Accommodating Students with Learning Disabilities in Online High Schools

By

Shameran Zaya

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I would like to express the deepest appreciation to my family members for supporting and believing in me throughout the years. I would like to send a special note of gratitude to my dearest mum and brother for always putting a smile on my face. It is because of you that I can imagine myself achieving more. Thank you so very much. I love you.

I would like to thank all my OISE/UT Master of Teaching professors who continually led thought-provoking seminars and helped me prepare for a career as an educator. I must say a special thank you to my supervisor, Donna Duplak, for her excellent guidance, patience and commitment to this project.

I wish to acknowledge my Master of Teaching I/S cohort classmates for being supportive throughout this two-year program. I will treasure our happy memories together forever.
Abstract

This research project explores the various ways in which online high school teachers accommodate students with learning disabilities. The goal is to highlight the strengths of the online learning community and to discuss the various next steps. The project attempts to investigate the online teaching community by interviewing two experienced online high school teachers who have also taught in traditional classroom settings and who are now department heads at a private online high school. Analysis of existing literature on the topic as well as analysis of data collected through online interviews suggest that school wide and classroom specific initiatives set up to help students with learning disabilities are very limited. However, many are in the process of being established. Currently, accommodations include process scaffolding, providing descriptive feedback, and extending assignment deadlines. This research finds that the online high school learning community is one that is expanding and will require a few more years to be able to fully accommodate students with learning disabilities.

Key Words:

Online education, learning disabilities, accommodations
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Chapter 1: INTRODUCTION

Purpose of the Study

The purpose of this study was to understand the ways in which two teachers in a private online Ontario high school created an inclusive learning environment for students with learning disabilities. In other words, the aim of this research was to interview teachers to discover how they developed lessons and interacted with students who had learning disabilities to ensure their academic success.

This study was extremely important due to the ongoing growth and expansion of online courses. As the number of online courses continues to grow, educators need to think about how their teaching methods will be modified to meet different student capabilities. In the 2012-2013 school year, about 5.3 million K-12 students were enrolled in online schools in Canada (Barbour, 2012). The proportion of students participating in online education continues to grow in Ontario (Barbour, 2012). The growth of K–12 online learning in the United States is also growing, there were between 40,000 and 50,000 students enrolled in online courses in 2001 (Clark, 2001), and over 1 million in 2009 (Picciano & Seaman, 2009). As more students continue to opt for online learning programmes, teachers need to be learning how best to accommodate all these students, and more to the point, how they will address those students with learning disabilities.

Statement of the Research Problem

In what ways do Humanities teachers in a private online high school create the necessary learning environment for students with learning disabilities so that they can academically succeed in their classrooms?
Sub questions

1. How do teachers modify their lesson plans, assignments and assessments to cater to the needs of students?

2. In what ways do online teachers work with their colleagues to ensure uniformity in their accommodation?

3. How does the parental concern influence the types of accommodation the teacher provides?

Background of the Researcher

Teaching was the career I chose for myself when I was a little girl in elementary school. I loved school, I loved books and learning but that was not the case when I first enrolled in a Canadian school. I was a six-year-old, who already knew three languages, Assyrian, Arabic and Greek, but not a word of English. I struggled in school during the first couple of years because I refused to cooperate with the system. I did not like leaving my class every day for an hour of ESL class; I hated being marched out of my class in front of my peers and classroom teacher to sit with a stranger to learn the Language Arts lesson. I struggled through it all and practiced at home so I could move out of the extra help sessions, and when I did, I promised myself to work hard as teacher to create an inclusive environment to allow all my students – no matter their background or ability – to succeed.

I was enrolled in the Master of Teaching Program at the University of Toronto’s Faculty of Education (OISE). In my undergraduate degree I studied History, English, and Classical Civilizations at the University of Toronto. In my fourth year of undergraduate studies, I was involved in a pedagogical research project run by Professor Mary Cowan that explored how the use of novel methods of teaching and assessment influenced first
year history students’ understanding of primary and secondary historical sources. During my time conducting qualitative and quantitative research for this project, I quickly realized that there were other factors at hand apart from methods of teaching and assessment that played a significant role in students’ academic achievement. While I sat in on the lectures and analyzed student work I began to list all the different factors contributing to student academic success: different ways of learning, different educational backgrounds and some learning or mental disabilities or disorders. Did the university attempt to accommodate these students? I did not find the perfect answer before I graduated.

