General Education Teachers’ Strategies for Supporting Intermediate/Senior Students with Autism Spectrum Disorder (ASD)

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Abstract

Little research has investigated the ways in which teachers create inclusive mainstream classrooms in relation to their students with Autism Spectrum Disorder (ASD). As a consequence, there lacks an established consensus regarding best practices and ideal teaching strategies for the support of intermediate/senior students with ASD. In this study, a qualitative research approach in the form of face-to-face semi-structured interviews with two teachers was taken to investigate the research question: how are Ontario intermediate and senior general education teachers working to create optimal learning communities for intermediate/senior students with ASD? Findings of this study suggest that teachers who demonstrate a high duty of care and build strong rapport with their students with ASD may be more equipped to tailor teaching strategies to their individual learner. Strategies may be equity-focussed (in support of specific needs) or equality-focussed (in support of all students in the classroom) to achieve academic and social success. Broad implications for this study encourage teachers to take on a bottom-up approach to support their learners with ASD, starting with the student. Teachers may lean on advice from their immediate support network to gain insight and practical information on best practices. Establishing professional learning communities in school settings that help teachers share effective strategies and implement consistent routines in each class can support students with ASD.

Key words: Autism Spectrum Disorder (ASD), general education teachers, intermediate/senior students, inclusive education, general education classroom
Acknowledgements

I wish to acknowledge and thank a few people who were involved in the process of my work towards completing this Master of Teaching Research Project (MTRP). I would first like to thank my research course instructor and project supervisor, Lee Airton, for all of their feedback and guidance throughout the past two years. Lee has helped me grow as a teacher, researcher, and person – thank you Lee. I would also like to thank our Teaching Assistant Heba Elsherief for her suggestions and direction during the completion of my final two chapters of this project. It is of utmost importance that I thank my participants ‘Jim’ and ‘Pam’ for offering to be interviewed for this project – I am very grateful for your time and insight on this topic.

I would also like to give a warm thank you to my family and friends for their support throughout the completion of this project. A most sincere and heartfelt thanks to my parents for giving me every opportunity to be successful – without you this would not have been possible. As a final thank you, I would like to extend my well wishes to my Cohort 253 colleagues who have been the most phenomenal support group one could ask for. I cannot wait to see what the future brings for you all!
# Table of Contents

Abstract........................................................................................................................................... ii  
Acknowledgements......................................................................................................................... iv  

Chapter 1: INTRODUCTION.............................................................................................................. 1  
   1.0 Research Context..................................................................................................................... 1  
   1.1 Research Problem.................................................................................................................. 3  
   1.2 Purpose of the Study............................................................................................................. 4  
   1.3 Research Questions............................................................................................................... 5  
   1.4 Background of the Research/Reflexive Positioning Statement........................................... 5  
   1.5 Preview of the Whole MTRP................................................................................................. 7  

Chapter 2: LITERATURE REVIEW................................................................................................... 8  
   2.0 Introduction (Chapter Overview).......................................................................................... 8  
   2.1 General Education Teacher Understandings of ASD......................................................... 8  
      2.1.1 General education teacher knowledge of evidence-based practices for ASD............. 10  
   2.2 The Whole-School Approach.............................................................................................. 11  
      2.2.1 Parent-teacher collaboration and communication...................................................... 11  
      2.2.2 Student-teacher collaboration and communication.................................................... 12  
      2.2.3 Teacher-teacher collaboration and communication.................................................... 13  
      2.2.4 Educational assistant-teacher collaboration and communication............................... 14  
   2.3 The General Education Teacher’s Role on the Social Outcomes of Students with ASD... 15  
      2.3.1 Peer understanding and acceptance............................................................................ 16  
      2.3.2 Teaching strategies for peer acceptance....................................................................... 18  
   2.4 Accommodations for Students with ASD.......................................................................... 19
2.4.1 Strategies for reducing inconsistencies .................................................. 20
2.4.2 School-wide Positive Behavior Support (SW-PBS) ................................. 21
2.4.3 Benefits experienced by all when including students with ASD ............. 22
2.5 Conclusion ............................................................................................... 23

Chapter 3: RESEARCH METHODOLOGY .................................................. 25

3.0 Introduction (Chapter Overview) ............................................................. 25
3.1 Research Approach & Procedures ......................................................... 25
3.2 Instruments of Data Collection .............................................................. 27
3.3 Participants ............................................................................................. 28
   3.3.1 Sampling criteria ............................................................................. 29
   3.3.2 Sampling procedures/recruitment ................................................... 30
   3.3.3 Participant bios ............................................................................. 31
3.4 Data Analysis .......................................................................................... 31
3.5 Ethical Review Procedures ...................................................................... 32
3.6 Methodological Limitations and Strengths ............................................ 33
3.7 Conclusion: Brief Overview and Preview of What is Next ..................... 35

Chapter 4: RESEARCH FINDINGS ................................................................. 37

4.0 Introduction to the Chapter .................................................................. 37
4.1 Teachers’ Perceive that Small Class Sizes are Conducive to their Support of
   Students with ASD ............................................................................... 38
4.2 Advice as a Resource: Communication and Collaboration with Teacher Support
   Network Reportedly Contributed to Teacher Success ............................... 39
4.3 Teachers Perceive that Inclusion of Students with ASD is Successful when it is a
Whole-School Project…………………………………………………………………………………………………… 42

4.4 What Teachers and Peers Can Learn from Having a Student with ASD in the Classroom…………………………………………………………………………………………………… 45

4.5 General Education Teacher Approaches and Strategies in Support of Students with ASD and Perceived Outcomes………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………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5.4 Areas for Further Research................................................................. 66
5.5 Concluding Comments................................................................. 67
Chapter One: Introduction

1.0 Research Context

Autism Spectrum Disorder (ASD) captures a range of neurodevelopment disorders that tend to be diagnosed in childhood (American Psychiatric Association [APA], 2016). The characteristics of ASD exist in three categories: communication, social and repetitive body movements or behaviors (APA, 2016). ASD varies from one individual to the next in these characteristics (APA, 2016); however it has no geographic or economic bounds, arising in all ethnic and socioeconomic groups (Crosland & Dunlap, 2012). Specifically in Canada, Fombonne (2005) estimated a prevalence rate of 1 in 165 reflecting an increase in the number of individuals diagnosed with ASD compared to previous estimates. ASD is the most common neurological disorder affecting children (Autism Ontario, 2016).

Taking into account the increase in prevalence of ASD among children, it becomes apparent that the education system is significantly influenced by this growing population. Over the past few years, Canadian school boards have reported an increase in the enrolment of students with Autism (Lindsay, Proulx, Scott, & Thomson, 2014). The province of Ontario saw a 58% increase in enrolment of students with Autism over a seven year period (Weber & Bennett, 2004). In the classroom, students with ASD may face challenges as they navigate their environment within the constraints of potential communication and social difficulties. For example, they may experience challenges communicating their needs to teachers or peers (Lindsay et al., 2014). Further, sensory overload at times experienced by students with ASD, may result in difficulty making eye contact or coping with noisy environments which may challenge their ability to engage with peers within the context of a busy classroom. Individuals with Asperger Syndrome, one of the disorders found on the Autism spectrum, may have
difficulties maintaining social relationships as a result of minimal interest in sharing enjoyment or achievements with peers (Carter, Meckes, Pritchard, Swensen, & Wittman, 2004).


Ontario is committed to the success and well-being of every student and child.

Learners in the province’s education system will develop the knowledge, skills and characteristics that will lead them to become personally successful, economically productive and actively engaged citizens. (p. 3)

Expanding on this, OME has responded to the increased enrolment of students with ASD, and the particular challenges they may face, by creating general policy and legislation that attempts to meet the needs and interests of students with ASD to ensure their success and well-being. Such policies include the procedures and standards for creating Individual Education Plans (IEP), and Policy/Program Memoranda concerning special education (e.g., PPM 140: Incorporating methods of Applied Behavior Analysis (ABA) into programs for students with ASD).

Part of the Ministry’s strategy for ensuring the success of students with ASD involves integration into the general (i.e., mainstream) education classroom; the same educational environment their typically developing peers are placed in. The Ministry has identified the inclusion of students with ASD as a priority for action (Lindsay, Proulx, Scott, & Thomson, 2013; Minister’s ASD Reference Group, 2007). To support this goal, school boards in Ontario are required to implement special education programmes and services for their exceptional students (Lindsay et al., 2013). With 79% of elementary school pupils, and 82% of secondary students with ASD being integrated into the general education classroom for more than half of
their school day, it is becoming increasingly paramount that teachers understand ASD diagnoses and how best to create an effective learning community for these students (Starr & Foy, 2012).

1.1 Research Problem

The increase in prevalence and placement of students with ASD into general education classrooms warrants the need to understand the impact general education teachers have on the academic achievement and social experiences of students with ASD through their practice (Kurth & Mastergeorge, 2010). Little research has investigated the ways in which teachers create inclusive mainstream classrooms in relation to their students with ASD (Crosland & Dunlap, 2012). As a consequence, there lacks an established consensus regarding best practices and ideal teaching strategies for the support of students with ASD (Crosland & Dunlap, 2012). This leaves educators with the challenge of creating an inclusive classroom climate for their students with ASD despite clear guidelines. Given the lack of practical research done in this area which can serve as a tool for teachers, it is not surprising that a parent satisfaction survey conducted by Autism Ontario reflected that teachers were not satisfied with the implementation of *Policy/Program Memorandum No. 140: Incorporating methods of ABA into programs for students with ASD* (Weiss, White, & Spoelstra, 2008).

Further, research on the inclusion and academic achievement of students with ASD has mainly focussed on the elementary school level. In contrast, less research has been conducted on intermediate (grade 7-8) and senior (grade 9-12) level students with ASD in these areas (Hedges, Kirby, Sreckovic, & Kucharczyk, 2014). It is crucial that we learn about the perspectives of teachers instructing at these grade levels, as research suggests that postsecondary outcomes are poorer when support is lacking at the high school level (Hedges et al., 2014). In response to this
gap in the research literature, my research will focus on intermediate/senior level teachers’ experiences.

1.2 Purpose of the Study

The purpose of this study was to explore how Ontario intermediate and senior general education teachers are working to create optimal learning communities for intermediate/senior students with ASD. For the purposes of this study, I interviewed teachers about: teacher preparedness and understanding of ASD; how they reportedly work towards the academic success of students with ASD; how they reportedly work towards the social inclusion of students with ASD amongst their peers; the perceived outcomes of these academic and socially-oriented practices; and finally, the supports and the challenges they encounter in this process.

Despite the OME’s efforts to put forth policy emphasizing the importance of supporting mainstreamed students with ASD, the responsibility falls onto general education teachers to implement effective strategies and approaches within the classroom. However, such strategies present as a gap in the research knowledge (Lindsay et al., 2014). Thus, it is essential to gather information from the perspectives of general education teachers as to what challenges they face when working to create an ideal classroom for students with ASD so as to eliminate such barriers for future educators and students. Further, gaining experiential knowledge from teachers regarding perceived effective strategies can enhance the learning and inclusion of students with ASD by informing the instructional practices and pedagogical approaches of other teachers who work with students with ASD.

By expanding the teacher knowledge base on effective practices to ensure academic achievement and inclusion of students with ASD, general education teachers can further fulfill their duty in meeting the Ministry’s (2014) mission statement which states that every student has
the opportunity to be successful. Integrating students with ASD into general education classrooms reflects their right to be full members of their learning community, and advocates for equitable opportunities to build social relationships and self-confidence (Lynch & Irvine, 2009). This reflects not only the MOE’s goals for students with ASD, but also our societal beliefs as Canadians (Lynch & Irvine, 2009).

1.3 Research Questions

The primary question guiding this study is: how are Ontario intermediate and senior general education teachers working to create optimal learning communities for intermediate/senior students with ASD? Sub-questions to further guide this inquiry include:

- What are general education teacher’s perceived preparedness and understanding of ASD and the evidence-based practices that support these learners?
- How are general education teachers reportedly supporting the academics of students with ASD and what are the perceived outcomes of these efforts?
- How are general education teachers supporting the social inclusion of students with ASD and what are the perceived outcomes of these efforts?
- What resources and other factors support and/or hinder general education teachers’ abilities in supporting students with ASD?

