Effective Collaboration between Teachers and Parents: Discovering how to unlock Literacy and Language Abilities in students with Down Syndrome

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A research paper submitted in conformity with the requirements for the degree of Master of Teaching
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Abstract

This research project investigates how a classroom teacher and a parent view and implement literacy/language programming for students with Down syndrome (DS). Through in-depth interviews with both participants, this qualitative research study examines the perspectives and practices of an active teacher and parent. The findings are presented as two case studies. A cross-case is also presented that connects to the findings to relevant literature. The case studies examine the participants’ perspectives on literacy and language development; the implementation of a literacy and language development program; what effective collaboration between teachers and parents looks like; and what can be done moving into the future. The teacher and parent participant provide valuable insights into what effective collaboration can look like and how it can positively affect the literacy/language development of students with DS. There is a need for further development of both the programming for students with DS, as well as the communication that takes place between home and school/parents and teachers. By examining the perspectives of a teacher and a parent, in connection to the literacy and language development of students with DS, the importance of communication and collaboration between these two groups is apparent.

Keywords: literacy and language development; Down syndrome; communication and collaboration; parent and teacher perspectives; and effective programming
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Chapter One: Introduction

Introduction to the Research Study

The structure of the education system in Canada, and Ontario specifically, places an emphasis on literacy and numeracy in elementary and secondary school curricula. The emphasis that is placed on the development of language and literacy skills in students in the province is represented within the Ontario Ministry’s Curriculum documents. According to the Language curriculum document for Grades 1 to 8, “Literacy is about more than reading or writing – it is about how we communicate in society. It is about social practices and relationships, about knowledge, language and culture” (Ontario Ministry of Education, 2006). This statement as outlined by the Ontario Ministry of Education (originally stated by the Canadian Commission for United Nations Educational, Scientific and Cultural Organization) demonstrates the fact that there is an emphasis placed upon students learning to read, but also understanding what they are reading and why they are required to do so while in school. It is important for students, teachers, and parents to understand the importance and relevance of literacy learning in today’s society.

Educational programs have catered to the able-bodied community for centuries, despite the fact that mental and physical disabilities have been prevalent within and outside this community. This problem has been addressed in the Language curriculum document. It states, “those who use literacy take it for granted – but those who cannot
use it are excluded from much communication in today’s world. Indeed, it is the excluded who can best appreciate the notion of “literacy as freedom” (Ontario Ministry of Education, 2006). This exclusionary process has an effect on learners with disabilities while they are in school, as well as after they leave the education system. This study is going to specifically look into the experiences of literacy learners with Down syndrome (DS), how teachers have approached teaching them and how their parents have contributed.

My volunteer experience in secondary schools has driven my interest in this topic. Volunteering at two schools over the course of three years allowed to me witness the types of environments in which students with Down syndrome are educated. The one thing that was consistent in both schools was the separation of students with DS from the so-called ‘general’ student population. There were times, of course, when the two groups of students would be integrated, for example, during Physical Education programs. This mingling of students was the only time that students with DS would have a formal opportunity to interact with peers who do not have DS. At all times it was the responsibility of Educational Assistants (EAs) to monitor student tasks and behaviour at both secondary schools where I volunteered. The Toronto District School Board (TDSB) website lists the ‘summary of duties’ for the position of an Educational Assistant. It states that EAs are tasked to support special education teacher(s) in meeting the needs of students with developmental disabilities. The basis of the job
description has EAs available to assist students and teachers during the learning process. There is nothing listed in the description that states EAs are to pacify students by walking them up and down the hallways of the school, or have them participate in limiting tasks that do not stimulate their minds. It is my belief that there is more that can be done for students with Down syndrome. Alongside their parents, teachers can potentially offer more, which leads me to the intended purpose of my study.

**Purpose of the Study**

The purpose of this study is to examine the at-home practices of parents and teachers’ classroom strategies that are used to improve the language and literacy skills of students with Down syndrome. This study explores the needs and experiences of students with DS and how their parents and teachers interactions can make these experiences more meaningful. In order to better understand how the language and literacy levels of these students can be improved it is important to go to the source of many students’ learning – their parents and teachers. Teachers and parents of students with Down syndrome do not have an easy task when it comes to instruction surrounding literacy and language. The research on this topic suggests that there are multiple reasons to explain why students with Down syndrome struggle when it comes to language development and literacy comprehension. For example, Jordan, Miller, & Riley (2011) state that “in addition to having general delays in language comprehension, children with Down syndrome often have differences in their mouth structure as well
as have generalized low muscle tone that make it harder for them to produce speech sounds”. Both of these needs should be taken into consideration when teachers are developing learning programs for students with DS.

The majority of research surrounding the literacy levels and language development of students with DS has focused on the students and their parents. The findings of this study intend to benefit students with DS, their parents, and teachers. The intention of this study is to discover and report on the types of interactions that parents and teachers have and how their collaboration can potentially achieve more in terms of language/literacy ability for this population of students. This topic is discussed in more detail as this research paper moves into a review of the current literature on the literacy and language development of students with DS.

**Research Questions**

The overarching research question for this study is: How does the interaction and collaboration between teachers and parents of students with Down syndrome impact the literacy and language programming that takes place in schools?

My sub-questions include:

1. How do parents and teachers support each other as they plan a literacy and language program for students with Down syndrome?
2. What effect does the level of communication between teachers and parents have on the literacy and language program implemented for students with Down syndrome?

3. What can parents and teachers do to develop open communication and collaborative environments that foster learning for students with Down syndrome?

This study reports on the levels of communication between teachers and parents, as well as the programs that exist for the language and literacy development of students with Down syndrome.

**Background of the Researcher**

I completed an Honours Bachelor of Arts in History at the University of Toronto. While completing a Specialist degree in History and a Minor degree in Geography, I wrote many qualitative research papers. The number of papers and projects that my degree required allowed me to develop vast knowledge of the research process. History has always been my academic focus and upon being accepted to the Ontario Institute for Studies in Education (OISE) and entering the Master of Teaching (MT) program this focus had not changed. However, being charged with the task of developing a research question revolving around the actions of teachers, my focus shifted. There are countless articles and theories about the best ways or the most effective ways of teaching history to students, and why it is taught in schools. I did not want to add my research to this
growing list. Instead I wanted to look into something that I could be passionate about, but something that needed more representation. This is why I have chosen to look at what can be done to assist teachers and how they can plan in conjunction with parents for a better literacy/language program for students with Down syndrome.

After being educated in the Ontario school system for twenty years, I have experienced a multitude of scenarios within that system, as both a student and a student volunteer. Elementary school was what I would call normal for Ontario: Junior Kindergarten through to Grade Eight, with an emphasis on literacy and numeracy, as would be expected by the Ontario Ministry of Education’s curriculum guidelines. To my recollection the elementary school that I attended did not have any students with Down syndrome enrolled during my time there. The first encounter that I had with Down syndrome during my education was not until I reached secondary school. This is something that I found interesting, and is part of the reason that I chose to pursue this topic. How was it possible that there was never a student with Down syndrome at my elementary school? I do not mean to be naïve about this situation; however, the neighbourhood that I lived in was large and catered to a lot of students from varying backgrounds. Therefore, my question remains *where were the students with Down syndrome?* This led to one of my main reasons for researching this topic. Current research suggests that there are “large significant gains in expressive language and literacy skills for those [with Down syndrome] educated in mainstream classrooms”
(Buckley, Bird, & Archer, 2006). As this study progresses it is my intention to determine whether or not teachers and parents believe this to be true.