During the summer months of my graduate program, I decided to take some Professional Development online classes through Coursera. In addition to numerous different educational courses, I chose to take a Specialist in Virtual Instruction from the University of California, Irvine Extension program. The specialist certificate program was offered to students who completed four classes (Foundations of Virtual Instruction, Emerging Trends and Technologies in the K-12 Classroom, Advanced Instructional Strategies in the Virtual Classroom, and Performance Assessment in the Virtual Classroom) and a final capstone project. Students who successfully completed this specialist program were welcome to participate in accredited Virtual Teacher Practicum at University of California, Irvine. This was where students would develop a prototype of a fully or hybrid online course as a template for future use. As I was taking these classes, I thought back to my undergraduate research inquiries – how did online teachers create inclusive environments for students with disabilities to survive and thrive?

This line of questioning brought me to my current research study. I was very interested in online education, not only because it was a rapidly growing field of
education but also because when used well, it reached anyone around the world. With online education came questions of whether all students had access to the technology to engage in this great form of learning. Sitting aside all technical accessibility of the students, I wondered if the learning needs of each online student had been met. In other words, I was very interested in knowing the different ways teachers were accommodating students, in particular students with disabilities. For such a rapidly growing medium, I wondered whether or not the educational research and teacher practice for accommodating students with disabilities was developing at the necessary rate to fully accommodate students with learning disabilities.

Limitations of Research

My research was limited in three main ways: source information, time and resources, and generalizability.

Source Information

As interviews were my only method of attaining information, there was an absence of full anonymity which, for example, anonymous forms or questionnaires would provide. This meant that the interviewees most probably closely monitored and censored their opinions and would be particularly inclined to do so with information which they thought was politically incorrect but which would nonetheless would have been useful.

Furthermore, interviewing was the preferred method for which to conduct my research. Other useful methods of data collection were restricted such as, for example, direct observation of teachers in the classroom. Another limitation pertaining to source information was that my unit of study was specifically restricted to educators. While I technically could have interviewed other educational professionals, such as school board
members, doing so would have been quite challenging as it would require prior research approval and other such hurdles.

Lastly, the student demographic was another point of limitation as it would be a specific group of students who wished to be enrolled in a fully online high school environment. These students had access to technology, had the academic mindset allowing them to succeed in an online environment where they need to be independent and driven to complete their assignments and listen to lectures.

**Time and Resources**

Given the two year time frame to complete this project, I was unable to expand the research into a larger data pool. In year one I was preparing and learning about the frameworks of research, the ethics involved, and modifying my research question. The second year was when the data gathering and analysis took place; I interviewed, transcribed, and started to put my information together. For the sake of time I interviewed two teachers which limited the scope of my information and did not provide a general picture of all schools in Ontario or even the GTA, let alone the country. Because I was the sole observer, there was not an alternative perspective to tame inherent biases that I probably would unknowingly and unwillingly insert into my research over the course of the two years. Even though I was provided with a research advisor, the absence of a large research team composed of people with different suggestions, perspectives, and interpretations made it harder to objectively analyze the material.

**Lack of Generalizability**

The last limitation was that a limited number of teachers from the same private online high school were interviewed. This school had a distinct and unique culture in comparison to other schools. The community of the school itself was a limit because it is
not generalizable; the school could have been situated in an area that was particularly rich or poor, educated or uneducated, and ethnically homogenous or multicultural and diverse. Thus the data provided could be specific to the one area and not applicable to a different school board area. All these factors played a crucial role in the generalizability of the research because they acted as subtle but important variables influencing what was going on in every student’s home.
Chapter 2: LITERATURE REVIEW

Exploring the online learning environments to find the specific accommodations made by teachers for students with learning disabilities required researching the topic with an equity lens. I was interested in learning how the specific needs of students were met and how teachers ensured that all students in their virtual classroom were given the specific tools they needed to be successful.

As there was limited research on the correlation between online education and students with learning disabilities, I decided that it would be best to broaden the scope of my study with the hope of uncovering related literature even if it was somewhat tangentially related to the heart of this topic. I decided to include literature on how online teachers accommodate all students in general and how that is different from the traditional “brick and mortar” or in-class environment.

Instruction in Online Environments

Moallem’s (2007) study investigated how the perceptions, attitudes, and satisfaction of fourteen graduate students enrolled in an online class changed when their learning styles were and were not incorporated in the development of the content materials. One of the main goals of the research project was understanding the effectiveness of applying student learning styles in the creation of lesson material and assignments (Moallem, 2007). The research showed that most of the students, regardless of their learning style, chose collaborative team activities as their preferred instructional strategy. The research also showed that the novelty of new engaging content delivery faded after about two units of instruction (Moallem, 2007). There were other studies, however, like Merrill’s (2000) which suggested that content and the expectations of the teacher based on preferred learning outcomes for the unit should decide the particular
strategies used to deliver instructions, rather than matching the instruction to students’ preferred learning styles (Merrill, 2000). The findings suggested that, when the course instructors integrated student preferences for learning, the interactivity and social presence in the online learning environment greatly improved (Merrill, 2000).

