

2017

Special Education Elementary Teachers' Perceptions of Daily Living Skills Instruction for Students With Autism

Jamala Spencer
Walden University

Follow this and additional works at: <https://scholarworks.waldenu.edu/dissertations>

 Part of the [Special Education Administration Commons](#), and the [Special Education and Teaching Commons](#)

This Dissertation is brought to you for free and open access by the Walden Dissertations and Doctoral Studies Collection at ScholarWorks. It has been accepted for inclusion in Walden Dissertations and Doctoral Studies by an authorized administrator of ScholarWorks. For more information, please contact ScholarWorks@waldenu.edu.

Walden University

College of Education

This is to certify that the doctoral study by

Jamala Spencer

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

Review Committee

Dr. Jo DeSoto, Committee Chairperson, Education Faculty
Dr. James Miller, Committee Member, Education Faculty
Dr. Crissie Jameson, University Reviewer, Education Faculty

Chief Academic Officer
Eric Riedel, Ph.D.

Walden University
2017

Abstract

Special Education Elementary Teachers' Perceptions of Daily Living Skills

Instruction for Students With Autism

by

Jamala Spencer

MS, Mercy College, 2009

BS, Herbert Lehman College, 2007

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

Walden University

October 2017

Abstract

The question of which strategies for teaching daily living skills (DLS) are most effective for students with autism spectrum disorder (ASD) requires increased attention. Special education elementary teachers may not have the instructional strategies necessary to teach DLS to students with ASD. DLS instruction for students with ASD is important because these skills are essential to functioning in school as well as society. The aim of this study was to identify elementary special education teachers' perceptions about their ability to teach DLS to students with ASD. The study's conceptual framework was rooted in a synthesis of ideas from current refereed literature, along with Bandura's social cognitive theory. Purposeful sampling identified 10 participants for individual interviews. Findings indicated 2 themes that emerged from Bandura's (1993) self-efficacy theory: lack of competency to teach DLS and teachers' beliefs about DLS instruction. Thematic and open coding indicated the following themes: lack of time, lack of administrative support in formally addressing DLS deficits, and strategies influencing DLS acquisition. The results indicated that special education elementary teachers did not feel efficacious about their ability to teach DLS to students with ASD and did not feel that they had time and support to provide DLS instruction to students with ASD. This study suggests a need for ongoing, sustainable professional development opportunities for special education teachers related to teaching DLS to students with ASD. Social change implications include improved teacher practice focused on increasing DLS performance for students with ASD so that they will be able to independently perform DLS in various environments, along with increased awareness and comprehension of the value of teacher voice in DLS instructional practices for students with ASD.

Special Education Elementary Teachers' Perceptions of Daily Living Skills

Instruction for Students With Autism

by

Jamala Spencer

MS, Mercy College, 2009

BS, Herbert Lehman College, 2007

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

Walden University

October 2017

Dedication

This journey is dedicated with sincere love and devotion to my twins, Yanah and Leah Spencer. I would not have been able to accomplish this degree without you. You are my inspiration, and I want to be an example to you both. The pursuit of this degree is to prove to you, my twins, that you can achieve your goals with hard work, passion, and dedication.

Acknowledgement

I would first like to give thanks to God for granting me the courage and strength to always aim higher, and for guiding me through this process. I would love to extend my gratitude to the following individuals who provided their guidance, support, encouragement, and suggestions, directly and indirectly. Your contributions have enabled me to continuously acquire the skills needed to remain on track in completing this EdD.

I would like to thank my twin girls, Yanah and Leah Spencer, for understanding that Mommy had to focus on work for school when they needed extra comfort and attention. To my husband, Easton, thank you for giving me that fundamental support and providing me with a secure platform towards my journey of higher education. Thanks to my mother, Claudette, for your prayers and for instilling in me the values of hard work, love of learning, and a drive for excellence. A huge thank you to my siblings, Roxann, Marsha, Dominique, Alison, and Kingsley for their tremendous support, love, input, and many hours of late night conversations. You have never left my side and were always willing to encourage me, even in my very down moments.

To my cousin, Melissa, you were always willing to babysit my girls when I was pressed for time with assignment submissions. I would like to say a huge thanks to Jillian Dino who constantly reminded me to go back to school after the completion of my master's degree, and my family members who listened to me when I needed to vent. I would like to acknowledge the following individuals, who also contributed to my thought processes, rendered academic or emotional support, and/or offered encouragement: Kelli-Ann Rochester, my school administrators, Dr. Arthur, Dr. Green, Patricia Smith, Joel

Jerume, and to all my coworkers. Thank you, my church associates, and Pastor Lynn Hazel, for your prayers. Thank you, Shernette Brown and Lorna Sherland, for your continuous advice to me to think positive and never give up.

A huge thanks to my close friends for their support throughout this long and challenging journey.

Importantly, I would like to thank my dissertation chairperson, Dr. Jo Beth DeSoto, for her time, guidance, feedback, and commitment through this process. She has also provided words of reassurance when I felt frustrated and felt as if I was not making progress. To my university research reviewer (URR), Crissie Jameson, for closely working with me, to my previous committee member, Dr. Putnam, for his feedback and critique that have taught me to keep pushing in spite of tough times, and to my committee member, Dr. Miller, for his expert feedback, encouragement, and patience. A huge thanks to the principals of participating schools, and to the research participants, because this dissertation could not have been completed without you.

Table of Contents

List of Tables	vi
Chapter 1: Introduction to the Study.....	1
Introduction.....	1
Background.....	3
Problem Statement.....	5
Purpose of the Study.....	7
Research Questions.....	7
Conceptual Framework.....	8
Nature of the Study.....	10
Definitions.....	11
Assumptions.....	12
Scope and Delimitations.....	13
Limitations.....	15
Significance.....	17
Summary.....	19
Chapter 2: Review of Literature	20
Introduction.....	20
Literature Search Strategy.....	21
Conceptual Framework.....	22
Teacher Self-Efficacy.....	24
History of Autism Spectrum Disorder.....	28
Defining Autism Spectrum Disorder.....	30

Defining Daily Living Skills.....	36
Assessing Daily Living Skills.....	36
Teaching Daily Living Skills to Students With Autism Spectrum Disorder	37
Professional Development	40
Instructional Strategies Used to Teach Daily Living Skills.....	42
Perceptions of Teachers	47
Summary and Conclusions	49
Chapter 3: Research Method.....	51
Introduction.....	51
Research Design And Rationale	51
Central Phenomenon of The Study.....	52
Research Tradition	53
Rationale	54
Role of The Researcher.....	56
Methodology	58
Participant Selection Logic.....	59
Instrumentation	61
Procedures For Recruitment, Participation, And Data Collection.....	63
Data Analysis Plan.....	65
Issues of Trustworthiness.....	69
Credibility	70
Transferability.....	71
Confirmability.....	71

Ethical Procedures	72
Summary	75
Chapter 4: Results	76
Introduction.....	76
Setting	76
Demographics of All Participants.....	79
Data Collection	86
Data Analysis	88
Results.....	90
Themes From Self-Efficacy	92
Lack of Competency to Teach DLS.....	92
Teachers’ Beliefs About DLS Instruction.....	96
Themes as a Result of Open Coding.....	99
Lack of Time in The Schedule.....	100
Lack of Administrative Support in Formally Addressing DLS Deficits	101
Strategies Influencing DLS Acquisition	103
Discrepant Cases.....	109
Evidence of Trustworthiness.....	110
Credibility	110
Transferability.....	111
Dependability	111
Confirmability.....	112
Summary	112

Chapter 5: Discussion, Conclusions, and Recommendations	115
Introduction.....	115
Summary of Key Findings	115
Interpretations of The Findings.....	116
Teachers’ Beliefs About DLS Instruction.....	118
Lack of Competency	119
Strategies Influencing DLS Acquisition	122
Lack of Time in Schedule	125
Lack of Administrative Support in Formally Addressing DLS	126
Limitations	126
Recommendations.....	127
Implications.....	129
Recommendations For Practice	131
Conclusion	133
References.....	135
Appendix A: Principal Letter to Conduct Research	167
Appendix B: Letter of Invitation.....	168
Appendix C: Certificate of Confidentiality.....	169
Appendix D: Interview Guide for Individual Interview	170
Appendix E: Expert Panel Selection Criteria.....	174
Appendix F: Expert Panel Recruitment Letter.....	175
Appendix G: Walden University Institutional Review Board Approval	176

Appendix H: New York City Department of Education Institutional Review Board

Approval 178

List of Tables

Table 1. Demographics of All Participants.....	85
Table 2. Themes From Self-Efficacy.....	92
Table 3. Themes Resulting From Open Coding.....	100
Table 4. Strategies Influencing DLS Acquisition: Subthemes.....	103

Chapter 1: Introduction to the Study

Introduction

In 2014, the Centers for Disease Control and Prevention (CDC, 2014) reported that 1 in 68 children 8 years of age were identified with autism spectrum disorder (ASD). Many students with ASD face difficulty in performing functional skills such as daily living skills (DLS; Gardner & Wolfe, 2013). DLS include skills such as hand washing, dressing and undressing, and feeding that individuals must use in order to function in their surroundings (Paul, Loomis, & Chawarska, 2014, p. 264). These skills usually develop during childhood; however, students with ASD often develop them at a slower rate than their nondisabled peers (Kuo, Chang, Lyu, & Heh, 2013). Students with ASD who face challenges in performing DLS may find it difficult to dress themselves, use the bathroom, brush their teeth, and feed or bathe themselves independently.