1.4 Background of the Researcher/Reflexive Positioning Statement

I have had the pleasure of working with children and adolescents on the Autism spectrum through my experiences volunteering at a treatment centre, and partaking in a 1:1 program at a summer camp. Each individual I worked with had areas of intense savant and unique abilities and keen interests, and discovering what those were left me in awe. One child recited an entire
body of Greek mythology to me in one day, and could do complex mathematical computations in his head (I would have to double check with a calculator). Another child I worked with could navigate me from a parking lot in one city, to a destination in another province providing details of every side-street and highway. Some played amusing and quirky games, and helped me see the world in a different way. These kids inspired me to have an appreciation for a diverse range of learners, and taught me the value in seeking out the unique abilities and interests of all students.

Throughout these experiences, I did however experience challenges in the sense that I at times lacked the skills and knowledge needed to assist the child or adolescent in navigating their social environment, and optimally support their learning. As an educator, I want to ensure the social and academic success of my future students with ASD, and will use this research project to build on my toolkit of effective strategies.

I myself am positioned as non-Autistic; on the basis of this social position, this will likely hinder my findings in that challenges and perceived effective strategies will be discussed from the view of non-Autistic general education teachers and not the students at the receiving end. Unfortunately the constraints of this small scale research project prevent opportunities to speak with students with ASD on what they feel supports their learning. I hope not to deny their realities in the classroom, but strive to gather teacher insight and experience that will shed light on what has been perceived to be effective in supporting the academic and social success of their learners with ASD.

However, I hope my small collection of experiences working with students with ASD will support me as I begin to apply theory to practice. As an individual who became a teacher
with the philosophy and hope to ensure every student meets their full potential under my leadership, I wish to gain the knowledge and skills necessary to support my learners with ASD.

1.5 Preview of the Whole MTRP

To respond to the research questions, I conducted a qualitative research study using purposive sampling to interview three general education teachers about their experiencing working to support students with ASD. This research project is organized into five chapters. In Chapter Two I review the literature in the area of inclusion of students with ASD in terms of strategies and barriers teachers’ experience. Next, in Chapter Three I discuss the research design. In Chapter Four I report and discuss my research findings. In Chapter Five I apply my findings to my own teaching practice and discuss how these findings could be used by the educational community more broadly. Finally, I will discuss potential areas of future investigation.
Chapter Two: Literature Review

2.0 Introduction (Chapter Overview)

In this chapter I review the literature in the areas of general education teachers’ understanding of ASD, the concept of a whole-school approach in support of students with ASD, the role general education teachers’ play in the social and academic outcomes of students with ASD, and potential accommodations for students with ASD. More specifically, I review how teacher education programs have been found to either prepare (or not) general education teachers to work with students with ASD. Next I review research on how general education teachers’ work collaboratively with other educators and the families of students with ASD to ensure an optimal learning environment is constructed. From there, I review research on teaching strategies for creating an inclusive environment for students with ASD. Finally, I consider findings on supports and services in the form of accommodations that promote the academic achievement and successful inclusion of students with ASD.

2.1 General Education Teacher Understandings of ASD

Within the province of Ontario, a range of classroom placement options are available for students, with the general education classroom being considered the least restrictive (Starr & Foy, 2012). Integrated students benefit from access to general education curricula and opportunities to develop greater social networks through numerous peer interactions (Able, Sreckovic, Schultz, Garwood, & Sherman, 2015). To ensure inclusion results in such success, general education teachers must be prepared to instruct students with a range of learning needs. In this section I will review the literature on general education teacher understanding of ASD, and their use of this knowledge to make evidence-based pedagogical decisions.

The limited body of Canadian research on parent perspectives of children with ASD
suggests that a major contributor to dissatisfaction with regards to their child’s education was a perceived lack of teacher knowledge on the nature of ASD (Jackson Brewin, Renwick & Schormans, 2008; Starr & Foy, 2012). Evidence suggests that some Canadian parents are concerned with the lack of consistent training among members of their school’s staff (Jackson Brewin et al., 2008). Jackson Brewin et al. (2008) interviewed Canadian parents of children with Asperger Syndrome (AS) who reported that this lack of knowledge resulted in teachers being unprepared to support their children at school; with greater understanding of ASD could come greater acceptance and tolerance for student’s behavior (Jackson Brewin et al., 2008). Without an understanding of the nature of ASD, school suspensions risk became more common among students with ASD, as school staff may be undertrained in dealing with or comprehending the child’s behavior (Starr & Foy, 2012). Taking into account such outcomes, parents stress the need for specialized teacher training, which emphasizes knowledge on ASD alongside strategies and techniques identified as generally helpful for students with ASD (Jackson Brewin et al., 2008; Starr & Foy, 2012).

This impression of teacher unpreparedness is not just expressed by the parents of children with ASD, but by general education teachers themselves. Lindsay et al. (2013) reported that some Ontario certified general education teachers do not feel confident in their ability to assist students with ASD socially, academically or behaviourally. Some of these interviewed Ontario teachers feel that Additional Qualification courses in Special Education (designed to allow teachers to add another division to what they are already qualified to teach, in this case Special Education) tend to focus on broad issues surrounding exceptionalities, and provide little information on teaching methods tailored to specific diagnoses. Therefore, general education teachers may also feel underprepared to provide social supports to students with ASD (Able et
al., 2015). Several teachers who took part in a focus group for Able et al.’s (2015) study suggested that, during their teacher preparation, opportunities to work with children with ASD in school settings would have been beneficial. This is compatible with research suggesting that teacher efficacy in working with students with exceptionalities can be improved through field experiences in inclusive classrooms (Jung, 2007).

### 2.1.1 General education teacher knowledge of evidence-based practices for ASD.

Considering how general education teachers have been found to feel that little focus during teacher preparation is dedicated to understanding ASD specifically (Able et al., 2015), it follows that these teachers may also have trouble implementing related best practices. Teachers have reported feeling like they are left to their own process of trial and error when determining which strategies to implement (Hess, Morrier, Heflin, & Ivey, 2007). This can result in the use of interventions that are not based on empirical evidence to support their effectiveness (Hess et al., 2007). However, teacher training with a focus on ASD and evidence-based strategies may assist teachers in feeling more knowledgeable and confident in supporting these learners. Leblanc et al. (2009) provided 200 additional minutes of instructional training to Ontario Bachelors of Education students by an ASD consultant. Their results demonstrated that teacher candidates felt they would be more comfortable teaching students with ASD, had an increased knowledge of evidence-based practices, and increased knowledge of effective behavioral teaching strategies following training.

These results indicate that even minimal amounts of teacher training dedicated to understanding ASD and evidence-based practices can reduce teacher anxiety, and provide them with the knowledge they need to effectively support their learners with ASD (Leblanc et al., 2009). Taken together the research reviewed in this section suggests a united perspective among
both parents and teachers of students with ASD, emphasizing the need for more in-depth teacher training on understanding ASD and evidence-based practices.

2.2 The Whole-School Approach

A whole-school approach involves each member of a school community playing an integral part in the collective, collaborative action towards improving student learning and well-being. Effective education for students with exceptionalities may be dependent upon supports that create equal opportunities (Lynch & Irvine, 2009). These supports may be in the form of an educational assistant (EA), special education teacher, and/or valuable parent/guardian feedback and insight. Research has suggested that a whole-school approach wherein all members of the school community have an awareness and acceptance of ASD, is helpful in supporting learners with ASD (Lindsay et al., 2013). Students are more likely to reach their full potential when they feel a sense of importance, inclusion and appreciation within their school community (Lindsay et al., 2013). In this section I will review the research on the ways in which different stakeholders contribute to the construction of a positive and productive school climate.

2.2.1 Parent-teacher collaboration and communication.

Parents of children with ASD can provide general education teachers with valuable insight on the child’s abilities, strengths, challenges and interests. For this reason, some Ontario parents of students with ASD have been found to express the importance of collaboration and communication between home and school (Starr & Foy, 2012). Past studies have demonstrated that parental involvement can optimize inclusion of students with ASD in mainstream classrooms (Lindsay et al., 2013; Lipsky & Gartner, 1997) with parental involvement being a key element in Lipsky and Gartner’s model of best practices for inclusion. Some Ontario general education teachers feel that parents who collaborate minimally with the teacher prevent them
from implementing tailored strategies and from receiving resources and services that could benefit the child’s school life (Lindsay et al., 2013).

Parental involvement has been found to be particularly crucial in the development and success of an Individual Education Plan (IEP) (Prunty, 2011). General education teachers can gain information about the student’s home life and routine, and students have been shown to increase their likeliness of achieving IEP goals when a collaborative process occurs between parents and teachers (Prunty, 2011).

Some Ontario parents have also suggested that they would like to see schools practice greater networking with community agencies (Jackson Brewin et al., 2008). These parents stated teachers should communicate and collaborate with community agencies to ensure outside support is integrated into the school setting so parents do not have to seek out multiple services in different locations. When such partnerships are established, common goals may be set for the student which may allow them to feel more reliant on a support network that works together for their success rather than juggling multiple expectations in a number of settings.

Open communication is therefore key in creating an optimal learning environment as demonstrated through the perspectives of both guardians and teachers of students with ASD. However, rapport can also be built with the student to further ensure inclusion and academic success.

**2.2.2 Student-teacher collaboration and communication.**

Some general education teachers have reported the importance of building a positive and caring relationship with the student, in order for them to feel safe and important within the classroom community (Lindsay et al., 2014). These teachers suggested building on student interests and focussing on their abilities as opposed to limitations (Lindsay et al., 2014). For example,
opportunities for students with ASD to showcase their strengths and abilities can be worked into lessons or group projects; these can be highlighted to classmates in support of everyone’s learning (Lindsay et al., 2014).

Further, involving the student in the development of the IEP has also been shown by Prunty (2011) to be effective in ensuring the student is aware of their target goals, and is provided opportunities to monitor their own progress. For some senior students in particular, connecting IEP goals with postsecondary goals can help students transition into employment and independent living situations following graduation (Szidon, Ruppar, & Smith, 2015). Providing students with ASD opportunities to share and showcase their unique interests and strengths, alongside setting goals for themselves can promote equity within the school setting, and encourage students to take ownership of their education.

2.2.3 Teacher-teacher collaboration and communication.

Teachers and parents alike have identified a lack of communication between teachers and other educators as creating barriers to inclusion and academic achievement of students with ASD (Hedges et al., 2014; Starr & Foy, 2012). In particular, some senior general education teachers have expressed that lack of communication during transitions – from one semester to the next – can prevent the implementation of strategies that have been shown to be effective for a student (Hedges et al., 2014). Parents in Hedges et al.’s (2014) focus group also expressed that the student’s next teacher may not understand IEP goals and accommodations, leaving the parents to feel as if each semester is a new start, disrupting previously made progress. Sharing information from year to year – also known as vertical planning – may help to reduce the re-construction of classroom routines and effective strategies. Administration at the school-level can help to
support this by scheduling opportunities for teachers to collaborate professionally (Hedges et al., 2014).

2.2.4 Educational assistant-teacher collaboration and communication.

Another form of support teachers can seek out is help from an educational assistant (EA). EAs fall under the role of paraeducators, or school employees who work with the teacher to support individual or groups of students. Some Ontario parents have expressed that increased time with EAs may be beneficial in assisting their child with ASD (Starr & Foy, 2012). Support and guidance from an EA can increase academic achievement and enhance the social skills of the students they work with (French, 2003). Several Ontario teachers of students with ASD also felt strongly about having an EA present, although lack of funding can prevent the school from hiring an appropriate EA (Lindsay et al., 2013). Generally, students with EA support tend to spend more time engaged in tasks, which creates time for the teacher to improve the quality of their instruction and provide support to the class at large (French, 2003). As well, students can gain more independence with an EA if they can limit the amount of direct instruction they provide and instead prompt the student to seek out support from their teacher (French, 2003).

However, interviews with paraeducators conducted by Marks, Schrader, and Levine (1999) suggested that these individuals perceived their role as a classroom support as intended to keep students with exceptionalities from ‘bothering’ general education teachers. As such, these paraeducators felt they became responsible for implementing accommodations for the student and thus were accountable for the child’s education (Marks et al., 1999). These findings underline the importance of ensuring that each member of the school support team understands their distinct roles and responsibilities, and values open collaboration and communication.

There is a debate in the literature as to whether the presence of an EA hinders or supports
the perception that peers have of students with ASD. Some evidence indicates that students who are supported by an EA can be socially isolated from their peers, and this may increase their risk of being bullied (Lindsay & McPherson, 2012). In contrast, other evidence suggests that if the teacher and paraeducator actively collaborate to formulate an understanding of their shared responsibilities in the education and behavior management of the student with ASD, the teacher-student relationships can be more positive (Robertson, Chamberlain, & Kasari, 2003). Research done by Robertson et al. (2003) has demonstrated that this has the effect of enhancing the social success of students with ASD, as positive teacher-student relationships were shown to foster positive peer relations.