On a different note, Koper’s (2000) research reaffirmed that matching the students’ preferred learning styles with the instructional delivery method in online learning courses significantly changed the learning from being content driven to one built around student application and contextualization of the material (Koper, 2000). To add to this finding, Gerris (2002) suggested that applying the preferred learning styles to effective instruction allowed students to be motivated about their learning so much so that they began to reflect on the content and connect the information to real-world contexts (Gerris, 2002). Gerris continued to state that the key for this was motivation and it needed to be sparked by the different learning styles but sustained through teacher feedback, student reflection, and active involvement in the class (Gerris, 2002).

Cooze and Barbour (2005) interviewed six high school students who had previously taken classes online in order to understand their experiences, particularly in relation to the asynchronous content in the courses. The research attempted to seek out what the students found useful and not so useful with the course materials. The research listed a few ways by which online teachers could enhance their instruction, they were: having a planned course plan with specific lesson plans and assignments, maintaining similar delivery style, providing summaries of the required readings, ensuring that all instructions are clear and modeling the expectations, refraining from using too much text, using multimedia to enhance the content and lastly, and perhaps most importantly,
explaining the content in different ways and including a variety of activities for both the struggling students and the above-average students (Cooze & Barbour, 2005).

In a study of sixteen experienced online teachers each of which having an average of more than three teaching years under their belts from the Mathematics, Science, and English departments at a Michigan Virtual School were interviewed. In these conversations, these teachers were asked specific questions about best-practices. The study grouped the findings in the following categories: general characteristics, classroom management strategies, assessment, pedagogical strategies: engaging students with content, pedagogical practices: making course meaningful for students, pedagogical strategies: providing support, pedagogical strategies: communication and community and lastly, technology (DiPietro et al, 2008). The study demonstrated that it was the general characteristic of teachers that had the most impact. These included passionate, understanding, organized, and hard-working teachers who created the best online learning environments. Communication and community followed second proving that teachers, who provided feedback, reached out to students, sought out multiple channels of communication, and built personal relationships with students as the best at strengthen the learning environment.

Student Success in Online Environments

Previously it was mentioned that understanding and utilizing students’ learning preferences could enhance the student’s learning and thus motivate students to connect the content to real-world contexts. This motivation was often lacking for students who were “at-risk” of failing. A recent case (2012) study research project, conducted in the province of Newfoundland and Labrador, followed the experiences of an at-risk student as he progressed through his online courses. He was enrolled in the online classes as a
means of graduating on time while still attending classes in a rural “bricks and mortar” school. The aim of the research was to find out more about the experiences of an at-risk high school student in a supplemental online learning program. The data collected, from interviews and video observation, showed that the student understood the material but did only the minimum work needed to pass the course (Barkour & Siko, 2012). The student, however, was also limited by the lack of proper technology at home as it was outdated and he often had to rely on the resources available at the local public library.

### Accommodations for Students

Very few research studies examined the instructional accommodations that online teachers make for students with learning disabilities; there is however, one research study that discussed the usage of different software technologies to help meet the needs of students with learning disabilities in the online environment. One research study focused on investigating whether students with dyslexia would be at a disadvantage when engaging with learning activities in synchronous online learning environments. The research found that students with dyslexia felt embarrassed when interacting with other learners because they are unable to quickly read and respond to comments in discussion forums (Wade et al, 2010). The participation required in synchronous online learning environments, usually reading and writing focused, added more to students’ already “established pattern of low self esteem and low confidence in their ability to learn, and ultimately causing withdrawal” (Wade et all, 2010, 713). The main contributing factor for nearly all synchronous online learning environments lay on the fact that communication required reading and writing – which made students with dyslexia completely vulnerable. The study suggested that, because students with dyslexia were less likely to thrive in synchronous online learning environments, teachers should be open to allowing the
student with tutoring strategies. I suggest another good option is to post discussion questions a day or two before the synchronous discussion is to take place, giving all students time to prepare for the response, instead of doing it all in real-time. This extra preparation time can allow students to feel more comfortable with their work instead of being anxious about their response times.
Chapter 3: METHODOLOGY

This research study investigated how online teachers modified their lesson plans, altered their assignments, and set up extra-help sessions for students with learning disabilities. I collected the following data: current literature in the area and interviews with two online high school teachers. The qualitative data was collected from two Humanities online high school teachers in Ontario via online Skype interviews. These interviews were then transcribed, analyzed, and coded in order to uncover common themes highlighted in the literature review and find an answer to my research question. The remainder of the methodology includes the re-stated research question and sub-questions, participants, data collection and analysis, the ethical considerations, possible risks and benefits, and limitations of the qualitative research study.