Special education instructional programs for students with ASD who are identified as severely disabled are individually determined through Individualized Education Programs (IEPs), which require special education teachers to adjust their instruction to their students' learning styles (Gunn & Delafield-Butt, 2015). The problem is that special education elementary teachers may not have the instructional strategies necessary to teach DLS to students with ASD. An autism coach who works with special education teachers in New York City's public schools, stated that although teachers attempt to incorporate DLS instruction throughout the day, they are unaware of how to address these skills effectively. Therefore, a lack of DLS affects how students with ASD function throughout the school day, and special education teachers often complain that adult assistance is needed to help students with the performance of these skills. The

autism coach expressed that when adults are pulled from an instructional lesson to assist with DLS, instruction is usually disrupted.

In this study, special education teachers' perceptions concerning their ability to teach DLS instruction for students with ASD were explored. The study has implications for positive social change, in that it expands emerging literature by examining the perspectives of special education elementary teachers and identifying what works when instructing students with ASD in order to reveal ongoing, sustainable professional development opportunities for special education elementary teachers related to teaching DLS to students with ASD. Implications for social change also include improved teacher practice focused on increasing DLS performance for students with ASD so that they will be more effective in society and will be able to independently perform DLS in various environments (Ramdoss et al., 2012a), as well as increased awareness and comprehension of the value of teacher voice in DLS instructional practices for students with ASD.

This chapter is organized into four major sections addressing the background of the study, the problem statement, the purpose of the study, and the conceptual framework. In describing the background of the study, I highlight the foundation of this research and provide relevant information about the study topic. The problem statement identifies the current research problem as well as previous research that supports the existence of this problem. In addressing the purpose of this study, I describe the phenomenon studied. The conceptual framework of this study consists of the groundwork upon which the study was based.

Background

As the identification of students with ASD increases (CDC, 2014), there is a need to improve DLS instruction for this population. For students with ASD, being able to independently perform DLS in various environments is a key to independence, as DLS are necessary for everyday functioning (Ramdoss et al., 2012a). The Individuals with Disabilities Education Act (IDEA) highlighted that students with disabilities such as ASD should receive educational services that support their successful functioning in life (Ryndak, Jackson, & White, 2013). Some elementary students with ASD demonstrate improvement in DLS, “but studies of school-aged children show that these skills continue to be delayed compared to both age and IQ-matched children with non-ASD developmental delays” (Green & Carter, 2014, p. 256). IDEA also stipulated that instructional services should concentrate on recognizable results that improve the acquisition and utilization of skills such as DLS that students with ASD are anticipated to need in order to completely and independently participate in society (Ryndak et al., 2013). Without appropriate DLS instruction, students with ASD can find the transition into adulthood to be disappointing (Courtade, Spooner, Browder, & Jimenez, 2012), in that those with DLS deficits may not be able to function independently. To bridge the gap between school and adult life, it is important to identify effective instructional strategies aimed at increasing DLS (Pugliese et al., 2015). Recent laws have shifted focus away from teaching students with ASD only academics in order to address the need to teach them skills and activities such as DLS that are necessary for participation in society and that are needed during and subsequent to leaving school, as well as DLS that are foundational across life inside and outside school (Ryndak et al., 2013; Shurr & Bouck,

2013). When teachers address DLS deficits in students with ASD, they are contributing to these students' development of meaningful skills that will positively influence postsecondary outcomes for them (Alexander, Ayres, Smith, Shepley, & Mataras, 2013).

Based on the sources included in this section, there is a gap in research about the instructional knowledge and experiences of special education teachers who teach DLS to students with ASD (Koegel, Matos-Fredeen, Lang, & Koegel, 2012). In this study, I sought special education elementary teachers' perceptions about their ability to teach DLS to students with ASD. Identifying special education teachers' perspectives can enhance the nature of the instructional design process and strategies, as well as subsequent learning situations (Könings, Seidel, Jeroen, & van Merriënboer, 2014). In the effort to identify instructional practices in special education and address challenging issues such as DLS deficits, it can be beneficial to obtain special education teachers' views of how important DLS are, as well as their ability to address DLS deficits (Hiebert & Morris, 2012) for students with ASD. Therefore, special education elementary teachers' perspectives about their ability to teach DLS to students with ASD were examined with the aim of improving professional development opportunities for special education elementary teachers in this area.

The gap in practice addressed in this study prevents special education elementary teachers from selecting appropriate professional development opportunities. It also prevents them from identifying successful research-based instructional strategies that have been used by special education teachers to address DLS deficits. Professional development is a common method to assist special education elementary teachers in learning instructional strategies and increasing content knowledge (White, Syncox,

Heppleston, Isaac, & Alters, 2012). This study was needed to improve the assumptions and essence of special education elementary teachers' beliefs regarding their ability to address DLS deficits of students with ASD. It was also needed to identify specific strategies for addressing DLS deficits that have been noted by special education elementary teachers. Connecting theory to practice through professional development opportunities is of paramount importance because with better training comes improved instruction, which ultimately helps students improve their DLS.

Problem Statement

Many elementary-aged students with ASD enter public schools with deficits in DLS. In New York City elementary public schools, special education teachers may not have the instructional strategies necessary to teach DLS to students with ASD; therefore, in this study, I investigated how special education elementary teachers perceived their ability to teach DLS to students with ASD. Griffith, Massey, and Atkinson (2013) agreed that although mandated curriculum-based teaching takes precedence over students' adaptive needs, special education elementary teachers believe that they should address DLS deficits in students with ASD. A transition coach and principal, claimed that typically, for students with ASD, the decline in or absence of DLS is identified by teacher observations, and although teachers are not necessarily required to address DLS deficits in students' elementary years, DLS are important to the functioning of students with ASD. The transition coach and principal further explained that DLS deficits are usually addressed when students advance to the high school level and are closer to transitioning age. When teachers address DLS deficits in students with ASD, these deficits are sometimes placed on the students' IEPs as goals, and special education elementary

teachers should teach these skills throughout the school day, linking “to the students’ specific current and future environments” (Courtade et al., 2012, p. 4). A transition coach and principal stated that although elementary special education schools align their curriculum and instruction to the learning standards dictated by the state, instruction is adapted and tailored to fit the academic, social, and adaptive needs of the students with ASD.

An assistant principal who works with special education teachers in one of New York City’s public schools pointed out that teaching DLS is not mandated by school districts, but because of the severity in adaptive functioning issues that students with DLS deficits can face, teachers are required to identify DLS deficits and incorporate them as learning goals and objectives in students’ IEPs. She also pointed out that many special education elementary teachers expressed that they often struggle to teach these skills because they are unaware of how to address DLS deficits, noting that teachers said that the success of their students in performing DLS depends on their ability to deliver effective DLS instruction. The assistant principal, stated that a result of the academic requirements dictated by the state of New York in conjunction with the New York City Department of Education, priority is not given to staff development pertaining to DLS instruction, and staff development usually focuses on academic or curriculum content materials, technology, and pedagogy. Special education elementary teachers often experience difficulty in implementing their knowledge of special education instructional strategies (Kasari & Smith, 2013) aimed at increasing DLS; therefore, the need to seek empirical studies that will inform special education elementary teachers about how to best address this problem is increasing (Trela & Jimenez, 2013). There is a gap in current

research literature in that the perceptions of special education teachers on how best to address the needs of students with disabilities is absent from published education research (Vetter, 2012). In this study, information was gathered from special education elementary teachers about their perceptions of their ability to teach DLS to students with ASD.

