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Identifying Elementary School Student Understanding of Learning Disabilities

Michael Q. Bair

A thesis submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of
Educational Specialist

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ABSTRACT

Identifying Elementary School Student Understanding of Learning Disabilities

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This school-based study examined the knowledge level of third through fifth grade students who are not being served in special education regarding learning disabilities, personal learning styles, and their perceptions of their peers with learning disabilities. This study circumvents teachers', administrators', and parents' awareness which has been thoroughly researched and instead, directly assesses through interviews what elementary students ($n=45$) know about learning disabilities. The goal of this study was to gain a greater understanding of what the students' perceptions are of their learning experience in general and what their understanding of learning disabilities are more specifically through interviews to give educators greater insight into how we can improve the education offered to students. Findings indicate that participants had a generally accurate understanding of learning disabilities and how learning disabilities affect success in school. Results underscore the importance of parents and educators working closely with students to gain firsthand knowledge from those that are being taught.

Keywords: learning disability, knowledge, perceptions, success, school

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My thesis was a mountain involving a rigorous and enduring climb that I was ignorant of until I started my ascent. It would have been impossible to make it to the top of the mountain without the assistance of some truly important people that have been placed in my life. I am very grateful for the mentorship of Dr. Gordon Gibb. His direction, organization, and encouragement throughout the entire process has been a blessing that I've found myself often communicating my gratefulness to my wife about over the last two years. I am also truly grateful to Dr. Melissa Heath and Dr. Susanne Roper for their contributions, feedback, and support on this project. The support of the school district, administrators, teachers, and students made this project possible.

I am grateful for family and the support they have given me while I chase my dreams. To my father and mother and for the way they raised me and for their continued love. To my father-in-law and mother-in-law and for their examples and constant encouragement. My dear Adelyn whose first two years of her life I've been consumed with graduate school. May the rest of your years be filled with love, joy, and time with your father. Most of all, I am indebted to my sweetheart Kylie. You've sacrificed much for our family and me these last two years. You've opened my eyes to my potential and help me to reach it. I love you and thank you. My heart is eternally grateful.

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DESCRIPTION OF THESIS STRUCTURE

This thesis, *Identifying Elementary School Student Understanding of Learning Disabilities*, is presented in a dual or hybrid format. In this hybrid format, both traditional and journal publication formatting requirements are met.

The preliminary pages of the thesis adhere to university requirements for thesis formatting and submission. The first full section is presented in the new journal-ready format and conforms to the style requirements for future publication in education journals. The full literature review is included in Appendix A. Two reference lists are included in this thesis format. The first includes only the references found in the first journal-ready article. The second reference list includes all citations from the full literature review found in Appendix A. The parental consent and child assent forms used in this study are located in Appendix B and C respectively. The interview instrument used in this study is located in Appendix D.

Introduction

A critical piece of our educational system is the opportunity for students who are in need of extra help to be provided with supportive resources. Special education services are in high demand particularly for those students who receive services for learning disabilities. The following definition of a specific learning disability is provided by the Individuals with Disabilities Education Improvement Act (IDEA) of 2004.

A disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations. The term includes such conditions as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. The term does not include children who have learning challenges which are primarily the result of visual, hearing, or motor disabilities, of [intellectual disabilities], of emotional disturbance, or of environmental, cultural, or economic disadvantage. (U.S. Department of Education, 2006)

In 2011 there were almost 6 million students ages 6 through 21 who received special education services as a result of specific learning disabilities (U.S. Department of Education, 2012). With such a large representation of students with learning disabilities in our schools today, can we confidently state that a sufficient effort has been put forth to educate the population about learning disabilities? Studies have reported the various populations' knowledge about learning disabilities, including teachers, parents, university staff, and university students. Results indicate a broad range of understanding about learning disabilities in the adult population and a more limited understanding in elementary school students. Such results are optimistic for the adult population that is involved in the education system, but why haven't we spent more

time finding out what students themselves know about learning disabilities and about their perspectives on education in general?

Studies indicate that a strong effort has been made to learn what teachers know about learning disabilities. Teachers at varying grade levels along with administrators, university professors, and university staff have reported what they know about the topic (Abernathy & Taylor, 2009; Houck, Asselin, Troutman, & Arrington, 1992; Murray, Flannery, & Wren, 2008).

Researchers recognize the significance of learning disability knowledge as efforts have been made globally to discern what educators know (Al Khatib, 2007; Kataoka, van Kraayenoord, & Elkins 2004; Saravanabhavan & Saravanabhavan, 2010). Teachers obtain their knowledge through various forms of training, media, or through experience (Abernathy & Taylor, 2009; Akins, 1988; Al Khatib, 2007; Saravanabhavan & Saravanabhavan, 2010). As a result of their knowledge teachers indicated that they were better able to serve their students who were in need of additional help (Akins, 1988). Other teachers noted that, although they had some knowledge of learning disabilities, more education was needed on the topic and on how to work with affected students (Abernathy & Taylor, 2009; Houck et al., 1992; Kataoka et al., 2004).

Efforts have been made to determine parents' understandings of their children's learning disabilities. Parental understanding leads to perceptions which tend to be negative or pessimistic regarding their children's current and future abilities. Parents see their children struggle in areas in which other kids do well and lose confidence in their children's abilities to do well in school, complete homework, obtain employment, or be successful at the university level (McLoughlin, Clark, Mauck, & Petrosko, 1987; Stone, 1997). Parents may know that their child has a learning disability, but still not comprehend exactly how the child struggles or know how to help.

Educational opportunities to provide additional knowledge about learning disabilities have proven to be beneficial for parents and have positively impacted the family and struggling child (Akins, 1988).

University students have also been studied to better understand what they know about students with learning disabilities. For instance, university students without learning disabilities were interviewed to determine their knowledge of learning disabilities (Houck et al., 1992). University professors and students were asked what they thought the learning capabilities were of students with learning disabilities who were attending college, along with questions pertaining to needed special accommodations. University students were uncertain whether the special accommodations granted to their peers with learning disabilities were fair. Students were also uncertain whether their peers with learning disabilities could complete any chosen academic major.

While it is evident that there is more that we can learn from university students, we could also benefit from learning what students in primary and secondary education know about learning disabilities. It could also be advantageous to determine students' perspectives of education in general. Studies addressing personal learning styles at the university level indicate that as students compared the instruction they received, they reported preferences about how they are taught when given a choice. For example, they reported preferences like being in a physical classroom and having an actual instructor as opposed to online learning at home (Akkoyunlu & Soyulu, 2008; Sanchez, Byra, & Wallhead, 2012). Students also experienced both positive and negative emotions in response to the type of instruction they received (Wong & And, 1982). Understanding is essential for students to complete assignments successfully, but research does not indicate improved performance based on instruction tailored toward learning styles.