In this section the reviewed research illuminated on the importance of collaboration and communication with educational assistants, teachers, parents, and of course, the student with ASD, to ensure their success. In the following section, the general education teacher’s role on the social outcomes for students with ASD is reviewed.

2.3 The General Education Teacher’s Role on the Social Outcomes of Students with ASD

Students with ASD are approximately 20 times more likely to be socially excluded as compared to their peers (Humphrey, 2008). Self-reported perspectives of intermediate/senior students with ASD has revealed that some of the worst aspects of school were peer taunting, peers not being nice or peers calling them ‘not normal’ (Connor, 2000). Some students in the same study reported that making friends is the thing they felt they were least good at. However, these intermediate/senior students with ASD also reported that they talk to teachers or the Special Needs co-ordinator when they have problems at school which suggests that teachers may play a vital role in resolving social conflicts and in social inclusion more broadly. In this section peer understanding and acceptance – in particular diagnosis disclosure and the establishment of
social support groups – are first reviewed. Then, teacher strategies which promote peer acceptance will be reviewed.

2.3.1 Peer understanding and acceptance.

In order to encourage peer understanding and acceptance of students with ASD, some teachers support the idea of diagnosis disclosure (Lindsay et al., 2013). Research with elementary school students suggests that students who disclose their diagnosis with their peer group receive more social support (Ochs, Kremer-Sadlik, Solomon, & Sirota, 2001). Campbell (2007) found that providing middle school students with both descriptive information – which informs the student of similarities between the child with ASD and their peers – and explanatory information – which provides causal information about behaviors – generates more positive attitudes towards the student in comparison to conditions in which no information is provided. Students who are unfamiliar with Autism in particular, may report more positive cognitive attitudes if an explanatory message is provided in comparison to only descriptive information (Campbell, 2007). Importantly, students tend to experience more favorable attitudes when the source of the message is a teacher in comparison to a parent, which may emphasize the role teachers play in ensuring positive attitudes are instilled.

Carter, Hughes, Copeland and Breen (2001) found that the understanding and attitudes of peers is a predictor of the quality and number of interactions between students with ASD and their peers. Thus, if these descriptive and explanatory messages can be meaningfully transferred to the students by the teacher, the student with ASD may experience social interactions of greater quality and number. It is important that the diagnosis is not just shared, but that educators and peers gain the knowledge and understanding of what the diagnosis means for the student with regards to their behavioural and/or social classroom needs (Jackson Brewin et al., 2008). Some
Ontario parents have warned that diagnosis disclosure may lead to ‘fault-finding’ or stigmatization wherein the teacher is aware of the diagnosis and thus looks for problem behaviors (Jackson Brewin et al., 2008). Diagnosis disclosure must be carefully considered between parent and teacher taking into account the best interest of the student.

Some Ontarian parents of students with ASD have also expressed the need for social skills training in school as well as opportunities for children with ASD to participate in clubs or activities that showcase their interests or abilities (Jackson Brewin et al., 2008). An example of such a program is ‘The Friendship Club’ which was organized and studied by Carter, Pritchard, Wittman, and Velde (2004) in North Carolina, United States.

The Friendship Club was a 6-week after-school program designed to help students with Asperger Syndrome develop skills useful in establishing friendships. This was done by creating activities related to relationship building (e.g. “Asking questions” game, making and distributing cupcakes at the Ronald McDonald House) and collecting data from parents concerning what skills would be most helpful for the leaders to focus on. Initial interviews with parents and their children gave the leaders ideas for activities they could implement that matched the interests of the kids. The goal behind this was to fostering interpersonal connectedness based on shared interests. Ongoing feedback was also taken after each session to ensure parents and children were satisfied with the program.

Through these efforts of consistent collaboration, the children generally enjoyed each of the activities and many of them made at least one friend. Based on these findings, Carter et al. (2014) suggested that future programs similar to ‘The Friendship Club’ should include typically developing peers as they may act as models for the development of social skills, and can benefit by gaining an understanding of, and a sense of connectedness to their peers with Asperger
Establishing support groups focused on building social skills such as ‘The Friendship Club’ seem like an ideal extra-curricular for schools to implement in support of the inclusion of students with ASD. In the next sub-section, general education teacher strategies that further promote peer acceptance are reviewed.

2.3.2 Teaching strategies for peer acceptance.

Building a climate of inclusion and acceptance can be accomplished through inclusive pedagogy which involves each student working towards eliminating stigma against those who seem ‘different’ in any way (Lindsay et al., 2014). Some teaching strategies that were found through interviews by Lindsay et al. (2014) to promote acceptance include small group work and sending out many kids for support, not just those who need extra help in order to minimize exclusion. Strategies such as these may benefit multiple students in accordance with universal design principles, not just the student with ASD, and in the process, promote the value of diversity.

One such tailored strategy used to assist students with ASD socially is self-management (Crosland & Dunlap, 2012). Self-management strategies include self-selected goals, self-observation and recording of behaviors, as well as student administration of their own reinforcement. If such strategies can be carried out effectively, the role of control on behavior management becomes the responsibility of the student instead of the teacher. Such independence has been found to create time and opportunity for the student to interact with their classmates and be more involved in activities with peers.

Further, peer-mediated interventions involve using typically developing peers in the class as supports for students with ASD in general education classrooms (Crosland & Dunlap, 2012). In this role, peers may act as models that encourage appropriate communicative and social
behaviors. As well, they may take on the task of acting as a peer tutor, which has shown to improve on-task behavior, and social interactions for students with exceptionalities.

‘Peer buddy systems’, typically used in elementary grades, may take on a very sophisticated nature such that the special education personnel, or general education teacher will work with the typically developing peer to provide them with communication and behavior management strategies, with tools to facilitate the social participation of their buddy in the classroom, and with the ability to modify assignments based on their IEP goals (Cushing & Kennedy, 1997). Cushing and Kennedy (1997) found that peers who perform below modal levels within the class and participate in such training to eventually support students with ASD can benefit from the experience themselves by becoming more academically engaged, completing assignments, and increasing their classroom participation. As such, many of the strategies that promote positive social outcomes for the students with ASD in the classroom benefit all students.

In this section, social outcomes for students with ASD within the context of diagnosis disclosure, teacher relaying of descriptive and explanatory messages and teaching strategies such as self-management and peer-buddy systems were reviewed. The following section will focus on literature that reviews how general education teachers can support the academic achievement of students with ASD through accommodations and other teaching strategies.

2.4 Accommodations for Students with ASD

This section will review the literature on accommodations and other teaching strategies supported by research which assist students with ASD. Specifically, strategies which reduce inconsistencies throughout the school day are reviewed, as well as the School-wide Positive Behaviour Support (SW-PBS) model.

Integration into general education classrooms may help students to develop social skills
such as the ability to resolve conflicts and play cooperatively (Guralnick, Connor, & Hammond, 1995). As well, students placed in mainstream classrooms may experience increased self-confidence, self-esteem and improved academic achievement (Ritter, Michel, & Irby, 1999). In order to ensure such social, personal and academic gains are experienced by students with ASD, general education teachers may need to implement specific accommodations to ensure the meaningful inclusion of the student in comparison to physical integration only.

Some teachers have suggested successful accommodations involve creating an independent assignment or a pre-decided task for a student with ASD to complete within a group to ensure they feel appropriately challenged while still interacting with peers (Able et al., 2015). Advanced placement classes have been suggested as a form of modification for some students with ASD who excel (Able et al., 2015).

2.4.1 Strategies for reducing inconsistencies.

Particular accommodations that seem to have reliable, positive outcomes are those which tackle inconsistencies within the school environment. Students with ASD tend to prefer consistency in their routine, and as such have been found to experience challenges adjusting to changes in scheduling such as fire drills and assemblies (Hedges et al., 2014; Schreibman & Whalen, 2000). High school students are exposed to additional inconsistencies as they have a different teacher for each class (Hedges et al., 2014).

Research suggests antecedent procedures such as priming, prompt delivery and visual schedules, can be a proactive way to avoid surprises and make school life more predictable for students with ASD (Crosland & Dunlap, 2012; Kern, Sokol, & Dunlap, 2006). Priming is a strategy wherein the student previews information or an activity before the onset of the full event – for example previewing a fire drill (Wilde, Koegel, & Koegel, 1992). Priming through use of
videotaped instruction has been shown to be effective in reducing behavioural outbursts on school trips (Schreibman & Whalen, 2000). Further, Zanolli, Daggett and Adams (1996) found that children with Autism who were primed through teacher modelling of play behaviors (i.e. use of names) before playing with typical peers had increased social interactions.

Prompt delivery works similarly, in that it involves providing a cue or suggestion to the student to behave in a certain way. Two different prompting strategies exist; buddy prompting and teacher prompting. Both strategies have demonstrated effectiveness in increasing the number of appropriate behaviors (Sainato, Strain, Lefebvre, & Rapp, 1987). Finally, visual schedules can take on the form of a picture book or an iPhone application that communicates through visuals what to expect in upcoming events. Such schedules have been found to reduce student reliance on classroom aides for prompts (Hall, McClannahan, & Krantz, 1995) and increase on-task behaviour (Bryan & Gast, 2000; MacDuff, Krantz, & McClannahan, 1993).

2.4.2 School-wide Positive Behavior Support (SW-PBS).

Individualized strategies such as antecedent procedures can be used to support students through inconsistencies, but the desire for a whole-school approach prompts an exploration of a school wide strategy. School-wide positive behavior support (SW-PBS) is a prevention model involving three levels of support (Crosland & Dunlap, 2012; Horner & Sugai, 2000). The first level is a universal systems strategy for all students wherein strategies are put in place to encourage positive behaviors from all. For example in their study, Luiselli, Putnam, Handler and Feinberg (2005) implemented strategies which included improving instructional methods, clearly outlining behavioural expectations and increasing classroom engagement.

If some students are not responsive at this stage, then secondary or tertiary levels of support may be required, such as interventions for specific groups of students, or specific
problem behaviors (Crosland & Dunlap, 2012; Horner & Sugai, 2000). Using this design, focussed on a minimal threshold of strategies for all, can help to decrease the number of students requiring more intensive supports (Luiselli et al., 2005). This helps to target which groups of students need further interventions in order for evidence-based practices to be researched and implemented (e.g. social skill groups for students with ASD) (Crosland & Dunlap, 2012). Such universally designed strategies can benefit the students with ASD, but also their peers and teachers.

2.4.3 Benefits experienced by all when including students with ASD.

Mainstreamed students with ASD have the potential of prompting general education teachers to question their pedagogical approaches, and think of their instructional techniques in new ways (Chandler-Olcott & Kluth, 2009). In this way, teachers can take on the role of inquirers – able to collect information on student’s strengths and needs to make curricular decisions. Such strategies may trigger an inquiry approach to all learners in the classroom, wherein the teacher values formative assessment and data collection on students’ progress to improve their instruction for all. Further, Chandler-Olcott and Kluth (2009) found that when inquiry is practiced, teachers may feel more confident and able to advocate for students in IEP meetings.

A second general education teacher benefit is a shift in instructional planning from activities to learning outcomes (Chandler-Olcott & Kluth, 2009). If a student with ASD is prevented from partaking in a pre-designed activity based on their needs or exceptional strengths, teachers have been found to focus on achieving the same learning outcomes through different modes (Chandler-Olcott & Kluth, 2009; Gerland, 1996). Wormeli (2006) argues that some teaches tend to lose sight of the learning outcomes and instead over-emphasize performance. He instead suggests that teachers create multiple routes to a learning goal and assess mastery with
regards to demonstration of the learning outcome in differentiated ways (Wormeli, 2006).

When teachers turn their attention to the learning outcome they are provided with opportunities to evaluate and reflect on their practice; adjusting expectations and trying different pedagogical strategies within their classroom. Accommodations such as the use of technology in the classroom may also help to motivate and assist in the learning of students with ASD, but also their peers (Sonnenmeier, McSheehan, & Jorgensen, 2005). In this way, diverse ways of participating in classroom life are explored and valued by teachers and peers alike.

