsibility for their own services at the postsecondary level. All suggestions for improvements in secondary transition services made by the respondents can be viewed in Figure 4. As more students
with disabilities enter the post-secondary setting, there will be a greater need for research into what makes a successful secondary transition program.

**Predictors of Success for Students with Learning Disabilities**

In order to develop effective transition programs in the secondary setting, research studies regarding the predictors of success of college students with learning disabilities must be completed and built upon. From previous research studies, Murray & Wren (2003) concluded that student study routines and attitude are stronger predictors of college grade point average (GPA) numbers than earlier intellectual functioning or academic accomplishment. In order to test this hypothesis, Murray and Wren assessed 84 students with learning disabilities at a large, mid-western, private university. These students had a primary diagnosis of LD and were receiving support services at the university between 1998 and 2000. The researchers measured cognitive and educational performance through standardized testing. In addition, they gave the students surveys to evaluate their own study habits and attitudes toward their educational achievement. The data from the surveys were then compiled and used by the researchers to attempt to predict the students’ GPAs.

The results of this study matched those of the earlier studies that the authors had used to develop their hypothesis. Murray and Wren concluded that traditional cognitive and scholastic gauges are not dependable predictors of success for college students with learning disabilities. Specifically, prior scholastic success was a poor indicator of GPA for postsecondary students with learning disabilities. This implies that other factors are a more significant gauge of the success or failure of this population of students in the
postsecondary setting. Surprisingly, procrastination, which is a focus of high school special education supports, also didn’t appear to have a significant impact on grade point average.

Similarly, Sarver (as quoted in Field, Sarver, & Shaw, 2003) attempted to ascertain the level at which self-determination skills impact the success or failure of students with learning disabilities in college. Thorough interviews were conducted with four students with learning disabilities who were enrolled at a major university. Three of the students were male and one was female. Majors included journalism and engineering. Two of the students had GPAs above the mean (2.81) for a focus group in an earlier study, and two had GPAs below the mean for the same focus group.

From these sessions, Sarver and fellow researchers identified several common themes which touched on aspects of environment and personality. Environmental factors fell into four main categories. These include, institutional infrastructure, information access, faculty, and social support systems. A number of the students described the infrastructure of the university as less nurturing and more impersonal than the atmosphere at community colleges. Participants also felt that the larger class sizes were partly to blame for this phenomenon. The researchers felt that the respondents’ comments seemed to indicate that they were unprepared for the environment at a large university and for the independent living that is required to be successful there (Field, Sarver, & Shaw, 2003).

Another area in which the participants indicated difficulty was information access. This was especially true in the areas of choosing classes, course requirements for various majors, university imposed deadlines, and university procedures. Students
indicated that they were unaware of how and when things needed to be done. The researchers determined that this population of students lacked the understanding and proper usage of communication protocols at the university level (Field, Sarver, & Shaw, 2003).

Participants in the study also indicated that the class size and inaccessibility of instructors were significant roadblocks in their quest for higher education and quite different from previous educational encounters. Some instructors were relatively discouraging when talking with students and even tried to dissuade them from pursuing certain goals because of their learning disabilities. Overall, the students indicated that faculty appeared to have very little knowledge or understanding of learning disabilities (Field, Sarver, & Shaw, 2003).

Conversely, social support systems were a factor cited by students as being fundamental to their success. Relationship categories included friends, family members, significant others, and roommates. These supports provided the students with reassurance, confidence, and a way to decrease tension. Of particular influence were bonds with significant others. These relationships provided the students with positive role models and encouragement as well as someone to study with and keep them on-track.

Through qualitative analysis, Sarver also discovered common themes involving personal factors including autonomy, problem solving, and persistence (Sarver as quoted in Field, Sarver, & Shaw, 2003). Both of the students whose GPAs fell above the mean, indicated that they knew they had to accept responsibility for achieving their goals. They understood they had to develop and carry out plans to be successful. They were able to
remain focused on the end result while adapting to changing circumstances. The less successful students were unable to verbalize the need for focus and adaptability in following the steps they had developed to accomplish their objectives. Finally, the students in Sarver’s study felt that persistence was vital to their success in college. This was demonstrated through constant studying, seeking out help from multiple sources, retaking classes, making changes in goals or plans, and repeatedly talking to instructors, even those who appeared unsupportive.

Through this study, Field, Sarver, and Shaw (2003) concluded that students who were able to think outside the box, and see solutions that others do not, are more likely to be successful in the postsecondary setting. This is particularly important for students with learning disabilities who may have to tackle learning circumstances in different methods which take into account their disabilities. Their conclusions indicate that self-determination skills are required for success of students with learning disabilities at the collegiate level. Training in this area should begin prior to enrollment in the postsecondary setting. In addition, the respondents suggest that postsecondary institutions should address both environmental factors and personality traits to assist students with learning disabilities. To achieve a college degree, these students must demonstrate an understanding of themselves as individuals and take appropriate actions to help them achieve their goals. More research needs to be done to identify the specific skills these students need and to develop effective training programs to be implemented in high schools.
In Oregon, a group of high school and postsecondary education professionals began a series of conversations concerning the success rate for students with disabilities in college. Those conversations sparked the beginning of Postsecondary Academies in 2002 (Kato, Nulty, Olszewski, Doolittle, & Flanner, 2006). These are one day conference-like events presented to high school juniors and seniors with a variety of disabilities as well as their parents, teachers, transition specialists, and other high school staff. The sessions are designed to resemble college lectures and cover a variety of topics. Students are also provided with tours of the campus and various departments.

Before developing the format for the Postsecondary Academies, Kato et al. (2006) researched national and locally identified needs and used those to develop key components. Through the research three key nationally identified needs were identified. These were a lack of knowledge of the opportunities available and the requirements of postsecondary education and the lack of self-advocacy skills and awareness of their disability manifestations and needs (Kato, et al., 2006). Locally identified needs, fitting into the same categories, more explicitly defined the nationally identified needs. The researchers created academy components to meet each of the needs. These components as well as the needs are illustrated in Figure 5.

The academies have seen an increase in attendance each year since they began. Because of this, the professionals who developed and run the academies feel they have succeeded in assisting students with disabilities in developing an understanding of the services and programs available to them in the postsecondary educational setting. The academies helped develop skills, self-awareness, and improved the abilities of students to
make informed choices regarding their educational options after high school. Using recent research, the academy program developers were able to create a one-day program to address the needs of students with disabilities entering the postsecondary educational setting. However well they may be able to accomplish this, Postsecondary Academies cannot take the place of the extensive and in-depth training that needs to be a part of the high school curriculum.

**Experiences of Successful College Students with Learning Disabilities**

Roughly 25% of students with disabilities will enter an institution of postsecondary education (Getzel & Thoma, 2008). Even as their numbers increase, these students are still less likely to go to college than their peers without disabilities. One of the contributing factors in the deficit between pursuing and obtaining higher education is the adjustment involved in the transition. Students go from being served in a small group, to one of possibly hundreds of students seeking services through the university’s disability support services (DSS) office. They are suddenly in charge of arranging their own services and supports without the reminders and advocates they may have had in high school. Furthermore, these students must provide their own documentation and request faculty apply the necessary services. This means that students with disabilities face additional challenges different from their peers without disabilities.

Getzel and Thoma (2008) collected a purposive sample of students with disabilities who were receiving services and who were identified by DSS staff as having strong self-determination skills. Thirty-four students between the ages of 18 and 48 were chosen for the study. These students had all self-disclosed their disability and requested
services through the university DSS office. These qualifications were used because they could offer insight into students with disabilities who already exhibit some degree of self-determination. An interview process with focus groups was used to collect the information. Each group was asked questions about the self-advocacy skills needed to be successful.

The first question asked, “What do you think an effective advocate does to ensure he or she stays in school and gets the supports needed?” Responses strongly indicated that the students felt self-determination was essential to postsecondary success. Specific self-determination skills such as problem solving, self-awareness, goal setting, and self-management were identified as necessary for accomplishing goals at this level.

Students were also asked what advocacy or self-determination skills they felt were essential to staying in college and obtaining needed services. The participants discussed the importance of knowing what services are available at their university, including those available to the general university population, and being able to utilize the services that are most beneficial to them. This knowledge is further evidence of the need for self-determination and self-knowledge skills for students with learning disabilities. Participants also felt that disclosing their disability to DSS was necessary to obtain the needed supports. They indicated that forming relationships with instructors and developing connections with staff and peers helped them find the supports they needed to be successful.