Reports vary about student perceptions regarding their abilities to succeed in school. While reports from one study indicate an overall strong self-perception for students of varying ages with learning disabilities and slightly lower self-perception in the academic area (Kawanishi & Takahashi, 2005), other findings have adolescent students reporting feelings of depression, alienation, and a lack of hope in their ability to succeed (Lackaye & Margalit, 2006). Students in the fourth through ninth grades with learning disabilities put more effort into difficult assignments and showed increased confidence once they were taught specific strategies to help them with school work (Meltzer, Katzir, Miller, Reddy, & Roditi, 2004). In addition, student perceptions of academics were accompanied by concern for how peers labeled or stigmatized them (Barga, 1996). Though student self-perceptions and personal concerns seem to vary, researchers found common characteristics of individuals with learning disabilities that succeeded in college or in the work force were motivation, goal setting, self-awareness of strengths and weaknesses, the ability to self-advocate, and access to external support (Anctil, Ishikawa, & Tao Scott, 2008; Garner, 2008; Kerka, 2002).

Problem Statement

The problem addressed in this study is that while previous research addressed various perspectives within the educational system about learning disabilities, little research has studied students' understanding of learning disabilities. Buttner and Hasselhorn (2011) discovered that between the years 2006-2012 there were about 2,500 publications around the world addressing learning disabilities. This recent surge of interest includes research exploring current awareness and understanding regarding learning disabilities in the education system. Teachers,' administrators,' and parents' knowledge of learning disabilities have constituted key variables in these studies. The findings have had a positive influence in helping and supporting individuals

with learning disabilities, but have not included the knowledge and perceptions of students themselves. Seeking out what students know about learning disabilities, learning styles, and their perspectives on students' ability to succeed in school and life will provide an added dimension leading to understanding of and support for those with learning disabilities.

Purpose of Study

This study addresses gaps in previous research by circumventing teachers, administrators, and parents regarding knowledge of learning disabilities and directly studying third through fifth grade students who are in the classroom with students who have learning disabilities. By finding out what students know about learning disabilities, learning styles, and their ability to succeed in school and life, educators may gain a better understanding of how to enhance students' comprehension of disabilities, thus helping them to better understand their peers and be of support to them. Previous research studied what upper grade and university students knew about learning disabilities.

Research Question

This study focused on younger students (ages 8 -10), a critical time when the educational discrepancy between students with and without learning disabilities begins to widen and students are identified with learning disabilities. Additionally, in third and fourth grade students begin receiving special education services and differences in student achievement become more obvious. Taking these factors into consideration, this study addressed the question, "What knowledge do third through fifth grade students who are not served in special education have of learning disabilities, of their personal learning styles, and of the ability of students with learning disabilities to succeed in school and life?"

Method

This study employs qualitative interviews based on phenomenological procedures for understanding students' knowledge about and perceptions of their learning (Marshall & Rossman, 2011). This section describes the participants, settings, procedures and data analysis used in the study. The study was approved by the Brigham Young University Institutional Review Board for Human Subjects Research, and by the district and schools under study. Participants' parents or guardians provided informed written consent for their children to participate, and each minor participant provided written assent to take part in the study.

Sample

The participants for this study were students in third through fifth grade who were enrolled in two public elementary schools in a suburban Utah school district. Participants were randomly selected and included 45 students who were not served in special education and had not been classified with learning disabilities. The third, fourth, and fifth grades were selected because this is the critical time when many students are classified with learning disabilities, and previous research has focused on upper grades (Meltzer et al., 2004) and university students (Houck et al., 1992). Sampling included 23 male students and 22 female students, with ages ranging from 8 to 10 years.

Settings

Interviews took place in two elementary schools. The Utah State Office of Education website reported that during the 2012-2013 school year at one of the schools there were seven classrooms in the third, fourth, and fifth grades with a total of 213 students and 95% average daily attendance rate. The school's overall grade given by the state of Utah based on students growth and performance on statewide assessment tests was a B with 260/300 students testing

proficiently in end-of-year testing in language arts, mathematics, and science. Seventeen percent of the school's 682 students were minorities, 7% were English language learners, and 35% came from low income families (Utah State Office of Education, 2013).

In the second school during the 2012-2013 school year there were 267 students enrolled in 10 classrooms in the third, fourth, and fifth grades. The school averaged 95% attendance and received an overall grade of "A" from the state of Utah based on students growth and performance on statewide assessment tests, with 277/300 students testing proficiently on end-of-year testing in language arts, mathematics, and science. Of the school's enrollment of 637 students, 9% were minorities, 4% were English language learners, and 22% came from low income households. The 45 students interviewed represented 10% of the entire population of both schools.

Instrument

The *Self Advocacy Interview* (SAI) for students is a standardized interview used to determine the knowledge base of students in specific areas regarding their learning (Brunello-Prudencio, 2001; see Appendix B). Standardized interviewing uses questions in a set sequence and is commonly used in multiple sites or with larger samples (Patten, 1990). The SAI was developed by Brunello-Prudencio (2001), piloted with several high school students and revised to address ambiguous questions. Mishna, Muskat, Farnia, and Wiener (2011) used the SAI in a study of 68 students with learning disabilities in grades six through eight. The Mishna et al. study was conducted in a Catholic school district in eastern Canada, while the current study was conducted in a public school district in the western United States.

Pertinent pieces of the SAI were used to collect information in three different areas: knowledge, learning styles, and belief. The first area on knowledge included four questions

focused on what students know about learning disabilities. Questions in this section addressed whether students could define a learning disability and if they thought they had a learning disability. The second area centered on learning styles and asked 14 questions regarding whether or not the students believed they had a preferred learning style. The third and final area included nine questions and focused on whether students believed they had the ability to be successful in school and other aspects of life.

For this study, the SAI was piloted to ensure it would be an appropriate instrument for a younger population. The pilot study included two students who were not being served in special education and had not been classified with learning disabilities. Student participation in the pilot study provided insight into the developmental appropriateness of the interview with regards to the wording of the questions and with the number of questions asked. The interview was modified in the third section so that if participants reported at the beginning of the interview that they did not have a learning disability, then the questions in this section were adjusted to focus on other students with learning disabilities rather than themselves. For example, if a student reported that they did not have a learning disability in the first section of the interview then the interviewer would adjust the second question in the third section from, “Do you think you can do well in school even though you have a learning disability?” to “Do you think students can do well in school even if they have a learning disability?”

Procedure

Interviews were conducted in a small room at each elementary school. The interviewer and the student sat at a table across from each other with the door open. The interviewer did not know any of the students, but would briefly take a couple minutes at the beginning of each interview to build rapport to help students feel more comfortable. The quiet setting allowed both

the interviewer and the students to be free from environmental distractions. An audio recording device was placed on the table and activated during the interviews. The interviewer also used a clipboard, paper, and pen for recording student responses to the questions. The interviewer asked each question in turn and student responses were recorded. Interview sessions lasted about 20 minutes and took place outside of classroom time before school started, during recess, during flex time, or after school.

Different portions of the SAI were administered depending on how the participants answered the questions. The interview is standardized with set questions in a set order, but if students responded, for example, with a “no” response to the second question in section one, “Do you think you have a learning disability,” then the interviewer skipped questions three and four and moved on to section two. All participants were asked the questions in section two. After section two was completed, participants were asked the questions in section three if they responded previously with a definition of learning disability.

The transcription process took place shortly after the interviews were administered. The interviewer typed the responses word for word from the participants by referring to the hand written notes on the interview papers as well as listening to the audio recording of the interview to ensure that the responses were transcribed in their entirety. The responses were organized in a spreadsheet to clearly portray the data.