The first experience in schools that I had with students who had Down syndrome, as previously stated, was when I attended secondary school. There were a few students that attended my school who had Down syndrome, but they were placed in a separate classroom for students that had autism and other mental or physical limitations. I saw this again when I volunteered at a secondary school that divided typically developing students and students with varying disabilities. My experience at this school is one that has driven me to this point in my research. During my time at the school I observed a student with Down syndrome over two years, as her level of language and ability deteriorated. When I first met this student she could read simple words out of books as she followed along with the cues from the pictures. This student loved to sing, and when she would the words that she sang were clear and easy to understand. At the end of two years – the length of time that I volunteered there – this student’s language abilities had decreased. The words that she sang were incomprehensible and when she read from short, picture books the words were made up. For instance, a one syllable word like done would be mistaken for dog. The student would see the letter d and presume that the word was dog because she associated that letter with that one specific word. From my experiences, it is my belief that there are two reasons that this student’s language and literacy abilities deteriorated over the two
years that I observed her. First, her language abilities were not a focus of her teachers. They aimed to teach her ‘life lessons’ which at times manifested in unskilled and intellectually limiting tasks that would serve her more in the future. Secondly, she was not in an integrated classroom and she was only ever surrounded by other students that also had limited verbal skills. After witnessing the effects that a lessened language program had for this student, it is my opinion that literacy and language should be key components for students with DS. My personal connection with students who have Down syndrome is solely based on how I have witnessed their lack of educational growth within the classroom.

For all of the reasons listed above, it was my intent to conduct a study that focused on what both teachers and parents are doing to help students with Down syndrome succeed in their literacy learning. This research goal was conducted with an open mind and this has allowed me to look into multiple theories and studies. I examined these theories and studies, until I have found information that would allow for the largest amount of success among teachers as they instruct students with DS during the course of their literacy and language development.

**Overview**

Chapter one includes an introduction to the study, where I provide an explanation of the main research questions as well as the central aims of the study. In the first chapter I also discuss my own personal motivations for pursuing this project.
Chapter two consists of a review of literature, which defines important concepts and theories as well as discusses the main issues with regards to literacy/language education of students with Down syndrome. Chapter three discusses the method and procedures that I used in this study. It also includes information about how my participants were recruited and methods of data collection. Chapter four contains my research findings, which are presented as two case studies and a cross-case analysis. Chapter five is composed of a discussion of my findings, implications for myself as a researcher and an educator, recommendations for the broader educational community, and suggestions for further study. Finally, all references and a list of appendices can be found at the end of the document.
Chapter Two: Literature Review

Introduction

This chapter examines the current literature on the subject of literacy and language development for students with Down syndrome. The main concepts that are addressed here are as follows: 1) literacy experiences of students with Down syndrome, 2) communications/relationships between teachers and parents, 3) teacher and parent “programs”, 4) connecting to the literate community, 5) relationships between reading and language development, and 6) early interventions. It is the intention of this research study to determine the areas that need to be pursued in order to assist teachers and parents as they structure programs for students with Down syndrome with emphasis on their literacy and language.

Literacy Experiences of Students with Down syndrome

The literacy experiences of students with Down syndrome (DS) have been recorded as varying, to say the least. However, it is clear from this research that most students with DS have had very few opportunities to learn academically. As Moni and Jobling (2001) suggests, “many individuals with Down syndrome have never been given the opportunity to learn to read” (p.378). Moni and Jobling (2001) go on to state that, “until recently academically based literacy instruction for individuals with Down syndrome has been rejected due to false assumptions that they do not achieve and therefore cannot be expected to benefit from instruction” (p.378). The fact that this
information was reported and discussed less than fifteen years ago, demonstrates that the gaps for these students still persist and require further investigation.

Mirenda and Trenholm (2006) “suggest that individuals in these disability groups share a number of common literacy experiences, especially in their early years” (p.31) when referring to students with both mental and physical disabilities, including those with DS. Mirenda and Trenholm (2006) focused in on the experiences of students at home and in their own personal communities.

Another interesting perspective with regards to what has been discussed in terms of the experiences of students with DS comes from Snowling, Nash and Henderson (2008) who state that students with DS, “experience a wide range of environments at home and in school that will contribute to their literacy outcomes” (p.66). It is important to note that families play an important role in any students learning and parents of students with DS should work with teachers to develop literacy/language programs for students. Laws and Millward (2001) state that, “many practitioners argue that effective education depends on constructive, two-way communication between home and school…” (p. 211). This point from Laws and Millward connects to further sections within the research related more specifically to home-school communication.

A study conducted by Nash and Heath (2011) suggests that, “reading is a critical skill for individuals with learning disabilities as it may open up vocational
opportunities, facilitate increased independence and help improve language and communication skills” (p. 1782). This suggestion from Nash and Heath (2011) demonstrates the importance of reading and literacy development can have for students in terms of their independence and future abilities.

**Reading/Literacy Skills**

The reading skills of students with DS have been determined by most studies to be low or poor. For example, Cardoso-Martins, Peterson, Olson and Pennington (2009) state that the results of their study showed that, “there was no evidence that reading represents an “island of ability” in DS; instead, the average reading level of DS participants was even lower than would be predicted by their IQ” (p.277). There are two things, however, that need to be taken into consideration when looking at this study. First, it is important to note that the “island of ability” that is being referred to by these authors is a theory from Sue Buckley (1985) that concludes that students with DS have their own way of learning literacy and language. The second thing that should be considered with regards to this statement from the study is that Cardoso-Martins et. al (2009) were anticipating those outcomes, and believed that is what they would find.

Understanding the literacy skills or reading skills of students with DS is important for teachers in order to determine the appropriate instruction for each student, since each student experiences literacy and language development differently. Ratz (2013) comments on this fact, stating that, “knowledge about specific literacy
attainment of students with DS is vital for planning instruction, for creating learning environments, and for formulating future fields of research” (p.4504). This instruction planning for creating learning environments for students, Ratz (2013) continues, is “especially [important for] students with DS [as they] need specific teaching which takes their impaired verbal short term memory into account, such as learning to read in syllables” (p.4504). The research conducted on the creation of learning environments for students is an important theory to be examined in relation to the aspects of learning for students with DS.

Boudreau (2002) suggests that, “a substantial proportion of children and adolescents with DS acquire some level of literacy skill, although a great deal of variability exists in the level of achievement obtained” (p.498). Despite the fact that Boudreau believes literacy/language attainment for students with DS is limited, there is still a need to examine the best practices for how parents and teachers can assist these students.

In their study, Squires, Reutzel and Gillam (2013) state that students with Down syndrome typically have low IQs that range from approximately 40-60. However, they go on to suggest that it is possible for students with DS to develop their reading and comprehension skills if “given the right supports (i.e. modifying classroom tasks, reducing linguistic and/or conceptual complexity of tasks, using frequent repetition and multiple concrete explanations, and encouraging the use of concrete materials)” (p.405).
The instructional and environmental supports that Squires et. al (2013) suggest are practices often used in the modified special education classroom.