Purpose of the Study

The purpose of this qualitative case study was to investigate the perceptions of special education elementary teachers concerning their ability to teach DLS to students with ASD. Understanding the perceptions of special education elementary teachers about their ability to address DLS deficits for students with ASD can help to support teachers' efforts to instruct students with ASD effectively regarding DLS. According to Curry and Jones (2014), teachers' opinions have been instrumental in identifying what works when teaching DLS to students with ASD. In order to gain insight about DLS instruction, individual interviews were used to elicit teachers' perspectives. Information was collected to investigate participants' beliefs about their ability to teach DLS to students with ASD, the preparation they received to teach DLS, the barriers they encountered to teaching DLS to students with ASD, and strategies that might benefit other special education elementary teachers who teach students with ASD who demonstrate difficulty performing DLS. The research findings add to the body of existing research about how special education elementary teachers perceive their ability to teach DLS to students with ASD.

Research Questions

The purpose of this qualitative case study was to capture the perspectives of special education elementary teachers concerning their ability to teach DLS to students

with ASD. In addition, I sought to identify special education elementary teachers' perceptions of possible strategies that they found effective in addressing DLS deficits. The qualitative design was determined by the nature of the purposes and research questions that guided this study.

The research questions that directed this study were as follows:

RQ1: To what extent do special education elementary teachers believe that they have the ability to provide DLS to students with ASD?

RQ2: What do special education elementary teachers perceive as barriers to DLS instruction for students with ASD?

Conceptual Framework

The conceptual framework that guided this study used Bandura's (1986) social cognitive theory (SCT) of self-efficacy. The framework served as a lens through which to review how special education elementary teachers perceived their ability to instruct DLS to students with ASD. SCT focuses on individuals' organizational and executional skills that result in their advancement (Bandura, 1997). Special education elementary teachers' beliefs and their attitudes are vital for comprehending and improving their educational practices (Bandura, 1993), which shape the learning environments of their students. Teachers' perceptions have a powerful influence on their willingness to teach, as well as how they deliver instruction (Tarman, 2012). Bandura's (1986) SCT was applicable to this study because teachers' perceptions of their own self-efficacy to deliver DLS instruction to students with ASD were explored.

Each day, special education elementary teachers make judgments and decisions about how to improve student learning. Their individual predispositions and

generalizations can influence how they see themselves fit to deliver instruction. Bandura (1986) referred to such perceptions as *self-efficacy*, and self-efficacy as it pertains to teachers' perceptions is teachers' belief in their ability to attain success within the educational environment. He explained that individuals usually select tasks that they feel competent about, and teachers' beliefs about their skills and knowledge, as well as their accomplishments and failures, affect their instructional actions (Bandura, 1986). As the population of students with ASD increases in size (Owen-Smith et al., 2015), special education teachers should hold positive convictions about their part as educators of students with ASD (Higginson & Chatfield, 2012), thus reflecting a sense of high self-efficacy. In order to improve self-efficacy, Bandura (1997) also proposed observing other successful teachers and participating in professional development opportunities to build on experiences. As indicated by Bandura (1997), teachers' self-efficacy can influence both the sort of environment that they make for their students and their opinions about various instructional tasks that they will undertake to increase student learning (Sharma, Loreman, & Forlin, 2012). Special education teachers should therefore be able to exercise a measure of control over their own perceptions because their beliefs are powerful influences on DLS instruction for students with ASD.

SCT relates to this case study because special education elementary teachers were asked to engage in a reflective process by explaining their perceptions of their ability to instruct DLS to students with ASD. Special elementary education teachers' self-efficacy beliefs can influence the DLS achievement of their students with ASD (Morris, Usher, & Chen, 2016). Individual interviews were conducted to gather perspectives because little is known about special education elementary teachers' perceptions concerning their ability

to instruct DLS to students with ASD in elementary education (Vetter, 2012). SCT related to the research questions in that the questions were framed to capture expanded descriptions of special education elementary teachers' beliefs about their abilities to carry out DLS instruction.

Nature of the Study

This qualitative case study explored special education elementary teachers' perceptions concerning their ability to instruct DLS to students with ASD who demonstrate challenges in performing DLS. The rationale for choosing a case study design was that the research questions required explanations, and in a qualitative case study design, the research questions elicit rich descriptions and insightful accounts from the participants (Pacho, 2015). Another rationale for choosing a qualitative case study design was that this design would emphasize the study of a phenomenon within the lived experiences of a set of individuals (Houghton, Casey, Shaw, & Murphy, 2013). Using a case study approach allowed me to gather data on complex matters in their real-life settings instead of relying solely on derived data (Creswell, 2013). A case study approach was appropriate to develop acceptable descriptions, interpretations, and explanations of the research phenomenon (Maxwell, 2013). By exploring special education elementary teachers' perceptions concerning their ability to teach DLS to students with ASD and considering the level of preparation teachers received to teach DLS, I was able to draw conclusions regarding the factors that play a role in successful DLS instruction for students with ASD.

Data were collected from special education elementary teachers who taught students with ASD. Purposeful sampling was used, and participants were selected based

on their experiences with the phenomenon being studied (Palinkas et al., 2015). The participants were asked to engage in individual interviews. During the interviews, an audio recorder was used to record the participants' responses. Data for this study were coded and analyzed in an effort to answer the research questions, and data were managed using the software NVivo (Ishak, & Bakar, 2012). NVivo is a qualitative software tool that researchers use to examine subjective information (Ishak & Bakar, 2012). Using NVivo 11 was beneficial in this study because it was cost effective in terms of managing and analyzing the data (Kluckner, Weiss, Sundstrom, & Tscheligi, 2013). To ensure validity, member checking was conducted in which participants reviewed the findings from the interviews in order to confirm their accuracy (Harper & Cole, 2012). Triangulation was also used to analyze the research questions from different perspectives to eliminate inconsistency throughout the data collection and analysis process. The research method that was applied is expanded upon in Section 3.

Definitions

The following terms were used and are defined in an effort to ensure an understanding of the terminology throughout the study.

Autism spectrum disorders (ASD): Commonly referred to as *autism*, refers to a group of developmental disabilities that are characterized by atypical development in communication, behavior, and socialization. Symptoms of ASD are normally apparent around age 3, and children with ASD demonstrate repetitive, stereotypical behavior (American Psychiatric Association, 2013). ASD pinpoints 5 neurodevelopmental disorders: Childhood disintegrative disorder (CDD), Rett syndrome, Asperger's

syndrome, autism, and pervasive developmental disorder—not otherwise specified (PDD-NOS; Doris, 2012).

Daily living skills (DLS): A series of personal self-care activities used across a variety of settings, such as school, home, work, and community. DLS include personal hygiene, food preparation, and domestic skills (Shearer & Guthrie, 2013).

Instructional strategies: Methods that teachers use in the classroom to modify how they teach in order to address students' learning needs (Hallahan, Kauffman, & Pullen, 2012).

Professional development: Both formal and informal processes and activities provided for teacher engagement inside and outside the school environment for the purpose of the improvement of students' pedagogical knowledge and performance (Mertens, Flowers, Anfara, & Caskey, 2010).

Self-efficacy: Bandura (1997) defined self-efficacy as conviction in one's capacities to sort out and perform the course of activities that will lead to objective achievements.

Social cognitive theory (SCT): This theory was developed by Bandura. He pointed out that individuals' experiences shape their perceptions and influences whether they will engage in a specific activity (Bandura, 1986).

Assumptions

The primary goal of this qualitative study was to investigate the perceptions of special education elementary teachers regarding their ability to teach DLS to students with ASD. In educational research, assumptions are seen as speculative ideas (Gaver,

2012); while examining the perspectives of the participants, caution must be taken in making generalizations based on the results of this study.

Assumptions must be stated in order for a study to progress (Simon & Goes, 2013). Four assumptions were made for this study. The first assumption was that all participants were equally qualified to teach students with ASD. The next assumption was that participants trusted that their responses during the individual interviews would remain anonymous. Another assumption was that participants were open and honest in responding to interview questions. Participants were informed that their confidentiality and anonymity would be preserved. The final assumption was that factors that influenced the participants' responses, attitudes, and/or concerns toward the phenomena were valuable and may have a positive influence on the creation of professional development opportunities specific to DLS instruction for special education elementary teachers of students with ASD.

