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Learning Disabilities and Academic Success

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Abstract

This study examines the relationship between learning disabilities and academic success in college students. A total of 343 students from the University of New Hampshire responded to an online survey with 64 questions. The survey asked students how they would rate their overall academic performance (very good, good, bad, very bad), as well as if they had a learning disability or not. The responses were then examined to see if there was in fact a correlation between the two. The results showed that there was no correlation between learning disabilities and academic success. However, the findings were suggestive that with a larger sample size there would likely be a relationship. Further research, including a larger and more representative sample of students with learning disabilities, would expand the findings.
INTRODUCTION

A learning disability is a neurological condition that interferes with an individual’s ability to store, process, or produce information (LDA 2015). According to recent research, roughly 4.6 million young adults in the United States struggle with a learning disability (NCLD 2015). Having coped with a learning disability in educational settings, I am interested in understanding how it can affect academic performance. In my experience, a learning disability has brought major challenges and setbacks; however, individuals suffering from a learning disability may have vastly different experiences. Although it would be interesting to see the effect that learning disabilities have on people of all ages, the current study focuses on college students. My intent is to explore how having a learning disability at the college level has affected my peers at the University of New Hampshire and their academic performance. I hope this study will broaden understanding of how college students with learning disabilities perform academically. For the purpose of this study, the term ‘learning disability’ serves as an umbrella term including a multitude of learning and attention issues such as Attention Deficit Disorder (ADD), Attention Deficit Hyperactivity Disorder (ADHD), or Dyslexia. For this reason, I examine learning disabilities’ effects as a whole rather than one specific disability.

Hypothesis

The current study aims to answer the following research question: how do learning disabilities affect a college student’s academic performance? The null hypothesis exerts no correlation between a college student’s learning disability and academic performance. In contrast, I hypothesize that having a learning disability negatively affects a student’s perception of their academic performance. To provide a foundation, this paper considers a number of studies pertaining to learning disabilities and its effect on academic performance among college
students. To enhance comparability, this research uses the same dependent variable (academic performance) as the reviewed studies.

*Literature Review*

In their article “Note Taking Skills of University Students With and Without Learning Disabilities”, Charles A. Hughes and Sharon K. Suritsky (1994) compared the number of complete ideas or blocks of information (sentences, sentence clauses, or phrases) recorded as well as the number and type of abbreviations used (Hughes and Suritsky 1994). With a sample size of 60 students, the sample was divided evenly into students with and without a learning disability. Using quantitative analysis, the study was conducted in a classroom where students were asked to take notes on a videotaped lecture (Hughes and Suritsky 1994). The researchers then collected the notes and analyzed the student’s notetaking skills. The authors found that many students with a learning disability had difficulty with skills associated with effective note taking. While this study’s scope is limited to note taking, it contributes to the larger question of how college students are affected by learning disabilities. Moreover, skills pertaining to note taking could be a causal factor that affects academic performance among college students.

Hughes and Suritsky’s (1994) study shows that learning disabilities do affect academic performance. However, because the authors only studied students at one specific university, the findings may not be generalizable.

In the article, “College Students with Learning Disabilities Diagnoses: Who Are They and How do They Perform?”, Richard L. Sparks and Benjamin J. Lovett (2009) focus on the criteria used to classify students as having a learning disability. Furthermore, the authors also investigated the cognitive and achievement characteristics of students with learning disabilities, which inform the research outlined in this paper. Using quantitative data analysis, Lovett and
Sparks (2009) reviewed 55 previously published articles that reported standardized test scores and achievement measures of students with learning disabilities. Sparks and Lovett (2009) found that students with a learning disability tended to have average achievement (i.e., standard scores \( \geq 85 \)), despite scoring lower on standardized intelligence and achievement tests than their classmates. This study suggests that although students with a learning disability have average levels of achievement, their scores were still lower than average; therefore having a learning disability can affect a student’s ability to perform academically. A strength of this study is that it analyzes research findings from various articles. By incorporating these sources, Lovett and Sparks were able to gather more representative information.

Cheryl Nicholson’s (2008) article, titled “Personal and Educational Experiences of Post-Secondary Students with Learning Disabilities,” explored the personal experiences of college students with learning disabilities in Canada. Nicholson attempted to understand the challenges and barriers that postsecondary students with learning disabilities faced throughout their educational experiences. The study analyzes qualitative narratives of participants with and without learning disabilities and suggests that students with a learning disability experienced a number of challenges and barriers throughout their education (2008). Nicholson’s study informs this paper’s research because it also focuses on the effects that learning disabilities can have on students in college. However, there are also several differences between mine and Nicholson’s studies that are worth nothing. The first major difference is how the studies were conducted. Although both studies approached a similar question, my study depends on quantitative research, while Nicholson’s study relied on a qualitative approach. Another difference is that Nicholson’s study took place in Canada. Though both this study and Nicholson’s have similar research aims, there could be differences between the United States and Canada’s schooling systems affecting
the results; however, they are similar enough to compare. In addition, Nicholson’s study examines the educational experiences of students with learning disabilities while my research focuses on solely college students and their achievements.