**Narrative Comprehension**

This section looks at one of the key aspects covered in the Ontario Elementary/Secondary Curriculum documents that demonstrate the importance of fostering meaningful connections and learning for students (Ontario Ministry of Education, 2006), and especially for students who require more assistance than typically developing students. Kim, Kendeou, van der Broek, White and Kremer (2008) discuss the important idea that “…there is overwhelming evidence that, during reading, successful readers identify meaningful connections between events in the text, with causal connections playing a particularly important role” (p.339). Furthermore, Kim et. al (2008) discuss the fact that students with DS “show further delay in the development of reading comprehension” (p.338). It is this concept that suggests there is a need for teachers and parents to focus in on student comprehension.

**Communication/Relationships between Teachers and Parents**

As previously mentioned above, the connections between home and school in terms of student education are very important. Laws and Millward (2001) comment on the benefits for parents, if the lines of communication remain open between school and home,
In research to investigate parents’ perspectives on the provision of education for children with language problems, Dockrell et al. (1999) noted that parents frequently felt uninvolved and uninformed about the support provided in mainstream schools, whereas the parents of children in special provision reported they were well-informed about their child’s education (p. 211-212).

The variance that Laws and Millward note from the work of Dockrell et. al is the fact that where communication is present between home and school, parents feel as though they were involved in their child’s education. Tezel Şahin and Atabey (2014) state that, “it is an inevitable reality to have parent school collaboration today” (p. 77). The authors go on to suggest that, “the role of families in education is getting more and more important” (p. 77).

Steh and Kalin’s (2011) research study references the following to suggest the significance of parent-teacher communication stating that, “Woolfolk (2002) points out that teachers can create a more positive classroom environment, allowing them to dedicate more time to teaching, when they share the same expectations as parents and when both sides support each other” (p. 83). The emphasis that has been placed on teacher-parent or home-school communication in these few studies, as well as within the past few decades, suggests a shift in the current norms of education. Research suggests that there is mainly support for this updated version of education within special education and generalized classrooms.
Teacher and Parent “programs” for students with Down syndrome

Research suggests that teachers of students with DS need to have a collection of strategies to assist the language and literacy development of their students and parental input can be an asset during this process. One such strategy can be to establish connections to the lives of the students in every lesson. For example, “LATCH-ON (Literacy and Technology Hands-On) provides a two-year program of teaching and learning activities based on socio-cultural models of literacy in which the explicit teaching of reading, writing, speaking, listening and viewing is integrated with the development of technological literacies” (Moni & Jobling, 2001).

The LATCH-ON program, as described by Moni and Jobling (2001), is one developed for students with DS who have left general education but still require further development of their literacy and language skills. This is just one example of something put in place by a program that could be utilized by many teachers of students with DS.

Ricci (2011) reports that, “…home environments can be considered rich with literacy opportunities when parents regularly read to their children…” (p. 597). More than the activities that parents utilize in the home, there is the fact of parent interest and point of view. Ricci (2011) references this concept stating that, “children whose parents view reading as a source of entertainment appear more likely to develop [strong literacy abilities]” (p. 598). Positive attitudes from parents and teachers can allow for better learning environments for students with DS (Ricci, 2011).
One of the strategies/programming choices coming into play with current models of education is the idea of the inclusive classroom. Research by Katz (2013) discusses the inclusive classroom and the benefits of this type of environment for students. Katz (2013) states that,

inclusion can be divided into two sub-types; academic inclusion, defined by full and equal participation in interaction with typical peers in academic activities and curriculum within a regular classroom (Katz, 2012a), and social inclusion, defined by the opportunity to interact with peers in a regular classroom, and having a sense of belonging and acceptance within the learning community (Koster, Nakken, Pijli, & van Houten, 2009; Specht & Young, 2010) (p. 155).

Katz’s definition of inclusion is widely represented and discussed in recent research that supports her conclusions. For instance, Buckley (2008) states that, “research studies show that children with Down syndrome have better speech, language, and literacy skills, learn more, are more socially confident, and have fewer difficult behaviors if they are fully included in regular classrooms with appropriate planning and support” (p. 192). This evidence from Buckley comes from an informational guide for new parents of children with Down syndrome. The book not only supports inclusive classrooms, but also points out to parents that it is important for them to get involved in their child’s education and interact with the teachers.
For example, Wilt (2008) states that, “educators can help parents devise learning environments and activities in the home or daily living setting to support and encourage child development” (p. 202). The research from the informational guide connects well with the emphasis of this research study regarding teachers, parents and literacy/language ability.

Ricci (2011) reports on the important of literacy for this group of students, stating that, “as our nation strives for literacy for every child, parents and advocacy groups increasingly call for the inclusion of children with Down syndrome (DS) in this effort” (p. 596). The issue that remains is that teachers and administrators may continue to be apprehensive towards this idea, despite the fact that the research suggests the importance of inclusive classroom for students with DS. For instance, Laws and Millward (2002) state that, “mainstream teachers may not always receive the training and classroom experiences that are likely to lead to a positive view of inclusion of children with Down’s syndrome” (p. 211). Inclusive classrooms work when students are within the school, however, once they leave school for the afternoon or for the weekend students still need to be included in their at-home environments. This is where a connection the literate community becomes emphasized.

**Connecting Students to the Literate Community**

The literate community that this section refers to is admittedly incredibly broad, and it essentially means all those who read and write successfully. Laws and Millward
(2001) reference the importance of social factors, stating that “the principal case for integrated education has been made in terms of social factors such as the benefit of attending the child’s neighbourhood school, and the availability of typically developing children as social role models” (p. 211). This work from Laws and Millward (2002) emphasizes the valuable importance of inclusive classrooms, which is elaborated on as an analysis of the research takes place.

The research from Kliewer (1998) discusses this topic at length and refers to specific practices within schools. In his article, Kliewer (1998) states that, “in school, children with Down syndrome have historically been separated from literacy opportunities and expectations” (p.167). Kliewer (1998) goes on to state that the students that took part in his study were “actively connected…to the literate community” and that this “occurred only when the students were involved as full participants in the regular routines and general lessons of classrooms made up of children with and without disabilities” (p.177). Furthermore, Kliewer (1998) states that the research suggests that educators can “incorporate literacy as a communication tool connecting students with Down syndrome to the wider community” (p. 177).

Buckley (2008) references the importance of inclusive environments when she promotes inclusion in the wider community stating that, “children with Down syndrome will learn how to be successful in the community by being there, and this is so important for their adult lives” (p. 192). As the research suggests there is a reason to
promote programming that allows students with Down syndrome to enter their communities, as well as an emphasis on students improving their literacy/language abilities in said communities.

**Relationships between reading and language development**

The relationship that exists between reading and language development in students with DS is similar to those of typically developing students. This relationship is an obvious one as developed language is required for reading and vice versa. Laws and Gunn (2002) state that, “although early accounts of reading by children with Down syndrome were limited to anecdotal reports, or case studies, there is now little doubt that literacy is within the capability of many in this population and not just the exceptional few” (p.527). Laws and Gunn (2002) elaborate on the connections between the reading and language abilities of students with DS by stating that, “poor phonological memory is a notable feature of Down syndrome and might be expected to have an impact on language and reading development” (p.528-529). The literacy and language abilities of students with DS are very much connected to the ways that they learn - which tend to be more visual (Boudreau, 2002).