The special education elementary teachers who took part in this study were asked to participate in the study willingly and were advised that their anonymity and confidentiality would be preserved and that withdrawal from the study could take place at any time without ramifications.

Scope and Delimitations

The scope of this study was based upon special education teachers' perceptions of their ability to instruct DLS to students with ASD. A study's scope signifies the boundaries for the research (Simon & Goes, 2013).

Just as there are parameters under which a study takes place, delimitations also exist. Delimitations are factors that arise from a study's limitations (Simon & Goes,

2013) and are controlled by the researcher. The focus of the study was chosen based on previous literature that pointed out that special education teachers experience difficulty providing instruction to students with ASD (Koenig, Buckley-Reen, & Garg, 2012).

Another rationale for addressing this particular focus was that in 2014, 1 in 68 children of elementary-school age (i.e., in the primary grades) were identified with ASD (CDC, 2014).

Boundaries of the study included the inclusion only of participants within special education, as well as the use only of research related to the field of education.

Populations that were excluded from this study included general education teachers because the study specifically looked at special education elementary teachers' perceptions regarding their ability to carry out DLS instruction for students with ASD.

Purposeful sampling was used to obtain the sample to answer the research questions (Palinkas et al., 2015). From the 39 schools in one school district, the scope of the study was confined to special education elementary teachers from 10 schools who taught students with ASD. Participants were interviewed individually, and during the interviews, all participants were asked to express their ideas about their ability to perform DLS instruction for students with ASD as well as their ideas about what works best for increasing DLS for students with ASD. Individual interviews were transcribed, analyzed, coded, and summarized. The participants were provided with a copy of the findings and were afforded the opportunity to discuss the findings if there were any discrepancies.

Qualitative researchers must aim to enhance deep understanding of the phenomena they investigate. Qualitative data collection involves gathering thick, descriptive information to empower others to decide the extent to which the discoveries

might be connected to their own particular setting. This is referred to as *transferability*. Transferability is the ability to apply the research findings in other settings and contexts, or with other participants (Petty, Thomson, & Stew, 2012). For this qualitative case study, the results may not be generalized because they are specific to the particular phenomenon; however, purposeful sampling was used to make sure that a number of perspectives were gathered in order to enhance the understanding of the topic (Petty et al., 2012). Furthermore, abundant, comprehensive, definitive information was gathered about others' experiences to provide ideas that may influence each individual classroom (Petty et al., 2012). Although strategies may be used to address potential transferability, trustworthiness is not necessarily guaranteed in a study (Vaismoradi, Turunen, & Bondas, 2013), and therefore the researcher should attempt to provide a genuine picture of the phenomenon being studied.

Limitations

During research, matters that influence a study can arise that may not be ruled out. These are aspects of the design or methodology that may impinge on the interpretation of the research results (Labaree, 2013). A limitation related to this study as it pertains to the design was the use of a small sample size. The sample size for this study was 10 participants. A small sample size was chosen for this case study because qualitative research seeks to develop a top-to-bottom core of ideas about the *hows* and *whys* of specific questions (Dworkin, 2012). For qualitative case studies, purposeful sampling is suggested for obtaining rich information about a phenomenon (Robinson, 2014). Purposeful sampling was suitable for this study because the participants had knowledge concerning the research topic (Elo et al., 2014). This form of sampling may limit

participants to respond to research questions in a way that may not provide a broad view of their experiences. Another limitation was establishing generalizability (Burns, Leung, Parsons, Singh, & Yeung, 2012). For this study, the data collected may not be generalized to students with ASD or teachers in a general education classroom; this limitation was beyond my control as the researcher.

Researchers' attitude toward bias is influenced by their basic presuppositions, and when conducting a study, researchers should recognize, acknowledge, and attempt to eliminate prejudices. *Bias* is defined as any inclination that compromises impartial thought about questions (Maxwell, 2013). One potential bias that could have influenced the study's outcome was interviewer bias. When interviewer bias is present in qualitative research, the interviewer may subconsciously influence participants to provide responses that are shaped toward the interviewer's opinions (Powell, Hughes-Scholes, & Sharman, 2012). To address this bias, I used a reflective journal to log the details of how I might have influenced the findings of the interviews (Yin, 2013). The act of reflective journaling can also help a researcher to discover new revelations in and through composing.

My efforts to address the limitations of this study included using an audit trail and member checking. An audit trail summarizes all of the research proceedings (Houghton et al., 2013). It provides a layout of the steps taken from the beginning to the end of a study. Member checking allowed the participants to review written transcripts so that they could check them for accuracy before they were finalized. Member checking gives participants the opportunity to review all of their own answers to the research questions to assure the accuracy of data (Loh, 2013), which minimizes researcher bias, if present.

Significance

Special education elementary teachers are expected to address DLS deficits in students with ASD. The problem that exists in New York City public elementary schools is that special education teachers have limited DLS training and lack the ability to teach DLS to students with autism who demonstrate difficulty with these skills. The purpose of this study was to investigate the perceptions of special education elementary teachers regarding their ability to support DLS instruction for students with ASD. Educators' insights are not always reliable when compared to evidence-based practices about instructional strategies (Milner, Sondergeld, Demir, Johnson, & Czerniak, 2012). Teachers' beliefs can be defined as their feelings, attitudes, opinions, or conceptions about teaching and learning (Milner et al., 2012). In that teachers' convictions may prompt changes that can directly influence students (Milner et al., 2012), obtaining special education elementary teachers' perceptions about DLS instruction can play a major role in special education reform. Potential contributions of this study include advancing knowledge about DLS instruction for special education elementary teachers in relation to students with ASD through ongoing and sustainable professional development opportunities, improved teacher practice focused on increasing DLS performance for students with ASD so that they are able to perform DLS independently in various environments (Ramdoss et al., 2012a), and increased awareness and comprehension of the value of teacher voice in DLS instructional practices for students with ASD.

This study may add to the existing body of research about DLS instruction for students with ASD. Participants' knowledge of DLS instruction for students with ASD may elicit future research at varied grade levels. This study may promote advanced

practice, in that special education elementary teachers' perceptions could illustrate how added emphasis should be placed on professional development specific to DLS instruction for teachers.

This study may advance practice and/or policy by providing teacher trainings and preparation courses for special education elementary teachers. The study's importance lies in its attention to special education elementary teachers' perceptions and instructional practices in relation to DLS instruction for students with ASD. Educators' beliefs greatly influence students' skills development, both socially and academically (Sharma et al., 2012). Special education entails making a difference for students with disabilities so that they can function effectively in school as well as society. This study is important for stakeholders including students, administrators, and teachers, in that they may collaborate on generating funds toward the creation of classrooms for addressing DLS deficits for students with ASD (Payne, Cannella-Malone, Tullis, & Sabielny, 2012). If special education elementary teachers' knowledge and usage of DLS instruction are studied, then their ideas could be reviewed in school districts that enroll students with ASD, and a curriculum to address DLS deficits could be implemented.

The study's potential implications for positive social change are rooted in the study's significance, in that the participants' perspectives may enlighten others in the field of special education. Positive social change is linked to increased DLS performance later in life (Kasari, Rotheram-Fuller, Locke, & Gulsrud, 2012) for students with ASD. The need for positive social change will be supported through increased, ongoing, sustainable professional development opportunities related to teaching DLS to students with ASD. These students may benefit from this study through exposure to effective

instructional practices that help them to perform DLS independently in multiple environments throughout their lives.

Summary

The perceptions of special education elementary teachers concerning their ability to teach DLS to students with ASD were the driving force for this study. Their perspectives on this phenomenon were explored to identify their ideas about strategies that they have to address DLS deficits. Throughout the lifespan of students, DLS are necessary, and students with ASD are responsible for completing DLS in many different environments. With age, DLS should increase (Smith, Maenner, & Seltzer, 2012) for students with ASD. The study's foundation was based upon Bandura's (1986) SCT. The study may help special education elementary teachers to identify effective instructional strategies for teaching DLS to students with ASD through increased professional development opportunities. The outcomes of this study may provide for positive social change with the increased functional growth of elementary students with ASD when special education teachers implement DLS instructional strategies.