Data Analysis

The researcher and faculty advisor used a six step systematic approach of thematic analysis to find patterns and themes in the responses (Braun & Clarke, 2006). This qualitative approach resulted in an in-depth look at commonalities and inconsistencies among and between respondents. The six steps involved (a) becoming familiar with the data, (b) generating initial

codes, (c) searching for themes, (d) reviewing the themes, (e) defining and naming the themes, and (f) producing the concluding report. Thematic analysis helped clarify student responses by grouping data into themes consistent with the study question.

Validity and reliability as terms commonly used in experimental research are often replaced with words like credibility or trustworthiness in qualitative research (Kvale, 2007; Lincoln & Guba, 1985). The subjective nature of interview data presents difficulties for verifying the meaning of respondents' statements, and determining if those statements represent factual truth or simply truth as perceived by the respondent (Kvale & Brinkmann, 2009). There are no set guidelines for establishing the credibility of qualitative data (Miles & Huberman, 1994), but several methods are used to attempt this task. These include searching for alternative explanations, searching for discrepant evidence and negative cases, triangulation, soliciting feedback from those familiar with the setting and from strangers, and member checks (Maxwell, 1996). For this study, the researcher and the faculty mentor independently coded and developed themes from the interview data, then met to discuss the themes and resolve differences as a means of establishing analytical credibility.

Findings

This study's findings are reported in the following sections. In addition to descriptive statistics, individual students' comments are included to add depth to students' summarized responses.

Students' Knowledge of Learning Disabilities

Participants were first asked to report their knowledge of learning disabilities. The goal was to determine what awareness students in elementary schools have of learning disabilities, to identify if they believed they had a learning disability, and if so, how it affected their learning. The findings are drawn from participant interviews.

Description of learning disabilities. Participants were first asked to define a learning disability. Of the 45 responses, 29 (64%) indicated that learning disabilities had something to do with having learning problems. Eight (18%) participants indicated that they didn't know, 4 (9%) gave causes for learning disabilities rather than definitions, and 3 (7%) participants responded with other comments.

Perception of personally having a learning disability. Participants were then asked if they thought they have a learning disability. Twenty-six (58%) participants said no, six (13%) said yes, seven (16%) were not asked because they did not provide a definition in the previous question, and six (12%) gave varying answers expressing uncertainty.

Description of personal learning disability. Participants responding that they have a learning disability were asked to describe their condition and provide detail about how it affects them. Nine respondents fit this category. Five described a specific skill deficit like math, reading, or writing; three said their learning disability had to do with some aspect of focusing; and one response focused on fun subjects in which he participates in school, perhaps indicating misunderstanding of the question.

Effects on participants. Of the eight students that responded about their learning disabilities, three shared that it made school more difficult for them and that they had to work a lot harder; two reported that they were unable to complete their homework, and three indicated that it caused hyperactivity, caused reading difficulties, or he did not know.

Summary. The majority of participants responded that learning disabilities are associated with learning problems, indicating that participants understand learning disabilities in general. For example, a fifth grade male shared his insight that a learning disability means "you just don't really understand what you are learning and you have lots of questions on it and when

people try to explain and you still don't understand." Some responses were vague and might indicate the participants' abilities to reflect on the words "learning" and "disability" to conjure an accurate definition. For example, a fourth grade male responded that a "disability means you can't understand it or can't do it. So learning disability means you might not be able to learn or can't do it." In either case, most participants have some understanding of learning disabilities, which coincides with research by Houck et al. (1992).

It is not surprising that the majority of students reported not having a learning disability. The 12 participants that responded "yes" or that were unsure may be students who do not understand that learning disabilities are not the same as learning difficulties. Participants who responded that a learning disability is when you have difficulty learning and then heard the follow up question as to whether they have a learning disability may have realized that they do have difficulty learning sometimes and therefore must have a disability. A fifth grade female suggested that "maybe everyone has a learning disability of something." A fifth grade male responded when asked if he thought he had a learning disability, "No. I don't think I have one, but I think I may struggle with some things." It would be interesting to revisit these students in the coming years to determine if any are eventually diagnosed with learning disabilities.

Responses concerning specific skill areas affected by learning disabilities align with the IDEA definition. Participant responses included a fourth grade male saying, "I'm not that good at reading and writing" and a third grade female stating, "I'm not really good with math papers." Like the participants above, this may indicate understanding of learning disabilities or may represent the ability to associate the terms and deduce the meaning. Cosden, Elliott, Noble, and Kelemen (1999) reported that elementary students with learning disabilities seemed to be in the dark about their condition. Even though participants in this study have not been classified with

learning disabilities, it is likely that there are aspects of their academic strengths and weaknesses about which they are not well informed.

When asked how your learning disability affects you, a third grade female said that it made it “really hard and really difficult.” Another fifth grade female said that she “had to work really hard to read.” The idea that a learning disability makes school work more difficult and that individuals may have to expend more effort came up again when students reported whether or not they believed their peers with learning disabilities could succeed in school and life. This mindset is likely attributed to the societal belief that if someone simply tries harder, then the task can be accomplished. This usually is not the case for those with learning disabilities. This philosophy was also noted in schools in Japan in which teachers believed that if they put in enough effort they could help anyone be successful, despite a learning disability (Kataoka et al., 2004). Overall, the participants in the present study reported some understanding of learning disabilities and how learning disabilities may impact them.

Students’ Knowledge of Learning Style

The second section of the interview asked participants to report their personal learning styles. The goal was to determine if students have preferences when it comes to their learning at school. By gaining a better understanding of student preference educators can provide better student support in classrooms.

Description of personal learning style. Participants were asked to report when and how they learn best. Learning in school and from the teacher was the best way for 14 (31%) of the participants. Eleven (24%) participants mentioned a specific learning style like visual, auditory, or when there is an example problem they can refer to as they begin their work. Seven (16%) reported using various strategies, like practicing, slowing down and taking time during their

work, or by researching. Three participants cited environmental factors like having the other students be quiet and two (4%) attributed successful learning to music in the classroom. Five (10%) shared various other factors like having the subject be something of interest or when they feel like they are treated kindly by their teacher. Three (7%) participants said they did not know how they learn best.

Situations when it is difficult to learn. Participants were also asked when they find it hard to learn. Sixteen (36%) participants said it was difficult to learn when certain environmental variables were in place, such as distraction by peers, noise in the classroom, or pressure from the teacher. Thirteen (30%) mentioned specific subjects like math and reading, and seven (16%) cited level of skill or content complexity, responding that it is difficult when there is no example to refer to or there is a lot to memorize. Four (9%) participants said it is hard for them when they don't understand and four said they did not know.

Summary. As previously noted, the notion of focusing on learning styles in schools to improve performance does not have strong research support. However, it has been shown that students may have preferences for how they like to be taught (Akkoyunlu & Soylu, 2008; Sanchez et al., 2012). Participants in this study similarly reported preferred ways of learning, including an interesting range of sensory, environmental, strategy, and relationship factors teachers might consider when instructing in the classroom. Students particularly indicated that they appreciate assistance from parents and teachers. A fifth grade female student indicated that, "I learn when people show me how to do it." Another fifth grade female indicated that she learns "best with some practice and sometimes with my mom helping me with some homework."