In this section some strategies supported in the literature for use by general education teachers to create optimal learning environments for students with ASD were reviewed. Priming, prompting and visual schedules were among the individualized strategies that are recommended to reduce nervousness around inconsistencies, and the SW-PBS is a form of universal design modelled to support all learners. Finally, and importantly, the benefits of having students with ASD in the classroom were reviewed.

2.5 Conclusion

In this literature review I examined research related to general education teacher understanding of ASD, the concept of a whole-school approach, the role general education teachers have on the social outcomes of students with ASD and evidence-based accommodations and teaching strategies for students with ASD. This review emphasizes the gap in teacher education programs in providing teachers with knowledge on evidence-based practices to optimize the learning experiences of students with ASD. However, the literature does provide some direction such as collaborating and communicating with parents, students, other teachers and educational assistants as well as creating clubs or opportunities for students with ASD to showcase their interests and talents while strengthening their social skills. Finally, this literature
review concluded by discussing strategies for teacher implementation in support of learners with ASD such as priming, prompting, visual schedules and the SW-PBS.

With the present study, I hope to further contribute to supporting students with ASD, and create further knowledge of the barriers general education teachers face, as well as offer suggestions for addressing them. Considering much focus is given to parent perspectives in the literature, I hope to provide new insight on general education teacher perspectives through in-depth qualitative analysis. The literature has shown the important role of collaboration, communication and creating a whole-school approach towards supporting students with ASD and thus it is important to ensure teachers have similar values and beliefs as to what will work in the classroom. It is my hope that I will provide better understanding towards how Ontario general education teachers work towards optimal inclusion of students with ASD.
Chapter Three: Research Methodology

3.0 Introduction (Chapter Overview)

In this chapter I describe the research methodology. I begin by reviewing the general research approach and procedures before elaborating more specifically on the instruments of data collection. I will then discuss participant sampling and recruitment procedures. I then explain my data analysis procedures and review ethical considerations of relevance to my study. Methodological limitations and strengths are then discussed, given my research purpose and questions, and choice of research approach. Finally, I conclude the chapter with a brief overview of methodological decisions and provide a preview of what to expect in upcoming chapters.

3.1 Research Approach & Procedures

For this research study, I took on a qualitative research approach in the form of face-to-face semi-structured interviews with two teachers. I conducted a literature review of past research on the ways in which general education teachers work towards creating optimal learning environments for intermediate/senior students with ASD. This helped me to understand what kind of research approaches are typically used to investigate my topic, justifying my methodological decisions.

Qualitative research involves examining a research question without experimental measurements of quantity, intensity or frequency of a phenomenon (Lincoln & Guba, 1985). It does not summarize its findings into numbers, but instead portrays particular experiences or observations in all of their richness (Fraenkel & Wallen, 1993). In this way, it is the study of a research topic in context, rather than at a distance (Hays & Singh, 2011). Qualitative research methods collect in-depth information on the experiences, perspectives and thoughts of particular participants (Conrad & Serlin, 2011). Central to this approach is the recognition that multiple
“truths” are socially constructed (Lincoln & Guba, 1985), wherein qualitative research explores the meaning and understanding of these truths as they pertain to the participant (Merriam, 2002). Thus, qualitative researchers do not attempt to generalize their findings, as is the goal of quantitative research (Conrad & Serlin, 2011). Instead, information gathered through qualitative approaches can help the researcher to gain insight on their research questions in a naturalistic setting wherein inquiry is made more flexible, as guided by participant’s comments and behaviors (Conrad & Serlin, 2011).

Qualitative methods lend themselves to understanding the meaning and nature of experiences of persons with particular socially situated perspectives (Strauss & Corbin, 1990). It assists the researcher in understanding the feelings, thought processes and emotions experienced by the participants, which are more difficult to uncover and interpret through quantitative methods (Strauss & Corbin, 1990). Other characteristics of qualitative research include naturalistic inquiry or an openness to what emerges through these less constraint methods (Fraenkel & Wallen, 1993). Further, qualitative methods take on a holistic perspective in that the whole phenomenon is studied instead of the sum of its parts (Fraenkel & Wallen, 1993).

My research purpose is to gain an in-depth understanding of how teachers work towards creating optimal learning environments of their students with ASD, alongside their perceived outcomes of these efforts. As ASD varies in character, and each student in and of themselves have different personalities and interests, strategies implemented for individual students should be tailored and thus, are non-generalizable. In this way, qualitative research was ideal for my study as I was able to explore the how and what questions on the process of inclusion (Hays & Singh, 2011): for example, how the strategies were selected and how they have shown to be reportedly effective. My research questions were better answered through discussion than
statistical evidence (Lichtman, 2013) as I hoped to identify how teachers transferred prior knowledge of ASD and evidence-based practices into their teaching, as tailored to their particular students.

### 3.2 Instruments of Data Collection

Qualitative data was collected by use of interviews with teacher participants. Interviewing is advantageous as it allows the researcher to enter into the inner thinking of another person, gaining an understanding of their practice through their own perspective (Patton, 1987). Interviews are significant as they allow the researcher to verify or refute the accuracy of information provided by gaining information through observation of behaviours, feelings and emotions (Fraenkel & Wallen, 1993).

The primary instrument of data collection used in this research study was the semi-structured interview protocol. Semi-structured or guided interviews involve developing a script of pre-designed questions that the interviewer follows and uses with all participants (Lichtman, 2013). In this way, the general structure is the same for all participants; however, the interviewer is able to develop new questions, remove or re-phrase questions during the course of the interview (Lichtman, 2013). This provides the interviewer with the comfort and security of entering the interview with a plan in mind which satisfies the research purpose and questions (Lichtman, 2013); however, the participant is able to elaborate and re-direct the interview in areas not previously considered by the interviewer. In this way, semi-structured interviews allow for participants to take on the role of co-researcher, supporting the establishment of a shared role in the research process, thus reducing power hierarchies (Lichtman, 2013). The use of an interview guide ensures data collection is systemic for each respondent; however, gaps that were previously unforeseen by the interviewer can be closed at the time of the semi-structured
interview (Fraenkel & Wallen, 1993). For example, the researcher may choose to ask a follow-up question to understand the reason behind a particular event (Gay, Mills, & Airasian, 2012).

Further, interviews more generally help the researcher to uncover data that cannot be observed, such as feelings, thoughts and intentions (Fraenkel & Wallen, 1993).

As stated by Able, Sreckovic, Schultz, Garwood, and Sherman (2015) “research is needed in teacher education where it is translation in nature – by allowing the practice and daily experiences of teachers guide our professional preparation efforts.” Interviews allow for the collection of information regarding teacher experiences and perspectives of including children with ASD in mainstream classrooms (Lindsay, Proulx, Scott, & Thomson, 2014) which can in turn be applied to the practices of other intermediate/senior teachers. Further, the semi-structured format allowed for information to emerge that I did not consider as a teacher candidate with less in-class experience, allowing the practicing teacher to re-direct the interview when relevant.

My interview guide (Appendix B) consisted of four sections: background information, perceived teacher preparedness to instruct students with ASD, teacher practices used to support students with ASD, and influencing factors (i.e. supports and challenges) and next steps. Examples of questions include:

- In your experience, what has worked well within your classroom in terms of including students with ASD?
- What do you believe students can gain from having a peer with ASD in their classroom?
- What advice would you give to a beginning teacher looking to support students with ASD in their classroom?

3.3 Participants

In this section I review the sampling criteria I established for participant recruitment, and
discuss the sampling procedures I used to recruit participants. I have also included a section describing my participants.

### 3.3.1 Sampling criteria.

The following criteria were applied to teacher participants:

1. Teachers will have completed their teacher training in the GTA.
2. Teachers will be intermediate/senior level teachers (i.e., teach any grade from 7-12).
3. Teachers will have worked with at least two students with ASD within a mainstream or general education classroom setting.

I was interested in investigating the extent to which teachers perceived their training prepared them for instructing students with ASD. In order to maintain a geographical focus with regards to teacher education and thus the knowledge and skills obtained, teacher participants had completed their training in the GTA. Little research has delved into the middle and high school experiences of individuals with ASD (Hedges et al., 2014) and thus I chose to investigate intermediate/senior level teacher’s perspectives. Students at the high school level must juggle several different classes and teachers in an educational context with higher demands on the quality and amount of independent work (Hedges et al., 2014); thus, it was of great importance that I investigate the ways in which intermediate/senior teachers assisted students with ASD navigating through these settings.

The third criteria states that teacher involved in this study had worked with at least two students with ASD. The reason for this is because having worked with two students with ASD as opposed to one provided insight regarding how teachers tailored strategies to individual students.
As well, it provided opportunities for teachers to discuss multiple experiences including the ways in which they grew from one scenario to the next.

3.3.2 Sampling procedures/recruitment.

Taking into account the distinct criteria outlined in the previous section, non-random sampling techniques were employed for this study. There are four broad types of non-random sampling techniques which include convenience sampling, quota sampling, purposive sampling and snowball sampling (Johnson & Christensen, 2012). Convenience sampling includes people who are easily available, volunteer or can be easily recruited (Johnson & Christensen, 2012). In quota sampling, the researcher locates groups of interest, determines the number of participants they are interested in recruiting within each group and then selects a convenience sample of people from each group (Johnson & Christensen, 2012). For example, a researcher may wish to have a sample comprised of 50% grade 9 and 10 students, and 50% grade 11 and 12 students could use quota sampling to ensure the correct quote is met. In purposive sampling, the researcher outlines the desired characteristics, locates a group and then seeks out individuals who fit the criteria (Johnson & Christensen, 2012). Finally in snowball sampling, each research participant is asked to identify other individuals who fit the criteria and could act as potential research participants (Johnson & Christensen, 2012).

As a teacher candidate in the GTA whom has completed practicums in intermediate/senior level schools, I am immersed in a community of teacher colleagues and thus relied on existing connections to recruit participants via convenience sampling. I contacted organizations for children/adolescents with ASD as well as online learning communities for teachers to distribute my information to those who may have been of interest to my study. In order to eliminate ethical risks, I provided my information to teachers via email and posted on
online professional communities as an opportunity for those interested in the study to contact me. In this way participants were recruited on a volunteer basis rather than feeling obligated to participate at my personal and face-to-face request.

3.3.3 Participant bios.

Both participants of the present study are professionals in the field of education, having trained in the Greater Toronto Area. The participants, Pam and Jim, remain anonymous by these assigned pseudonyms. **Pam** has worked as an intermediate/senior teacher for two years, and is currently working as a teacher in the United Kingdom. She primarily teaches history, but has also taught morals and ethics, politics and general humanities. At the time of the interview she stated she believed she has taught four students with ASD. **Jim** has been teaching for over 10 years, most of which have been spent at the school he currently resides with an ASD program. He teaches general science and biology courses to high school students. He has taught about three or four students with ASD throughout his career.

3.4 Data Analysis

In this section I will describe how data analysis took place. The first step in qualitative data analysis involves transcription or the process of converting audiotaped recordings into textual data (Creswell, 2005). The interviews were audiotaped and the recordings were typed onto a secure, password-protected laptop using pseudonyms for each participant. The next step in qualitative data analysis involves coding the data (Creswell, 2005). The goal of coding is to make sense of the data (Creswell, 2005) by marking segments of the data with descriptive words or category names (Johnson & Christensen, 2012). To elaborate, a researcher may find a meaningful segment within the transcript that assists in answering the research questions, and assign it a category, thus coding the segment (Johnson & Christensen, 2012). A master list of
codes is then created which summarizes all the codes used in the research study (Johnson & Christensen, 2012). This assists the researcher in identifying themes or similar codes between transcripts (Creswell, 2005). There are less themes than codes helping to reduce redundancies while still satisfying the research questions (Creswell, 2005). The final stage consisted of reporting the findings to the research questions as organized under the emerging themes (Creswell, 2005). A narrative discussion is a written passage which I used to report my findings and interpret the data in connection to the literature review (Creswell, 2005). In summary, I analysed the data by coding the transcripts and identifying common themes and divergences in the data through the lens of my research questions. “Null data” that is, what teachers did not discuss and its significance, were also considered.

3.5 Ethical Review Procedures

In all steps of the research process it is important to engage in ethical practices (Creswell, 2005). The potential ethical risks in this research study were considered, and the ways in which such risks were minimized or eliminated will be discussed in this section. In both qualitative and quantitative research, the researcher must protect the anonymity of the participants (Creswell, 2005). In my study, all participants were assigned a pseudonym at the point of transcription which was stored on my password-protected laptop, to be destroyed after five years. To further ensure anonymity, any identifying markers related to the participants, their place of work or their students remained confidential and were excluded from the study. Due to the nature of this study, specific students (those with ASD) were discussed in more detail. Any students named in the interviews were also given pseudonyms, and any identifiable markers related to these students were removed and kept confidential.