The importance of self-determination in the success of postsecondary students with learning disabilities has been well researched. However, little had been done to
examine what specific skills or strategies are helping these students remain in and graduate from college. This study begins to explore the activities that students with disabilities feel are significant factors in their success in the postsecondary setting. Further research is still needed in this area.

While many students with learning disabilities do graduate from high school, the rates of graduation from a four year college or university are much lower. In Garner’s (2008) qualitative study of success stories of students with disabilities, three students who had completed a four year degree program in a postsecondary setting were interviewed in order to use their experiences to provide encouragement to other students with learning disabilities who would like to attend college. The students selected were the first high school students taught by Garner to graduate from college.

During the extensive interview process, Garner identified several common themes described by her students. All three of the subjects said that they should have taken more demanding courses in high school to help them be more prepared and give them experience with different instructional methods. In addition, the subjects felt that time management techniques and learning to use a planner before entering the postsecondary setting would have been valuable skills to have. All of them believed that students, especially those with disabilities, must learn to be their own advocates and develop self-confidence. The author noted that these themes also presented themselves in two other studies, Gerber, Ginsberg, & Reiff (1992) and Getzel (2005).

The students in Garner’s study all demonstrated determination and actively sought quality in their academics. This was accomplished through services such as peer tutoring
and DSS resource center supports. If the necessary support services weren’t available, the students enlisted the assistance of peers and created study groups with students who shared their determination to succeed.

All three of the students exhibited the components for achievement that Gerber found led to postsecondary success. Self-advocacy skills were identified as vital to academic achievement. Specifically, these were determination, goal setting, perseverance, and comprehension of strengths and weaknesses. Students must know their educational preferences and needs and be able to advocate for them. Further suggestions for students with learning disabilities in the postsecondary setting are addressed in Figure 6. The study certainly has limitations, such as the small number of participants and their similar backgrounds, but it is additional evidence that this is an important topic to research.

Discussion

For this review, it appears that students with learning disabilities do not participate effectively in postsecondary education for a variety of reasons. They may start with lower aspirations or have lower expectations for themselves and their careers, potentially as a result of having been discouraged from pursuing a degree by teachers, counselors, or parents (Rojewski, 1999). Students who enter postsecondary education, but are unsuccessful, may not have the necessary self-determination or study skills to succeed in the fast-paced university setting. In addition, students with learning disabilities may lack knowledge of their disability, time management skills, or have unrealistic expectations of the college environment (Janiga & Costenbader, 2002).
Few studies have been done to research the predictors of success for students with learning disabilities in college. However, those that have been done all yield similar results. Studies have shown that high school GPA is a better predictor of success for students with learning disabilities than standardized tests, such as the SAT and ACT (Murray & Wren, 2003). Study routines, attitude, and self-determination skills seem to be more effective ways to foresee success. These categories are even better predictors of future accomplishment than GPA or standardized test scores. In examining the characteristics of students with LD who had successfully completed a four year college program, Vogel and Adelman (1992) found several interesting facts. These students are more likely to have been given personal tutoring in the secondary setting and taken more English courses prior to college than those who didn’t graduate. Successful students were also less likely to have been in a self-contained class in high school than those who were unsuccessful in completing a college degree (Vogel & Adelman 1992, as quoted in Murray & Wren, 2003).

It appears that in order to successfully transition to college, make the necessary adjustments, and persist in their education, students must acquire specific skills (Getzel, 2005 as quoted in Garner, 2008). Furthermore, for students with LD at the postsecondary level to remain in college, self-determination skills are the most vital. Among these skills, the most crucial seem to be self-advocacy and the acceptance and understanding of the students’ learning disability (Getzel & Thoma, 2008). If they are to succeed in college, students must be able to articulate to faculty and staff the ways in which their LD affects the learning processes and identify the supports necessary to counteract these effects if
they are to succeed in college. These skills need to be developed in the years before high
school and practiced throughout the four years leading up to the postsecondary setting.

Implications

Historically, students with learning disabilities have had low enrollment in the
university setting. They face more challenges than those students without disabilities
because of the high expectations and the level of organization needed. Discrepancies
between high school and college requirements intensify transition problems for these
students. In college, students must have tremendous self-determination skills or they will fail. These are skills students without LD often develop on their own. However, this may not be the case for students with learning disabilities. As the population of students with LD in colleges grows, the need to examine the predictors of success and build high
school transition programs which teach these skills also increases. By researching what makes a college student with a learning disability successful, we can effectively design and implement programs which will teach these behaviors and hopefully increase the number of students entering and thriving at the postsecondary level.

Purpose of the study.

Therefore, the purpose of this qualitative study will be to examine the types of
questions asked by students with learning disabilities about attending college. By collecting and analyzing data about what these students do not know, changes can be made to both high school and university college preparatory programs. The initial question posed for investigation is: What questions do high school students with learning disabilities have about going to college?
Chapter 3: Method

In order to determine the types of questions asked by high school students with LD about going to college, a qualitative study was designed based on grounded theory. Grounded theory is defined as “a qualitative research method that uses a systematic set of procedures to develop an inductively derived grounded theory about a phenomenon” (Strauss & Corbin, 1990 p. 24). This study involved bringing high school students to a university campus and introducing them to various people and locations which allowed them the opportunity to develop and ask questions. In this situation, the theory developed from the research findings through the process of inductive analysis. These procedures are described in the following sections.

Participants

This qualitative research study examined the types of questions asked by high school students with learning disabilities about attending college. Data were collected to determine the questions this group of students had about post-secondary experiences. The questions were used to diagram and analyze categories of the questions asked during the discussion. Participants in the study included eleven junior level high school students who were enrolled in a curriculum assistance college preparatory program at a high school in eastern North Carolina. The group consisted of nine boys and two girls. The study was conducted in the fall of 2009. The participants in this study completed assent forms which were approved by the university’s IRB. Their legal guardians also completed consent forms. These documents are included in Appendix B.

In this study, it was important to carefully select both the high school students
asking the questions and the college students who responded. For this study, two separate
groups of participants were chosen utilizing a convenience sampling method: a group of
high school students with learning disabilities and a group of college students with
learning disabilities.

Eleven high school participants were identified as students with learning disabilities
participating in a college-bound course of study in a public high school. The group
consisted of juniors who had participated in some pre-college exploratory activities in
their high school curriculum assistance course. In addition, the students who were
selected for the study had participated in some college preparatory experiences and
instruction as part of their high school curriculum. While they live in a town known for
its support of the local university, they have had few school-sponsored opportunities to
explore the campus and what the university has to offer. None of the students had ever
toured that particular campus before. It was hoped that these limited first-hand
experiences would encourage questions about the university and its academic, social, and
other offerings.

It was important to choose high school students with these characteristics for
several reasons. In order to get credible feedback and valuable questions regarding four-
year postsecondary opportunities and experiences for students with learning disabilities,
study participants had to be students for whom college was a realistic option. Students in
the occupational course of study or those diagnosed with severe cognitive disabilities
such as mental retardation, are not likely to attend a four-year postsecondary institution
immediately following high school. Limiting the participants to juniors was also a vital
part of the study. Students of this age are more likely to be thinking about their post-graduation options than younger students and have done less college exploration than students in the fall of their senior year.

The second group of students described in this study included six college students attending the local university. Each student was an individual with a learning disability and was enrolled in a special program designed to provide academic support in relation to their learning disabilities. The program, Project STEPP, is separate from the services offered through the university’s Disability Support Services Office (DSS). Students in Project STEPP are chosen using alternative admissions methods and standards rather than the traditional information employed by colleges and universities. Applicants to the program must submit the traditional admissions materials such as high school transcripts and SAT or ACT scores as well as materials not usually requested by postsecondary admissions offices. These include a psychological evaluation consisting of IQ and achievement testing, a personal essay, and teacher recommendations. In addition, candidates for the program must participate in an on-campus interview. This interview process is used to evaluate students on different characteristics such as study habits, determination, motivation, and understanding of their disability and its impact on their educational performance. An advisory board of five to six individuals reviews all materials submitted and uses this data to make admissions decisions.