Students' Knowledge of Ability to Succeed in School and in Life

The final section of the interview focused on how participants felt they could personally do in life if they believed they had a learning disability and how they believed their peers with learning disabilities could do in school and life. Interview questions addressed participants' perceptions of their own abilities in school as well as if they believed their peers could succeed in high school, college, and in obtaining a career.

Perspective of self in school. The participants were first asked how they do in school. Twenty-five of the 45 participants (33%) said they were doing well because they have good grades and 11 (24%) attributed doing well in school to their good behavior. Eleven others said that they do well because of their skills and five (10%) credited their success to practice, to help they receive at home, or to other factors. Three (7%) did not know how they were doing in school.

Ability of others with learning disabilities to succeed in high school. Participants were asked whether they thought people with learning disabilities can finish high school. If students reported earlier in the interview that they thought they have a learning disability, then students were asked directly if they could finish high school even with the disability. Thirty-five participants responded. Those that said they did not know what a learning disability was were not asked this question or the others based on college and careers. Thirteen (37%) participants felt that with hard work and studying students could complete high school and six (17%) believed that a student could succeed with the help from other individuals like teachers and parents. Five (14%) participants said that students can learn the material and figure out what they need to do to complete high school. Two (6%) mentioned the need to develop appropriate strategies to succeed, while two believed that if a student was good at some subjects that it would

be enough. The remaining seven (21%) answers varied between “no,” the need to have good memory, knowing someone with a learning disability that has done so, and other remarks.

Ability of others with learning disabilities to go to college. Participants were asked if they felt students with learning disabilities could go to college. Eleven (32%) stated that if students are willing to work hard, then they can continue with their education. Seven (21%) participants believe that if students have the right help then they could attend college. Six (18%) believed that students with disabilities are just like any other person wanting to go, and five (15%) said that everyone deserves a chance. Three (9%) participants responded that any student who graduates from high school can go to college. One (3%) participant said he was not sure and another noted that college might be a little difficult, so acquiring a job might be more appropriate for someone with a learning disability.

Employment opportunities for others with learning disabilities. The final question addressed the kinds of jobs participants thought people with learning disabilities could obtain. Thirty-five participants responded, with several suggesting multiple career choices for a total of 50 responses. Six (12%) responses suggested that people with learning disabilities could find employment working at restaurants while six others suggested working in stores. Five (10%) believed that teaching was an option, three (6%) thought people with learning disabilities could be cashiers and 3 others suggested positions in which they could help others. Two (4%) each suggested veterinarian, working at a factory, being a doctor, or cleaning. Nineteen (38%) other responses varied as indicated in Table 1.

Table 1

Number of Students Endorsing Potential Employment Opportunities for People with Learning Disabilities

6	Restaurant	2	Doctor	1	Dealership	1	Office
6	Store	2	Cleaning	1	Dentist	1	Own business
5	Teacher	1	Architect	1	Engineer	1	Police
3	Cashier	1	Build	1	Firefighter	1	Psychiatrist
3	Help others	1	Chemicals	1	Garbage	1	Scientist
2	Veterinarian	1	Customer service	1	Lawyer	1	Therapist
2	Factory	1	Day Labor	1	Mowing lawns	1	Writing

$N = 45$.

Summary. Data indicate that students perceive that they are successful typically because of their grades, their good behavior, or their skills. A majority of participants made similar comments to a fifth grade female who said she thinks she does really well “because I get really good grades.” Similarly a third grade male responded “pretty well cause I get A+’s every year so I am an A+ student.” With these perceptions in mind, educators and parents can be mindful of the message they send students regarding what makes them successful. Most participants reported that they were doing well in school, but a few believed they were not doing as well because of grades, behavior, or level of understanding. The excitement level in these students differed noticeably from those that reported feeling successful in school. Students who reported that they were not doing as well demonstrated hints of the depression and loneliness described in previous research (Lackaye & Margalit, 2006). Contrary to their other responses, some of the

students who said they weren't as successful looked down at the floor rather than at the interviewer and spoke much less enthusiastically when addressing this question.

Overall, participants were optimistic in their beliefs about students with learning disabilities completing high school. Hard work was the comment made most often, believing that if pushed by their teachers and parents to work harder, then they will figure it out. This belief then carries over to how they view their peers, which demonstrates some misunderstanding of learning disabilities. A fifth grade female made the comparison that students with learning disabilities "can try like other people do and they can work hard." It is also good to see that participants believe they can turn to their teachers and parents if they are in need of help. One third grade female made the comment that if "they have good teachers and the teachers help them to learn" then they can be successful.

Some of the same themes that students reported for the high school question carried over to opportunities to attend college. Hard work, finding the right help, and the belief that they can figure it out like their peers were the three most frequent responses and areas of agreement. Some participants repeated their high school answers for the college question. This could mean that students at this age do not see a difference in the difficulty level from high school to college or that they simply do not think it matters because everyone deserves a chance. Overall, participant responses indicated a positive viewpoint that they believe students with learning disabilities can be successful in school. One fourth grade male shared that, "Maybe they couldn't be good at some subjects, but they could be good at other things and go through it." A third grade male put it simply, "If they work hard." Previous research reports mixed results when students address their own conditions, with some studies reporting that students with learning disabilities have an overall optimistic outlook on life opportunities and others reporting

students struggle with a negative outlook (Kawanishi & Takahashi, 2005; Lackaye & Margalit, 2006).

Respondents expressed the belief that there are plenty of employment opportunities for people with learning disabilities. It is difficult to determine whether participants believed that having a learning disability limits job opportunities. Some participants suggested jobs that typically require less education. Other participants recommended multiple jobs and included a wide range, such as lawn mowing or veterinarian. Additional inquiry is needed to determine why they suggested these particular jobs. One fourth grade female shared an insightful comment that it “depends on which job they’d like and how much they are affected by learning disabilities.” The same student also looked from the perspective of the employer and said, “Some people might not let people with learning disabilities work at their place because they might think they are not that experienced.”

Discussion

The study investigated what students in the third through fifth grades who are not served in special education know about learning disabilities, their personal learning styles, their perceptions of students with learning disabilities, and their ability to succeed in life. Findings indicate that participants had a generally accurate understanding of learning disabilities and their effects on success in school. Some respondents believe they have learning disabilities based on their perceived difficulties with some subjects in school.

Participants varied in their understanding of personal learning styles. General comments like learning in school, environmental factors, and learning from the teacher contrast with statements of specific sensory modalities and classroom or study strategies. Student preferences

differ, but if teachers consistently address common themes like multisensory instruction, well-ordered classrooms, and time to practice, then student achievement will likely benefit.

Participants presented a range of opinions regarding their ability and the ability of individuals with learning disabilities to succeed in school and life. A majority of respondents reported success based on grades, behavior, and hard work. In regards to individuals with learning disabilities, participants reported that hard work and appropriate assistance would bring success. This correlates with previous research with teachers who reported the benefits they witnessed with targeted instruction for the students with whom they worked (Hibbs, 2010). Responses about potential for individuals with learning disabilities to attend college closely mirrored responses about finishing high school, with willingness to work hard and receiving the right help as the majority opinions. All respondents believed individuals with learning disabilities can find employment, but the range from highly professional to basic skills labor shows the wide variation in respondents' perceptions. Kerka (2002) did not focus on specific job paths that those with learning disabilities could and could not follow, but rather pointed out the need for people to be aware of their strengths and weaknesses, and pursue employment commensurate with their strengths. Overall, one cannot help but appreciate the innocence of the participants' perspectives when it comes to believing in the abilities of those with learning disabilities.