Statement of the Research Problem

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Sub questions

1. How do teachers modify their lesson plans, assignments, and assessments to cater to the needs of students?

2. In what ways do online teachers work with their colleagues to ensure uniformity in their accommodation?

3. How does parental concern influence the types of accommodation the teacher provides?
Participants

In conducting this complex and sensitive research, it was necessary to find interview participants who were knowledgeable about the different programs and accommodations available to students with learning disabilities and who were comfortable sharing their experiences. I interviewed two online high school teachers from a private online high school in Ontario via Skype. I think the online medium of the interviews added to rather than detracted from my research study because it resembled the teachers’ routine and inched me a little closer to understanding the world of online education.

I started my recruiting process by searching for online Ontario high schools. Upon completing a school list, I contacted the school administrators by phone and email to discuss my research and asked for any interested participants. Once I had some contact information, I contacted the teachers and held five to ten minute phone conversations with each of the teachers to narrow down my options to the two educators who had the most experience with learning disabilities to take part in my research.

Both interviews were conducted via Skype face-to-face using the video feature. The head office was located in northern Ontario, making travel difficult. Even if travel was possible, the teachers worked from home and making home visits to conduct interviews was not recommended. The interviews were recorded for later review, transcription, and analysis.

Data Collection and Analysis

In this qualitative research project, I began my research by reading the literature on my topic. After completing my literature review, I realized that my topic was fairly new and planned for my interview questions in such a way to get the most information
from my participants (see Appendix B for interview questions). I planned for two interviews at forty-five minutes in length via Skype. Upon successful completion of the interviews, I replayed the audio recording and reflected on the answers. I transcribed both the interviews. I allowed a few weeks to pass before reviewing my notes as to allow time for consideration and reflection. I then began to reread the transcriptions in search for common themes. I used different coloured highlighter markers, I underlined, and made charts to organize my themes. I wrote on different coloured post-it notes as I went along the analysis process as a way of organizing common responses to specific themes. I identified five themes that emerged from the transcription data. I analyzed them against the sources from the literature review to show similarities and differences and highlight any new information. I also added my own personal reflections as someone who had already taken several online classes.

**Ethical Considerations**

I followed the Ethical Review Approval procedures for the OISE/UT Master of Teaching program. To begin, the interview participants in this research study were asked to fill out letters of informed consent prior to engaging in the interview process. These letters were emailed to the participants, which they reviewed, signed, scanned, and emailed back to me (see Appendix A for consent form). The participants were reminded that they could ask any questions about the nature of the process of my research before the interview process began. I welcomed and encouraged questions from the participants to ensure they were both comfortable with the interview process. I repeated my availability and contact information and encouraged them to connect with me via telephone conversation, through email correspondence or via Skype if any questions or concerns arose.
I reminded the participants that they could withdraw from their voluntary participation in my research project, refrain from answering any questions without any explanation to me, or modify any answers by notifying me via, email, or through telephone conversation or Skype. I followed the procedures as specified on the consent form, which the participants signed. I also ensured that all personal information (i.e. names) that could compromise their anonymity were changed and guaranteed by using pseudonyms.

**Possible Risks and Benefits**

There was minimal risk associated with this research study. There were several benefits however. Aside from the specific program graduation requirement, I genuinely thought conducting this research would help me, as a future educator, to know the ways in which teachers incorporated different accommodation strategies to produce a learning environment that led to the academic success of the students with learning disabilities. I might be hopeful in saying this, but I believed this research would serve as a meta-cognitive tool for the participants as they analyzed what they had been doing thus far and what they might to try for future students.

**Limitations**

As was indicated in Chapter One of this study, there were limitations to this research due to my personal biases and perspectives. My own personal beliefs might have unconsciously seeped through my line of questioning, for example, the things that I chose to emphasize, and those that were discussed only for a short while. My own educational background experiences and teaching passion both led this research project to have a particular focus and aim.
Given the nature and scope of this research project, the sample size was very small, therefore the results cannot be generalized to the greater population of teachers. The length of the interviews and questions were limited as well, which meant the data that I linked to my literature review may be limited. The goal of this project was to discover the different ways two online teachers alter their lesson planning and structure their activities and assignments to meet the needs of students with learning disabilities. The goal was not to create a project that would be a model for all other similar projects.