The college students were chosen through convenience sampling and narrowed down using several criteria. The panel consisted of two second-year students and four first year students at East Carolina University. Each of the second year students had a
grade point average (GPA) of 2.0 or above on a 4 point scale. The students majored in elementary education, nursing, environmental science, construction management, or anthropology. They each appeared to have an active social life in addition to their studies. There were several reasons for selecting these criteria for student participation in this study. First, the high GPA is important. It demonstrates that the students were successful in their classes. If the high school students were to receive useful answers to their questions, it is important that the responses came from students who could answer them. It also was important that the students are socially active outside of their classes. These students were members of campus organizations, users of the university recreation center, and/or participants in university sponsored sports events. This kind of involvement ensured that the students had activities and interests outside of academics. Being experienced in university culture assisted the students in answering social questions posed by the high school participants. Choosing students with different majors was significant because it gave the university students different experiences and perspectives to share with the high school students. This made their answers more broad and diverse. A variety of first and second year students was also important. The sophomores provided the voice of experience having successfully completed two and a half semesters of college work. The freshmen had only experienced half of a semester and were still new enough to remember life before college. Although the information provided by the college students was not part of the study, this interaction was the incentive for the high school students to participate and therefore needed to be accurate.
Roles and Possible Biases of the Researcher

The researcher developed this study from a prior interest in the success of postsecondary students with learning disabilities. Experiences brought to the research were three years of teaching middle and high school students with learning disabilities as well as three years of experience working with this population in the university setting. The former position includes coordinating support services and teaching a college survival course for students with learning disabilities.

Study Procedures

The high school students were transported to ECU by school bus and were accompanied by two curriculum assistance teachers and a teaching assistant from their high school. Since the purpose of this study was to analyze the types of questions asked by potential college students with learning disabilities, three opportunities were arranged for students to ask questions. Students first participated in a campus tour, then small group discussions, and finally a whole group information session concerning the disability support services which are offered by the university. The study took place at East Carolina University during the month of October 2009.

Prior to the high school students’ arrival, the college students were given instructions which helped them facilitate the meetings. First, the college students received their digital recorders and instruction in how to use them. They were shown the record and stop buttons as well as instructed in the proper holding method to ensure that the recorders recorded the conversation. They were asked to hold the recorders in their hands and to keep them above their waists as much as possible. They were specifically asked
not to put them in the pockets of their pants. The researcher demonstrated why this was ineffective by pushing the record button, placing the recorder in her pocket, and walking around the room while talking. The recording was then played back for the volunteers so they could hear that the only sound picked up by the recorder was the researcher walking.

In addition, the students were asked to try to incorporate the high school students’ questions in their response. For example, “The recreation center is actually free to students,” instead of “Nothing,” if asked how much the recreation center charged, or “That building over there is the Jenkins Fine Art Building,” as a response instead of “Jenkins.” This was in case the high school students spoke too softly for the recorders to pick up every word and to be certain all students heard the question.

Upon arriving on campus, the college students led a group tour of the campus. The high school students were split into three groups upon arrival. The two college sophomores facilitated the tour. Because of a sudden illness with one of the scheduled sophomores, one graduate student who had completed her undergraduate degree at the university, and at the time was serving as a mentor to college students with learning disabilities, was asked to help with one of the tour groups. This tour included a stop outside and description of several important buildings on campus such as the library, student recreation center, and student union. The researcher and tour guides encouraged the high school students to ask questions that came to mind at any point during the visit. The college students were instructed to answer the questions honestly with as much detail as possible. The tour was recorded and transcribed as part of the data process. In order to assure that all questions asked on the tour were captured, each college student and the
researcher carried a digital recorder to record all the conversations which occurred on the tour.

Due to class schedules, only one of the students who led a campus tour was able to also facilitate the small group sessions. This sophomore led one small group session and two freshmen led each of the other two groups. Before the sessions, the students who facilitated the groups were given prompts and received instructions in using them. They were told to first ask the high school students if they had any questions from the tour. The college students were then told to use the preselected verbal prompts when the high school students stopped asking questions. The prompts were used only as necessary to create spontaneous questions. The college students were asked to read the prompts one at a time until the high school students spontaneously began asking questions again or until there are no prompts left to use. The prompts are detailed in a later paragraph.

After the tour, one of the sophomores had to leave for class. At that time, four college freshmen arrived to aid the sophomore who remained in the small group discussion. Each small group was directed to a private university office with one or two of the college students, one of their chaperones, and the researcher or the graduate student who served as a research assistant. All eleven of the high school students and five of the university students participated in the session, which was completed in approximately twenty to thirty minutes. First, the college students introduced themselves and asked the high school students to share the questions they had about college. The high school students were encouraged to ask questions of the college students. The college students had a list of prompts to pose to the high school students should they not have any or run
out of questions. These prompts were asked by the college students leading the small groups if dialogue became strained and were only used until spontaneous conversation continued again or until all of the prompts were used. The verbal prompts, which were created by the researcher, were: 1) What do you want to know about living on or off campus? 2) What do you want to know about classes?, 3) What did you think about the Recreation Center?, and 4) What questions do you have about your disability and college? Each small group session was recorded using a digital recorder and two were recorded using a LiveScribe pen to document the conversation as well as observation notes written by the researcher or an assistant.

Following the tour and small group session, the students were brought to a computer lab on campus for an information session with the transition specialist for Project STEPP. She provided a 30 minute overview of both the services provided by the university’s Disability Support Services office and those provided by Project STEPP. The students also had the opportunity for questions. This session was recorded using the digital recorders as well as the LiveScribe pen which provided audio recording and a place for the researcher to record observation notes.

**Data Collection**

The purpose of this study was to analyze the types of questions asked by potential college students with learning disabilities of current college students with learning disabilities. Audio recording captured these questions during each stage of the visit. In addition, field notes for this project were collected throughout the session. These field notes helped track which students asked each question and any other observations related
to the questions. A transcription of the conversation was written out and was the primary
document used in the data analysis. This was a written record of the questions asked
during the tour, the small group discussions, and the information session. In addition, the
answers provided by the college students, teacher, researcher, or assistant and any
discussion generated by the participants were transcribed by the researcher. The
completed data record also included all observation notes written while observing the
interaction throughout the session.

Instruments.

Several tools assisted in recording the information gained from the study. A
LiveScribe pen was used to record audio as well as researcher notes, and Olympus digital
recorders were also used. These digital recorders were carried by the college students and
the researcher during the tour in order to catch the questions asked at that time. After the
tour, the panel discussion was held on the university campus. Office space belonging to
Project STEPP was utilized. The information sessions and small group discussion were
audio recorded. The audio was recorded on digital recorders as well as through the use of
LiveScribe pens while the researcher or an assistant took notes. This pen provided several
useful features. Besides combining a writing instrument with a recorder, it synchronized
the audio recording with the notes being taken. When later analyzing the notes and
discussion, the researcher used the synchronization feature to play audio from any point
in the session simply by touching that place in the notes. Once transcribed, the data were
examined.
Data Analysis

The qualitative analysis process followed these steps in sequential order: 1) organizing and preparing data for analysis, 2) content analysis, 3) inductive analysis, and 4) interpreting the results. These steps are described below. Each step led to the desired outcome of analyzing the types of questions asked by potential college students with learning disabilities regarding the college experience.

Organizing and preparing data for analysis.

First, the student discussion was transcribed. Once this occurred, two copies of the data were made. This was to ensure that the data were protected from outside catastrophes. A master copy was placed in a secure location for safekeeping. The other was used for the first step in the analysis process. Once the researcher was satisfied that all data were transcribed and collected, the process of formally analyzing the data began.

In order to effectively code the data, the second step in organizing and preparing the data for analysis was to extract the data relating to the study. Since the answers which were provided by the college students in response to the questions, questions asked by the teacher, and the information which was presented about DSS and Project STEPP were irrelevant to the study, they were separated from the relevant data. To do this, the researcher read the transcript and used highlighter pens to highlight all questions asked by the high school students throughout their campus visit. These questions were rewritten and are listed in Figure 7. This allowed the researcher to work from only the data which was to be analyzed for this study. These questions were then copied onto index cards for easier handling and coding. These index cards became the main tool used to analyze the
data. In addition, the researcher created an electronic study journal using a digital recorder to note ideas, patterns, and thoughts about the final discussion that occurred as the data were being coded.

**Cross-case analysis.**

Once the data were collected and transcribed, the next task was to divide the data collected from the observations and transcripts. Cross-case analysis, the grouping of answers from different test participants relating to common questions or issues, was used. This process involved transcribing data, content analysis, open coding, inductive analysis, and the final grouping of results (Patton, 1990).