This awareness in these three areas generally varied by age. Students in fourth grade often gave more complex and lengthier answers regarding their awareness compared to their peers in third grade. Similarly, the complexity in the responses of students in fifth grade was greater compared to those in third and fourth grade. It is difficult to comprehend how deep

student understanding is at these grade levels based on the interview questions, but it can be concluded that students have awareness in these three areas even at these younger ages.

It is noteworthy that the school system seems to enculturate even young students to understand that success in school and life is built on personal effort, asking for help when needed, and appropriate social behavior. Students can identify at a young age what their strengths and weaknesses are in school.

There is a concern in society that informing students about learning disabilities or telling a student that he or she has a learning disability will result in a world of stigma, but the feedback received in this study actually indicate a much more positive sentiment from students. By finding out more from the students themselves regarding their educational experience the field can go beyond hypothetical and theory-driven processes to provide more appropriate services for those students that we work with.

Researchers in Canada who most recently used the Self Advocacy Interview used it with students with learning disabilities in the sixth through eighth grades (Mishna et al., 2011). They did not report the knowledge findings in their study, but instead focused on improved self-advocacy skills after students were educated about their strengths and weaknesses. Similar conjectures could be made with regards to the third through fifth grade students in the current study. Not only could these students better advocate for themselves in school if they were more informed about their personal learning abilities, but they could also better understand and advocate for their peers who may be struggling with learning disabilities. Greater understanding could assist in a positive behavior support system model and help schools move away from some of the bullying toward students who struggle in school.

It is difficult to determine participants' actual levels of knowledge and where that knowledge came from. Participants may have started the interview by sharing their definitions of "learning" and "disability" rather than "learning disability" and referenced that definition throughout the interview. By exploring where a student's understanding came from it could not only be determined if the student formulated a response when questioned based on familiarity with the terms, but it would be interesting to find out where students became aware of learning disabilities in the first place for those who were more familiar with learning disabilities. By finding out where student knowledge is coming from we can fill in the gaps of what is missing.

Limitations

This research is limited in that the interviews touched on several topics without treating any of them in depth. In addition, a larger number of participants would enhance generalizability to the population. There was little cultural diversity among the participants, and additional research is needed to determine if findings are similar across schools and cultures.

The research instrument was previously used with middle grade students but applied to younger students in this study. It is possible that younger children may not have understood clearly the questions or vocabulary used in the questions. Further research is needed to determine whether students in grades 3 through 5 can reliably understand and answer interview questions of the type used in the study.

Thematic analysis is susceptible to bias in that the coders place their own meaning on the words of the respondents. Without member checking, in which participants are asked to read interview transcripts and/or results and verify their accuracy, it is possible for participants' responses to be misconstrued (Creswell, 2007). Using more multiple coders, as in this study,

and then meeting to resolve differences is an accepted method of strengthening the analysis, but the possibility of misinterpretation remains.

Implications for Practice

Schools often shy away from sharing information with students that adults consider to be sensitive. Educators also make assumptions about what children know. This study shows that students generally know how they are doing in school. They are aware of some of their strengths and weaknesses. They have opinions about their personal education, their learning environment, and the peers around them. The results of this study can encourage classroom teachers to determine what students believe about their own learning. Students with low feelings of self-efficacy are less likely to succeed in school (Pajares, Johnson, & Usher, 2007). Students who understand their strengths and abilities will most likely be successful, while those who underrate themselves can be encouraged if teachers help them learn how to be successful. Teacher knowledge of student self-efficacy will facilitate this process.

Student beliefs about what helps them learn can also be a boon to teachers. Teachers who determine what students believe about the learning environment, teacher assistance, and learning activities are better prepared to structure successful classrooms to meet individual needs. It would be helpful for students and teachers to learn about the impact that research-based interventions can have in the classroom, rather than attributing success solely to an individual's efforts (Meltzer et al., 2004).

Implications for Future Research

Though not aligned with the formal IDEA definition of specific learning disabilities, the majority of respondents recognize that the terms *learning* and *disability* indicate difficulties at school. Researchers should identify other cultural understandings of learning disabilities and

compare findings to those in this study. It would be helpful to learn whether there are gender or other variances amongst children of different ages and grades. Researchers may benefit from following up with the specific interview questions like determining where student understanding of learning disabilities came from, why the students mentioned the jobs and careers that they did, determining if students believe it is helpful to know about learning disabilities, and how it could be helpful to know about learning disabilities. Students and educators may benefit from knowing what students in the third through fifth grades who are being served in special education for learning disabilities know about their personal learning disabilities, learning styles, and what their perceptions are of potential success in school and life.

Conclusion

Specific learning disabilities is the most common disability classification in special education, so it is critical that educators learn what students know about learning disabilities, and then educate students about the specific aspects that they do not understand. Students are eager to share their educational experiences at this age, including talking about their successes, struggles, insights regarding their peers, and understanding of deeper concepts such as learning disabilities. This is a critical age for educators to work closely with students as educational discrepancies amongst students start to form and become more evident. By doing so, schools can provide the greater support and services that students need to be successful.

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APPENDIX A: LITERATURE REVIEW

The following definition of a specific learning disability is provided by the Individuals with Disabilities Education Improvement Act (IDEA) of 2004.

A disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations. The term includes such conditions as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. The term does not include children who have learning challenges which are primarily the result of visual, hearing, or motor disabilities, of [intellectual disabilities], of emotional disturbance, or of environmental, cultural, or economic disadvantage. (U.S. Department of Education, 2006)

IDEA requires states to report the number of students served in the school who have learning disabilities. These reports indicated that in 2011 there were almost 6 million students who were being served under Part B of the law pertaining to students' ages 6 through 21 (U.S. Department of Education, 2012). Students with specific learning disabilities are a prevalent factor in our schools today.

Knowledge of Learning Disabilities

Studies have reported various populations' knowledge about learning disabilities, including teachers, parents, university staff, and university students. Results, as summarized here, indicate a broad range of understanding about learning disabilities in the adult population with teachers and parents, and a more limited understanding with students in school.

Teacher knowledge of learning disabilities. Abernathy and Taylor (2009) found that special education teachers in elementary, middle, and junior high school gained their knowledge of learning disabilities through different types of course work and trainings, but several factors led to a lack of understanding of the condition. Though the training on learning disabilities was informative, it did not provide the direction that teachers needed to communicate with their students about what these challenges meant for their students. When teachers attempted to speak with students about their learning disabilities, it was often in abstract terms that were difficult for students to understand. More often, rather than taking the time to speak to the children teachers asked them to talk to their parents instead. Teachers may have also assumed that students already understood what was going on, or teachers may have been unwilling to take the time to have the conversation. This then passes the responsibility onto the student.

In an effort to increase knowledge of learning disabilities Akins (1988) organized educational support groups for elementary school teachers and parents in a Christian school population. Teachers expressed an increased understanding of learning disabilities as an outcome of the support groups. The meetings helped teachers become more self-aware of their personal teaching techniques in the classroom and realized that such techniques might not work for everyone. They became more open to trying new methods as they came to understand children's differing learning styles. Teachers also expressed after the meetings that they understood their students more and had more compassion toward them and the struggles that they faced. Teacher participation in the meetings provided them the opportunity to become better at interacting with and helping parents who often struggle with the same learning disabilities as their children.