Source Information

As interviews were my only method of attaining information, there was an absence of full anonymity which, for example, anonymous forms or questionnaires would provide. This meant that the interviewees most probably closely monitored and censored their opinions and would be particularly inclined to do so with information which they thought was politically incorrect but which would nonetheless would have been useful.

Furthermore, interviewing was the preferred method for which to conduct my research. Other useful methods of data collection were restricted such as, for example, direct observation of teachers in the classroom. Another limitation pertaining to source information was that my unit of study was specifically restricted to educators. While I technically could have interviewed other educational professionals, such as school board members, doing so would have been quite challenging as it would require prior research approval and other such hurdles.

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allowing them to succeed in an online environment where they need to be independent and driven to complete their assignments and listen to lectures.

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**Lack of Generalizability**

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research because they acted as subtle but important variables influencing what was going on in every student’s home.
Chapter 4: FINDINGS

In my hope of discovering more about the different ways in which online teachers provide accommodations to students with learning disabilities, I learned more than what I had initially expected to. I was expecting to learn of specific new modifications to various learning disabilities and new initiatives for accommodating diverse learners. I learned that these teachers were doing the best that they could with the resources available to them and the experiences they had acquired from past teaching experiences. I expected teachers to provide me with a wealth of information, but realized that this research topic was a fairly new one and needed to be developed further. Both my interviewees mentioned that if I was able to, I should continue with this study as they foresaw it peaking in the next five years. For the purpose of this study, I presented my findings in a case-by-case manner and explained my findings from the two interviews. As mentioned in chapter three, both interviewees were given pseudonyms.

First Case: Veteran Teacher and Principal

Mr. Baggins was an experienced teacher, having taught for over forty years. He had experience in the traditional classroom and had been teaching in the online educational community for over twenty years. Speaking with him was a great honour and I found that he was very passionate about accommodating students with learning disabilities. He worked with two other guidance counselors to develop extra resources for students with ADD/ADHD specifically. From this specific interview, I learned that he focused on three main ways of accommodating students with learning disabilities: teacher feedback, communication, and student work.
Theme 1: Teacher Feedback

When asked how a teacher could be the most help to students with learning disabilities, Mr. Baggins answered by saying that “teachers are to be supportive, thorough, and conscientiousness.” He told me that he only hired highly academic and dedicated teachers because he believed they would create the “right” environment in which the students could excel. According to Mr. Baggins, part of creating the proper learning environment was timely supportive and constructive feedback – he even expected his teachers to “return their marking with five to seven days.” The reason for this short time frame was that the students needed to be able to know if they were succeeding in the class. This is important for students with learning disabilities, especially those with ADHD in particular; he mentioned that the teachers needed to break down the assignments into sections and grade the assignment in chunks to allow the student to focus all his or her attention on the task. Mr. Baggins had said that he provided detailed feedback that outlined two to three specific areas (whether it be grammar, content etc) to focus on improving.

Theme 2: Communication

The second major theme drawn from Mr. Baggins’ responses was communication. To be clear, he noted that as online teachers it was of extreme importance to hold regular conversations with students and parents so as to maintain academic expectations. He said that he contacted students to check in on them and had even provided oral feedback on assignments over the phone as it could be faster and that it allowed him to answer any questions the students had. Communication with students was important but communication with parents was more important.
Mr. Baggins really valued parent input; he seemed eager to work with parents to help meet the needs of the students. He said that he “talked with parents about the specific needs of students.” Upon making his teaching plans, he had conversations with the parents to strategize what their child would focus on in the next unit, whether it was time management, completion of written work etc. It seemed that communication with parents played a big role in accommodating students with learning disabilities.

**Theme 3: Student work**

Mr. Baggins was honest that in order to build an authentic and academically driven community, he needed to have high expectations of his students. He also said, however that he had to be “very analytical about student writing” because he did not want to give an unfair grade for a students’ inability to perform due to a learning disability. In order to create a fair learning environment for all his students, he did say that he sometimes marked along a single trait, for example choosing either to focus on the content or the writing to show the success of the student work but still provided constructive comments on the area that needed work.

**Unaddressed Ideas**

While I learned a lot from Mr. Baggins’ knowledge and experience, I struggled to be able to pinpoint the specific things that an online teacher could do to accommodate students with learning disabilities. Again, while the answers and findings were interesting, and of course useful, they did not seem specific to students with learning disabilities or to the online educational environment. I suppose the accommodations at this particular online classroom environment were still growing and I cannot judge based on all that I have observed in the traditional classroom. It is unfair of me to do so as these
teachers were working on their own and did not have school board initiatives or programs in place to help them; they were on their own, unfortunately.