The research study by De La Iglesia, Buceta and Campos (2005) argues that, “people with DS have better recall of visual information than of verbal information” (p. 200). De La Iglesia, et. al (2005) go on to state that the, “intervention and strategy teaching programs for children with DS might therefore incorporate the visual
modality, since learning is faster…” (p. 200). Visual learning and tools are not exclusive to pictures or drawings, but also the written word. Buckley (2008) states that, “the printed word makes the spoken language visual - and this means that children with Down syndrome can use their visual learning strengths to develop their spoken language” (p. 181). Use of visual learning strategies connects to further development of reading abilities in students with Down syndrome.

Enhancement in reading abilities for students with Down syndrome is an area that requires further investigation to allow for more development to take place. The research that does exist on this topic from Jordan, Miller, and Riley (2011) states that, “the cognitive profiles associated with Down syndrome generally include strengths in the processing of visual information and challenges in the processing of auditory/verbal information…” (p.22). The examples provided above demonstrate how students with DS learn effectively and where they struggle. This presents the case that there is a need for enhancement in terms of literacy and language development.

**Early Intervention (EI)**

This is an important aspect of the research: to positively intervene in how teachers instruct students with DS as they learn to read and how their families can assist. Wilt (2008) indicates the importance of Early Intervention (EI) for students with Down syndrome stating that it, “is both a philosophy and a service” (p. 200). Wilt (2008) continues by stating that EI means, “intervening early in a child’s life to encourage
growth and development” (p.200). Early intervention is an important and recognized method of educating for children with Down syndrome. Wilt (2008) states that, “in Canada, early intervention is a provincially delivered program” (p. 201). However, it is important to note that early intervention can be formalized programming or more simply the work done by parents in the home from an early age. Laws and Millward (2001) state that, “parents of children with Down’s syndrome provide learning support for their children and may have occupied a role as educator from infancy” (p. 211). The reason that early intervention is an important feature in the education programming for children with Down syndrome is due in part to the emphasis that society places on literacy and language skills.

Lemons and Fuchs (2010), state that “societal expectations for the level of reading skill to be attained by children with Down syndrome and other intellectual disabilities are increasing” (p.134). Lemons and Fuchs (2010) go on to state the following about the reasons for these social expectations for students with DS,

This change is likely due to a multitude of factors, such as the wide body of converging evidence that reading difficulties can be prevented for many children through explicit and systematic instruction focused on teaching students to make connections between the sounds in spoken English and the written letters used to represent these sounds (p.134).
As noted in their study, the expectations for students with DS should only continue to increase. This can be made possible if the lines of communication are opened between all parents and teachers of students with DS.

**Conclusion**

The purpose of this chapter was to present the literature that informed and influenced this research study. The topics discussed above are those that have been found within the research to have the most impact on how students with Down syndrome learn, and more specifically how teachers and parents can assist students as they learn. As the literature suggests, teachers and parents who are informed about the ways in which students with Down syndrome become successful literacy learners are better prepared to assist those students as their levels of literacy and language ability improve.
Chapter Three: Methodology

This chapter provides an overview of the methods used in this study. This chapter provides an overview of the research context, the participants, the data collection procedures and instruments, the data analysis, the participation consent and ethical implications, as well as the limitations of the study.

Procedure

The intent of this study was to answer the question of how the interactions and collaboration between teachers and parents of students with Down syndrome impact the literacy and language programming that takes place in schools and at home. This study aimed to answer the above question by examining the at-home practices of parents and classroom teaching strategies that are used to improve the language and literacy skills of students with Down syndrome.

The research for this project was conducted with an open mind and this allowed for an analysis of multiple theories and studies. An examination of the most relevant theories and studies assisted in narrowing down the field of information. This exercise allowed for a discussion regarding the common interactions and effects of collaboration between teachers and parents of students with Down syndrome, and the impact these interactions had on the level of literacy/language ability for those students.

Creswell (2013) states that it is important to note that,
qualitative research begins with assumptions and the use of interpretive/theoretical frameworks that inform the study of research problems addressing the meaning individuals or groups ascribe to a social or human problem...qualitative researchers use an emerging qualitative approach to inquiry, the collection of data in a natural setting sensitive to the people and places under study, and data analysis that is both inductive and deductive and establishes patterns or themes (p. 44).

This fact informed how the research for this study was conducted, recorded and analyzed.

**Research Context**

For this research study, I interviewed a classroom teacher and a parent of a child with Down syndrome (DS) who is not a classroom teacher. The reason I decided to do this was because I wanted to investigate both of their perspectives and experiences related to teaching and supporting literacy learning in students with DS. As the literature has suggested “…parents can aid professionals in gaining knowledge so that they are better equipped to help their students and meet their unique needs” (Handyside, Murray, & Mereoiu, 2012, p. 439). This led me to believe that it was important to gain insight from two of the stakeholder groups connected to students with Down syndrome.
Participants

A small number of participants were recruited for the purposes of my data collection. I recruited my participants by connecting with them via contacts that I had made volunteering in schools and while attending the Ontario Institute for Studies in Education. As such, I used what is called convenience sampling or accidental sampling. Koerber and McMichael (2008) define convenience sampling as “consisting of participants who are readily available and easy to contact” (p. 463). The process of recruiting these convenient participants still took some time to verify and confirm.

The teacher participant is a Special Education teacher who has taught students with Down syndrome for over three decades. She has taught students at the Junior/Intermediate level. My second participant is the parent of a student with Down syndrome who is currently a student within the Junior/Intermediate level. With regards to participants it is important to note that “one of the major challenges in qualitative research is establishing confidence and trust in the theoretical insights that the researcher proposes to explain or understand the phenomenon being investigated” (Whiting & Sines, 2012, p.22). Maintaining a participant’s trust is important when conducting any type of research because it allows for more open and honest conversations to take place. In sharing my experiences working with students with Down syndrome and my purpose for conducting this research, I was able to obtain the
trust of my participants which allowed for open communication and the sharing of important ideas and experiences.

**Data Collection Procedure and Instruments**

My data has been collected through semi-structured interviews with my research participants. I kept detailed field notes of each interaction with the participants when I met with them, and have used these additional documents to report on how the participants responded during my interactions with them. Participants were contacted using email and in person conversations. Initial contact was made via email, and the interview process took place in person at a convenient location for each of my participants. The length of each interview varied with one being close to an hour and the other being closer to thirty minutes. Each interview was audio recorded, with the participants’ permission, and all audio recorded material has been transcribed.

**Interview Program.** Participants were asked to take part in a scheduled interview where they were asked to answer pre-determined questions (see Appendices 1 & 2). Each interview was scheduled according to participant and researcher availability. To ensure that each participant answered the questions openly, they were not provided with a copy prior to the interview. As previously indicate the length of the interviews varied, and was determined by the types of questions asked and how the participants responded. The process of conducting interviews is expressed most appropriately in the following statement “...conducting qualitative research interviews is not a trivial
Effective Collaboration

It requires not only the use of various skills, such as intensive listening and note taking, but also careful planning and sufficient preparation” (Sandy & Dumay, 2011. p.238). This statement was something that I reminded myself of during my interviews with both my teacher and parent participant.

**Field Notes.** During the course of each of my interviews I recorded information that the parent and teacher participants provided. I found it useful to record my thoughts during the interviews for two reasons. Firstly, there was the option to refer to these notes if I wanted to prompt either participant to elaborate on a certain topic that had only briefly touched upon. Secondly, it was useful for me to record the information that participants provided when I was doing research after our interactions. For instance, if a parent provided the name of a program or source they found useful I recorded the spelling of that program or source which allowed me to research more thoroughly after each interview.