At the university level Houck, Asselin, Troutman, and Arrington (1992) interviewed professors to find out what they knew about learning disabilities. Faculty were asked a variety of questions regarding whether students with learning disabilities are limited in their choices of academic majors, whether special accommodations given in the classroom are fair for the students without learning disabilities, and whether professors were willing to make accommodations for students with learning disabilities. Overall, faculty were very mindful and sensitive to the needs of students with learning disabilities. Faculty expressed the belief that students are limited in choosing a major because of their disability, whereas students with learning disabilities responded more positively to their opportunities to select any major. The authors concluded that additional faculty awareness about the needs of students with learning disabilities would be helpful.

University staff were surveyed to find out what they knew about learning disabilities (Murray, Flannery, & Wren, 2008). Results indicated that a high percentage of staff understood the term learning disability, believed students with learning disabilities could be successful and compete in a postsecondary environment, and generally had positive attitudes towards students with learning disabilities. Even with such knowledge, university staff members still indicated interest in receiving additional training about learning disabilities and the accommodating services that are provided. Additional training on laws like Section 504 of the Rehabilitation Act or the Americans with Disabilities Act is also needed as a large number of staff members indicated that they were unfamiliar with disability-related law. Overall findings at the university setting were positive, but there is still room for improvement.

Researchers in various countries also have sought to find out what teachers know about learning disabilities. A study in Jordan reported what first through sixth regular classroom

teachers knew about learning disabilities (Al Khatib, 2007). Pre-service training programs for teachers usually do not include educational information on students' learning disabilities. Even though this is the case, the results of the study were encouraging as teachers reported an acceptable knowledge regarding learning disabilities. The study pointed out that knowledge alone is not enough. Teachers also need to know the best methods for teaching children that struggle in different areas. Teachers also should develop an understanding of how they can best work with resource teachers as they implement educational plans for these students. The teachers' knowledge most likely came from previous work with resource teachers, training workshops, friends or media outlets such as television, radio, and magazines.

A study in Japan reported what elementary school teachers and principals know about learning disabilities (Kataoka, van Kraayenoord, & Elkins, 2004). Japanese teachers have the mentality that "they should be able to educate any student with sufficient effort" (Kataoka et al., 2004, p. 11). Teachers believe that if they could have individual time with each student, then students would not have learning disabilities and would not need special support. Yet, when interviewed these teachers pointed out that they had insufficient knowledge of learning disabilities and lacked knowledge of support for learning disabilities. Teachers are busy, under pressure, and are working in classrooms that are filled with higher numbers of students. Principals offer seminar classes to provide education on topics like learning disabilities, but these typically take place on weekends and teacher attendance is not required. Principals also reported that the family and other social issues are the causes of students' learning disabilities.

Saravanabhavan and Saravanabhavan (2010) investigated what high school teachers in India know about learning disabilities. The findings were encouraging as teacher surveys revealed an above average understanding of learning disabilities. Knowledge about learning

disabilities may be attributed to the training workshops that are held in schools for teachers. Workshops are held on a regular basis and taught by experts on different subject matter. Teacher knowledge is helpful for providing education to students in their classrooms, but there is a lack of research in India about what exactly parents, school administrators, and students know regarding learning disabilities. In order for students with learning disabilities to have academic success, all stakeholders need to have an understanding of learning disabilities and how they can contribute to the students' education.

In summary, studies indicate that a strong effort has been made to learn what teachers know about learning disabilities. Teachers at varying grade levels along with administrators, university professors, and university staff have reported what they know about learning disabilities (Abernathy & Taylor, 2009; Houck et al., 1992; Murray, et al., 2008). Researchers recognize the significance of learning disability knowledge as efforts have been made globally to discern what educators know (Al Khatib, 2007; Kataoka et al. 2004; Saravanabhavan & Saravanabhavan, 2010). Teachers obtain their knowledge through various forms of training, media, or through experience (Abernathy & Taylor, 2009; Akins, 1988; Al Khatib, 2007; Saravanabhavan & Saravanabhavan, 2010). As a result of their knowledge teachers indicated that they were better able to serve their students who were in need of additional help (Akins, 1988). Other teachers noted that, although they had some knowledge of learning disabilities, more education was needed on the topic and how to work with affected students (Abernathy & Taylor, 2009; Houck et al., 1992; Kataoka et al., 2004).

Parent knowledge of learning disabilities. Parent perceptions can vary greatly in comparison to their child or their child's teacher (Stone, 1997). Parents reported having lower expectations for their children than did teachers. The reasoning could be attributed to parents

comparing their child to children without learning disabilities. Lower expectations might also be drawn from observations of their children at home regarding homework and the tendency to delay homework completion. Teachers rated students low in areas like general ability, oral expression, social skills, peer relations, and motor skills. Even though teacher expectations tended to be low, parent perceptions were lower. Teachers were typically concerned with homework completion and accuracy and did not observe the procrastination of homework at home that the parents saw. Child perceptions differed in comparison to that of the parent and teacher, showing overconfidence in school work and in personal ability. Conversely, some children demonstrated a lack of confidence in academics.

Akins (1988) discussed positive outcomes for the parents that participated in educational support groups in a Christian school population. Similar to teachers, parents felt they gained a better understanding of not only what their children were dealing with from a learning standpoint, but also with regards to the children's feelings, like low self-esteem, that might accompany the disability. These meetings brought about life changing experiences for parents and the children. In some instances parents described a home atmosphere that was "more at ease" (p. 36) now that they finally had an understanding of their child's experiences. Parents seemed relieved as they learned more and felt encouraged as they sat in these meetings with their children's teachers. It was reassuring for parents to know that their children were progressing in the classroom. There was a strong enough desire by everyone to keep this group running that they voiced their willingness to contribute donations to cover the necessary expenses.

This research affirms that efforts have been made to determine parents' understandings of their children's learning disabilities. Parental understanding leads to perceptions that tend to be negative or pessimistic regarding their children's current and future abilities. Parents see their

children struggle in areas in which other kids do well and lose confidence in their children's abilities to do well in school, complete homework, obtain employment, or be successful at the university level (Stone, 1997). Parents may know that their child has a learning disability, but still not comprehend exactly how the child struggles or know how to help. Educational opportunities to provide additional knowledge about learning disabilities have proven to be beneficial for parents and have positively impacted the family and struggling child (Akins, 1988).

Student knowledge of learning disabilities. Some research has reported what students with learning disabilities know about their learning disabilities. Students either reported a lack of knowledge about their learning disability or demonstrated that they lacked knowledge as their skills improved through additional education and training (Eisenman & Tascione, 2002). The more knowledge students acquired, the better they were able to perform in school and to advocate for themselves in previously difficult situations (Mishna, Muskat, Farnia, & Wiener, 2011; Roffman & And, 1994). The few elementary school students interviewed had difficulties explaining learning disabilities and varied in knowing whether they had ever spoken with someone about their learning disability (Cosden, Elliott, Noble, & Kelemen, 1999). Educational classes on learning disabilities and other strategies have proven successful with increasing the knowledge of students with learning disabilities (Ellis & And, 1989). The increase in knowledge can be edifying for students as they come to understand their struggles, as it informs their school work, and as it assists them in social settings (Goldberg, Higgins, Raskind, & Herman, 2003).