In Chapter 2 of this study, the literature on topics surrounding special education teachers' perceptions about DLS instruction is discussed. A description of the methodology, the setting, and data collection procedures is provided in Chapter 3. The research findings and the evidence of quality for this case study are provided in Chapter 4. The system used for tracking data and the data analysis are provided in Chapter 4. In Chapter 5, the interpretations of the findings and implications for social change are identified. A summary of the research process, recommendations for action, and a conclusion complete this paper.

Chapter 2: Review of Literature

Introduction

The problem addressed in this study was that special education elementary teachers may not have the instructional strategies necessary to teach DLS to students with ASD who demonstrate difficulty in performing these skills. The purpose of this qualitative case study was to investigate the perceptions of special education elementary teachers regarding their abilities to teach DLS to students with ASD. A delay in DLS acquisition may negatively affect the lives of students with ASD in terms of independent functioning in school (Gray et al., 2014). Effective educational approaches identified by special education teachers for teaching DLS to students with ASD have not been identified to date, and students with ASD who demonstrate difficulty in performing DLS at an early age are less likely to function independently as adults (Hong et al., 2015). DLS development is integral to becoming a grown-up in order to obtain favorable employment, to improve mutual exchange with others, and to reside on one's own. Prior studies have concentrated intensely on friendly correspondence with others and conduct abilities for people with ASD, as opposed to the advancement of DLS (Hong et al., 2015). It is vital for students with ASD to acquire DLS in their early years and while they are in school in order to function independently when they become adults (Hong et al., 2015).

Chapter 2 begins with a discussion of the literature search strategy and continues with an exploration of the conceptual framework that focuses on a review of refereed literature structured to address three key areas: (a) the history and foundation of ASD, (b)

the principles of DLS and the instructional strategies used to address DLS deficits in students with ASD, and (c) teacher perceptions and their influence on student learning.

Literature Search Strategy

To identify literature on the topic of teachers' perceptions of their ability to teach DLS to students with ASD, a comprehensive search by topic was conducted using a number of search databases, including the Walden University library website (<http://library.walden.edu>), Google Scholar, and the St. John's University library website (<http://www.stjohns.edu/libraries>). The following education databases were used: Education from SAGE, ProQuest Central, EBSCO, Educational Resources Information Center (ERIC), and Education Research Complete.

Keywords such as *autism, autistic, students DLS, adaptive skills, and DLS instructional strategies* were used to guide the literature searches. Additional keywords resulted from the following combinations of terms: *DLS instruction in elementary classrooms, DLS instruction for students with ASD, effective instructional strategies used by special education teachers, teaching adaptive skills to students with ASD, and teaching DLS to students with ASD*. Additional terms using constructs from the conceptual framework such as *teachers' perception of DLS instruction, teacher beliefs of DLS instruction, teacher attitudes toward teaching DLS, teacher abilities towards DLS instruction, and teacher perspectives of DLS instruction* were used for other searches to identify studies that explored the topic. The same searches were directed using the database Academic Search Complete.

The iterative search process was systematic in that relevant information pertaining to the focus of this study was entered into search databases such as Google Scholar,

SAGE, ProQuest Central, EBSCO, and ERIC. To begin building this study, the problem statement was analyzed, and key components of the problem statement were entered into the search engines. Key terms such as *teacher beliefs*, *DLS instruction*, *teacher attitudes*, *teaching DLS*, *teacher perspectives*, and *teachers' perceptions* were used to locate literature to develop this study. The key terms were revised based on the literature located that may have described the research topic. Once the key terms were revised and modified, new key terms and/or phrases were entered into the databases in order to narrow the search topic. Key phrases such as *teachers' perception of DLS instruction*, *teacher beliefs of DLS instruction*, *teacher attitudes toward teaching DLS*, *teacher abilities concerning DLS instruction*, *DLS instruction*, and *teacher perspectives of DLS instruction* were entered into the database in order to retrieve literature that contained the specified terms.

In cases where there was little research pertaining to the study's topic, the Walden University research center's librarian was used as a resource for locating information. A librarian assisted in refining search techniques, discussing ways that the research topic could be narrowed, and identifying specific research databases that had not been used for this study. The bibliographic records of literature that were previously retrieved were also analyzed for any relevant studies that contained any of the keywords used in the searches, or any studies that had been conducted about the topic.

Conceptual Framework

Teachers' perceptions of teaching DLS to students with ASD may have an influence on whether students function independently in performing these skills. The conceptual framework that grounded this study was Bandura's (1986) social cognitive

theory (SCT) of self-efficacy. The SCT is centered around individuals' learning and actions as a result of their experiences and interactions with their environment (Martin et al., 2014). It also proposes that individuals acquire knowledge by observing (Banks & Mhunpiew, 2012). For students with ASD, observing instruction is vital to learning DLS.

The concept of self-efficacy is not new to the field of education. Established in the SCT, it was created by Bandura (1977). The self-efficacy component of Bandura's SCT is accepted by numerous researchers to be a fundamentally important theoretical contribution to the investigation of academic accomplishment, inspiration, and learning (Artino, 2012). *Self-efficacy* is defined as "people's judgment of their capabilities to organize and execute courses of actions required attaining designated types of performance" (Cherian & Jacob, 2013, p. 80). Recently, teachers' self-efficacy beliefs have picked up prominence as a theme of self-efficacy research (Malinen et al., 2013). One potential explanation for the prevalence of teacher self-efficacy research might be its patterned nature: More grounded self-efficacy convictions are believed to bring about more prominent endeavors by teachers, which then prompt better performances (Malinen et al., 2013). Teacher self-efficacy is defined as perceptions that teachers hold about their competence to perform a teaching task (Dimopoulou, 2012).

Bandura (1977) believed that social cognition emerges from the field of perception, that perception can be understood as mental or cognitive representations of an individual's environment, and that those representations may affect an individual's behavior. He stressed the concept of self-belief and reflection, and he claimed that it involves individuals' beliefs about their own abilities to perform a given task based on their experiences (Bandura, 1986, 1997). When special education elementary teachers

perceive that they can affect positive future outcomes for students with ASD, they become more motivated and will push toward affecting those outcomes (Guo, Dynia, Pelatti, & Justice, 2014). Thus, the self-efficacy of teachers plays a critical role in improving DLS for students with ASD. In this study, facilitation of special education elementary teachers' perceptions about their ability to teach DLS to students with ASD was explored through individual interviews that allowed teachers to reflect on their instructional experiences based on the phenomenon.

Teacher Self-Efficacy

Teacher self-efficacy determines the success of what teachers are teaching. Social learning theory (SLT) has been expanded to include the concept of self-efficacy, such that even if individuals have the necessary skills and knowledge they need to acquire a given task, they must also believe that they can carry out that given task (Bandura & Walters, 1963; Miller & Dollard, 1941). Teacher self-efficacy is not associated with the aptitudes an individual possesses, but rather with the individual's discernments (Bandura, 1995). There are several definitions that exist for teacher self-efficacy; Bandura (1995) defined it as the confidence a person holds about his or her abilities to sort out, oversee, and carry out plans necessary in future situations. Another definition for teacher self-efficacy is having the capabilities to teach specific subject matter to students even when the subject matters are difficult (Holzberger et al., 2013). Teacher self-efficacy is also defined as "teachers' beliefs about affecting and coping with students who have difficulty in motivation and learning" (Calik, Sezgin, & Kilinc, 2012, p. 2499). Having such convictions may be a vital trait for special education elementary teachers who teach students with ASD who demonstrate deficits in DLS.

A teacher's perceived ability plays an important role on how he or she delivers instruction to students with ASD and what instructional strategies are used. Teachers must seek opportunities that will expand their knowledge and capabilities in order to meet the functional needs of students with ASD. Bandura (1993) suggested that opportunities should be provided for individuals to gain experiences with certain skills in order to increase their ability so that they are more at ease in carrying out such skills. Bandura (1993) stated that an individual should observe successes and failures of other individuals in the same professional line so that the individual can identify errors to avoid in terms of failures, or approaches that he or she can imitate or become better in terms of successes. Bandura (1993) noted that teachers' self-efficacy can increase if they receive verbal praise indicating that they can carry out a given task.

In the process of acquiring an ability, errors may occur; this is natural, and teachers can learn from their mistakes (Bandura, 1993). Ability can affect how teachers think about and interpret their experiences, and, in turn, how they provide instruction to their students. An educator's convictions about his or her capacity to teach students may influence students' knowledge acquisition (Lee, Cawthon, & Dawson, 2013). How teachers function is also affected by their perceptions of how their ability or self-efficacy changes over time (Bandura, 1993). Teachers with high self-efficacy may be better able to adjust their instructional approach to accommodate the DLS needs of students with ASD (Lee et al., 2013). It is therefore necessary that they maintain a high perception of their ability so that DLS instruction for students with ASD promotes student success.