Finally, the last article considered is “The Relative Benefits Found for Students With and Without Learning Disabilities Taking First Year University Prep Courses,” by Maureen J. Reed, Deborah J. Kennett, Tanya Lewis, and Eunice Luna-Lucas (2011). Their research highlights the differences between students who have learning disabilities and those who do not by observing their academic performance over the course of a college preparation class. Reed et al. (2011) found both groups faced similar challenges, however, students with a learning disability experienced greater gains in their self-efficacy compared to their non-disabled counterparts. The study indicated that integrating students who have learning disabilities into all course levels could alleviate the limited resources of disability programs (2011). Although Reed et al.’s study focused on student success in college preparatory classes, the study is similar through its focus on the academic success of people with learning disabilities. Also, I am researching college students while this study focuses on students taking college prep courses.

The studies reviewed above had some limitations worth noting, such as using different research methods or taking place in a different country. Such limitations as those observed in these studies serve to improve this paper’s research. Since the four reviewed articles examined students with learning disabilities, it allows for a more direct comparison to this research. While most of the research reviewed varied from elementary school students to high school students to college students, this paper’s research strictly focuses on college students attending a university. The biggest limitation is that some previous research took place outside of the United States. This paper’s research differs by focusing strictly on students at the University of New
Hampshire. However, the previous studies considered above can surely aid in understanding how students with learning disabilities perform in academic settings.

RESEARCH METHOD

Sample

In mid-November of 2015, the students in an undergraduate sociology research methods course administered surveys to a convenience sample of other University of New Hampshire students. The surveys were administered through Qualtrics, an online survey program. Each student in the class submitted an email request with a link to the survey to other University of New Hampshire students. The research subjects completed the survey anonymously, and they were not compensated for its completion.

There are several benefits and limitations of using a convenience sample, also known as an accidental or haphazard sample. The main benefits of convenience sampling are its relative ease and low cost. It is also a fast process compared to other types of sampling, as most results were received within two days. Most importantly, it is a convenient way to sample. Some limitations of using a convenience sample are that it can result in a biased sample. Surveying subjects who are simply convenient—people that happen to be in the right place at the right time—can result in an unrepresentative sample of the population.

There were no anticipated risks to the research subjects who participated in our survey, although some questions may have elicited an emotional response. In regard to my study in particular, a subject who suffered from a learning disability may have felt embarrassed or ashamed. However, the benefits, in terms of emotional discomfort, certainly outweigh the costs in this study. The benefits of this study may not have affected the individual responding to the survey directly, but the findings may benefit the larger University of New Hampshire
community. By conducting research on learning disabilities and their relation to academic achievement, the information collected may help the university community better understand learning disabilities and provide useful ways to help those with learning disabilities by providing resources for them.

Variables

The participants of this study consisted of students at the University of New Hampshire. With a total sample size of 355, 318 of the students answered all 64 questions with only 37 answering some but not all. The question measuring the dependent variable was as follows: How would you rate your overall academic performance? Respondents were able to choose from four answers: very good, good, bad, and very bad. Of the 355 respondents, 334 completed this survey question. The modal category of the dependent variable was “good.”

The question measuring the independent variable was as follows: Do you have a documented learning disability? Of the respondents, 334 completed the question. Respondents had the choice of answering “yes” or “no.” The modal category of my independent variable was “no” with 308 of the 334 respondents not suffering from a learning disability.

In summary, the independent variable in this study is having a learning disability, while the dependent variable is the college student’s perception of their academic performance.

Measuring the concepts in this way allowed insight of how many students at the University of New Hampshire suffered from a learning disability compared to the University of New Hampshire student body as a whole. A general idea of how many students have learning disabilities enables comparison of how having a learning disability or not affects a student’s perception of his or her academic performance.

RESULTS
Table 1. Respondents’ Age

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>42</td>
<td>12%</td>
</tr>
<tr>
<td>19</td>
<td>73</td>
<td>21%</td>
</tr>
<tr>
<td>20</td>
<td>96</td>
<td>28%</td>
</tr>
<tr>
<td>21</td>
<td>91</td>
<td>27%</td>
</tr>
<tr>
<td>22</td>
<td>29</td>
<td>8%</td>
</tr>
<tr>
<td>23+</td>
<td>12</td>
<td>3%</td>
</tr>
<tr>
<td>Total</td>
<td>343</td>
<td>100%</td>
</tr>
</tbody>
</table>

According to the frequency of table 1 above, a total of 343 students responded to the question: What is your age? Table1 indicates that the majority of respondents were between 19 and 22 years old, with the highest response rate from 20 year olds. The least amount of responses came from those who were 23 and older.