**Data Analysis**

The data collected was analyzed once each interview was transcribed. This included both my field notes from each interview, along with the two transcribed interviews.

The analysis process consisted of coding the data collected, which has been suggested to be the “heart of qualitative data analysis” (Creswell, 2013, p.184). The process is addressed more thoroughly by Creswell (2013) who states, “the next step
Effective Collaboration

consists of moving from the reading and memoing in the spiral to describing, classifying, and interpreting the data” (p.184). Creswell (2013) goes on to suggest that the research will, “develop themes or dimensions, and provide an interpretation in light of their own views or views of perspectives in the literature” (p.184). This lead to my notation of the similarities and differences between the data collected from each participant. Due to the fact that this study references two perspectives, reviewing the coded data side-by-side was an important process.

**Participation Consent and Ethical Implications**

Consent from each participant is an important part of the research process. Each participant signed a consent letter (see Appendix 3). The consent letter clearly states that all information collected is kept private, to be viewed and used for my purposes only. Participants were informed that they could refuse to participate in any or all parts of the study on personal or ethical grounds. Participants were also informed that if they wished, they could request a copy of the final research when available. Each participant was reminded of all of these things verbally by me, prior to the start of the each interview. This allowed me to confirm that they were aware that their participation would be for academic use only. Furthermore, I was mindful in regards to confidentiality and anonymity of all participants by using pseudonyms when referencing them throughout this work. The information collected, coded and
referenced here has been saved on my personal laptop and secured with password protection to ensure the confidentiality of the two participants.

**Limitations**

This research study has several limitations related to issues of a selective literature review, generalizability, and potential biases. The first significant limitation was due in part to the range of this Masters-level research project which made a selective review of the research literature necessary. However, it should be noted that the literature was carefully chosen on the basis of relevance and connection to current practices in education. Another limitation was the fact that the sample size for this research study was very small which results in a lack of generalizability. One participant from each perspective can only provide the most general of opinions/viewpoints and does not allow for a wider variety of teacher and parent perspectives to be featured here.

A final limitation of this research study comes from the issue of researcher biases. As a researcher, my past experiences and purpose for conducting this research would have had an obvious effect on the way data was collected and interpreted over the course of this study.
Chapter Four: Findings

Introduction

The following research findings were gathered and analyzed from two interviews, which were conducted over the course of four months in 2014. This study utilized perspectives from two stakeholder groups, one inside the classroom and the other outside the classroom. One participant is a classroom teacher employed by a publicly funded Ontario school board, and the other is a parent of a student who attends school in a publicly funded Ontario school board.

This chapter provides an examination and interpretation of the data collected during the two interviews mentioned above. The findings offer details about how these two stakeholders understand, view, and enact literacy and language development programs for students with Down syndrome (DS). The findings are presented in two case studies. Within each case study, each participant’s context and background, perspectives on literacy and language development, implementation of programs, and thoughts about moving forward are presented. The chapter concludes with a cross-case analysis and discussion of the findings which are situated within the literature.

Case # 1: Delores

Context and Background

Delores is currently a teacher of students from grades 5 to 8 with various exceptionalities, including Down syndrome. She teaches in a publicly funded school
board in Ontario. Delores has worked in Special Education for the bulk of her almost thirty year career as an educator and feels her passion for students with exceptionalities has kept her in that field. She sought out professional development, including Additional Qualification courses during the first, third and fourth years of her career as an educator. Through these courses she obtained her Special Education, Specialist, Learning Disabilities (Basic) very early on in her career. These courses and certification helped Delores solidify her role as a Special Education teacher.

Perspectives on Literacy and Language Development

Professional training and years of experience have shaped Delores’ perspective on literacy and language development in students with Down syndrome (DS). For Delores, literacy and language ability can be determined by paying attention to a student’s level of communication. She suggested that there is a ‘spectrum’ to be considered when examining the levels of communication that each student exhibits. Delores suggested that the varying levels of communication put forth by each student are influenced by a few factors.

Firstly, she suggested that students with DS are impacted a great deal by the language spoken around them at home. She cited an example of a student in her class who picked up language from his family members, which she calls ‘colloquial speech’. According to Delores, ‘colloquial speech’ is the everyday language that her student hears at home and later uses in his community or in the classroom. She states, “…you
can tell in a way that he gets spoken to a lot more at home, that he has brothers and sisters and there’s a lot more interaction and he picks up on stuff like that”. This is something that is usually indirectly taught to students with DS. Delores stated that this is a positive aspect of student learning and demonstrates the abilities that students with DS have to improve their literacy and language development. The opposite side of this fact, that families have an impact on student ability, is that when families do not speak to their children with DS as often as they could those children have a more difficult time attaining these types of skills.

Secondly, Delores states that she believes students with DS have the ability to learn and succeed in the literate world. Using ‘functional’ language, as Delores calls it, is a skill that students with DS need to attain before leaving school. She states that to make learning possible for students with DS it will require, “a relevant sort of framework for building those literacy skills”. This framework develops from the type of programming that is implemented by teachers like Delores within the classroom.

**Implementing a Literacy and Language Development program**

Throughout her interview, Delores emphasized the fact that her literacy and language program for students with DS centered on the ‘familiar’. Delores explained that beginning with familiar objects, shapes, colours and names of people allows students to develop an understanding of patterns of speech. She stated,
if they know what it is and they see it and they can say it, then we’ll start with that and we build a pattern of speech around an object. If they know their colours, then we’ll use colours also in there. Because their classmates names, their parents’, their brothers’ and sisters’ names, things that are very, very familiar to them is where we start building their language - both their oral language and their written and reading language.

Delores explained the types of patterns that she uses with her students using examples of student work. She emphasized again the importance of the familiar and repetition:

So some of the kids, in their journal it might be ‘Cedric eats hamburgers, Cedric eats hotdogs, Cedric eats french fries, Cedric eats…’ so every day we keep to the same pattern and after a while he remembers the word ‘eats’, right so then we can start pulling out a bigger sentence ‘Cedric loves to eat french fries, Cedric loves to eat…’ so then he learns the words ‘loves to’ and then we keep building, and building, and building using more familiar words.

This is a large part of the literacy/language program that Delores has developed for the students with DS who are in her class. Once students have attained the skill discussed above, their program advances to include more student effort as a requirement. For example, Delores discussed the use of a ‘word box’ and ‘flashcards’ as part of her programming stating,
what we have is a word box, the kids have a file box in their bin and when they’ve learned the word ‘love’ or ‘too’ or ‘Cedric,’ their name or their classmate’s name, those words get written on cards, like file cards, and they get put into their word box.

Students collect, so to speak, the words that they have learned in class - Delores has the program structured to ensure that students must show they can pronounce a word and use it in a sentence before it is added to their word box. The next step is where students are asked to demonstrate what they have learned from their programming. Delores continued saying,

So then we can go over those words, like flashcards almost and then we can put the cards all out on the table and say ‘Ok, Cedric, make me the sentence: I see orange balloons’. So then he can look around and he starts finding the different words and he learns sentence structure and he learns...all based on a familiar pattern of language.