When special education elementary teachers have strong self-efficacy for teaching DLS, they are more likely to develop their understanding of strategies to teach DLS and

to be committed to working harder to promote student success (Holzberg et al., 2013). Alternatively, if low self-efficacy exists about DLS instruction, special education elementary teachers are less likely to set goals and remain committed to this task (Bandura, 2006). Little is known about teacher self-efficacy beliefs regarding DLS instruction for students with ASD. Therefore, investigation of special education elementary teachers' perceptions of their ability to teach DLS to students with ASD is necessary.

Other theorists hold developmental views about this concept. The SCT, amidst other theories used in education research, is extremely persuasive (Martin et al., 2014) and has been used to guide a variety of research disciplines, including education. Teacher self-efficacy is a concept that is developed within Bandura's SCT (1986), and it is perceived to have an influence on the environment that teachers create and maintain (Sharma et al., 2012) for students with ASD. Teacher self-efficacy theory was applied to teachers when their perspectives were explored, and the convictions teachers hold about their instruction capabilities influenced student performance (Garvis, Pendergast, & Keogh, 2012). If low self-efficacy exists, then special education elementary teachers can experience greater challenges in teaching DLS to students with ASD. Teacher self-efficacy also contributes to the perceptions that teachers hold about the various teaching assignments that they will carry out in order to enhance student learning. Special education elementary teachers who possess low self-efficacy may perceive that there is not much that they can do (Sharma et al., 2012) to increase DLS for students with ASD, and thus they may be reluctant to attempt this. This theory strongly suggests that special education elementary teachers' sense of efficacy influences their attitudes and work

operations in the classroom, and successful teachers are more likely to possess strong self-efficacy in order to help students with ASD to develop or increase DLS.

There are various factors that contribute to elementary special education teachers' struggles in delivering instruction in certain content or subject areas. Teacher self-efficacy has been shown to be one of these factors, and it has turned out to be a complicated construct that changes throughout special education elementary teachers' professional practice (Lee et al., 2013). Special education elementary teachers who demonstrate low self-efficacy will experience greater challenges in instructing (Avanzi, 2013) DLS to students with ASD. In order for special education elementary teachers to improve low teacher self-efficacy, they must engage in continuous teacher education that is geared toward their needs, and their school environment should be one that encourages continuous professional development (Wyatt, 2013). A supportive school climate also helps to increase the self-efficacy of its teachers (Meristo, & Eisenschmidt, 2014) and contributes to teachers' determination of the level at which they will deliver instruction in the classroom.

One of the key ingredients of a successful school environment for students with ASD is high teacher self-efficacy. For special education elementary teachers, a "high level of self-efficacy may facilitate openness to new ideas about teaching" (Lee et al., 2013, p. 85). When special education elementary teachers possess high self-efficacy, they are more receptive to changing their teaching approach, trying new instructional strategies, and adapting instructional materials to accommodate their students' learning needs. Special education elementary teachers also tend to incorporate more humanistic approaches as well as teaching methods that require students' active participation

(Sharma et al., 2012). In summary, high teacher self-efficacy can be considered a key component of progressive classroom environments for students with ASD.

History of Autism Spectrum Disorder

Autism spectrum disorder (ASD) encompasses a set of neurocognitive conditions that highlight common characteristics, such as deficits in social relationships, language and communication, and repeated behaviors (Ousley, & nmCermak, 2014). The word *autism* came into use in 1912 through the work of a Swiss psychiatrist, Paul Eugen Bleuler (1911). The term is derived from the Greek word, *autos*, which means “self.” Bleuler’s term remained for many years until Kanner (1971), an Austrian American physician, published a seminal article in 1943. Kanner (1971) described three girls and eight boys who were between ages 2 and 8 whom he believed to have ASD, and stated that they demonstrated repetitive behaviors, persistent interests, and language difficulties such as echolalia and muteness. In a more recent study, students with ASD demonstrated characteristics similar to those reported in Kanner’s study, such as repetitive behaviors and difficulty with language (Volkmar & McPartland, 2014). Children displayed behaviors with similar characteristics that led Kanner to the constitution of a new disorder, early infantile autism (Blake, Hoyme, & Crotwell, 2013, p. 59). Many children displayed the same characteristics, and the term *early infantile autism* has since been established and accepted (Kanner, 1971). Students with early infantile autism demonstrate obsession with objects and resistance to unexpected change (Baron-Cohen, 2015), and they fail to develop social relationships.

Independently of the new disorder early infantile autism, autistic psychopathy of childhood also came into existence. Four boys, ages 6 to 11, with autistic psychopathy of

childhood participated in a study by Asperger (1944; Samson, Huber, & Ruch, 2013). In the study, the boys displayed similar traits, such as language difficulty and repetitive behaviors, as the students in Kanner's (1943) study. Students with autistic psychopathy of childhood have difficulty comprehending the views of others, and as a result they may react in an uncaring way to real-life situations (Rutter, 2012). As an aftereffect of Asperger's (1944) research, consideration was attracted to the field of autism. Some of the characteristics of ASD that children displayed in both Kanner's and Asperger's study, such as issues with fundamental socialization and communication and exceptional distractions or dull practices, are still displayed today by students with ASD.

The work of Asperger (1944) and Kanner (1951) sparked the interest of Wing (1981), whose daughter displayed characteristics that were similar to Asperger syndrome. Wing (1997), influenced by Asperger's work, she began to conduct research about autism. She conducted numerous studies on the historical background of autism and is responsible for the term *autism spectrum disorder* (Wing, 1997). In 1981, 34 participants with Asperger syndrome were involved in Wing's (1981) study. She vividly described experiences with the participants, highlighting that speech and language are usually delayed for students with ASD (Wing, 1981). Although children with Asperger syndrome possess high intelligence, they lack sound practical judgment (Wing, 1981.) The classification of autism, its diagnosis, treatment, and the care that may be necessary for people with ASD continued to be explored by Wing (1981). Wing renamed what Kanner (1971) called *early infantile autism* (Blake et al., 2013) because she did not think that Kanner's definition would apply to most people with ASD because diagnosis occurs into adulthood. Wing (1981) initiated the term *Asperger syndrome* and conducted numerous

research studies that contributed to her newfound term that would be applicable to more individuals with ASD. Twenty-one years later, the American Psychological Association (APA, 2011) formerly identified Asperger syndrome as a clinical disorder.

Defining Autism Spectrum Disorder

There has been an increase in the number of children born with autism in the United States. The evaluated pervasiveness of ASD, taking into account 2014 information was 2.24%, a huge increment from the assessed annualized commonness of 1.25% in light of 2011-2013 information (Zablotsky, Black, Meanner, Schieve, & Blumberg, 2015). Currently, autism spectrum disorder is defined as a developmental disability that is lifelong. Another definition of ASD is a group of advanced developmental brain dysfunctions (Blumberg et al., 2013). Students with ASD are classified as having mild to severe impairment in communication, social interaction, stereotypical behavior patterns, and cognitive deficits. ASD is composed of a group of related disorders that vary in severity of symptoms and characterizations (Venuti et al., 2012). Individuals identified with ASD may also demonstrate atypical responses to sensory encounters, such as certain sounds, the way an object feels, and the taste of certain foods (Grzadzinski, Huerta, & Lord, 2013). Most individuals with ASD may likewise show challenging behaviors that might be difficult to address.