Table 1. Respondents’ Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>114</td>
<td>33%</td>
</tr>
<tr>
<td>Female</td>
<td>224</td>
<td>65%</td>
</tr>
<tr>
<td>Non-binary</td>
<td>5</td>
<td>1%</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Total</td>
<td>343</td>
<td>100%</td>
</tr>
</tbody>
</table>

Of the 355 students in the sample, 343 University of New Hampshire students responded to the question: What is your gender? Respondents were asked to choose between “male,” “female,” “non-binary,” and “other.” Of the sample, there were 224 females (65%), 114 males (33%), and 5 non-binaries (1%). Table 2 indicates that the majority of respondents were female, followed by male and then non-binary.
Out of the 334 respondents, 26 reported having a learning disability while 308 did not. Therefore, 92% of our sample did not have a learning disability, while 8% did. According to the data, 66% of respondents rated their academic success as “good”, 29% of respondents rated their
academic success as “very good,” 16% of respondents rated their academic success as “bad,” and 1% rated their academic success as “very bad.”

Table 3. Cross-Tabulation of Documented Learning Disability and Academic Success

<table>
<thead>
<tr>
<th>How would you rate your overall academic success?</th>
<th>Do you currently have a documented learning disability?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Very Good, Good</td>
<td>23</td>
</tr>
<tr>
<td>(88.46%)</td>
<td>95.13%</td>
</tr>
<tr>
<td>Bad, Very Bad</td>
<td>3</td>
</tr>
<tr>
<td>(11.54%)</td>
<td>4.87%</td>
</tr>
<tr>
<td>Total</td>
<td>26</td>
</tr>
<tr>
<td>(100.00%)</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

Table 3 shows a cross-tabulation of having a learning disability by perception of academic success. Although the respondents were offered four answered choices, combining the scores of “very good, good” and “very bad, bad” makes the information easier to interpret and more generalizable. The probability of obtaining the results due to chance is greater than .05, which fails to reject the null hypothesis. Having a learning disability does not appear to have a relationship with perception of academic performance. This study fails to reject the null hypothesis because there is a 15% chance that what is true in the sample is not true in the larger
population. In the sample of college students, only 26 out of the 334 surveyed had a learning disability. When rating academic success, only 18 of the 334 respondents rated their academic success as bad or very bad. From the above analysis, it is clear that having a learning disability does not affect a college student’s academic success.

With a larger sample size, however, more students with learning disabilities may exhibit a statistically significant relationship. The very small number of students with learning disabilities may have led to a lack of statistical significance. Although the findings shown above are not statistically significant, the analysis suggests some interesting results. Since 88.46% of students with learning disabilities rated their academic success as “good, or very good” compared to the 95.13% without learning disabilities, it is evident that students without learning disabilities feel better about their academic success compared to their counterpart. Additionally, 11.54% of students with learning disabilities rated their academic success as “bad” or “very bad” compared to the 4.87% of students without learning disabilities. These correlations suggest a (bigger) difference in perception between those with learning disabilities and those without in a larger sample. Due to the small sample size, few of the respondents suffered from learning disabilities. This shows that the majority of students at the University of New Hampshire do not have a learning disability, but those who do perceive their academic performance in a worse way.

Given the data in this study, it is evident that there is no statistically significant relationship, but there may still be a relationship. Nonetheless, a larger sample size could have given different results. If I was to further my research, I would conduct another study using a larger sample size of students with learning disabilities in hopes of getting more information.
Doing so would allow for a better understanding of how students with learning disabilities perceive their academic success.

CONCLUSION

The main finding of this study is that having a learning disability does not affect a college student’s academic performance. However, a larger sample size may yield different results. Since the sample size was fairly small, the number of students with learning disabilities was even smaller, which likely contributed to the lack of a statistically significant relationship. Given the results, we can predict that a larger sample size would exhibit a more accurate relationship between learning disabilities and academic performance.

As noted above, the greatest limitation of this study was the sample size and the lack of students within our sample with a learning disability. In regard to future research, it is important to conduct a study with a larger sample size to include more students with a learning disability. As a result, researchers would be able to better compare perceived academic success between students with and without learning disabilities. Regardless of the limitations, the results of this study, as well as others, will certainly inform students, administration, and the broader community to better understand how students with learning disabilities perceive their academic performance college settings.
REFERENCES