The structure of this program allows for consistent development to take place for students with DS, and allows for students to take these simple activities and use them at home with their families. Delores’s program is impacted by the participation of the families of her students - she has experienced what she calls a ‘spectrum of involvement’ from family to family over her years as an educator.
Collaboration between Teachers and Parents

Day to day interactions between teachers and students are impacted by the subsequent interactions that take place between school and home. As part of her literacy and language program, Delores implemented a few strategies to make communication between home and school a feature of her program. One of these strategies happens very early on in the school year and tends to inform the individual program that Delores sets for her students with DS. She explained,

on the first day of school I send out a page for the parents to fill out - names of siblings, ages, activities that the kids do, what their favourite foods are, favourite TV shows, because that’s what we start with - the things that are the very most familiar to them.

As Dolores has suggested, all teachers should take time at the beginning of the year to learn more about their students and where they are coming from, but she expressed that it is especially important for Special Education teachers to do so as it informs the programs that they implement for the students.

Notably, Delores discussed the fact that the level of parental involvement in the education of students with DS varies greatly, somewhere between very limited and taking an active role. She explained,

Some of them are really involved and some are totally uninvolved. So you get the whole spectrum, you know. We have parents like Padma’s mom requests
homework; she wants homework sent every night. Padma goes to Kumon, Padma...you know she’s got her all out there doing, you know all kinds of stuff in the community, she goes to dance class, she goes to cooking class, you know...she’s very involved. Mom comes into the school, she wants stuff sent, and she writes notes every day saying what Padma did at home.

The level of involvement as outlined above provides an example of a very actively involved parent in Delores’s classroom. Though Delores did not provide a specific example of a less involved family system or parent, she did mention the potential consequences for student learning and teacher planning when the level of communication between home and school is low.

Delores used an example of an activity she formerly did with her students to share the impact that the lack of involvement from home can have stating,

We used to do a shared journal writing every morning with something the kids did the night before. So we could say ‘Padma went to dance class; Cedric went swimming’, you know ‘Parvati watched TV’ and so. But if the kids are non-verbal and the parents don’t tell us, then...it sort of takes away from those activities. So it’s...we don’t do it so much anymore because we have a lot of parents that just don’t take the time to write the notes.

This example is just one of the ways that the literacy and language program established by Delores had been affected by a lack of involvement from parents. Delores believed
that this negatively affected the individual students whose families did not send ‘talking points’ to the school, but it also affected the other students whose parents did send information that could be used. Delores had to remove the shared journal writing piece from her literacy/language program for all students because there was not enough input from a few parents. She expressed that it could not be a shared journal writing process if not every student was able to share something with their peers and the teacher.

Delores also spoke about the type of communication that does take place between home and school such as, the process of Individual Education Plans (IEPs) for each of her students. Delores stated,

We have interviews with all the parents to go over the IEPs and to go over the report cards and stuff like that, so...you try to get as much input and collaboration as you can, sort of to know where to go next.

Delores has had experiences with parents who were difficult to get a hold of and when they did attend the school meetings they were not interested in staying very long. She further expressed, however, that she was not certain if the parents were uninterested in collaborating with the school or if they were uninterested in advancing their child’s education program.
Moving into the Future

Delores provided a few suggestions in terms of what teachers may require to further assist students with DS improve their literacy and language comprehension. Firstly, Delores shared her idea that would connect educators of students with special education needs stating, “it would be nice to have some sort of a resource sharing, where teachers would share information and resources with other teachers”. She felt this “resource sharing” would allow all types of teachers - newly certified, experienced, special education, or generalists - the chance to identify and utilize strategies and resources that could positively assist students with DS.

The second suggestion that Delores had for future programming was about the types of books or resources that are offered for teachers who work with students with DS or other developmental delays. After expressing her struggle to find books that have appropriate language levels, as well as topics that her students will be interested in, Delores stated, “I like it to be really basic, structured, high frequency, functional language, and there isn’t a lot of that out there”. These suggestions are just that, suggestions from one seasoned teacher who has worked with students with DS and believes that these ideas could potentially work for other educators and parents.
Case # 2: Molly

Context and Background

Molly is the mother of a teenage daughter with Down syndrome, who at the time of the study was attending a school within a publically funded board in Ontario. Professionally, Molly is involved in education at the Graduate-level as an instructor. Molly is very invested in the outcome of her children’s education. She believes that a well-developed literacy and language ability is an important aspect within anyone’s education, but feels strongly that an emphasis on programming for students with Down syndrome will improve the quality of life for students with DS once they leave the classroom. Her professional background in education and personal experiences with her own daughter has allowed Molly to comment on the aspects of literacy and language development of students with DS to a great extent.

Perspectives on Literacy and Language Development

Molly believes that her professional background in education, her personal trials and triumphs with her daughter and her continued attempts towards improvement, have shown her that furthering the literacy/language development of students with DS is possible. As an example of this, Molly shared some details about how her daughter has started to spell her name. She stated,

She’s added an “s” to her name because the sound “Alices”, she’s convinced me “Mom ‘sss’”. So she’s listening to sounds, but that’s, that’s learning. You know
Alice all of a sudden is not spelling her name correctly and it’s learning, because she is for the first time listening to the sounds in her name. Though her daughter is adding letters to her name that are not supposed to be there, Molly’s testimony demonstrates her positive reaction to this type of learning. Furthermore, she shared another example of her daughter’s work to demonstrate the potential to learn. She said, “but, this is...her writing is slow...this is not invented spelling, it’s just random letters, but this is progress too. You know this is probably an “i”, with the dot on top up here”.

Molly expressed her perspective on literacy and language development as a positive aspect of student learning. Even though the examples provided above are typically considered as mistakes or errors, Molly demonstrated that she believes any change in learning is an example of progress.

**Implementing a Literacy and Language Development program**

Positive reactions to literacy and language development, along with encouragement of milestones and continued efforts towards progress have been the foundation of the ‘program’ within Molly’s home for her daughter with Down Syndrome (DS). She states the following about her daughter’s experience with literacy/language: “she’s been surrounded by books and readers since the day she was born and a love of reading”. This love of reading has been the basis for the program
that Molly has set up for her daughter with DS and continues to guide her daughter towards progress and development.

Molly provided an example of how she supports her daughter’s learning at home stating, “....I read a lot about how to support, I access resources, I access experts in the field, the Down Syndrome Association if they have someone...and...trying to find different ways to support her language development”. These were just some of the ways that Molly mentioned she uses to support her daughter’s learning outside of the classroom. Molly mentioned the strategy of placing ‘Velcro buttons’ underneath the written text that her daughter is supposed to read. She continued stating, “…you know it’s a strategy like that, that you know you just keep trying different ways and of all things that’s one that I had never thought of before”. As evidenced by Molly’s statement, working with her daughter’s teachers and accessing resources allowed her to re-examine the types of strategies that work for her daughter.

Beyond the many strategies that Molly has attempted to use with her daughter over the years, there is one aspect of her literacy/language program that exceeds all others. This became apparent when she stated, “…trying to promote her own image of self as a reader is a really important thing for me to do”.

**Collaboration between Teachers and Parents**

All of the efforts by Molly at home are working towards supporting her daughter’s progress made inside the classroom. She believes that continued
conversations need to take place between home and school in order to maintain a level of progress for students with DS.

Molly cited an example of how she supports her daughter’s “overall language program” stating that, “…by sending to school very regularly, pictures, descriptions of what she’s done on the weekend, joyous moments, proud moments, pictures of trips, so that they can facilitate communication”. Not only does this strategy facilitate communication between her daughter and the teachers at the school, this strategy also allows for communication and collaboration to exist between Molly and the teachers.