Before a participant can take part in a research study, the researcher must provide them
with a description of all features of the study that may influence their willingness to take-part (Johnson & Christensen, 2012). Researchers must obtain informed consent which ensures that their participants participate in the research at their free will, understand the nature of the study and any potential risks associated with participation (Gay, Mills, & Airasian, 2012). In order to fully inform participants of the study, a consent letter (Appendix A) was sent via email prior to the interview which provided an overview of the study, addressed ethical implications and outlined expectations of participation (1 roughly 45-60 minute semi-structured interview). The consent letter was signed by participants whom gave their consent to be interviewed and audio-recorded. The consent letter informed the participants of their right to withdraw at any point in the study, further protecting participants.

An ethical concern unique to qualitative research, in particular interview methods, is that the researcher and participant become closely associated (Gay, Mills & Airasian, 2012). This has the benefit of gaining deep and enriching data; however, it could result in skewed objectivity during data interpretation (Gay, Mills, & Airasian, 2012).

### 3.6 Methodological Limitations and Strengths

One limitation of semi-structured interviews that is worth mentioning here is that the flexibility permitted in this model may have reduced the degree of comparability between participant responses (Fraenkel & Wallen, 1993). In order to minimize this risk, I attempted to follow the interview guide as closely as possible, relying on professional judgement when choosing to vary questions. Further, interviewing removes the participant from their normal routine (Johnson & Christensen, 2004). Specifically in this study, this omitted exploration and information that could have been gained be observing teaching practices. Given the ethical parameters that I had approval for in this research study, I could only conduct interviews with
educators, and could not include interviews with students or classroom observation records. However, the characteristics of intimacy and open-endedness through interviews between educator and interviewer (Johnson & Christensen, 2004) allowed for information on the thought-process on pedagogical decision making which could not have been gained through classroom observation (Strauss & Corbin, 1990). In Ontario, relatively little research has delved into the ways in which teachers create inclusive mainstream classrooms in relation to their students with ASD, and this study hopes to address this gap in the literature by exclusively looking at teacher perspectives (Lindsay et al., 2014).

In qualitative research the goal is not to generalize findings, but instead to gain an in-depth understanding of a central phenomenon (Creswell, 2005). The lack of generalizability was thus a limitation of this study; however, the goal of qualitative research is to investigate the meaning, purpose or reality of a situation (Conrad & Serlin, 2011). Interviews permit a detailed exploration of the research question (Conrad & Serlin, 2011) as it pertains to the participants of the study (Fraenkel & Wallen, 1993). Thus, a strength of qualitative research is that it allows for the understanding of assumptions, motives, reasons and values from the unique perspective of the participant (Fraenkel & Wallen, 1993); information that would not easily be gained from quantitative methods. Further qualitative research, in particular face-to-face interviews, capture the actual words and gestures of the participant rather than reducing the information to numerical symbols (Fraenkel & Wallen, 1993). These strengths lent themselves to my study in that understanding the reasons behind pedagogical decisions in the words of educators can allow for information to be transferable to other teacher’s practices, with the goal of improving the quality of education for students with ASD.

A final strength of the qualitative interview method includes encouraging teacher
reflection of practice. Teachers are positioned as “reflective decision makers” whom create goals, monitor their progress, evaluate results and reflect on their professional decision-making (Colton & Sparks-Langer, 1993). Providing teachers with the opportunity to discuss the challenges they face, and strategies they find useful in working towards the optimal inclusion of students with ASD constructed a rationale for teaching decisions and gave chance for reflection.

3.7 Conclusion: Brief Overview and Preview of What is Next

In this chapter I described qualitative research, elaborating on the value of this kind of research in general as well as specifically with regards to my study: this was done to justify my methodological decision making process, and ensure transparency with regards to the limitations of my study, giving direction and suggestions for future research in this field. I then discussed the instrument of data collection, the semi-structured interview protocol which provided me with a general outline for my interviews, permitting flexibility to re-direct the interview as was required. I further discussed my participants generally in terms of sampling criteria, and my method of recruitment: convenience sampling via existing teacher connections and online platforms. I then explained that I coded my transcripts individually and developed themes from these codes in the data analysis section. The ethical review procedures were then discussed including confidentiality and consent, the right to withdraw and data storage. Finally, I elaborated on methodological limitations of this study including the lack of generalizability, and the strengths such as encouraging teacher reflection of practice. Next in Chapter Four, I report the research findings.
Chapter Four: Research Findings

4.0 Introduction to the Chapter

In Chapter One I introduced the purpose of this research project, including my main research question: how are Ontario intermediate and senior general education teachers working to create optimal learning communities for intermediate/senior students with ASD? Chapter Two explored existing literature on this topic to present the current scope of understanding concerning how teachers support students with ASD. In Chapter Three I presented the research methodology which consisted of semi-structured interviews with two Ontario teachers. This chapter presents the findings that emerged through the analysis of data from the research interviews. The findings respond to the research question and are organized into six main themes:

1. Teachers’ perceive that small class sizes are conducive to their support of students with ASD
2. Advice as a resource: Communication and collaboration with teacher support network reportedly contributed to teacher success
3. Teachers perceive that inclusion of students with ASD is successful when it is a whole-school project
4. What teachers and peers can learn from having a student with ASD in the classroom
5. Teacher approaches and strategies in support of students with ASD and perceived outcomes
6. Teachers used diagnoses in a constructive way remaining mindful of students’ right to privacy
For each theme I will describe it, then provide examples from the data and illustrate how the theme converges or diverges with the existing literature. Finally, I summarize my findings and provide a preview of the final conclusion chapter.

4.1 Teachers’ Perceive that Small Class Sizes are Conducive to their Support of Students with ASD

This first section highlights the barrier of large class sizes with multiple learning needs contrasted with the benefits of small class sizes, and how this respectfully hindered or sustained general education teachers’ abilities to support students with ASD. The interviews suggest that large class sizes made it difficult for teachers to meet the diverse needs of their classroom.

Pam specifically spoke to the barrier of having a large class size with multiple learning needs, further challenged by budget cuts and lack of additional support:

[Y]ou have the challenge of how much time can I give to one student when there's 31 other kids in this room. And, then remember that, that one student with ASD is not the only student with Special Needs in your classroom you might have, say for example in one of my classes that I do have a [student with ASD] in, there's also a student with an [Mild Intellectual Disability]; there is also a couple of students with other learning difficulties including dyslexia. We have one [Learning Support Assistant] but because of budget cuts sometimes the LSA is not there.

Pam found it difficult to allocate time equitably among 31 students, as well as provide tailored support to meet the range of learning needs in her classroom. She felt the class would have benefit from additional classroom support; however, this was constrained by budget cuts.

Similarly, a qualitative interview study conducted by Lindsay et al. (2013) found that some
Ontario teachers felt Educational Assistants [EAs] would support the inclusion of students with ASD; however, lack of funding prevented the school from hiring an EA. In a review of research on paraeducator support, French (2003) found that EAs can help students to remain on task, opening up time for the teacher to assist the class more holistically. In this way, an LSA or EA may have supported Pam in overcoming the challenges of having a large class with diverse needs.

In contrast, Jim shared stories that highlighted the benefits of teaching a small class. Having fewer students in the classroom created an intimate, casual learning space conductive of learning:

Another class I had where a few students had ASD it was … a pretty small class. So we were pretty casual I think there was only around 12 or 15 of us in the class, it wasn’t a very big class. And so, it presented the opportunity for us to sort of … almost sit around and have conversations about things at times.

Jim felt the small size of 12 to 15 students established a casual environment where students could engage in meaningful conversations. Jim went on to speak of the ways in which this small class size presented a bit more time and flexibility in the classroom to pull from and engage in activities which fit with student’s unique interests. This kind of intimate classroom structure open to student voice and built on their interests may be more difficult to set up in a class with a larger number of students, as Pam pointed out. In summary, small classes seem to be more conductive of learning, opening up opportunities for teachers to support students with ASD.

4.2 Advice as a Resource: Communication and Collaboration with Teacher Support

Network Reportedly Contributed to Teacher Success
When asked about the kinds of supports and resources available to them, participants consistently referenced the value of advice from their immediate support network. Advice acted as a primary resource for these teachers in that it provided information that was authentic, concrete and practical in nature. For example, Pam would seek out advice from the Special Education Needs [SEN] department:

we actually have our own SEN department at my school … with a head of SEN who is generally very experienced, very educated in SEN. So they're always a really great resource to have around even if it's just for advice.

Jim also spoke to the effectiveness of the Special Education department:

[t]here’s the Special Ed department as well as SERTS and potentially EAs depending on the student so there’s a lot of supports at my school for people to have conversations with or potentially get to come in and assist should it be needed.

Advice and constructive conversations with experienced specialists provided teachers with an outlet for support. Participants also turned to fellow teachers who had experience with students with ASD for further guidance. Jim felt fortunate to have family members who have worked in education:

And my [family member] is also a former Special Ed. teacher and retired administrator and so I have lots of family support that can help educate slash give advice as to how to deal with particular situations or things like that and so I’ve never felt, not educated or prepared enough for most things because I can just simply talk it through.
The opportunity to simply talk things through with those who have supported students with ASD helped Jim feel more informed and capable of reaching his own students with ASD. These teachers sought out practical knowledge and engaged in constructive conversations with educated colleagues, including family members to increase their sense of preparedness.

Parents were another significant guiding resource. As Pam explained, “[P]arents can sometimes be an absolutely fantastic resource and support and sometimes parents can give you much more information about their child then you would otherwise gain even down to how can we really ensure that they are learning best.” Jim also spoke to the value of parent collaboration:

so my first year teaching I had a student with ASD. And so, I had a meeting with the parent prior to him being in my class. And so the parent, sort of educated me as to what her child’s strengths and needs were and so I very much tailored things specifically to him.

When asked if he felt these conversations increased his self-confidence working with learners with ASD Jim responded “[o]h ya, most definitely.” In response to a question regarding what advice he could give beginner teachers looking to support students with ASD, Jim emphasized this idea of information gathering, stating it is helpful to seek out academic records or speak to the student’s former teachers. This can inform teachers of the kinds of strategies that have shown to be effective in the past. He also brought back this idea of family insight: of, “not being afraid to reach out and talk with family because often times, ya know, mom or dad know very much so what helps or hinders [a student’s] learning.” Other educators reportedly were sought out included consultants within the board and child psychologists. The Special Education department, parents, former teachers, board consultants and child psychologists formed a support network that teachers could turn to in moments of uncertainty. In this way, advice acted as the
primary resource sought out by teachers, helping them to feel educated, prepared and more confident in their support of students with ASD.

These findings are consistent with literature wherein Ontario parents of students with ASD expressed the importance of collaboration and communication between home and school (Starr & Foy, 2012). Lipsky and Gartner’s model of best practices for inclusion incorporate parental involvement as a key element. This is reinforced by studies which demonstrate that parental involvement can optimize the inclusion of students with ASD in mainstream classrooms (Lindsay et al., 2013).

4.3 Teachers Perceive that Inclusion of Students with ASD is Successful when it is a Whole-School Project

In this section I will discuss the components found to be effective in fostering an inclusive school community. First, whole-school professional development opportunities will be discussed followed by an exploration of the underlying belief that some students and teachers have to ‘just roll with it’ in accordance with understanding and acceptance of ASD.

A whole-school approach involves the cohesive, collective action of each member of the school community in support of student well-being and learning. An example of a whole-school approach in support of students with ASD may take on the form of whole-school education on ASD. Both Jim and Pam spoke of school-based professional development [PD] opportunities which helped to educate teachers and students on ASD, and fostered a community built on inclusion and understanding. Pam spoke of ongoing professional development that was responsive to her school’s population:

[W]e also do quite a lot of continuing professional development [CPD] particularly towards ASD simply because, at my school despite the fact that we have a lower
number of SEN children at my school versus the national average, we do have quite a few who are on the spectrum so it is based towards those students. So that’s whole-school CPDs.