Content analysis, the first step in cross-case analysis, is defined as “the process of identifying, coding, and categorizing the primary patterns in the data” (Patton, 1990, p. 381). In this step, the transcriptions and observations were read numerous times and coded using the open coding method. Open coding is a method of organizing the data and is defined by Strauss and Corbin (1990) as “the process of breaking down, examining, comparing, conceptualizing, and categorizing data” (p.62). It involved the reading and analyzing of the data to uncover the key words, phrases, and themes which appeared from the data. In this study, open coding was used to determine the topics of the questions asked by the high school students.

The researcher worked with two copies of this list of questions—one master copy which was stored in a safe location for safekeeping and the index cards which were used for coding. As this process began, three categories emerged: location, kinds of questions asked, and themes or categories of questions. In the initial transcription and extraction of
the questions, the data were already divided by location. This happened because the transcription was created in chronological order. Questions asked on the campus tour were marked with a green letter “T” in the upper left hand corner of the index card. Those from the small group sessions were marked with an “SG” and those from the informational session were marked with an “IS” in the same location.

To further code the data, the researcher read each question and made notations about the topics and themes which began to emerge. At this time, it was determined that there were two basic kinds of questions being asked, original and clarification questions. For the purposes of this study, original student questions were defined as those which were spontaneous, not pertaining specifically to the topic being discussed, and those which sprang from a statement such as “This is a dorm,” or “Lots of stuff goes on in Mendenhall.” Clarification questions were those which clarified a statement or previous question such as “Why is it so big to have sinks [in the dorm rooms]?” and those which asked for a definition for a term used by a facilitator, researcher, or assistant such as “What is a note taker?” The original student questions were marked with an “O” and those which indicated clarification were marked with a “C” in blue ink next to the coding for location. Then they were divided and organized into Table 1.

Upon dividing the questions by kind, the researcher began to examine the questions for themes and categories. First, the researcher read each question and made a note of the theme or category which the question addressed. Initially there were 28 themes identified. The researcher then combined themes which seemed related. The researcher attempted to combine themes with only one or two questions. For example,
only two questions were identified which fit the “safety” theme initially identified by the instructor. This theme was then combined with “Student Health” to become “Student Health and Safety” which was then combined with another theme to eventually become “Health and Wellness.” The questions divided into the themes that emerged from the data included terms which would be considered indigenous concepts, “key phrases or terms used in a program,” and sensitizing concepts, those which “the analyst brings to the data” (Patton, 1990, p. 390-391). In this study the researcher will be looking for terms which relate to the experience of students with learning disabilities at a four-year college. Some examples of indigenous concepts, those directly stated by the students, were terms such as classes, dorms, and accommodations, while sensitizing concepts, those identified by the researcher, were athletics and status. A list of themes and the key identifying terms can be found in Figure 8.

**Inductive analysis.**

Once all the themes were identified, another table was created which listed the questions by theme. Because categories may overlap, it was important to create a graphic representation which illustrated all themes a question might fit. Two tables were created, one for indigenous themes and the other for sensitizing themes. These are found in Figure 9 in Appendix D. The electronic journal continued to be utilized by the researcher to record ideas and thoughts which occurred while analyzing the data and was used for the final analysis.

In order to fulfill the purpose of this study and determine the most important questions high school students with LD have about attending college, a bar graph was
created to illustrate the number of original and clarification questions asked in each of the themes. This is found in Table 2. Table 3 illustrates the prevalence all of the questions by theme. Upon completion of the data analysis, the information collected was summarized and the results were documented in narrative format.

**Member check.**

In order to assure the validity of the coding, a person not involved in the study was asked to examine the data independently and create codes. A copy of the questions was provided and this independent source categorized each of them separately from the researcher. The codes created by this outside member were compared to the codes developed by the researcher and the two parties discussed the findings. Only one change was made to the original codes; the researcher-created a category of “Personal to Facilitators” which became “Trivia or Personal Questions” due to the need to add an all encompassing category for the questions which did not fit in other themes.

In a second member check, the researcher gave the questions to a graduate assistant in the field of education. This student was asked to follow the codes which were assigned to each question to assure that the researcher’s methods could be repeated. No problems emerged and all codes were deemed accurate.
Chapter 4: Results

This study was designed to determine the types of questions potential college students with LD have about going to college. The group consisted of 11 junior-level high school students who were taking college preparatory and curriculum assistance classes at their high school. During the campus tour, small group sessions, and disability informational session, a total of 153 questions were asked by the high school students. These questions were divided into three dimensions for coding purposes. First, they were examined by the conditions under which they were asked. These conditions were the campus tour, the small group sessions, and the informational session. Next the questions were separated by kind of question. Two basic kinds of questions were identified, original and clarification questions. Original student questions were defined as those which were spontaneous or sprang from a statement. Clarification questions were those which clarified a statement or previous question asked by a high school student. Finally, the questions were studied for categories and themes of questions. Seven themes emerged from the data through cross-case analysis.

Conditions

The high school students were presented with three different situations in which to ask questions: a campus tour, a small group session with college students with learning disabilities, and an information session on the university’s supports for students with learning disabilities. A total of 153 questions were asked during the campus visit which lasted from 8:45 a.m. until 11:05 a.m. The results of each are summarized below.
The high school students were divided into three small groups for the campus tour. The data from one group was completely unusable. It was later determined that the college student facilitator put the digital recorder in his pocket thereby preventing the conversation from being recorded. From the remaining groups, 54 questions were identified. After the tour, the students remained in their tour groups and met in three university offices with college students with learning disabilities to hear more about college and ask questions. A total of 96 questions were identified during this session. The final informational session was conducted in the university’s assistive technology lab and included a PowerPoint description of services provided by the Disability Support Services Office and those provided by the separate program for students with learning disabilities, Project STEPP. Only two questions were asked by students during this session.

The transcription of the entire event was typed in chronological order with the simultaneous events following each other. The group 1 tour was followed by the group 2 tour which was followed by the small group sessions in campus offices. The information session on disability services was transcribed last. Upon first examination of the data, it was noted that different themes emerged or occurred more frequently depending on the location of the high school student at the time. It was determined that further analysis of this phenomenon was needed.

Once the entire visit was analyzed and coded, a table was created for each session to chart the frequency of the themes during each condition. Tables 6, 7, and 8 can be found in Appendix D. During the tour, the students most frequently asked questions
which were coded as “What/Where/Why Is” questions. There were 14 of these questions which were usually characterized by the terms “what,” “where,” and “why” and included all questions relating to locations such as “Why do they call it [the eatery] 360?” and “Is this the anthropology building?” The second most popular theme was “Student Health and Safety” with 10 questions found in this category. The students asked about campus safety, particularly the blue lights which, when activated, light up and summon the campus police. The students also asked questions about the Student Health Center, including what services were provided and the cost of such services. Residence halls, or dorms, were another popular topic of questions. Two male high school students in separate groups asked about whether the dorms were coed. Students also wanted to know whether they had to live in the dorms, and several questions were asked pertaining to the rooms themselves including, “Which dorm is the nicest?” and “Why is it so big to have sinks in your room?”

In the small group sessions, the greatest number of questions related to the theme “Classes.” Students seemed most interested in the types of classes they would be taking and the difficulty level. The next most frequently asked questions related to the theme “Trivia and Personal.” These were questions which included trivia-type questions or may or may not have pertained to the university. The high school students were interested in the facilitators’ backgrounds and asked questions such as “Where did you go to high school?” and “Are you used to giving speeches like this?” However, there were a number of personal questions which did relate directly to the students’ lives at the university.
These included “What are your accommodations?” and “What are you guys majoring in?”

Finally, the students were brought back together in the university’s Assistive Technology Lab for a PowerPoint presentation on the supports provided by the Disability Support Services Office and those provided to the students enrolled in Project STEPP. Despite several pauses and time at the end, only two questions were asked. The first was “If you join sports, do you have to do more study hall hours?” and pertained to the study hall requirement imposed by Project STEPP. The second, asked by the same student, was “Is that why you can’t be in both [university athletics and Project STEPP]?” and was referring to the time commitments required by both.