**Second Case: Department Head**

Mr. Nathaniel began very honestly by saying that he did not see himself doing many things differently for students with learning disabilities. He said that the field was growing and his school was trying to start some new programs that, it is hoped, would benefit students. The school was currently in the process of setting up a virtual staff room that would allow for some uniformity in accommodations across different subject areas as more and more teachers discussed their strategies with one another. The idea for the virtual staff room was to have teachers engaged with each other. Mr. Nathaniel also mentioned that the school was working on standardizing the request form for students’ personal information (which included any learning disabilities students wished to inform the teachers about). In this way the information gathered from students would be consistently shared between the appropriate staff members.

**Theme 1: Passionate Teachers**

In this interview, Mr. Nathaniel kept coming back to the idea that the best online teachers, the best traditional classroom teachers, and the best special education teachers had one thing in common - their passion for teaching. He said that if a teacher was dedicated to his or her job, the students would have the special attention and accommodations they required. He even went on to say “a teacher could put all the procedures into helping the student with an IEP but if the teacher did not care about them than it would not make a difference.” When asked what passionate online teachers do to help students with learning disabilities, Mr. Nathaniel replied that they provided good
timely feedback, replied to student emails, cared for and engaged with their students by checking up on them and, of course, were aware of and abided by IEP requirements.

**Unaddressed Ideas**

While the conversation was rich, it was limited in terms of the specific accommodations teachers made in their daily lesson plans. The responses did not highlight new specific techniques for students with learning disabilities but simply pointed good teaching practice. Mr. Nathaniel mentioned that the department created lessons and, being the department head, he stated that the lessons needed to meet a certain academic standard. Often times the lessons were not modified unless a student raised a concern. He did mention, however, that students with any learning disabilities as identified on their IEPs, were given more time on tests and assignments. I assumed this was the case already but was interested in the changes in lesson plans and was slightly disappointed when I learned that there was not much change to the lessons. Mr. Nathaniel did mention that my research topic was very relevant and his school was trying to create a good system like the traditional school boards but that would take more time.

**Summary of Findings**

Both participants highlighted that students with learning disabilities were able to learn and succeed in their classes when the teacher was caring, dedicated, and willing to communicate with the students outside of class to ensure they were on task, understood the material, and course expectations. Providing timely descriptive feedback and communicating with students were highlighted as the two most effective ways of helping students with learning disabilities in the online classroom.

Providing timely descriptive feedback on assignments is good practice in traditional classrooms, but even better practice with online students. *Growing Success*
(2010) set out “clear, specific, meaningful, and timely” feedback as one of the seven fundamental principles for improving the learning for all students (Growing Success, 2010, 6). Teacher feedback needed to always focus on the learner’s goals. This specific, goal-oriented feedback helped the students focus on improving certain areas of their work instead of feeling overwhelmed.

The one major link from the literature that correlated with Mr. Baggins’ response was mentioned in DiPietro’s (2008) research study where communication was the second highest listed best-practice according to the participants. Both teachers in the research project agreed that communication helped accommodate all students, even students with learning disabilities. Communicating with students meant that teachers sought out the student outside of class time via different channels of communication to build personal relationships with students.

The importance of being a great passionate and dedicated teacher in the online environment as a way of helping students with learning disabilities emerged from both the interviews and the literature. The online teaching environment was not very different from the traditional classroom environment. Both learning forms required passionate and committed teachers who put their students’ learning first.
Chapter 5: DISCUSSION

Implications/Recommendations

As things currently stand, the research linking online education to the accommodations for students with learning disabilities is sparse. Many of the publications and research articles focused on accommodating students who were “at-risk” or students with physical disabilities. This research project set out to develop the data further.

Research

As online education continues to grow, I believe the literature will expand to include accommodations of students with learning disabilities. Much of the current research is heavily focused on the implementation of the different online software to establish a course. In the event that the research touched on the issue of accommodation for students, it was usually for students with physical disabilities and only in relation to a discussion of different software to be used. More research was needed in order to show the necessary accommodations for students with learning disabilities and how their IEPs carried over to the online learning environment. In order for the students to survive and thrive in the online environment, the research needs to start to investigate the best possible practices for teachers.