The criteria for ASD highlight three categories: impairment of social interaction, impairment of communication, and impairment in social imagination (Wing, 1981). Although these characteristics existed many years ago, those same features of ASD that were pointed out by Kanner (1971) and Wing (1981) still exist today. In the American Psychiatric Association's Manual of Psychiatric Diseases, 5th edition (DSM-V)

(Grzadzinski et al., 2013) these characteristics are also displayed as features of ASD (Blake et al., 2013;). The three characteristics of ASD described by Wing Gould, and Gillberg (2011) are as follows:

1. Impairment of social interaction: This refers to the marked reduction of nonverbal signs of interest in and pleasure from being with another person—making eye contact, initiating and responding to smiling, initiating and responding to affectionate physical contact such as hugging, kissing, greeting and waving good-bye.
2. Impairment of social communication: This refers to the decreased ability to “converse” nonverbally and verbally with another person, sharing ideas and interests or to negotiate in a positive friendly way. The earliest manifestation of social communication in typically developing children is joint referencing to share an interest, seen in the last part of the first year. People in the autism spectrum also often have problems understanding what is said to them, tending to interpret things literally.
3. Impairment of social imagination: This is the decreased capacity to think about and predict the consequences of one’s own actions for oneself and for other people. In typical development it does not develop until after 3 years of age. Impairment of this ability is perhaps the most important and disabling of all the consequences of having an autism spectrum condition of any kind. We believe that it should not have been ignored by the designers of the DSM-IV or the DSM-V (and ICD-10). The DSM instead introduced repetitive behavior

patterns, not the impaired social imagination, as the last leg of the triad. (pp. 768-769)

Under the category of ASD are autism, Rett's syndrome, Pervasive developmental disorder (PDD), and Asperger's syndrome (Pennington, Cullinan, & Southern, 2014). When a child is identified with ASD, "the highest minimum symptom set (i.e. at least six characteristics in total across all three areas with at least two from the social interaction area, one from communication area" (Gibbs, Aldridge, Chandler, Witzlsperger & Smith, 2012, p. 1750) must be present. The final marker of characteristics should also appear by age three. There is no medical test for ASD identification. According to the CDC (2014), when students are identified with ASD, evaluations including interviews with parents and/or caregivers, clinical observations, speech and language assessments, information on developmental histories, and psychological testing are required. Once characteristics of ASD have been noted, then identification can take place.

Autism. Autism is defined as a pervasive developmental condition where students struggle to communicate socially and through motor skills (Venuti et al., 2012). Children with autism often exhibit fits of rage, and even assault their classmates (Stigler, Mullett, Erickson, Posey, & McDougle, 2012). They lack social awareness, and display an interest in perpetuating atypical behaviors (Stigler et al., 2012). Children with autism also seem to live in their own world, and they demonstrate minimal interest in other students.

Rett's syndrome. Rett's syndrome (RTT), a sub-category of ASD, is a neurodevelopmental disorder predominantly in girls. The main genetic cause of RTT is changes in the X- connected methyl-CpG- tying protein 2 quality (MECP2) situated at Xq28 (Valenti, de Bari, De Filippis, Henrion-Caude, & Vacca, 2014, p. 208). Symptoms

for RTT appear around 6-18 months of age. Students identified with RTT display low muscle tone, they demonstrate weakness in their effort to suck, their crying is frail, and odd physical motions (Valentini et al., 2014). Along with the development of autism, students with RTT display deficits in cognitive, communication, and motor skills. Students diagnosed with RTT also display stereotypical hand movements, poor socialization skills, and they tend to lose eye contact, which are all features of ASD.

Pervasive developmental disorder—Not otherwise specified. Another sub-category of ASD is Pervasive developmental disorder (PDD - NOS). When children are identified with PDD - NOS, they lack conversational language for social purposes, they demonstrate weakness in acquiring and using words, and they display uncommon patterns of behavior (Chakrabarti & Fombonne, 2014). In addition, there must be evidence of severe impairment in social interaction along with impairment in communication, or impairment in social imagination (Gibbs et al., 2012). With ASD, impairment in communication, language, and imagination are evident and therefore, research is necessary on the identification of strategies or interventions that can be used to address these deficits in students with ASD (Kasari et al., 2013). PDD - NOS is a lifelong disability and children with PDD shift broadly in their qualities and difficulties, and therefore, building skills and abilities are required for the preparation of future living.

Asperger syndrome. Another sub-category of ASD is Asperger syndrome (AS). Students with AS display huge impedance in social exchange joined by limited, repetitive, and stereotyped practices or hobbies (Sciutto, Richwine, Mentrikoski, & Niedzwiecki, 2012). Students with AS possess a normal or elevated intelligence quotient (IQ), a broad collection of stored words and phrases, and great syntax, however when

they engage socially, it is usually in unsocial ways, e.g. have a conversation only about what interests them (Roine, et al., 2013). For students to be identified with AS, evidence of language or cognitive development must not exist (Sciutto et al., 2012) and impairment of at least two characteristics from social interaction, and impairment from at least one characteristic from social communication must exist (Gibbs et al., 2012). Students with AS have difficulty with abstract concepts, however, they have good rote memory skills. AS is a less severe form of ASD, and although students with AS may exhibit less of the characteristics of students with ASD, they may still experience difficulty in social situations as well as in personal relationships.

In 2013, the American Psychiatric Association's board of trustees approved and published changes to the diagnostic criteria for ASD (Lord & Bishop, 2015) that provided a guideline for the identification of ASD (Ohan, Ellefson, & Corrigan, 2015). Prior to the publication of the DSM-5, Autism, AS (also known as Asperger disorder), and PDD existed as sub-categories of ASD in the DSM-IV (Ohan et al., 2015). Except for Rett's syndrome, the DSM-5 joined the DSM-IV-TR PDD replacing the different subgroups and the umbrella term, autism spectrum disorder (Ohan et al., 2015). For students who are identified with autism and PDD, they will receive an identification of ASD. In the DSM-5 that was released in 2013, ASD sub-groups have now been eliminated (Kim et al., 2014), and the revisions are as follows:

These changes include: (1) Elimination of PDD and the five subtypes found in DSMIV; (2) Creation of a new, diagnostic category of ASD that is adapted to the individual's clinical presentation by inclusion of clinical specifiers and associated features; (3) Changing from the DSMIV PDD three domain criteria that included

social reciprocity, communication and restricted and repetitive behaviors (RRB) to two DSM5 ASD domain criteria composed of social communication/interaction and RRB; (4) For DSM5, inclusion of sensory symptoms in the RRB component of diagnostic criteria; and, (5) For DSM5, changing the specification of the age of onset from age three to early childhood. Additionally, DSM 5 adds a new diagnostic category, Social communication Disorder (SCD). SCD appears to include individuals who primarily have problems with the pragmatic aspects of social communication. According to DSM5, individuals with SCD have difficulties similar to ASD but these problems are solely restricted to the realm of social communication and do not include the DSM5 RRB criteria found in ASD. (p. 500)

The changes set forth by the DSM-5 will have an effect on many students with ASD, clinicians, special educators, parents of students with ASD, and other special education stakeholders. Concerns exist that the new changes in the definition proposed by the DSM-5 will limit the number of persons who are identified with ASD (Matson, Kozlowski, Hattier, Horovitz, & Sipes, 2012.) There is also a concern that students may be denied services (Matson et al., 2012b), and due to the new DSM-5 criteria for identification, there has been a 55% decline in the amount of persons meeting the criteria for ASD (McPartland, Reichow, & Volkmar, 2012). Therefore, it is vital to become acquainted with the new ASD changes in the DSM-5, and remain up-to-date with these changes as well.

Defining Daily Living Skills

Students with ASD may experience difficulty performing DLS at an early stage of their lives (Baghdadi et al., 2012), and may continue to need assistance with DLS in their natural environment. DLS are usually split into fundamental and auxiliary skills and they differ in intricacy (Martyr & Clare, 2012). Basic DLS are considered personal skills such as bathing oneself, dressing and undressing, feeding, and toileting (Martyr & Clare, 2012). DLS are necessary because they assist in shaping students' lives and fostering a sense of responsibility (Ashwood et al., 2015). Without DLS, students with ASD are at-risk of not being fully successful in a school setting (Reeves, Umbreit, Ferro, & Liaupsin, 2013). Not only are DLS necessary in a school setting, they are also vital for successful functioning outside of school (Pugliese et al., 2015). Students with ASD need DLS in order to independently function in the outside world.