**Kinds of Questions**

The second dimension of qualitative analysis was the kind, or type, of question asked. The questions were divided into two categories, original and clarification questions. Questions which were spontaneous, i.e. not pertaining specifically to the topic being discussed, and those which sprang from a statement such as “This is a dorm,” or “Lots of stuff goes on in Mendenhall” were categorized as original student questions. Those which clarified a statement or previous question such as “Why is it so big to have sinks [in the dorm rooms]?” and those which asked for a definition for a term used by a facilitator, researcher, or assistant such as “What is a note taker?” were defined as clarification questions. The original student questions were marked with an “O” and those which indicated clarification were marked with a “C” in blue ink next to the coding for location. Then they were divided and organized into Table 1. A total of 109 questions
were determined to be original questions and 44 were clarification questions. In all of the themes except “Athletics” and “Recreation and Breaks,” there were more original questions than clarifying questions. The clarification questions in athletics dealt mostly with the policies of Project STEPP and having to choose between participating on an official university athletic team or the program. One of the freshmen college students was offered a walk-on spot on the official track team just before classes started in August and had to decide whether he would prefer to be on the team or in Project STEPP. He shared this experience with the high school students who were interested in why he had to choose. They also asked him whether he felt that he made the right decision. The clarification questions in the second category pertained to the activities offered at the Student Recreation Center. The high school students were surprised that people could climb the rock wall and take kayaking lessons in the pool. This resulted in questions asked to explain, or possibly verify, what the college students had just told them.

Themes

The final stages of the data analysis involved examining the questions for categories or themes. In all, seven themes were identified. They were Academics, Admissions and Status, Campus Life, Health and Wellness, Navigating Campus, Supports and Disability, and Trivia or Personal. The results of each theme are summarized below in order of the number of questions asked.

Academics.

“Academics” tied with “Campus Life” as the most frequently asked about topic with a total of 35 questions asked by the high school students. Several key terms emerged
in this category. Classes, professors, programs, and studying were indigenous, directly stated by the students, and the terms foundations curriculum and grading were sensitizing concepts which were identified by the researcher. Most of the academic questions asked by the high school students were about the classes. During the campus tour, the high school students asked five original questions about classes and one clarifying question. Most of the original questions asked where students would take classes. Upon hearing that the college student facilitator was taking an oceanography class, one of the high school students asked, “What are you learning about?” in that class. A clarifying question was asked by that same student when the facilitator pointed out the building which housed the geology classes. The student asked what the term geology meant.

Another concern of the high school students was the level of difficulty in the classes and of the instructors. The first question, “Are they [the professors] hard here?” sparked a dialog with the college facilitators and inspired two follow-up questions, “Are they [the professors] really that strict?” and “So basically it [the classes] can only be hard if you make it hard?” Another student asked, “Are there any weird professors here?” and clarified that he had heard some stories of weird instructors from friends who were already in college. In another small group, one student asked the facilitators “Would you say it’s a lot harder here than it is in high school?” Only two questions were asked about specific assignments. One student wanted to know how long the English papers were and another student asked if professors do notebook checks. This question was clarified by the high school teaching assistant who explained that notebook checks were a required part of the high school curriculum. There was very little discussion or questioning about
grades. Two questions were asked regarding the transferring of grades from a community college. Another question asked if there were certain grades that needed to be maintained in order to play university athletics.

Studying was also a topic the students did not discuss in much depth. Students in Project STEPP are required to complete study hall hours in the program office where they meet with tutors and mentors or just complete their studying. Since this is a part of their daily routine, this topic was discussed throughout the tour and small group sessions. The high school students asked two questions about study hall. Only one high school student seemed to be aware of the fact that study hall is not typically required in college. He asked if it was a separate class or ingrained in one of the other classes. In another group, a student asked where study hall takes place. The only other question which touched on the topic of studying asked, “If you pledge a fraternity or sorority can you study there or not really?” There were no further questions about studying.

The high school students were also interested in the choices students had in terms of the classes they take. Questions in this area were asked in all three small group sessions. Topics included who decides what time the students take classes, whether a public speaking course was required, and what options the students have in taking a foreign language. Three questions pertained to what the university defines as their foundations curriculum, although it was not identified this way by the students. One original question asked if students still had to take “standard classes” such as English and history. The second question sought to clarify the first by adding “So, no matter what your major is you still have to take, like, English and history and all that other stuff?” to
the question of whether or not college students took English and history. A student in another group asked if the university required certain classes based on the student’s major. The high school students also asked about class size, the number of classes in a day, and how credits and grades would transfer from a community college to the university.

**Campus life.**

Campus Life can be divided into five smaller subcategories. Athletics and social were sensitizing concepts while dorms, eating, and breaks were indigenous concepts. The university residence halls were a popular topic among the high school students, especially on the tour. Nine questions about residence halls were asked on the tour while four were asked during the small group sessions. Seven of these questions pertained to the characteristics of the dorms. For example, they asked, “Are the dorms really that small?” and “How many bathrooms do you guys have [in the dorms]?” In addition, someone on the tour asked “Which dorm is the nicest here?” In separate settings, two students wanted to know if the dorms were coed and two asked if there was a curfew. On the tour, one high school student asked “Why is it so big to have sinks [in the dorm rooms]?” This was in response to a discussion between the college student facilitator and the teacher about the characteristics of the residence halls. Students also asked if living in the dorms was as bad as rumored by some. This question was asked by two different students, once on the tour and in one of the small group settings. On the tour, another student asked if he had to live on-campus as a freshman. Later he rephrased the question asking, “Do I have to live in a dorm?”
Eight questions in this theme asked about athletics at the university. Of those, six asked about playing on an official university team. One student asked “If I did that [medical school], can I play a sport in college?” and then followed up with a question clarifying that he would need to choose one team, such as football, to be on. This was to differentiate university athletics from high school sports where students can be on a different team each season. Five additional questions asked about the university’s athletic teams. The high school students were most interested in how to get football tickets, and whether the Student Pirate Club, which provides tickets to home games for members, was included in their tuition.

Four students asked about the policy in Project STEPP prohibiting students in the program from participating in university athletics. These questions were asked in both the small group sessions and the large group information session. In response to questions about why this policy was in place, the facilitators explained that both STEPP and the athletics department require study hall, mentoring, and other obligations which would make it difficult for a student to participate in both. A follow-up question, “Does that [policy] apply to club teams?” was asked in one of the small group sessions.

Surprisingly, there were only a few questions relating to the food on campus. Six questions fell into this category and concerned topics such as the types of food available, what the food was like, and whether or not the college student facilitators felt the food “got old.” Three questions specifically asked about the types of food available on campus. On the tour, one student asked “What’s the cafeteria like?” and followed with “What other food is on campus?” Another student asked for the definition of “a la carte”
when told that was how food was served in the student center. In the small group sessions, there was another discussion about the campus food. One of the high school students asked “What about the dining hall [as opposed to the restaurant locations]?” on campus.

Eight questions addressed the issue of the social life of a college student. Only two questions, in two separate small group sessions, asked about parties. One student asked, “So, is ECU still considered a party school?” and another asked “Do you get to go to parties?” That student also asked, “What do you do on campus?” referring to social activities. Another two questions were asked about Greek life on campus. One asked if students could study in the fraternity or sorority house and the other asked the college student facilitator if she was in a sorority. The other questions addressed the length of Fall Break, the activities available in the student union, and a student club for athletic events.

**Trivia or personal.**

Thirty-one questions were asked which were categorized as trivia or personal and directed to the facilitators. First, four questions were asked pertaining to the history of the facilitators before coming to the university. The students wanted to know where the facilitators went to high school and what their GPA was in high school. One student asked, “Did you always know you were coming to ECU?” The high school students also asked four questions specific to the college students’ academics such as their majors, their status, and the classes they were taking at the time. The high school students also asked about organizations or programs in which the college students may be involved.
such as Teaching Fellows, Project STEPP, athletics, and Greek Life. Finally, the high school students asked about the college students’ learning styles and disabilities. They seemed most concerned with the accommodations the college students used and what other accommodations were available.

Questions which would be considered trivia included, “Why would a college build a clock with a clown in it?” when told about the library clock which lights up and plays music at midnight. Another example of a trivia question is “Why do they call it 360?” This referred to a dining location in the student union.

Supports and disability.