Personal Teaching Philosophy

My teaching philosophy can be summarized in two words: student engagement. I believed that at the core of student learning was how well they engaged with the material, their classmates, and their teacher – it was very important to make the lessons, assignments, and discussions relevant and accessible for students so that they were willing to learn the second they stepped into the classroom. A deeper layer of the student
engagement piece is students’ accessibility to the course content - in order for the students to be engaged, they needed to be able to understand the material. My teaching style needed to meet every student at his or her learning ability. This meant knowing how they learned, setting high standards, providing concrete oral and written feedback on assignments, and building a caring relationship with each one of my students. These four requirements would meet the needs of any student who was struggling and would most definitely be a great start to accommodating students with learning disabilities.

This research project showed me that great teaching required the same passion, dedication, and commitment no matter the educational setting. Great traditional classroom and online teachers are those who had engaging lessons, set up collaborative classroom activities, planned critical thinking oriented discussions, divided large assignments into smaller sections, set high standards, provided descriptive timely written feedback, and took the time to develop a caring relationship with students. In doing these things, teachers already began the accommodation process for students with learning disabilities.

Educational Community

This research project raised many more questions than it answered. I was intrigued about learning more about online education. It was a rapidly growing field, enrolling more and more students each year. For this reason, I believed it was vital to make a few changes to ensure that teachers would be prepared to effectively teach students in the online environment.

Firstly, I thought all teachers would benefit from having more technological pre-service experience, even if that came in the form of a single mandatory course at Faculty of Education. Even one course would open teachers up to the idea of employing different
online applications and websites that could help enhance learning by using students’ interests and strengthens in order to deepen their understanding of the lesson content. Additionally, it would be even more practical to give teacher candidates an option of teaching at a technology-oriented school for one of the practice teaching blocks. This would ensure that teacher candidates both learned from teachers who used technology in their classrooms and developed their own lesson plan ideas and assignments and begin to think about accommodating students with learning disabilities, special needs, or English Language Learners.

Secondly, teachers who are interested in teaching in the online environment should balance their technological expertise with their own personal teaching practice. This means that teachers should not solely focus on the technology required for online teaching but rather continue to foster caring relationships with students. This is especially important for online students because of the lack of face-to-face interaction and connection.

Limitations

As was indicated in Chapter One and Three of this study, there were limitations to this research due to my personal biases and perspectives. My own personal beliefs might have unconsciously seeped through my line of questioning, for example, the things that I chose to emphasize, and those that were discussed only for a short while. My own educational background experiences and teaching passion both led this research project to have a particular focus and aim.

Given the nature and scope of this research project, the sample size was very small, therefore the results cannot be generalized to the greater population of teachers. The length of the interviews and questions were limited as well, which meant the data
that I linked to my literature review was or may be limited. The goal of this project was to discover the different ways two online teachers alter their lesson planning and structure their activities and assignments to meet the needs of students with learning disabilities. The goal was not to create a project that would be a model for all other similar projects.

**Source Information**

As interviews were my only method of attaining information, there was an absence of full anonymity which, for example, anonymous forms or questionnaires would provide. This meant that the interviewees most probably closely monitored and censored their opinions and would be particularly inclined to do so with information which they thought was politically incorrect but which would nonetheless would have been useful.

Furthermore, interviewing was the preferred method for which to conduct my research. Other useful methods of data collection were restricted such as, for example, direct observation of teachers in the classroom. Another limitation pertaining to source information was that my unit of study was specifically restricted to educators. While I technically could have interviewed other educational professionals, such as school board members, doing so would have been quiet challenging as it would require prior research approval and other such hurdles.

Lastly, the student demographic was another limitation as it is undoubtedly a specific self-selective group of students who wished to be enrolled in a fully online high school environment. These students had access to technology, had the academic mindset allowing them to succeed in an online environment where they need to be independent, and driven to complete their assignments and listen to lectures.
Time and Resources

Given the limited time frame to complete this project, I was unable to expand the research into a larger data pool. In year one I was preparing and learning about the frameworks of research, the ethics involved, and modifying my research question. The second year was when the data gathering and analysis took place; I interviewed, transcribed, and started to put my information together. For the sake of time I interviewed two teachers, which limited the scope of my information and did not provide a general picture of all schools in Ontario or even the GTA, let alone the country. Because I was the sole observer, there was no alternative perspective to tame inherent biases that I probably would unknowingly and unwillingly insert into my research over the course of the two years. Even though I was provided with a research advisor, the absence of a large research team composed of people with different suggestions, perspectives, and interpretations made it harder to objectively analyze the material.