Similar to the ways in which Pam’s school offered PD that was responsive to school needs, Jim received PD from a community agency at the launch of his school’s ASD program. The community group presented at a staff meeting then lead a separate presentation with the students:

[A]nd so it was just talking about how you know, people might not make eye contact or there might be slight social faux pas and that they’re not quite sure how to respond to certain things they may not get you know, sarcasm or particular jokes, things like that. It was just sort of trying to help the students identify where … you know, so they’re not quite walking away wondering why is that person acting that way.

Jim asked his students how they felt about the presentation and received exclusively positive feedback. The effort put forth by Pam and Jim’s school to educate all members of the community on the characteristics of ASD promoted teacher and peer understanding. The positive inclinations shared by students suggest they were more informed, accepting and inclusive towards diverse social demeanors. Jim spoke highly of the inclusive nature of the students at his school:

I find the kids at our school are really nice and very inclusive and so some of the, for lack of a better word quirkiness of [students with ASD] just sort of gets accepted and just sort of … it’s not pointed out or anything like that, people just sort of roll with it when they’re, with them.

This ability to go along with things and accept one another’s differences contributed to an inclusive environment. When asked what teachers can gain from having a student with ASD in
the classroom, Pam finished by also bringing up this idea of ‘rolling with it’ on the teacher’s end, “it also ensures that there’s going to be some really entertaining moments in you classroom and you just roll with it cause if you don’t have a sense of humour as a teacher, you’re done [laughs].” ‘Rolling’ with the unexpected sends an affirming message to peers and/or students with ASD that their differences are accepted, and don’t need to be pointed out in ways that aren’t helpful.

This underlying sentiment to ‘just roll with it’ is at the heart of these teachers’ and students’ inclusivity. Jim explained that his students don’t point out differences and instead work with each other’s unique characteristics, and Pam reinforced how this optimistic, easygoing perspective should exist in teachers. The capacity to ‘roll with it’ can help students and teachers to be more flexible and accepting of diverse behaviours and learning styles.

In summary, in this section a whole-school approach wherein each member of the school community is educated on ASD was discussed, followed by the emerging finding that teachers and students who ‘just roll with it’ demonstrate understanding and acceptance of students with ASD. This whole-school effort helped to foster an inclusive school community.

The benefits of such whole-school PD are echoed in a study conducted by Lindsay et al. (2013) which suggested that whole-school awareness and acceptance of ASD is helpful in supporting students with ASD. This is further exemplified in a study conducted by Campbell (2007) which examined the effects of providing students with descriptive vs. explanatory messages about social behaviours of some students with ASD. If students were given explanatory messages – messages that gave context to behaviour – students reported more positively than if descriptive messages – which provided similarities between the student with ASD and their peers – were presented alone. These findings demonstrate that educating peers on
the kinds of social behaviours they may witness in students with ASD, and understanding why they may act in this way can lead to more favorable outcomes (Jackson Brewin et al., 2008).

Jim’s school made an effort to ensure explanatory information was provided to students resulting in more positive and accepting attitudes towards varying social behaviours. Interestingly, this concept of ‘just rolling with it’ permits students to recognize, but not bluntly acknowledge, differences between peers. If descriptive messages highlighted the differences between students with ASD and their peers instead of only similarities, and the ways in which these diverse perspectives contribute positively to classroom life, perhaps more favorable outcomes may have been reported. The next section will discuss the ways in which students with ASD can prompt the growth and learning of teachers and peers.

4.4 What Teachers and Peers Can Learn from Having a Student with ASD in the Classroom

Pam and Jim both discussed the value of students coming to understand that there are many ways to learn, and that this diversity can offer new perspectives and contributions to classroom life. When asked what peers can gain from having a student with ASD in the classroom, Pam replied:

[e]mpathy. That’s a big one. A lot of my students that I teach because we are in a somewhat homogenous environment, they have simply not had the experience before of encountering somebody who is in any way, shape or form different so it actually does help them to see that there are other ways to learn, that there are other ways to go about things … also to perhaps, look past some of the social awkwardness that sometimes accompanies a child on the ASD, and become friends anyway.
Pam explains that students with ASD may go about things differently in the classroom, and these new perspectives can foster empathy and new learning for other students. Jim responded similarly: “I think very much just everybody’s different and everybody learns different and very much that we all have our strengths and our needs.” Pam and Jim both alluded to students becoming more aware that each one of us is unique and learns in different ways through their experiences with students who have ASD. Pam expanded on this in articulating her hope that students may see past different ways of behaving socially in order to form relationships with students with ASD. Pam spoke of the ways in which this can be accompanied by the strengthening of self-assertion skills like learning how to politely tell a peer that they are sitting too close: “and I think that's a really good skill for children to develop, whether they're on the spectrum, whether they're "normal", whatever that means and so on.”

Pam and Jim also spoke to the ways in which they have grown as teachers from having students with ASD in the classroom. Pam said:

[i]t really challenges you as a teacher. It will challenge all your very nice little models of behavior management and even how you're going to do an authentic assessment with a child who is not going to be able to perform on that assessment. So you've got to be holistic on how you're going to look at that student. It also ensures that you are thinking beyond the content you're teaching that day, you're also going to be looking heavily at how you're going to deliver it, how are you going to meet those objectives and so I think it does make you a much more rounded teacher.

Pam felt having students with ASD in the class made her a more reflective teacher, focussing on content delivery and how it must shift to work for each student. Having to experiment with new models and implement different strategies made her a more rounded teacher. In contrast, Jim felt
having students with ASD in his class reinforced what good teaching is: “I would hope everybody’s doing those sort of things normally but it just very much reinforces the fact that hey, anything I’m doing for them is going to usually be beneficial for the rest of the class as well.” Jim felt that students with ASD helped to remind him of sound pedagogical practices that benefit all students, reinforcing these approaches in the classroom. The strategies selected by each participant, whether it was shifting away from old models or reinforcing past practices, speak to the diversity in student needs and therefore which approach will be most effective. The next section will delve into more detail on the kinds of approaches and strategies used by Pam and Jim in support of their students with ASD.

4.5 General Education Teacher Approaches and Strategies in Support of Students with ASD and Perceived Outcomes

This section explores participant’s approaches and strategies in support of students with ASD and the perceived outcomes of these efforts. General approaches will first be discussed, followed by an examination of the strategies implemented by teachers. The next sub-section will speak to the reported importance to individualized strategies to each learner with ASD. The final sub-section will highlight student’s increased sense of value, a perceived outcome of dedicated teacher practices.

4.5.1 A high duty of care and student rapport encompassed teachers’ approach in support of students with ASD.

Both participants demonstrated a commitment to relationship-building with students with ASD. Jim and Pam seem to exemplify a high duty of care towards students, instilling a strong sense of teamwork as they worked with students’ towards goals. This student rapport and high duty of care constituted key components of Pam and Jim’s reported approach in support of students with ASD.
ASD. When asked for an example of a time she supported the social success of a student with ASD, Pam spoke of a student who had trouble picking up on social cues:

we always have a signal that as I pass him I'll sometimes just poke his shoulder a little bit just to give him a notification that he's perhaps making the student uncomfortable...

We've been working on him being able to say to another student I'm very sorry that, that I made you uncomfortable I'm just going to move back, because he also gets into personal space a little bit and I find that that's a lot more helpful for him and I've noticed he's getting much more comfortable in my room which is fantastic to see.

Pam’s efforts to scaffold learning, first beginning with signals then working with the student towards the goal of more independent social awareness, demonstrates her commitment to fostering a relationship built on unity and support. Further, Pam consistently uses the pronoun “we” instead of speaking in the first or third person. This demonstrates Pam’s commitment to teamwork and togetherness as she works with the student to ensure goals are met, resulting in the student feeling more comfortable in her classroom.

Similarly, Jim reported a duty of care that extended beyond the classroom. Jim spoke of a student with ASD who experienced grade-related anxiety and the relationship he cultivated to ensure the anxiety did not hinder academic success:

what I actually did was I gave the family my home number as well as my cell phone number so that should he start to spiral through anxiety and mom wasn’t able to get him calmed down she could call me and sort of brief me on what was going on and what the issue was and then I could talk to him and reassure him of things like you know, don’t worry about it you can have an extension or this is the material that’s on our test tomorrow
like, do you feel confident, do you know this, what questions do you have and often just a simple five minute to ten minute conversation with him … and hearing it actually from me as opposed to from his parents made him believe it and so he uh, he would be ok.

Jim established an open line of communication between home and school which reassured both the parents and student that they were supported, contributing to student rapport. His willingness to ensure the family could reach him at all times demonstrated the high level of care he had for the student’s success. Both student rapport and a high duty of care were main tenets of Pam and Jim’s general approach in support of students with ASD.

4.5.2 Strategies to support positive academic and social outcomes of students with ASD.

In this section I will discuss the strategies Pam and Jim used in support of the academic and social success of students with ASD. In both interviews, examples of equity and equality centered approaches were discussed, suggesting teachers’ can use these types of strategies in combination to support students with ASD. Equity-centered approaches involve catering to individual student needs, providing each student what they need to be successful. Equality-centered approaches treat everyone the same and thus use strategies that will benefit all. An educational framework used in Ontario termed Universal Design for Learning (UDL) involves implementing strategies that are required by some students, but helpful for all students. In this way, UDL involves components of equity as assistive technologies, assessments tools and other pedagogical strategies necessary for the success of particular students are made equally accessible to all students.

Pam’s teaching approach is entrenched in her belief of equity over equality. In line with this vision she felt it was important to assist students in the development of transferable skills
that can support them long term both inside and outside the classroom. These transferable skills were catered to individual student needs, meant to strengthen personal weaknesses, and reportedly lead to greater student independence:

So, equity over equality. And ensuring that if they are struggling [then] they have those steps, those techniques to help them not only within the classroom setting but also to become their own self-advocate, to become their own best ally within the classroom setting … this is a skill they’re going to be learning because they’re at that age where they are starting to gain that independence.

Self-advocacy was among the transferable skills Pam advanced in students. Having this skill, in her view, allows students to take control of their situation, seeking out resources and support in times of academic struggle. The capacity to advocate for oneself can transfer to other subject areas, fostering more consistent academic success.

Other transferable skills Pam reportedly helped students with ASD to develop were self-awareness and self-regulation. Pam spoke of a student who at times became aggressive:

So with him it’s learning to figure out what his triggers are and trying to teach him how to spot those triggers and remove himself from the situation … to know that he has a safe spot so he can move out of the classroom without me explicitly giving him permission for that moment as long as he comes back in within our agreed-upon time. So in that case, it would be the student and I having an agreement that goes above and beyond what agreements I would give with other students. I find that that tends to work well with children on the ASD who struggle particularly with social situations.
In line with her goal of prioritizing equity over equality, Pam reported teaching this student how to identify and react safely to his own triggers, creating a unique agreement with this student to leave the room. The social success of this student was reportedly supported in that he learnt to take control of his situation, refraining from behavioural outbursts in front of peers.

In contrast, Jim’s strategies were more weighted in learning benefits for all. UDL encompasses pedagogy that is necessary for some, but helpful for everyone. When asked to share strategies that supported students with ASD, Jim gave examples that promoted the success of each student in his applied science class: presenting multiple examples in the form of videos and visuals, working at a slower pace and simplifying language. The strategies mentioned here are equality-centered as they work towards the academic achievement of all learners.

When asked about the ways in which he includes students with ASD on a social level, Jim gave examples of small group work activities. Jim selected group members thoughtfully, matching needs with strengths. He accomplished this by having a keen awareness of the social dynamics of his class: “I’ve sort of watched to see who they’re interacting well with on a social aspect and then I’ll sort of often structure the groups around that.”

Although Pam reported a priority of equity over equality, and Jim’s practice reflected the implementation of UDL strategies, Pam and Jim at times used both equitable and equality-centered strategies. For example, Pam spoke of UDL strategies in support of all students: “[Engagement] works with all students - ensuring that they have a buy-in to what's actually happening in the classroom.” As well, Jim worked with the individual needs of students, for example the student mentioned in the previous section with grade-related anxiety whose family he gave his home phone number. These examples demonstrate that equitable practices targeting learners’ specific needs, and equality-centered strategies which help all students can be pulled
from depending on student needs, and were both perceived to be effective.

In a review paper on effective strategies for the inclusion of students with ASD by Crosland and Dunlap (2012), the three-tiered School-Wide Positive Behaviour Support (SW-PBS) model is outlined. The first tier involves implementing UDL strategies in support of all students. Pam worked at this level by focussing on engagement, while Jim did so by focussing on instructional delivery, both shown to be effective at the first tier in a study conducted by Luiselli et al. (2005). The secondary and tertiary levels involve interventions for specific behaviors. Pam worked at this level when she set in place a system for her student to leave the room, an agreement she didn’t have for other students. Jim also worked at this level by permitting the family of his student with anxiety to contact him when needed. Equity is central to the upper levels of the SW-PBS model, ensuring all students have what they require to be successful academically and socially. Using these tiers in combination, in response to student need can lead to the successful inclusion of students.