In this category, four subcategories emerged. These were accommodations, disability support services, tools, and Project STEPP. During the tour there were no questions asked regarding accommodations. In the small groups, seven original and two clarifying questions were asked. Two questions were asked to list the accommodations provided by the university and one question asked the facilitators if they had a note taker. The majority of these questions, six, involved the process of obtaining a note taker. The high school students wanted to know what a note taker was and then one asked, “How does note-taking work?” Two students in separate small groups asked about the process of finding a note taker. One student asked, “Do you just go ask somebody?” and the other student asked if a student could just ask a friend in the class. Another student in that group also asked about how the note takers were paid.

The students asked six questions pertaining to the university’s Disability Support Services (DSS) office. Even though the DSS office coordinates the accommodations,
DSS and accommodations were deemed to be two separate subcategories. Only one question, “Who pays them [the note takers]?” overlapped. Two students asked how they would use the office. Other questions dealt with the students’ responsibilities and whether or not the people in the DSS office would help them. In one group, a student asked, “Will they [DSS] help you?” and then followed up with, “They will?” He seemed surprised at the level of support the college students said they could receive from the office. In a separate group, another student asked, “Is there going to be any fall back as far as help, or do you have to take responsibility for everything?” After hearing the college students’ responses, the student clarified with, “So it’s all self-advocation [sic],” meaning self-advocacy. All of these questions were asked when the small group discussions turned to the differences between high school and college.

There were only two questions from the students about study tools. One was asked when one of the college students demonstrated the LiveScribe pen; the high school student asked how it worked. The facilitator showed the high school students how the pen worked and explained how he used it in his classes. In another small group, a student asked about laptops. He wondered, “Is it, like, a required thing to have a laptop? Or is it, like, you should have one?”

The ten questions about Project STEPP ranged from the admissions policies, “How do you get into Project STEPP?” to athletic policies, “Is that why you can’t be in both [university athletics and Project STEPP]?” Questions were also asked about the study hall requirement imposed by the program, “Where do you do all of that [study hall]?” The students also asked about whether Project STEPP was available at another
college or university and whether the facilitators felt they would have done as well in college without the program.

Navigating campus.

At the beginning of the tour, the high school students were given campus maps with the planned route highlighted for them. They were asked to look at the map to see that they would only be able to tour a small portion of the campus. In the small group sessions back in one of the campus buildings, one student asked if the facilitators felt it was hard to find their way around campus. Throughout the tour, the high school students asked questions such as, “What is that building?” and “What’s in there?”

Parking was the most popular of all of the questions in this category. One student asked, “If you live on-campus and you drive a car can you bring it?” When told that freshmen had to park in the freshman lot several miles off campus, he asked if he could bring his car if he didn’t live on campus. In a separate tour group, another student asked, “So you can’t park [on-campus] if you’re a freshman?” Two students, one on the tour and one in the small group session, asked about bringing bikes to campus. Only one student asked, “How are the buses?”

Health and wellness.

Most of the questions in this category were in relation to the Student Recreation Center. One student asked, “What’s it like [in the Rec Center]?” Another high school student also asked “What do they have [in the Rec Center]?” and how much the activities cost. Three of these questions clarified statements by the college students and included the questions, “So it’s like a workout center?”, “They have rock climbing?” and “They
have kayaking?” The high school students also asked about different clubs such as sky diving and ultimate Frisbee.

There were three questions about the “Freshman Fifteen.” Two students in two settings asked if it was true that students really gain weight when they come to campus. A follow-up question in one of the group sessions asked one of the student facilitators if it happened to him.

The high school students also asked about services on campus such as the Student Health Center and the blue safety lights. One asked what services were available through the health center. After the response from the tour guide, another student asked two questions about the massage service. The first question was “You learn how to do massage?” which he followed with “Do you have to pay?” when told that students could make appointments to get massages, not learn how to give them. Four questions were asked about the blue lights during the tour. First, a student asked, “What do the blue lights do?” After receiving an explanation, he asked, “What do I do if someone’s chasing me?” and “Hit the button and stand there?” The facilitator responded that the police can track the progression of the lights so he should hit one and then run to the next. A second student jokingly asked if he could push one and what would happen.

Admissions and status.

Only ten questions fell under the theme of “Admissions and Status.” These can be grouped into three smaller categories, SAT, GPA, and miscellaneous. Two of these were in regards to the SAT. On the tour, one student asked “What score do you need on the SAT to get in [to the university]?” In one of the small group sessions, another student
asked “Is that [the ACT] harder than the SAT?” On the tour, one student asked the college student facilitator about her high school GPA coming into college. During the small group sessions, one student asked about the GPA required to get into Project STEPP. When told there was no set GPA, he replied, “I have, like, a 2.7. Would that get me in?” In another small group, a student asked about the process for getting into the program. The two additional questions relating to this theme were “How much did you have to pay to come to school?” and “What determines whether you’re a sophomore, junior, senior, or whatever?”
Chapter 5: Discussion

Students with learning disabilities currently comprise the largest population of students with disabilities in the public schools. According to the US Department of Education, over 46% of students identified in the public schools as disabled have a specific learning disability. However, a disproportionate number of these students graduate from high school and go on to attend college. Approximately 66% of all general education high school students have attended some college, while studies of students with learning disabilities indicate a postsecondary attendance of only 34% (Janiga & Costenbader, 2002).

Because so few students with learning disabilities enter four year institutions, there has been little research into the predictors of success for these students during their college careers. What has been done indicates that these skills need to be established in middle school and perfected through the high school years. In a 2003 study, Murray and Wren concluded that traditional cognitive and scholastic gauges are not dependable predictors of success for college students with learning disabilities. This implies that other factors are a more significant predictor of the success or failure of students with LD in the postsecondary setting. According to studies by Gil, Janiga and Costenbader, Kato, Nulty, Olszewski, Doolittle, and Flannery, and Getzel and Thoma, it appears that self-advocacy is one of the most important gauges of future success for these students. Additionally, Field, Sarver, and Shaw (2003) concluded that students who were able to think outside the box were more likely to be successful in the postsecondary setting than
those who did not. This skill is particularly important because students with learning disabilities may have to use different methods, which take into account their disabilities, to tackle learning situations. Their conclusions also indicate that self-determination skills are required for the success of students with learning disabilities at the collegiate level.

Another study by, Kato et al. (2006) researched national and locally identified needs and used them to develop key components for a preparation program for students with LD. Through the research three key needs were identified. These were a lack of knowledge of the opportunities available and the requirements of postsecondary education and the lack of self-advocacy skills and awareness of their disability manifestations and needs (Kato, et al., 2006).

Research in this area is very limited. It does seem that students with learning disabilities do not participate effectively in postsecondary education for a variety of reasons. They may leave high school with lower aspirations for themselves and their careers, possibly due to having been discouraged from pursuing a degree by well-meaning teachers, counselors, or parents (Rojewski, 1999). Students who enter postsecondary education, but cannot successfully complete their degrees, may not have the necessary study or self-advocacy skills to be successful in the fast-paced university setting. In addition, students with learning disabilities may lack a thorough understanding of their disability, have poor time management skills, or have an unrealistic understanding of the college environment (Janiga & Costenbader, 2002).

Though few studies have been done to discover the predictors of success for college students with learning disabilities, those which have been conducted all yield
similar results. These studies show that the SAT and ACT which typically carry a great deal of weight in university admissions decisions, are poor predictors of success for these students (Murray & Wren, 2003). In addition, study routines, attitude, and self-determination skills seem to be more effective ways to foresee success than GPA or standardized test scores (Murray & Wren, 2003). In examining the characteristics of students with LD who had successfully completed a four-year college program, Vogel and Adelman (1992) found that successful students were also more likely to have been mainstreamed in high school than those who were not able to complete a college degree (Vogel & Adelman 1992, as quoted in Murray & Wren, 2003).

It seems that in order to successfully transition to college, make the necessary adjustments, and persist in their education, students with learning disabilities must obtain specific skills (Getzel, 2005 as quoted in Garner, 2008). Furthermore, for these students to remain in college and successfully complete their degrees, self-determination skills are vital. Among these skills, the most crucial seem to be self-advocacy and the acceptance and understanding of the students’ learning disability (Getzel & Thoma, 2008). If they are to succeed in college, students with learning disabilities must be able to articulate the ways in which their LD effects the learning processes to their instructors and other college staff. They must also be able to identify the supports necessary to counteract these effects. These skills need to be developed in the years before high school and practiced throughout the four years leading up to the postsecondary setting in order to be fully generalized by the time these students reach college.
Summary of Study Procedures

Therefore, in order to determine the types of questions asked by high school students with LD about going to college, a qualitative study was designed utilizing grounded theory. Eleven junior-level high school students were transported to a local university campus to participate in this study. The high school students were then exposed to various situations which allowed them the opportunity to develop and ask questions.