Lack of Generalizability

The last limitation was that a limited number of teachers from the same private online high school were interviewed. This school had a distinct and unique culture in comparison to other schools. The community of the school itself was a limit because it is not generalizable, the school could have been situated in an area that was particularly rich or poor, educated or uneducated, and ethnically homogenous or multicultural and diverse. Thus the data provided could be specific to the one area and not applicable to a different school board area. All these factors played a crucial role in the generalizability of the research because they acted as subtle but important variables influencing what was going on in every student’s home.
Further Study

While I learned a lot from the two teachers I interviewed, I think there is so much more I can learn from other teachers in different online learning environments. In this research project, I interviewed two teachers from a private online high school in an asynchronous environment. The data from this particular setting is drastically different than one that I would find from a public online high school in the synchronous learning environment. The instruction would be in real-time, the teacher would be teaching and modifying lessons for students with learning disabilities according to their IEPs, following board regulations, and providing students with more accommodations. The private asynchronous learning environment probably has a different student demographic (higher financial earnings, independent learners, etc). It is for these reasons that I think further study on public school online education would provide a clearer picture of how teachers accommodate students with learning disabilities.

Another aspect of this research project that did not reveal strong data, but would make for interesting further study, was the parental involvement in the accommodations for students. Parents advocate for their children’s rights in the classroom, anywhere from grades to IEP accommodations, in Public High Schools. I think the same could be true for parents in Public Online High Schools. A research project in this area might be helpful for all private and public online high school teachers.
REFERENCES


Appendix A: Letter of Consent for Interview

Dear ____________,

The following information is provided for you to decide whether you wish to participate in the present study. I am a graduate student at OISE, University of Toronto, and am currently enrolled as a Master of Teaching candidate. I am researching the ways high school online teachers provide accommodations to students with learning disabilities to ensure their academic success. I think that your knowledge and experience will provide insight to my study.

You should be aware that you are free to decide not to participate or to withdraw at any time without affecting your relationship with the researcher or with the University of Toronto, Faculty of Education. Your involvement in this research study will consist of one online interview via Skype. The interview may range between 40 to 60 minutes. The online interview will be audio-recorded and the information will be transcribed and analyzed. I may contact you via email after this online interview for additional inquiries.

Please do not hesitate to ask any questions about the study either before participating or during the time that you are participating. I would be happy to share my findings with you after the research is completed. However, your name will not be associated with the research findings in any way. Your specific responses will be kept confidential and your identity will remain anonymous as pseudonyms will be used in any written report or presentation. During the course of this research, only my supervisor and I will have access to this data as it will be stored in a secure place and all data will be destroyed no later than five years after the conclusion of this study.

There are no known risks associated with this study. The benefit to you for assisting in this research study is strictly academic in nature as your expertise and reflections will add to the literature and hopefully continue the discussion on the types of accommodations made in online learning environments.

Please sign your consent with full knowledge of the nature and purpose of the procedures. Please retain a copy for your records.

Thank you,
Shameran Zaya (Researcher)
shameran.zaya@mail.utoronto.ca
416-931-7992

Donna Duplak (Research Supervisor)
donna.duplak@utoronto.ca

Signature: ___________________________________
Name (printed): _______________________________
Date: _______________________________________

Appendix B: Interview Questions

Introduction
i. What is your name?
ii. Where did you receive your Bachelors of Education (or equivalent) teaching degree?
iii. How long have you been teaching in general?
iv. Which courses (and grades) are you teaching this year?
v. How long have you been an online teacher? What got you interested in online teaching?
vi. What kind of PD (Professional Development) on did you take part in either prior or during teaching?

Daily Routine
1. At the beginning of the course, what kinds of information do you receive about your students?
2. How do you find out that a student in your online class has a learning disability?
3. What does your daily teaching schedule look like?

Accommodation
4. A new student with a learning disability joins your class, how do you set up the class for them?
   - Is there a specific procedure you must follow? Please explain all the actions you take.
5. What exactly do you change in your course (lessons, activities, assignments, tests etc.) to meet the special needs of students?
6. What have been the challenges in accommodating lessons, assignments and tests for students?
7. Do you have a standard resource bank compiled for students with learning disabilities that you use for every student with a learning disability?
8. How do you think making accommodations for students with learning disabilities in the online classroom differs from the traditional classroom?

Collegial Support
9. What are the support structures you are provided with from the online learning community (school resources, other teachers, iNACOL etc)?
10. Where do you find the resources to create these lessons and assignments?
11. In what ways do online teachers at Virtual High School work together to ensure uniformity in accommodation?
   - Have you worked in collaboration with other teachers (across departments) in the past to meet the needs of a student you had in your classes?

Parental Concerns
12. In what ways can the parents of students with learning disabilities influence the specific changes you make in your lesson plans and assignments?
13. Have you encountered challenges with parents in the past? How did you address them?