University students without learning disabilities were interviewed to determine their knowledge of learning disabilities (Houck, et al., 1992). University professors and students were asked what they thought the learning capabilities were of students with learning disabilities who

were attending college, along with questions pertaining to needed special accommodations. University students were uncertain whether the special accommodations granted to their peers with learning disabilities were fair. Students were also uncertain whether their peers with learning disabilities could complete any chosen academic major. Additional research is needed to better understand what younger students without learning disabilities in the public education realm know about learning disabilities and the implications of such knowledge.

Student Knowledge of Learning Style

Learning style is a term commonly used to define an individual's customary process of receiving and understanding information. Jensen (2003) defined learning style as the way a student prefers to think, process, and understand the information that he or she is learning. Although various definitions of learning styles exist, an accepted fundamental concept is that individuals differ in the ways they learn. Substantial research has investigated the topic of learning style. Previous research has primarily focused on the effect teachers have on their students when they tailor the classroom setting to meet the individual student learning styles. Rohrer and Pashler (2012) pointed out the lack of empirical evidence regarding learning styles despite all of the research that has been done. Though this may be the case, Akkoyunlu and Soylu's (2008) review of the literature indicated a need for more research to study student perceptions of personal learning styles.

Students with learning disabilities are a population of particular interest for learning styles. Wong and And (1982) compared students with learning disabilities with their peers to see how effectively they received the teacher's instruction. When teaching and direction were vague, both groups struggled with comprehension. Students expressed frustrations as a result of this lack of understanding. Students from both groups also expressed frustration when, from

their viewpoint, the instruction did not match the test parameters. This research indicates that students desire explicit instruction in school. If the teaching is vague or is not understandable, then the teaching needs to be adjusted and personalized for students so that they can perform the task at hand.

Other venues have also been researched to determine student knowledge of personal learning styles. Akkoyunlu and Soylu (2008) looked into student perceptions of the growing popularity of online education in Turkey. Online learning was quite different than the face-to-face time students receive with teachers in classrooms. Many students preferred going to a physical classroom with a teacher and the traditional format for education. The human support they received in the classroom added a personal touch that was unlike anything the electronic world offered. Other students were more active learners when accessing online education. The online materials were useful and beneficial when support strategies were available to help students with the learning process. Having a blending environment for learning with the traditional classroom and online learning may prove beneficial for students if adequate support is in place. Additional research needs to be done on student perceptions of blended learning environments.

College students in one study sat in on a physical education class that was instructed in different styles to determine if they had a preference for the way the class was taught (Sanchez, Byra, & Wallhead, 2012). Students reported whether they felt their physical, cognitive, and social needs were being met. For example, some students found that they were getting more of a physical workout with one type of instruction versus another. This could be because they understood the instruction better, felt more in charge of their activity involvement, and therefore received a better workout. The findings suggest that learners are diverse. The students varied in

the teaching style they preferred and each differed in how they felt their needs were being met. This emphasizes the need for instructors even in the physical education realm to recognize the diversity of students and learning styles.

These studies indicate that students at the university level have preferences about how they are taught when given a choice. They reported preferences as they compared the instruction they received (Akkoyunlu & Soylu, 2008; Sanchez et al., 2012). Students also experienced both positive and negative emotions in response to the type of instruction they received (Wong & And, 1982). Understanding is essential for students to complete assignments successfully, but research does not indicate improved performance based on instruction tailored toward learning styles.

Student Self-Perceptions of Ability to Succeed in School and Life

Kawanishi and Takahashi (2005) investigated trends among students with learning disabilities regarding their self-perceptions. Students with learning disabilities and other students demonstrated similarities regarding self-concept and self-esteem, but when it comes to academics, students with learning disabilities tend to have a lower self-concept than other students. Interaction for students with learning disabilities amongst peers, siblings, parents, and others greatly impacted their self-perception. Yet students with learning disabilities often reported more confidence in their academic abilities than their teachers or parents.

On the other hand, Lackaye and Margalit (2006) found that students with learning disabilities had very poor self-perceptions when compared with their peers. Student achievement, effort, and self-perceptions were compared amongst different groups. Students with learning disabilities reported being depressed, lonely, and alienated. These negative moods were the same for students with learning disabilities when compared with both high and low

achieving students. This lack of hope coincided with the students' personal disbelief in their academic capabilities and future opportunities.

Students with learning disabilities reportedly made less effort if the academic task at hand seemed more difficult (Meltzer, Katzir, Miller, Reddy, & Roditi, 2004). Students in a classroom with and without learning disabilities were given a six-month intervention that changed their perception of their abilities. Students were taught strategies to help them with difficult tasks. Students with learning disabilities took more advantage of the newly learned strategies than their peers as they felt more empowered in the classroom in their pursuit of success. The teachers recognized students' increased abilities and high achievement as a result of the intervention. Students with learning disabilities rated their abilities after the intervention higher than their teachers did.

Students with learning disabilities looked to develop coping techniques to help them manage their disabilities so that they could be successful in school (Barga, 1996). Unfortunately, in addition to the struggles that the disability provided, students also dealt with being labeled, stigmatized, and excluded through gatekeeping. Gatekeeping is defined as a process in which individuals or an organization attempts to exclude an individual because of their disability for quality control purposes or other reasons. Observed students feared how their peers would react to their disability and negatively coped using a passing technique. The passing technique occurs when a student is called on, but instead of answering the question or participating in the activity the student vocally says that he or she passes. Students who implemented positive coping techniques sought help from others, worked on self-improvement skills, and focused on management strategies. Students expressed the need for school personnel to become better educated in and sensitive to the realm of learning disabilities to promote student success.

Anctil, Ishikawa, and Tao Scott (2008) elaborated on characteristics that helped college students with learning disabilities be successful. Students were self-determined and developed attributes like persistence, competence, career decision making, and self-realization. Students shared an equal amount of both positive and negative experiences as they strived to achieve their goals. The negative experiences caused distress on students, but because of their persistence in trying to achieve goals as well as acquired problem solving skills the students prevailed. Students ultimately accepted the fact that they had a learning disability, became aware of their strengths and weaknesses, and were intrinsically motivated enough to overcome diversity. Students also pointed out the value of having their family and other forms of support to assist them along the way.

Three college graduates shared their histories in finding success despite their learning disabilities (Garner, 2008). The students each struggled with different challenges. One of the students would intentionally take tough classes to challenge himself, but was sure to get help with his questions. He knew that a tape recorder and computer would help him be successful and so he used these. With a high school teacher's assistance he sought out a university that would provide the resources that he needed. The second student demonstrated similar strategies to help him find the success, but also included a developed strategy of closing his eyes to eliminate any kind of visual distractions that might interrupt his learning. The third student realized that he needed extra time in the classroom to be successful and advocated with his teachers for this need. All three students agreed that they believed in themselves and that other students with learning disabilities could have success as well. In their opinion, students need to learn about their disability, accept it, turn the situation into a positive experience, and advocate for themselves in the classroom.