During the campus visit, the eleven high school students were divided into three groups to take a campus tour and meet with current college students with learning disabilities. They were then brought back together for an information session detailing the services provided by the university’s DSS office and the Project STEPP program.

Summary of Results

Through the entire visit, only 153 questions were asked. Of these, many would be considered non-academic. For example, students asked, “Can I push one?” about the blue safety lights stationed around campus. Three questions were asked about the records of university’s sports teams. In the question, “If you go is there, like, nobody there at the ECU basketball games?” a student was gauging attendance at a university basketball game. Another student asked two questions about baseball, “Baseball’s pretty good around here right?” and “They won like a national title or something?”

Through the data analysis process, seven themes emerged: Academics, Admissions and Status, Campus Life, Health and Wellness, Navigating Campus, Supports and Disabilities, and Trivia or Personal to the Facilitators. The most common
questions asked came from the category of Campus Life. The students asked about university athletics, dorms, eating, socializing, and breaks. Students also asked about classes, grades, professors, academic programs, and studying all of which were identified under the category of Academics.

Through the data analysis, it was determined that the question themes were different during the three different events of the campus visit. While on any tour, a guide would expect a typical question to be “What is that?” or “Where are…?” and that was true in this study. In the smaller setting where students were sitting around a table with current college students, it would be easier to ask them questions about their own backgrounds, especially if the high school students had little prior knowledge of college life. In addition, the conversations more closely related to the college students’ experiences and at that time, right in the midst of mid-terms, the college students were thinking a lot about academics and their classes. It was logical that the college students would be talking about these subjects at that point in the semester.

**Most Intriguing**

Upon data analysis, several interesting details emerged. First, it can be observed that there was a distinct lack of questions. In addition, it seemed there was also a lack of knowledge from the students about what to ask. This was mainly evident during the tour in which the questions were most likely to be “What is that building?” and “What’s in there?” Furthermore, in all three of the small group settings, the facilitators were required to use the prompts provided by the researcher. In the case of one small group, the prompts were used up with only a few questions asked by the high school students.
Despite encouragement from the college student facilitator, teacher, and researcher the students still did not have any questions to ask.

In addition, the questions which were asked demonstrated little depth or understanding of the complexities of being a postsecondary student with a learning disability. While the second most frequently asked theme was academics, many of the questions were simple. A number of them asked about the difficulty level of classes in very basic terms such as, “How are the maths here?” and “What are the easiest classes here?” The most common topic was Campus Life which also included a number of simple and basic questions. Some examples included, “Are you guys on Fall Break now?” and “For football games, how do you get tickets?” College students often have complex and eventful social lives. Additionally, that is the way college life is frequently presented in movies and television shows. The college students extensively discussed their involvement in campus organizations and the activities available for university students, yet there were very few in-depth questions about either of these topics.

Enough questions were asked that were directed to the college students personally or were considered simple trivia that they emerged as their own theme. Questions like, “Is it true that if you stick a body part in the fountain you have to pay a fine?” and “Where did you go to high school?” demonstrate that the students did not have enough understanding of the complexities of college life to ask more involved questions. Other questions in that category related to university organizations or programs which the students were involved in, as well as the college students’ disabilities and their accommodations.
The questions asked about accommodations were also very basic. After describing the accommodations available, such as testing at DSS, note takers, and extended time the only questions high school students asked were about how the note taking service worked. The testing procedure only briefly described by the college students was complicated and the descriptions confusing, yet there were no questions asking for clarification on the procedure.

**Implications**

The main purpose of this study was to examine the types of questions asked by high school students with learning disabilities who may be planning to pursue a college degree. The results of the study have implications for curriculum design, schools and educators, and the process of transition from high school to college for students with learning disabilities.

**Schools and educators.**

There are several key areas in which high school teachers can assist students with learning disabilities. It appears that self-advocacy skills are one of the most important tools a student with a learning disability can have in college. In order to teach these skills, the teachers should help the students have a realistic understanding of their disability. It would be important to emphasize an understanding of the students’ learning disabilities and the services they currently receive. The students should be able to define their disability and articulate how it impacts their learning. In this study, only two students indicated any understanding of their own disabilities. This was expressed during a small group conversation in which the two college facilitators were asked what their disabilities
were. Two high school students responded with, “Me too,” and “I have dyslexia.” However, there was no indication as to whether they comprehended the impact that their learning disability had on their learning. The high school students should also be able to explain what each of their accommodations do for them and why they need each of the services they currently use. Students in high school should be encouraged to plan their own IEP goals and objectives and lead their annual IEP meetings. This will help them develop a better understanding of their disability and needs as well as hone the self-advocacy skills necessary to obtain the services they may need in college.

Teachers can also help students by giving them firsthand postsecondary experiences. Transporting students to the closest college or university and providing encounters such as those in this study are one way to accomplish this. Even though the questions about university athletic teams may not seem very important, they did provide insight into student perception of what the university is. Additionally, the opportunity to attend athletic events for a winning team may be one aspect to consider when choosing a college or university. High school teachers should seize this opportunity to help the students develop a realistic perception of the purpose of a university and how it works.

Providing the opportunity to visit a campus and learn about college life will help students develop a better understanding of what they can expect at a university while showing them that college may be a realistic option for them. Since students with learning disabilities entering college do not have the same self-advocacy and academic study skills as their peers, it is vital that they have as much prior experience with a college or university as possible. Experiencing the life of a college student for a day
would be one of the best ways to gain this knowledge. Upon leaving campus, several of
the high school students suggested this to their teacher. They asked if there was a
program which would allow them to come back to campus and shadow a current college
student. This would be a great opportunity for them to learn about college life directly. If
this cannot be done, they should explore the college online and gain as much familiarity
with the university processes as possible. The disability training, skill instruction, and
campus encounters can be done through an independent study project during their junior
and senior years of high school.

**Curriculum design.**

The deficits in understanding demonstrated by the high school students in this
study should be used to develop two curriculums which teach the students skills and
information necessary for postsecondary success. One curriculum should be for students
with learning disabilities in college preparatory curriculum assistance classes in public
high schools. The other should be developed for freshmen and sophomore college
students with learning disabilities who are enrolled in Project STEPP.

**High school curriculum.**

Through the high school curriculum, the students should learn and begin using the
skills they will need to be successful in college. Lessons should include instruction in the
ways in which college is different from high school, both in the study skills needed and
the laws governing the accommodations and services students with learning disabilities
are provided. As part of the lessons in this area, the students should learn about the
accommodations offered and the process for applying to the institution’s DSS office.
They should also be able to describe the law which governs services in college, the Americans with Disabilities Act and through that explain how they will be completely responsible for accessing the services they are offered. The high school students in this study seemed very surprised at the level of independence the college students described when talking about their accommodations and supports. They asked how much help they would receive with accessing their accommodations and clarified by stating, “So it’s all self-advocacy.” However, the student was trying to express that accommodations require self-advocacy. The high school students asked several questions about note-takers but did not ask about any of the other services mentioned. They also did not seem aware of their own accommodations, let alone the services provided by the college.

The high school students will also need instruction in the study skills necessary for college success. This should include taking notes, preparing for tests, writing papers, time management, and general preparation techniques and strategies. If the high school students are close enough to facilitate travel, it would be useful for these students to take field trips to a local college or university. This would give them the opportunity to practice their newly learned skills in the college environment. They could attend a college lecture, visit a dining hall, and meet with DSS personnel. In this study, the questions asked about academics were very basic. Questions such as, “How are the maths here?” and “Are there any weird professors in freshmen classes?” demonstrate little understanding of the complex skills needed to be successful in college. The high school students also asked about who chooses classes for them and how many classes are taken
in a day. This illustrates that the high school students have little knowledge of these very important university processes.

It will be important to continue to separate the indigenous and sensitizing concepts in order to consider the curriculum vocabulary. Key terms and concepts developed by the researcher may need to be defined within the curriculum before the unit can be taught. In this study the students knew terms such as classes, professors, accommodations, majors, and programs. They could not articulate university terms such as admissions, foundations curriculum, disability support services, and self-advocacy, although one student did use the term “self-advocation.” These terms should be infused throughout the lessons and assignments. The students should keep track of these terms and the definition in their own college glossaries. These terms can be individualized to each student’s chosen postsecondary institution. For example, at this institution, supports are provided by the Disability Support Services office. Other colleges and universities have different terms which may refer to this type of center.