4.5.3 Teachers emphasize that strategies and approaches must be individualized to each learner.

In the previous section, Pam and Jim’s combination of equity and equality-centered strategies were illustrated. To expand on this equity focus, it should be noted that both participants felt pedagogical decisions are dependent on individual needs.

When asked about the kinds of strategies and approaches used in support of students with ASD, both participants naturally veered away from making general statements. Many responses began with “… it sort of varies from student to student”, “Again, it’s difficult because they’re all different” or “It depends on the student, because it presents so differently.” It became clear that it is challenging and impractical to narrow down pedagogy that fits an ASD diagnosis – rather, it is
more about finding what strategies fit the student and their specific needs. Jim acknowledged this by stating, “… the one student it was more getting control of his anxiety so helping him sort of calm down. Um, the student in my applied class it was more making sure I simplified the language as much as possible.” As was discussed in section 4.5.1, both participants report building strong rapport with their students. This may have helped to inform what they could do as educators to help their students learn.

4.5.4 Student sense of value can be reportedly fostered by teacher efforts to support students with ASD.

These teachers’ approaches and strategies utilized to support the academic and social success of students with ASD, reportedly resulted in feelings of value and empowerment in students with ASD. A priority for both teachers was ensuring that students felt challenged. For these teachers, challenging students sent the message that they are seen as capable of academic achievement. When asked how she supports the academic success of students with ASD, Pam said “[e]nsuring that they are challenged and not spoken down to … it’s engaging that student, it’s challenging that student, it’s asking the student what their opinion is.” Similarly, Jim pointed to a student who wanted to extend beyond the material covered in class:

… it was, two things; encouraging him to look into things and question things but also, trying to rein him in a little bit so he didn’t get so far away from what we were actually studying that like ya know, he got lost in it … but still encourage him to explore.

Here, both teachers reported striving to appropriately challenge students, creating learning environments in which they could share opinions, and engage in their own interests as they
explored material more deeply. Pam acknowledges the power of student opinion, challenge and openness in her classroom:

[k]ids who are on the ASD spectrum often have a very interesting way of looking at life which, I teach history, is absolutely fantastic for them to get involved and for them to receive the praise for those - somewhat out of the box thinking. And I find that they will then bring that - channel that back into their own academic success.

The safe classroom structure she reportedly built around praise and openness for diverse opinions allowed students with ASD to get involved in her history class. Pam believes that her ability to ensure students feel valued in this way carried positively into their academics. Jim also set up opportunities for students to share their insights and interests with the outcome of students feeling valued in the classroom. During the Grade 9 space unit, a student with ASD shared that he had an app on his phone that simulated the landing of the international space station:

And so he had brought this up and so I was like ‘oh that’s really cool, why don’t we all try it?’ and so, I sort of like you know having a bit more flexibility with time and the material not being quite as much academically driven we [all tried it]… you can sort of see that puff up his feathers a little bit sort of thing like that’s cool, everybody’s sort of joining in and they think this is cool.

Jim created a situation where a student with ASD took on a leadership role, sharing and engaging the class in something of interest to him. As his peers joined in, Jim perceived that the student felt a sense of value and empowerment within the classroom. Pam and Jim demonstrated how challenge, student voice and leadership can increase a student’s sense of authentic contribution to the classroom.
In summary, in this section I explored Pam and Jim’s approach in support of students with ASD, wherein they exercised a high duty of care and built student rapport. Next I delved into equity and equality-centered strategies, and how teachers can pull from either type of strategy in response to student needs. The next sub-section expanded on the equity-focussed approach in that participants reportedly felt it was a priority to individualize strategies and not generalize based on a diagnosis. These approaches and strategies reportedly had the effect of fostering student’s sense of value and empowerment in the classroom.

These findings converge with a study conducted by Lindsay et al. (2014) involving interviews with 13 elementary level school teachers in Ontario. Building rapport with parents and students were among key strategies practiced by educators of this study. Many of these teachers spoke to the importance of establishing an accessible, open line of communication and building warm and caring relationships with students to ensure they felt comfortable in the school setting. Teachers also explicitly discussed the importance of creating opportunities for students with ASD to share their strengths and showcase their interests, similar to the way in which Jim gave time for his student to share the space app. Canadian parents of children with ASD involved in a semi-structured interview study conducted by Jackson Brewin et al. (2008) also shared that they wanted more opportunities for their child to develop social skills, similar to the ways in which Pam worked with students to foster these skills, and participate in activities that showcased their interests and abilities.

In divergence with the literature, Lindsay et al. (2014) also discussed teamwork as a recommendation for successful inclusion of students with ASD. However, this study focussed on teamwork amongst school staff, EAs and OTs. As Pam and Jim demonstrated, placing the
student themselves at the core of this joint effort can establish a sense of inclusion and value in the classroom.

4.6 Teachers Used Diagnoses in a Constructive Way, Remaining Mindful of Students’ Right to Privacy

The issue surrounding diagnosis disclosure has been discussed in the literature from the perspectives of both parents and teachers. In an Ontario-centered study conducted by Jackson Brewin et al. (2008) involving semi-structured interviews with parents of children with Asperger Syndrome [AS], parents stated stigmatization and fault-finding, wherein teachers hold preconceived notions of AS and looked for these types of ‘problem behaviours’ in students, were a serious concern pertinent to decisions around whether or not to disclose an AS diagnosis. Other parents felt sharing a diagnosis was helpful in ensuring their child had access to accommodations in the classroom. This demonstrates that diagnoses can be very powerful in either positive or negative respects, depending on how the teacher chooses to use this information.

In this way, it is crucial that teachers are sensitive and mindful of how they use this information, with the student’s wellbeing and success remaining at the forefront. Pam expressed concern surrounding the ways in which diagnoses are used in the school setting:

Also, [Continued Professional Development] can be absolutely phenomenal however, I've had this issue where I feel sometimes student's privacy is overlooked um, in the realm of just trying to educate teachers about who has needs, who has issues. But I worry about a student’s right to self-determination and their own privacy. And that's I've found to be an ongoing issue both here and England where, a child who is on the spectrum or a child who is labelled as SEN sometimes does not get the same level of privacy as we would afford other students and that’s a concern for me.
Pam’s warmth and compassion for her students and their rights regarding privacy demonstrate her belief that it is more constructive to focus on the student themselves, rather than on the diagnosis. When asked of the number of students with ASD she has worked with, Pam shared that teachers at her school only hear of a diagnosis that will play a role in the classroom. She was sensitive to the idea that diagnoses are only disclosed if they could be used for productive purposes as they pertain to academics and general classroom success.

Pam also strived to steer clear of generalizing diagnoses that were disclosed to her and made an effort to get to know her learner and their individual needs, “I have one student who he has - he struggles with social situations. This is a pretty common topic for children who are on the ASD. For him though it presents itself as, he has a very short fuse.” Here we see Pam had done her research and informed herself of ASD and its general tendencies, stating that it is a “pretty common topic”, but not an absolute. She then goes on to express how it presents itself for this particular student, being aware of what his individual needs are. Pam worked with the student to understand his specific triggers, and delivered effective, tailored strategies such as gesturing and establishing a safe space for him to leave when overwhelmed. In this way, we see a diagnosis that is used to provide appropriate accommodations for the learner, wherein the teacher does not generalize her experiences or understanding of ASD, but uses information constructively.

4.7 Conclusion

In this chapter I presented six main themes which emerged during data analysis. The first theme investigated the barrier of large class sizes which may prevent teachers from supporting all learners optimally. In contrast, small class sizes may provide opportunities for teachers to showcase individual student interests, and create a more intimate, flexible environment
conducive of learning. The second theme explored advice as a resource and the ways in which teachers reached out to Special Education teachers, family members, and other educators to provide guidance and support that reportedly increased teacher sense of preparedness.

The third theme illustrated components that reportedly led to an inclusive school community. Inclusion can be made into a whole-school project through teacher and student professional development on ASD. Having a capacity to ‘just roll with it’ helps teachers and students to respond to diverse behaviours in accepting ways and further contributed to a positive school community. The fourth theme explored how students with ASD can prompt teacher and student growth. Teachers felt that students with ASD reminded them of sound pedagogy and pushed them to be a more rounded teacher.

The fifth theme explored the approaches and strategies utilized by teachers in support of students with ASD. Both participants exemplified an approach that was rooted in a high duty of care and relationship-building. Their strategies were equity and equality-centered, both shown to support the academic and social success of students with ASD. Teachers stated it was important to individualize strategies to their particular learner needs, rather than generalizing strategies based on a diagnosis. A perceived outcome of these strong pedagogical decisions was that students with ASD felt valued and empowered in the classroom. The final theme presented the caveat of being mindful to a student’s right to privacy, and that teachers should use diagnoses to inform practice in a way that is constructive and thoughtful.

Next in Chapter Five I discuss the implications for these findings and provide recommendations for future research. I will start with implication for the educational community more broadly, then delve into the implications this project holds for my own practice as an
aspiring teacher. I will then make recommendations based on my findings and suggestions for future areas of research. I will then end with a section devoted to concluding comments.
Chapter Five: Conclusion

5.0 Chapter Introduction

In this chapter I present implications, recommendations and suggestions for future research. I begin with an overview of the six themes explored in Chapter Four. I then discuss implications for the educational community more broadly before expressing how this study will play a role in my own teaching practice. Next I will shed light on the recommendations this study entails for teacher education programs, administrators and teachers. Finally, I will finish with suggestions for future research and concluding comments.

5.1 Overview of Key Findings and their Significance

From analysis of the data collected in the semi-structured interviews, Chapter Four illustrated the six themes that emerged on the ways in which Ontario intermediate/senior general education teachers work to create optimal learning communities for their students with ASD. The first theme explored the perceived challenges of large class sizes with diverse student needs and lack of additional classroom support, contrasted with the flexibility enabled in Jim’s small class size. Large class sizes made it difficult to allocate time equitably among students, and provide tailored support to individual students. In response to these challenges, theme two turned to the most valuable resource sought out by teachers: advice. Teachers found security in seeking guidance and information from colleagues, family, parents and Special Education teachers. These conversations increased teachers’ sense of preparedness and confidence.

The third theme focusses on the effectiveness of ASD-centered professional development for staff and students, equipped with an attitude to ‘just roll with it.’ Teachers perceived that peer understanding and acceptance of students with ASD was made successful through whole-school projects to educate student on the social characteristics of ASD. This climate of inclusivity made
it possible for teachers and students to experience the benefits of having diverse learners within their classroom. The ways in which students and staff can learn from having a student with ASD in the classroom was explored in theme four. Students with ASD can offer fresh perspectives and ways of thinking to classroom life, reinforce good teaching, or push teachers to expand their pedagogical models to differentiate instruction.

The fifth theme delved into the specific strategies and approaches utilized by general education teachers in support of students with ASD, and the perceived outcomes of these efforts. At the core of the participant’s approach was a high duty of care, and strong student rapport. Pam focussed on equity by supporting students in personalized development of skills such as self-awareness and self-advocacy. Jim took on an equality-centered approach, rooted in Universal Design for Learning (UDL); however, both Pam and Jim used strategies of both types. These pedagogical decisions were suited for their individual learners, and both served the purpose of fostering a sense of value in students as they felt challenged in class and able to take on leadership roles.

Pam and Jim’s different approaches were tailored to their students, echoing the importance of individualizing teacher approaches and strategies to fit each learner with ASD. Throughout the interviews both participants emphasized that there is no ‘one size fits all’ set of strategies for an ASD diagnosis. The final theme highlighted the importance of remaining mindful to students’ right to privacy, and working constructively with a diagnosis of ASD. Relationship building was a key tenet of Pam and Jim’s teaching approaches, establishing a joint effort with the student to support academic and social success. Their attitude to ‘just roll with it’, seek out advice from a foundational support network and meet their students at their individual needs, strengths and interests was at the core of sound practice.
5.2 Implications

Given these findings from the experiences of general education intermediate/senior level teachers, broad implications can be made for the educational community specifically on the importance of building student rapport and individualizing strategies. This will be discussed in the first sub-section followed by the implications this study holds for my own professional practice.