Career development research has looked into what attributes contribute to success in work (Kerka, 2002). Successful employees were persistent, competent, exemplified career decision-making capabilities, and developed a strong sense of self-realization. Workers believed that they could succeed, had clear goals for how to succeed, and found ways to focus on their strengths rather than let their disabilities discourage them. There were also external factors reported that helped employees have success, including having a personal social network and finding the right employment fit.

Reports vary about student perceptions regarding their abilities to succeed in school. While reports from one study indicate an overall strong self-perception for students of varying ages with learning disabilities and slightly lower self-perception in the academic area (Kawanishi & Takahashi, 2005), other findings have adolescent students reporting feelings of depression, alienation, and a lack of hope in their ability to succeed (Lackaye & Margalit, 2006). Students in the fourth through ninth grades with learning disabilities put more effort into difficult assignments and showed increased confidence once they were taught specific strategies to help them with school work (Meltzer et al., 2004). In addition, student perceptions of academics were accompanied by concern for how peers labeled or stigmatized them (Barga, 1996). Though student self-perceptions and personal concerns seem to vary, researchers found common characteristics of individuals with learning disabilities that succeeded in college or in the work force were motivation, goal setting, self-awareness of strengths and weaknesses, the ability to self-advocate, and access to external support (Anctil et al., 2008; Garner, 2008; Kerka, 2002).

Significant effort has been made to determine what the general understanding is of learning disabilities amongst different populations. Some of the research inquired participants about their knowledge and then educated them further while other studies simply found out what

the participants' knew. Additional research in the realm of learning disabilities will continue to give added support to those that are in need.

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APPENDIX B: PARENTAL PERMISSION FOR A MINOR

Parental Permission for a Minor

Introduction

My name is Michael Bair and I am a graduate student at Brigham Young University. I am doing a research study to determine what students with and without learning disabilities know about learning disabilities. I am inviting your child to participate because he/she is in grades 3 through 5 which is a time in which children start becoming aware of learning disabilities.

Procedures

If you agree to let your child participate in this research study, the following will occur:

- your child will be interviewed for approximately twenty (20) minutes about what he/she knows about learning disabilities
- responses will be written down and the interview will be audio recorded to ensure accuracy in reporting
- the interview will take place at your child's school in a quiet room with the researcher
- the interview will be after school and the total time commitment will be twenty (20) minutes

Risks/Discomforts

Answering questions regarding learning disabilities and personal learning style may cause discomfort for some participants. Participants are free to decline to answer any question to which they do not wish to respond.

Benefits

There will be no direct benefits to you or your child. It is hoped, however, that through your participation researchers may learn about what students at this young age know about learning disabilities, which may in turn benefit teachers and others in the school who work with students in the future.

Confidentiality

The research data will be kept in a locked cabinet and only the researcher will have access to the data. At the conclusion of the study, all identifying information will be removed and the data will be kept in a locked cabinet or office. Data will remain confidential.

Compensation

There will be no compensation for participation in this research.

Participation

Participation in this research study is voluntary. You have the right to withdraw your child's participation at any time or refuse to have your child participate entirely without jeopardy his/her class status, grade, or standing in school.

Questions about the Research

Please direct any further questions about the study to Michael Bair at mkbair07@gmail.com. You may also contact Dr. Gordon Gibb at gordon_gibb@byu.edu, or 801-422-4915.

Questions about Your Rights as Research Participants

If you have questions regarding your rights or your child's rights as a research participant contact IRB Administrator at (801) 422-1461; A-285 ASB, Brigham Young University, Provo, UT 84602; irb@byu.edu.

Statement of Consent

I have read, understood, and received a copy of the above consent and desire of my own free will to have my child participate in this study.

Child's Name _____ Date _____

Parent/Guardian Name (Print) _____ Signature _____

APPENDIX C: CHILD ASSENT

Child Assent (7-14 years old)

What is this research about?

My name is Michael Bair and I am a student at BYU. I want to tell you about something I am learning. I want to find out what you know about learning disabilities. I am asking you to take part because you are in (3rd, 4th, 5th) grade and I am asking students in our grade.

If you decide you want to be in this study, this is what will happen. I will sit down in a quiet room with you after school and ask you questions about what you know about learning disabilities. I will audio record your answers and also write them on paper. The questions will last for about 20 minutes.

Can anything bad happen to me?

You may feel a little uncomfortable when asked about what you know about learning disabilities.

Can anything good happen to me?

I don't know if being in this study will help you. But I hope to learn something that will help other children someday.

Will anyone know I am in the study?

I won't tell anyone about your answers. When I am done with this study, I will write a report about what I learned. I will not use your name in the report, so no one will know that you answered the questions.

What if I do not want to do this?

You do not have to answer the questions. It's up to you. If you say yes now, but change your mind later, that's okay too. All you have to do is tell me.

Before you say "yes" to be in this study; be sure to ask me to tell you more about anything that you don't understand.

If you would like to be in this study, please sign and print your name.

Name (Printed): _____ Signature _____

Date _____

APPENDIX D: INTERVIEW

Pre- and Post-Program Advocacy Interview for Students

Name: _____

Date: _____

Age: _____ Date of Birth: _____

Grade: _____

Headings (in bold), words italicized, and information within brackets will not be stated verbally in the interview. These are only for use by the instructor. Scoring criteria follows.

After a brief and friendly chit-chat:

Today, I am going to ask you a few questions and I would like for you to answer them to the best of your ability. Throughout this whole time, we will be tape recorded. The recording will be destroyed after the research is completed. Try not to be worried or nervous. This is not a test. All I want you to do is try your best. Do you have any questions? (Any questions will be answered at this time).

Knowledge

I. Knowledge of learning disability

1. Can you tell me what a learning disability is?

2. Do you think you have a learning disability? Yes _____ No _____

3. Tell me about your learning disability.

4. How does it affect you? _____

II. Knowledge of learning styles

1. Do you think people learn the same way or differently? Differently_____ Same_____

2. Tell me when or how you learn best?_____

3. Why?_____

4. When do you find it hard to learn?_____

5. Why?_____

6. What subjects are you good at?_____

7. Why?_____

8. What subjects are you not good at?_____

9. Why?_____

10. Which teacher do you think teaches you best?_____

11. Why do you think you learn more with that teacher? _____

12. When you have a test, how do you study for it? _____

13. Do you think the way you study helps you learn? Yes _____ No _____

14. Why? _____

III. Knowledge of the ability to succeed

1. How do you think you do in school? Why? _____

2. Do you think you can do well in school even though you have a learning disability? or Do you think students can do well in school even if they have a learning disability?

Yes _____ No _____

3. Why? (only if previous answer is 'yes') _____

4. Do you think people with learning disabilities, like yourself, can finish high school? or Do you think students with learning disabilities can finish high school?

Yes _____ No _____

5. Why? (only if previous answer is 'yes') _____

6. Do you think people with learning disabilities, like yourself, can go to college or university?
or Do you think people with learning disabilities can go to college or university?

Yes _____ No _____

7. Why? (only if previous answer is 'yes') _____

8. Do you think that students with learning disabilities, like yourself, can go into a wide variety
of areas for jobs? or Do you think that students with learning disabilities can go into a wide
variety of areas for jobs? Yes _____ No _____

9. What kind of jobs do you think people with learning disabilities can get? _____