When commenting on the level of communication between herself and her daughter’s teachers at the school, Molly stated,

[There is] a lot of communication between home and school. You know I would say, easily, two phone calls a week that are 15 to 20 minutes long. Ah, not always about language and literacy, touching base, making sure I knew where there was a breakthrough you know so that we could celebrate it at home.

The amount of time spent communicating each week appears to demonstrate a high level of commitment from both Molly and her daughter’s teachers towards helping her reach her fullest potential.

The experience that Molly cited reflects a positive between home and school. The level of commitment from both mother and teachers appears to be the same, and both
have agreed to work towards the common goal of improving the level of literacy/language ability that this particular student with DS can have.

Moving into the Future

When asked about what is needed moving forward for students with DS in terms of their education, Molly stated,

We need teachers to continue to support the development of language and literacy, right into young adulthood. And continue to build on those skills, or else they will lose what little they have...the adult programs that are offered to adults with Developmental Delays, cannot just be menial tasks, that there needs to continue to be an element of ongoing learning and support, because number one they are capable of it and number two, they will lose it if it’s not continued.

Molly believes that what is needed to assist students as they move into the future is an emphasis on literacy and language development within educational programs and beyond. She goes on to suggest that it is important to have support, both while they are still in school and once they have moved on to adult programs.

Molly requested one thing of teachers who work with students with DS. She urged, “keep working on it, keeping trying different ways, keeping looking for more keys to unlock their potential and their capacity to become fully literate”.

Cross-Case Analysis

These findings reveal the similarities between the perspectives of the two participants who work with students with DS in two different contexts. The similarities between the programs they have put in place are also evident. Delores and Molly both recognize that students with DS have limited opportunities when it comes to literacy and language development (Moni & Jobling, 2001). They both expressed their concerns regarding this fact and believe that with greater emphasis on literacy/language both at home and at school, students with DS can have more successful futures. It is evidenced by the examples cited by Delores and Molly that each student with DS will have a different experience at home and at school that impacts their level of literacy/language attainment (Snowling, Nash & Henderson, 2008).

The implementation of a language program inside and outside the classroom tends to be a different process as suggested by Delores and Molly. For Delores, a special education teacher, she has to take into consideration multiple students with different exceptionalities. Though her literacy and language program can be adapted to suit the needs of all her students, students with DS face an additional obstacle due to the structure of their mouths (Ricci, 2011). Working to fit the needs of multiple students makes the task of focusing on day-to-day development of students with DS an incredibly difficult one, yet it remains ever so important.
On the other hand, Molly, who only has one child with DS that she works with using her at-home program, has an easier time structuring tasks that will suit the exact needs of her daughter. This is of course, only when Molly is at home. She has a demanding, full time job and a second daughter that requires her attention. Recent research suggests that parents struggle to find a balance between work and home that allows them to focus their attention on a program at home (Ricci & Osipova, 2012). This often causes parents to feel that the weight of responsibility should fall to educators, despite the fact that research demonstrates the effectiveness of home literacy experiences. For example, Ricci (2011) states that, “home environments can be considered rich with literacy opportunities” (p. 597). This evidence points towards the importance of connections and collaboration between home and school.

Effective education happens when the lines of communication are open between school and home (Laws & Millward 2001). Delores and Molly both spoke about what effective collaboration looks like between teachers and parents. They both believe it involves open communication in whatever form is available - telephone conversations, emails, letters, memos - between home and school. Furthermore, Delores and Molly believed that the work of the other stakeholder group was an important aspect of student learning and needed to be given due credit. Delores recognized that the work parents do at home can be beneficial to a student’s overall achievement and Molly acknowledged the work of her daughter’s classroom teachers. She believes the work she
does at home assists the overall program set in place for her daughter’s literacy/language development.

Delores and Molly feel strongly that both stakeholder groups need to have a similar level of involvement in the education plans of students with DS. Furthermore, current research suggests that both believe that parents and teachers benefit from collaboration between school and home (Tezel Şahin & Atabey, 2014).
Chapter Five: Discussion

Introduction

The purpose of this study was to explore the effects that communication and collaboration between teachers and parents can have on the literacy and language development skills of students with Down syndrome (DS). The central research questions posed in this project were: 1. How do parents and teachers support each other as they plan a literacy and language program for students with Down syndrome? 2. What effect does the level of communication between teachers and parents have on the literacy and language program implemented for students with Down syndrome? 3. What can parents and teachers do to develop open communication and collaborative environments that foster learning for students with Down syndrome? My main motivation for completing this research came from a desire to investigate the impact that effective teacher-parent interactions could have on the education that students with DS receive.

The findings that came from the interviews conducted for the purposes of this research demonstrate that there is still work to be done in the field of education for students with DS. The case studies reveal similar perspectives and programming choices exhibited by teachers and parents. Perspectives from the participants in this study reflect the relevant literature that states that communication and collaboration between parents and teachers can have a positive effect on how students with DS learn.
The programming choices that teachers and parents make to assist students with DS development their literacy and language skills are also reflected in the testimonies from both participants as well as the literature that has been examined. It is apparent from the findings of this study that each student with DS has different needs and requires a different program in order to develop the skills they need to be successful.

Both participants recognized the importance of specific programming for students with DS, noting that literacy/language acquisition is not an easy task and that collaborative efforts may be the key to making a difference in this process. The participants of this study demonstrated their commitment and dedication to instructing students with DS and making a difference in the way that they learn.

Implications and Recommendations

Implications for the Researcher

When I first began researching this topic I was not certain what the final result would be. In the beginning I intended to explore the perspectives of teachers who worked with students with DS, and examine their triumphs and challenges with literacy/language development programs. As I examined the relevant literature, I began to notice a common trend that had researchers examining the links between home and school in regards to students with Special Education needs. After some consideration my research study evolved into the two case studies and a cross-case analysis that looked at the triumphs and challenges of both teachers and parents.
From listening to Delores and Molly I learned that there is common ground between home and school, and that success for students with DS lies in the communication and collaboration that can happen between teachers and parents. However, I also came to understand that this seemingly simple process is not quite as easy for teachers and parents to enact. The desire to have students achieve is obvious from both parent and teacher participant, however, there are some factors that get in the way for both stakeholder groups. Planning programs at home and at school takes an extensive amount of time and resources. Special Education teachers have the needs of other students to contend with, and parents at home have careers and possibly other children to care for. Managing these factors is not an easy task for either group, and this fact is reflected in the literature as well as the testimonies of each participant. My interest in Special Education has been heightened after conducting this research. The information that I have received and contemplated here will allow me to better modify my interactions with students and parents as I move further into the field of education.

**Implications and Recommendations for the Educational Community**

Studies that have come before this research suggest that when teachers and parents work together, everyone benefits - teachers, parents and students. Teachers are provided with support for the strategies they are using in the classroom, parents feel involved and can actively participate in their children’s education, and students have a higher level of support than previously established. This fact has been discussed within
the realm of education for many years: what still needs to be uncovered is how to make this communication and collaboration an effective part of students’ education.

Testimony from Delores and Molly suggest that there needs to be a formal plan set in place that teachers and parents are asked to follow to ensure that students benefit and that one group is not relied on entirely. As previously mentioned, teachers and parents are busy people so to ask for constant communication is an unfair request. However, consistency is an attainable goal for both teachers and parents. Remaining in contact in order to pass along suggestions or discuss next steps for students is one way that parents and teachers can move beyond obligatory conversations and onto effective communication. Without an understanding of the inner workings of administrative planning within schools, I am not able to put together a comprehension plan for how this type of formalized communication between teachers and parents could take place. However, I do believe that with enough emphasis from parents and teachers stating that something like this should take place for students with exceptionalities, administrators may begin to see the need for such a program.