5.2.1 Broad: The educational community.

The findings discussed in Chapter Four hold broad implications for the educational community. Many of Pam and Jim’s pedagogical decisions stemmed from the information they gathered from their support network of colleagues, and the rapport they built with their students with ASD. Jim’s students with ASD took academics seriously, for example his high achieving student who experienced grade-related anxiety. Pam’s students were working on the development of transferable social skills. The different needs of their students led Pam and Jim to implement different strategies, with Jim primarily utilizing UDL in support of all learners, and Pam working closely with students to strengthen self-advocacy and self-awareness skills. In turn, this led Pam to express that having students with ASD in her classroom presented an opportunity for her to adopt new strategies and teaching models, whereas Jim felt students with ASD reinforced good teaching practices. In this way, teachers who may be struggling to find strategies that are effective in supporting their learners with ASD may find it helpful to build rapport with their students, and refer to a supportive network of colleagues for advice.

These findings propose that effective teaching takes on a bottom-up approach, first working to understand the student’s individual needs before committing to a particular set of pedagogical strategies and in turn, influencing overall teaching practice and philosophy. Both
equity and equality-centered approaches worked to serve the purpose of supporting the academic and social success of Jim and Pam’s individual students. The School-Wide Positive Behaviour Support model discussed by Crosland and Dunlap (2012) reinforces the idea that tier one UDL strategies can be used to support a range of students, whereas the secondary and tertiary levels can be utilized to accommodate individualized learning needs, with strategies at all levels promoting positive behaviours. As an implication for the educational community, it is of significant importance that teachers get to know their learners to make informed instructional decisions. Some teachers may find this challenging when faced with the barrier of large class sizes, as was perceived by Pam. Given this standing, a broad recommendation for the educational community would be to work towards establishing smaller class sizes or gaining additional support such as EAs in the classroom.

Secondly, the strategies and approaches Pam and Jim utilized were informed through conversations and collaborations with a support network of colleagues. These interactions helped Pam and Jim to feel more confident and increased their sense of preparedness. These findings suggest that it is not about being an expert in the area of ASD, but being willing to establish open lines of communication with those who can offer advice and guidance. The student, their family, colleagues and outside organizations can act as a supportive resource for teachers. It is recommended that teachers, administration and other educators instill a culture of constructive, collaborative professional learning in their school community to encourage teachers to find support in one another.

5.2.2 Narrow: My professional identity and practice.
Investing in this project has lent me the privilege of adopting a teacher-researcher lens. I explored the literature on evidence-based strategies in support of students with ASD, and
engaged in conversations with educators on this topic. I believe that the literature can act as a starting point for gaining valuable information on strategies and approaches to support diverse learners. However, throughout this study I learned the importance of personalizing instruction, building rapport and working with students on an individual level. I am sensitive to the fact that this is difficult to achieve in large classes with a range of learning needs as the findings of this study have underlined, but I am committed to making an effort to understand my student’s individual needs, strengths, and interests.

The implications this holds for my own practice is to be willing to seek out and collect information from my colleagues, the literature and students on how I can best support their learning. This holds true for students with diagnoses outside of ASD, or students without a diagnosis at all. I hope that I can support other teachers in reaching all students by establishing professional learning communities with teacher colleagues and parents wherein we can engage in constructive conversations about how best to support all students.

5.3 Recommendations

The recommendations that arise out of the present study focus on what teacher education programs, administrators and teachers can do to support the academic and social success of students with ASD. First, an emphasis on strategies and approaches that support students with ASD and a culture of communication and collaboration should be instilled in pre-service teacher education programs. In convergence with the literature, both Pam and Jim spoke of the theory-heavy, policy-based focus of their teacher training. Jim also gave reference to practical knowledge, stating he would have liked to have received some quick look-fors and tips for supporting students with ASD. Pam said her wish would be for teacher training to provide more practical knowledge and experience, such a Spec Ed. placement opportunities in contrast to
receiving such Ontario-based policy and theoretical information.

Within the 2015 context of Ontario 18% of new teacher education graduates applied to jobs outside of the province (Ontario College of Teachers, 2015). With a shortage of teaching opportunities, Ontario graduates who seek out opportunities outside of the province will need to become accustomed to different Special Education and ASD policies. In contrast, strategies that can be used to support specific diagnoses can be used to inform pedagogical decisions in classrooms in a less location-sensitive manner. Acknowledging that it would be a challenge to find the time and resources to discuss strategies for all possible exceptionalities in teacher education programs, this study suggests that training teachers on how best to build rapport with students would be of value. Providing teachers with practical strategies to create a positive and inclusive classroom, and develop skills on seeking out valid and reliable information may be more realistic.

Second, administrators should build and maintain partnerships with community organizations that specialize in ASD. Both Jim and Pam discussed the benefits of receiving professional development that educated them on what they could expect from students with ASD. Jim’s students responded positively to these presentations, suggesting the explanatory information promoted peer understanding and acceptance. Organizing professional development and whole-school projects that educate school staff and students on ASD can help schools to become more inclusive.

Finally, teachers should be encouraged to lead or participate in professional learning communities. Positive and constructive discussions around individual student needs can ensure the student’s support network is delivering effective and consistent strategies. These kinds of collaborative groups can support a range of students, as teachers discuss and share what has
shown to be work for their learners and could be transferred to their other classes. Maintaining open lines of communication with parents can also provide insight on how best to tailor strategies.

5.4 Areas for Further Research

The teaching strategies, approaches and their effectiveness discussed throughout the study were expressed and analyzed through non-Autistic perspectives. As a recommendation, future research should seek out the voices of students and adults with ASD. This study focussed on teacher perspectives regarding what they perceived to be effective in supporting the academic and social success of students with ASD. The students themselves may have differing opinions on what they feel to be effective and helpful. It is recommended that future research explore the receiving end of this relationship and explore student perspectives on what they feel teachers can do to support their academic and social success.

Further, little research has investigated how teachers create inclusive mainstream classroom in relation to students with ASD (Crosland & Dunlap, 2012) with a small body of literature focussing on intermediate and senior level students (Hedges et al., 2014). It is recommended that future research explore the perspectives of intermediate/senior students in particular to provide insight on their educational experiences. The qualitative approach taken in this study has helped to answer the how and why questions behind instructional decision making. This approach is recommended for future educational research with students with ASD to continue to shed light on how educators can best reach these learners.

5.5 Concluding Comments

As the enrollment of students with ASD continues to rise in Canadian school boards (Lindsay, Proulx, Scott, & Thomson, 2014) it is important that researchers and teachers pay
attention to sound approaches and strategies that offer the best educational experience for these learners. Pam and Jim shed light on how student rapport and a caring approach can be significant for all students with ASD. I hope all learners feel safe and supported within their classroom, and teachers make an effort to build relationships that provide them with the information they need to tailor strategies for the success of all students. I hope that future research will seek out the voices of intermediate/senior students with ASD, as they are the experts in this field.
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Appendices

Appendix A: Informed Letter of Consent for Interviewees

Dear _______________________,

My name is Alison McAvella and I am a student in the Master of Teaching (MT) program at the Ontario Institute for Studies in Education at the University of Toronto (OISE/UT). A component of this degree program involves conducting a small-scale qualitative research study. My research will focus on the ways in which teachers facilitate the integration of students with Autism Spectrum Disorder (ASD) in their general education classrooms. I am interested in interviewing teachers who have experience integrating students with ASD in mainstream classrooms at the intermediate/senior level. I think that your knowledge and experience will provide insights into this topic.

Your participation in this research will involve one roughly 60 minute interview, which will be transcribed and audio-recorded. I would be grateful if you would allow me to interview you at a place and time convenient for you, outside of school time. The contents of this interview will be used for my research project, which will include a final paper and informal presentations to my classmates. I may also present my research findings via conference presentations and/or through publication. You will be assigned a pseudonym to maintain your anonymity and I will not use your name or any other content that might identify you in my written work, oral presentations, or publications. This information will remain confidential. Any information that identifies your school or students will also be excluded.

The interview data will be stored on my password-protected computer and the only person who will have access to the research data will be my course instructor. You are free to change your mind about your participation at any time, and to withdraw even after you have consented to participate. You may also choose to decline to answer any specific question during the interview. I will destroy the audio recording after the paper has been presented and/or published, which may take up to a maximum of five years after the data has been collected. There are no known risks to participation.

Please sign this consent form, if you agree to be interviewed. The second copy is for your records. I am very grateful for your participation.

Sincerely,
Alison McAvella
MT Program Contact:

**Consent Form**

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 from this research study at any time without penalty.

I have read the letter provided to me by Alison McAvella and agree to participate in an interview for the purposes described. I agree to have the interview audio-recorded.

Signature: ______________________________________

Name: (printed) __________________________________________

Date: __________________________________________
Appendix B: Interview Protocol

Opening Script

Thank you for participating in my research study. My name is Alison McAvella and I am a Master of Teaching student at OISE. This interview will be used as part of a research project I am required to complete for the program. I am hoping to learn how general education teachers work towards optimal inclusion of intermediate/senior students with autism spectrum disorders (ASD). This interview should take approximately 45-60 minutes and is comprised of approximately 19 questions. The interview is divided into 5 sections beginning with your background information, followed by your sense of preparedness for working with students with ASD, teaching practices that help to support students with ASD, your beliefs and values with regards to including students with ASD and concluding with influencing factors and next steps. As a reminder, you have a right to decline answering any question you do not wish to answer and can withdraw from the study at any time. Do you have any questions before we begin?

May I turn on the recording and start the interview?

Section A – Background Information

1. How many years have you worked as a teacher?

2. Where do you teach?

   2a. How long have you worked there?

3. What grades and subjects do you currently teach?

   3a. What have you taught previously?

4. In addition to your role as a teacher, do you fulfill any other duties within the school community (e.g. coach, supervisor of a club, resource teacher)?
5. As you are aware, I am interested in learning about teacher perspectives on working with students with ASD. How many students with ASD have you taught?

6. In order to get a better picture of the classroom climate at (insert school) what are your students generally like?
   
   Prompts: involved, enthusiastic, supportive, withdrawn

Section B – Perceived Teacher Preparedness

7. To what extent would you say your teacher education prepared you for instructing students with ASD? (excluding any post-graduation AQs etc.)
   
   7a. (if little/none) What do you think you would have liked to have seen included in your teacher education about ASD?
   
   7b. (if much/adequate) Would you say this is common among your colleagues?

8. After completing your teacher education, have you since received any specialized training on supporting students with ASD?
   
   8a. (if yes) What knowledge and skills did you gain from this training?

   Did this training increase your self-confidence when supporting learners with ASD?

   8b. (if no) If specialized training was provided, what kind of knowledge and skills would you hope to gain from the training?

Section C – Teacher Practices – Supporting Students with ASD

9. How would you describe your general approach to teaching adolescents with ASD?

10. In your experience, what has worked well within your classroom in terms of including students with ASD?
10a. Can you give me an example of a time you supported the social success of a student with ASD?

Prompts: Student-teacher collaboration, activities that promote peer acceptance and understanding, extra-curriculars, class discussions, small group work, leadership roles, ‘peer buddy systems’, highlighting interests and abilities

11. **What methods work best for you when supporting the academic success of students with ASD?**

11a. Can you give me an example of a time that you promoted the academic success of a student with ASD?

Prompts: Accommodations and modifications, reducing inconsistencies in the school day, teacher-teacher communication, teacher-EA communication, teacher-parent communication

12. To what extent do IEPs support you in delivering effective accommodations?

**Section D – Beliefs and Values**

13. What do you believe students can gain from having a peer with ASD in their classroom?

14. What do you believe teachers can gain from having students with ASD in their classroom?

**Section E – Influencing Factors and Next Steps**

15. **What kind of supports and resources are available to you with regards to supporting your students with ASD?**

14a. What do you think about the available supports and resources?

Prompts: Administration, EAs, professional development, parent communication
16. **Have you faced any challenges in attempts to support students with ASD?**

15a. (if yes) How have you managed these challenges?

Prompts: Funding, peer understanding and acceptance, parent communication

17. What advice would you give to a beginning teacher looking to support students with ASD in their classroom?

18. What goals do you have as you continue to work with students with ASD?

19. Do you have any final thoughts?

**Closing Script**

We have now reached the end of the interview. Thank you so much for your time and insight on this topic, I appreciate your contribution to my learning as a beginning teacher. Please feel free to contact me at any point. Do you have any questions for me?