The high school curriculum should be drawn out to last over several months. This instruction and exploration is too complex to be taught in a short period of time. It would also be important to teach the skills and lessons when they are most relevant. For example, the students should be exploring colleges and campus resources throughout their junior year. During their senior year, they should learn the preparation and study skills necessary to be successful at their chosen institution.

College Curriculum
Since the kind of direct instruction and exposure to postsecondary life described above is not widespread in the public schools, it would be important for colleges and universities to look at their role in the successful transition of postsecondary students with learning disabilities. Much of the curriculum designed for the high school students would be relevant for the first semester or two of college. This could include accommodations and DSS support, laws governing services, self-advocacy and study skills, and college vocabulary. Another important topic to cover would be any university processes which will occur later in a student’s college career. Some examples of these include advising, choosing classes, final exams, dropping classes, and fun activities which are unique to each campus. Because the college students will already be on campus, they will be able to immediately practice the study, time management, and self-advocacy skills they learn and apply them directly in their classes. They will also need instruction in more immediate areas of need such as how to plan a schedule, choose classes, talk to instructors, and use of university resources such as tutoring centers, the First Year Center, and the Registrar. The college students should learn the most important and immediate survival skills during their first semester on campus. Other skills can be introduced in subsequent semesters.

In both cases, the content to be covered is very similar. It is only the method in which it is delivered and the timeline that may differ. High schools can provide a great deal of preparation for students with learning disabilities who are planning to attend college while an optional college survival course for freshmen can help address the concerns students encounter upon arriving on campus.
Transition to college.

The transition from high school to college can be difficult, especially for students with learning disabilities. In order to make this shift easier, an in-depth transition plan should be developed which will be led by the high school students and monitored by their curriculum assistance teachers. This can be a part of the students’ IEPs or a supplement to current goals and objectives.

First, students should be required to investigate the college admissions process. This should include searching web sites of the colleges to which they are interested in applying and discovering the admissions criteria. The exploration needs to be done during the students’ junior year of high school in order to give them plenty of time to take the ACT or SAT multiple times if necessary to reach the required score. The students in this study were high school juniors in a college preparatory curriculum, yet none of them had taken either test and were still exploring which they should take. Some of the questions which were coded as “Admissions and Status” such as, “What was your [high school] GPA coming here?” and “What score do you need on the SAT to get in [to the university] show at least a simple understanding of the processes and requirements for admission to a four-year institution. However, these questions also illustrated that the students had not done much prior research or investigation into university admissions.

Completing a college exploration during the students’ junior year of high school will also allow them time to visit the campuses of postsecondary institutions they are interested in investigating. This should be parallel to the instruction in understanding their learning disability and instruction in self-advocacy skills. Once they understand the impact of their
learning disability and the process of college admissions, the high school students should explore the disability supports offered by the colleges they are interested in attending. If possible, they should conduct an interview with DSS personnel and include questions about the services provided, how those services are accessed, and other relevant information related to their disability. If it is not possible to visit the college campus, this can be done from a computer by accessing each institution’s Disability Support Services office web page and through email correspondence.

Subsequent to the postsecondary exploration, the high school students should be encouraged to evaluate their choices for fit. They should examine the same things that students without learning disabilities would consider such as the choice of majors, residence halls, and cost. In addition, they will need to be sure that the DSS office provides the services they need in the manner in which they need them. Only one student in this study asked about the types of accommodations that are available. This information is important for these students to know before choosing a college. Upon completing this exploration, the high school students should be assisted in applying to their chosen institutions.

Once students have identified, applied to, and been accepted to the postsecondary institution they would like to attend, they should compile a resource guide consisting of tools they will need upon arriving on campus. These may include items such as a campus map, information about transportation systems (i.e. buses) and checklists of the classes required for their potential majors. The students in this study seemed unaware of the requirements called “Foundations Curriculum” by this institution. These are the social
science, English, arts, and humanities courses which students at four-year colleges and universities take, generally during their first two years. Knowing about these necessary classes and the fact that community colleges do not typically require these courses for associates degrees are important in making a postsecondary decision.

Still another suggested tool would be a table of important campus resources, for example tutoring centers, and offices on campus which provide direct support to students such as the University Registrar and advising centers. If possible, they should obtain these resources from firsthand experience on another campus visit. Attending a college class and spending some time in a campus residence hall would also be very helpful for these students.

A further area in which high school students need transition support is the use of assistive technology. The students in this study stated that they did not currently use assistive technology in high school. The LiveScribe pens used in this study are an example of one type of technology which is often employed by college students, both disabled and non-disabled. The students are able to take notes while recording a lecture. The pen then syncs the audio recording to the written notes allowing the students to play back the lecture from any point they choose. Other examples of assistive technology which might be useful to these students include software programs, such as Dragon Naturally Speaking, and actual technology items like digital recorders and laptops. Having the opportunity to explore these technologies in high school has several advantages. First, the students are in their comfort zone in a familiar environment. It would be difficult for students to learn and apply a new technology while also adjusting
to a new environment. In high school, the students also have the support of their curriculum assistance and classroom teachers who have time to take a personal interest in the success of their students than college instructors who often have large classes as well as advising and other administrative duties. Finally, learning and practicing in the lower-stress environment of high school is more likely to lead to internalizing the use of these instruments making it more natural to bring them to their college classes.

The results of this study demonstrate that students with learning disabilities need direct instruction in the study and self-advocacy skills needed for success in the postsecondary setting. They need a thorough understanding of their disability and its impact on their learning as well as the change in laws governing support services when moving from high school to college. This can all be learned through firsthand experiences provided by high school educators, through a curriculum focusing in study skills, and through proper transition support as these students move from the secondary to the postsecondary setting.

**Limitations**

The results of this study should be interpreted with an awareness of the limitations of the research. First, this study was conducted in Eastern North Carolina in a college town. None of the students had ever been on the campus for a tour, but they were all very familiar with the college because of the town’s enthusiasm for the university’s athletic teams. It may not be possible to generalize these results to other regions. In addition, the students were all from the same class in the same school. All but one had been with their
curriculum assistance teacher for their entire high school careers. Again, this and the small sample size may lead to a lack of ability to generalize the data to other situations.

In addition, there is some concern about the number of questions asked. Students with learning disabilities often do not ask questions, even when they have them, and it is possible that is the case with this study. There are several reasons for this. First, students with learning disabilities have often had negative experiences when asking questions. This leads to an expectancy of failure. They opt not to ask a question for fear they will be ridiculed. Another reason students with LD do not ask questions is pragmatics. Students with language processing difficulties may lack the skills necessary to formulate questions in response to statements. The questions posed in this study were often done in response to statements made by the college student facilitators. Therefore a student with a language disability may have difficulty formulating a question to ask. Without further research, there is no way to determine the reason for the small number of questions asked by the sample group or whether this is typical of all students with learning disabilities.

Future research should be done with a larger population of high school students at other universities in other regions of the country to determine if the questions asked in those situations are consistent with the findings in this study. In these larger studies, a more structured formal interview process should be completed.

Although this study has limitations and leaves some research to be completed, the results are beneficial. The lack of questions and lack of depth of the questions indicates that high school students with learning disabilities need a great deal of instruction in
campus life, understanding their disability, university procedures, study skills, and university policies.

**Conclusion**

Currently students with learning disabilities comprise the greatest number of students in special education in the public schools (Janiga & Costenbader, 2002). However these students attend college at a rate much lower than their nondisabled peers; 23% of high school graduates with LD will attend a two-year college and only 11% will attend a four-year postsecondary institution (Scott, 2006). By understanding the kinds of questions asked by potential college students with LD, educators can develop curriculums intended to prepare this population of students for college before leaving high school. With this curriculum, it is hoped that they will be more likely to attend college and be successful once they arrive. The same results may be achieved by providing this instruction within the first semesters of college. In either case, it is vital to this population that they receive direct instruction in the skills necessary to be successful in a postsecondary setting. By doing this, educators can provide these students with opportunities which previously may not have been made available to them, thus offering the possibility for a better future.
References


Teaching Exceptional Children, 39 (1), 18-23.