In terms of programming to strengthen the literacy and language skills of students with DS, there is one suggestion that comes out of this research. Simply, parents and teachers need to be on the same page and agree on what type of programming is needed for students. The work done in the classroom should be supported and continued when the student goes home at the end of the day. The
transfer of resources and information should be consistent, from parents to teachers and vice versa. This transfer of information does not need to be time consuming or extensive, as long as it is worthwhile and can positively support the work being done at home or in the classroom.

Until there comes a time when parents and teachers are able to one, find a balance between their schedules and two, receive support from an educational administration that supports a formalized communication program, they will have to continue the work they are doing - though most of the time this work is individual. As parents and teachers become more aware about what types of strategies that work for students with DS and how literacy/language improvements can be made, the lines of communication will open and the transfer of information will take place more openly.

**Further Study**

In order for teachers, parents and students with Down syndrome to be more fully supported, there needs to be a further investigation of how stronger communication and collaborative planning can be implemented. It is apparent that students’ literacy and language development is dependent on the level of commitment that both parents and teachers put toward support in this area; this fact will inform their next steps. For example, further research could potentially be conducted that has teachers and parents implementing specific learning strategies for students with Down syndrome and recording the effectiveness/ineffectiveness of each strategy. This type of
study would allow for a better understanding of the ways that students with DS learn, as well as giving parents and teachers the opportunity to work collaboratively with one and other. Furthermore, an investigation of the most effective methods of communication and collaboration between teachers and parents should be a priority for researchers interested in how learning continues outside the classroom. For example, parents and teachers could utilize different methods of contacting each other - telephone, email, memos, etc. Which would then be followed by participants recording the methods they found to be most effective. Once parents and teachers know how to work effectively together, the students that they care for and instruct have the potential to show signs of progress.

Conclusion

Home-school communication effectively promotes and positively impacts student learning (Laws & Millward, 2001). Research suggests that the same holds true for students with exceptionalities and particularly students with Down syndrome (DS) as they work on literacy/language attainment. These students “experience a wide range of environments at home and in school that will contribute to their literacy outcomes” (Snowling, Nash & Henderson, 2008, p.66). Students also tend to perform better when the environment is positive (Ricci, 2011). Deepening our understanding about effective strategies for instructing students with DS inside and outside the classroom takes time and effort, along with a lot of trial and error. This is something that parents and teachers
will need to continue to explore as they plan literacy/language programs for these students. Parents are connected to a specific teacher, as long as their child is being instructed, this then leads to an evitable reality of collaboration (Tezel Şahin & Atabey, 2014). The communication and collaboration that can take place between teachers and parents is an important aspect of student learning that requires further investigation. However, for now, parents and teachers need to continue working with students with DS as they work to support and develop their literacy/language abilities.
References


Appendices

Appendix 1: Interview Questions – Teacher Participant

Professional Background:
1. How long have you been an educator of students with Down syndrome?
2. Can you talk about any specialized training you have had related to teaching students with Down syndrome (i.e. AQ, in-service PD etc.)

Introduction to Literacy/Language Program:
3. Can you talk about your experiences working with students with Down syndrome?
4. What were the literacy/language levels of the students that you have interacted with?
   a. What do you think has contributed to their literacy level? (Adaptive Tech, at-home-assistance, etc.)
5. Which strategies do you believe are most effective in supporting the language and literacy development of students with DS?

Professional Literacy/Language Program:
6. Can you describe the literacy program that you use for your students with Down syndrome?
   a. Specific examples.
7. Can you talk about how you have utilized assistive technology when teaching your students with DS?
   a. Can you discuss specific examples of when it was more or less useful?
8. Can you talk about the noticeable outcomes of your literacy program for your students with Down syndrome?
   a. What do you hope the outcomes for your students will be?
9. Can you discuss the level of involvement from some of the parents of your students with DS – specifically related to literacy/language?
   a. What do you notice parents doing to promote literacy/language in their children at home?

Future of Literacy/Language Programs
10. Do you believe that there is enough emphasis on literacy education for students with DS as compared to those in the general education program?
   a. Provide any specific examples.
11. Can you comment on who makes the decisions about when and how students with Down syndrome are provided with an emphasis on literacy and language development?
   a. How do you believe this changes a student’s education program?

12. As a teacher of students with Down syndrome, what type of supports would help you to work with students with DS more effectively in terms of the development of their language and literacy skills?

   Do you have any else you would like to add or feel that I should know about?
Appendix 2: Interview Questions – Parent Participant

Personal Background:
1. Can you tell me a few things about your son/daughter in terms of their age, grade, type of school they attend, any strengths and challenges?

Experiences at Home:
2. Can you describe the experiences that you have had assisting your child with literacy/language development?
3. What do you do at home to assist your child with literacy/language?
   Examples. Digital devices, large text, modelling, images, etc.

Experiences in School:
4. In what ways have you been involved in the literacy/language plan of action for your child in the school?
5. Can you talk about your child’s strengths and challenges related to his/her literacy/language development?
6. What are the difficulties that you notice your child having in terms of literacy/language development?

Future Progress:
7. What suggestions would you have for teachers of students with Down syndrome with specific emphasis on their language and literacy development in the classroom?

Do you have any else you would like to add or feel that I should know about?
Appendix 3: Letter of Consent for Interview Participants

Date: ___________________
Dear ___________________,

I am a graduate student at OISE, University of Toronto, and am currently enrolled as a Master of Teaching candidate. I am studying effective teaching methods of collaboration between teachers and parents with regards to Literacy and Language development in students with Down syndrome, for the purposes of investigating an educational topic as a major assignment for our program. I think that your knowledge and experience will provide insights into this topic.

I am writing a report on this study as a requirement of the Master of Teaching Program. My course instructor who is providing support for the process this year is Dr. Arlo Kempf. My research supervisor is Dr. Shelley Murphy. The purpose of this requirement is to allow us to become familiar with a variety of ways to do research. My data collection consists of a maximum one-hour interview that will be audio recorded. I would be grateful if you would allow me to interview you at a place and time convenient for you. I can conduct the interview at your office or workplace, in a public place, or anywhere else that you might prefer.

The contents of this interview will be used for my assignment, which will include a final paper, as well an informal presentation to my classmates and/or potentially at a conference, or in a publication. I will not use your name or anything else that might identify you in my written work, oral presentations, or publications. This information remains confidential. The only people who will have access to my assignment work will be my research supervisor, my research group members and my course instructor. You are free to change your mind at any time, and to withdraw even after you have consented to participate. You may decline to answer any specific questions. I will destroy the audio recording after the paper has been presented and/or published which may take up to five years after the data has been collected.

Please sign the attached form, if you agree to be interviewed. The second copy is for your records. Thank you very much for your assistance during this process.

Sincerely yours,
I acknowledge that the topic of this interview has been explained to me and that any questions that I have asked have been answered to my satisfaction. I understand that I can withdraw at any time without penalty.

I have read the letter provided to me by Emily Ritchie and agree to participate in an interview for the purposes described.

Name (printed): _________________________________

Signature: _________________________________

Date: __________________________