Assessing Daily Living Skills

In order to address deficits of DLS among students with ASD, teachers must first assess students to identify the specific DLS that the students find challenging. The assessments used as well as the results obtained are included in the student's IEP. Assessing adaptive skills such as DLS for students with ASD is important, and this can be done using the Vineland Adaptive Behavior Scales (Vineland II) (Sparrow, Balla, Cicchetti, Harrison, & Doll, 1984). The Vineland II is a revised version of the original Vineland Adaptive Scales (VABS) from 1984 (Ventola et al., 2014). The modifications and increments were incorporated to better quantify versatile abilities for students with ASD (Manohari et al., 2013) whose ages range from preschool to 18 years old. The Vineland II (VABS II) is a survey used to identify difficulties that children with ASD

show in non-scholastic aptitudes that are required for ordinary living (Sparrow et al., 1984). The DLS domain measures personal, domestic, and community behavior. In measuring DLS, the VABS-II is one of the apparatuses used to catch the DLS qualities and shortcomings of students with ASD (Lopata et al., 2013), and it has been appeared to have great unwavering quality and legitimacy and have been utilized widely with diverse class of students with ASD (Kramer, Liljenquist, & Coster, 2015). Special education teachers depend upon assessment tools that accurately measure DLS, and the VABS-II has shown to be effective in assessing DLS (Manohari, Raman, & Ashok, 2013). The VABS-II is appropriate for assessing DLS because it concentrates on the ability level students with ASD demonstrate in their natural environment, measuring aspects of reasonable, down to earth, and social abilities.

Teaching Daily Living Skills to Students With Autism Spectrum Disorder

Evidence-based practices for teaching functional skills, such as DLS for students with severe disabilities have been explored (Bal, Kim, Cheong, & Lord 2015; Johnson, Blood, Freeman, & Simmons, 2013; Ayres, Mechling, & Sansosti, 2013; Cannella-Malone, Brooks, & Tullis, 2013). There has been a shift from only teaching students with severe disabilities functional skills to teaching both functional skills along with academic instruction (Karl, Collins, Hager, & Ault, 2013). Although not mandated, “researchers and teachers work to incorporate both core content and functional skill instruction in schools” (Karl et al., 2013, p. 364). One of the main jobs of special educators is to equip students with severe disabilities such as students identified with low-functioning ASD the necessary skills so that they can function independently post high school (Carter, Harvey, Taylor, & Gotham, 2013). More research is required on how to teach DLS to students

with ASD so that they are successful at the transition stage (Karl et al., 2013). Different approaches for teaching DLS to students with ASD were evaluated (a, Hattier, & Belva, 2012). Computer-based interventions have proven successful in teaching DLS to students with ASD (Ramdoss, Machalicek, Rispoli, Mulloy, Lang, & O'Reilly, 2012). Numerous procedures have also been used to teach adaptive skills, such as self-care and domestic skills, which include: task analysis (Palmen, Didden, & Lang, 2012), video prompting (Cannella-Malone, Wheaton, Wu, Tullis, & Park, 2012), video modeling (Cardon, 2012), positive reinforcement (Carbone, O'Brien, Sweeney-Kerwin, & Albert, 2013), verbal, gestural, physical prompting (Neely, Rispoli, Camargo, Davis, & Boles, 2013), error correcting (Leaf, Leaf, Taubman, McEachin, & Delmolino, 2014), picture prompting (Kelley, Test, & Cooke, 2013), in vivo instruction (Wilson, 2013a), and applied behavior analysis (ABA) (Flynn, & Healy, 2012). Although many procedures exist for addressing adaptive skills such as DLS, it is suggested that each procedure is used with fidelity in order to identify what works.

Not only are DLS necessary in elementary school for students with ASD, they are needed throughout their lives. Teaching DLS to students with ASD is vital because these skills allow them to take part in services at other instructive levels and grooms them for an environment outside of school (Curry & Jones, 2014). Based on special educators perceptions, they lack the confidence to teach DLS to students with ASD (Curry & Jones, 2014). Visually based information also enhances memory (Wong et al., 2015), and coupled with the way instruction is delivered, teachers' perceptions determine student success (Curry & Jones, 2014). It is therefore vital that special education teachers are competent when delivering these services to students with ASD.

One of the techniques used to teach DLS to students with ASD is applied behavior analysis (ABA). It is based on learning and motivation, is typically used for students with ASD, and can be performed in multiple settings, even outside the classroom (Tonge, Brereton, Kiomall, Mackinnon, & Rinehart, 2014). ABA is a systematic approach to teaching behaviors that will allow social interaction and ultimately result in changed behavior (Smith, & Eikeseth, 2011). ABA methods and procedures reflect operant conditioning and are deemed effective in addressing functional skills such as DLS (Matson, Tureck, Turygin, Beighley, & Rieske, 2012c). When DLS are addressed using ABA, students are trained for hours in order to enhance skill acquisition (Matson et al., 2012c). Students are able to function more independently when they are taught DLS using ABA procedures (Matson et al., 2012c). It is necessary that teachers pair the instructional strategies used to teach DLS with positive teacher perceptions because it promotes student success (Allen & Bowles, 2014). Factors such as teacher training, experience, teacher support, and available resources contribute to positive teacher attitudes towards instructing students with ASD.

Another technique used to teach DLS to students with ASD is task analysis. Task analysis was embedded into a social story to teach menstrual care to three girls with ASD (Klett & Turan, 2012). A year later, the girls retained the skill, were more experienced, and were capable of independently caring their menstruation (Klett & Turan, 2012). Task analysis is characterized as the breaking down of a specific assignment, bearing in mind the end goal to accomplish a required objective (Moreira & Peixoto, 2014). Students with ASD can learn a wide variety of DLS using task analysis (Ferraioli, & Harris, 2013) and

this can ultimately help them with learning a specific skill that might be difficult when taught all at one time.

Professional Development

Teachers play a vital role in students' success. For students with ASD who demonstrate difficulty performing DLS, instruction is needed in order for them to acquire these skills to independently function in school. DLS are life skills that are needed for students to also lead a productive life (Ayres, Mechling, & Sansosti, 2013). For special education teachers to teach DLS to students with ASD, preparation is required and effective professional development can result in teacher learning and changes in attitudes and beliefs" (Whitworth & Chiu, 2015) that can increase DLS practices. Wilson (2013c) defines professional development as mentoring, content-specific training school-based or school-wide training opportunities, course work, or training that aims to improve the learning and practices of teachers as well as students' learning. Special education teachers sometimes struggle to teach diverse population and they believe that professional development can contribute to them becoming more effective at how they deliver instruction to their students (Luft & Hewson, 2014).

Special education teachers should have access to professional development opportunities in order to increase pedagogical growth. Professional development activities incorporate numerous strategies to enhance teacher practice and increase student learning, such as assessing and reviewing student work, practice teaching, content-specific planning, observing others, receiving coaching, etc. (Heller, Daehler, Wong, Shinohara, & Miratrix, 2012). Professional development opportunities should aim to help special education teachers plan to put into effect changes for their students (Luft

et al., 2011). Professional development opportunities such as mentoring and coaching can assist special education teachers with the implementation of the skills that they have learned as well as adjust their existing practices (Grierson & Woloshyn, 2013; Luft et al., 2011).

Guskey (2002) identified two goals of professional development opportunities and claimed that one is to increase student achievement, and the other is to change the perspectives of teachers regarding their ability to teach their students. When special education teachers participate in professional development opportunities in order to increase student achievement, the information and/or practice they receive is used to identify ways they can make changes to how they approach teaching and learning for their students. Special education teachers then adjust their instruction to accommodate the needs of their students (Luft & Hewson, 2014). According to Wallace (2009), the effect of professional development on student achievement is significant, and may narrow the achievement gap when implemented effectively in the classroom. Lee, Deaktor, Enders, and Lambert (2008) conducted a longitudinal study highlighting the influence of professional development on science improvement for diverse students and pointed that the results indicated significant increases in student achievement. Professional development opportunities should be ongoing and once special education teachers attend, they should consistently apply what they learned with their students.

Special education teachers' beliefs can also be positively affected as a result of professional development opportunities. According to Whitworth and Chiu (2015), when professional development is effective, positive change in teacher beliefs is promoted and students receive high quality instruction. Effective professional development helps

special education teachers to become lifelong learners because they are able to transfer what they learn in their professional practice. “Teachers may have a variety of motivations for attending professional development including: salary increase, licensure reaccreditation, career mobility, and gaining new skills or knowledge” (Whitworth & Chiu, 2015, p. 126). When special education teachers are highly motivated to attend professional development opportunities and actively participate, they are more susceptible to change their beliefs and this change can result in increased self-efficacy in terms of executing instruction (Lakshmanan, Heath, Perlmutter, & Elder, 2011).

Instructional Strategies Used to Teach Daily Living Skills

Quality of life is important for all students. One of the goals of special education is to improve quality of life (Gardner & Wolfe, 2015) and increase the independence and skills of students with developmental disabilities. Teachers continue to struggle with appropriate instructional strategies or interventions to teach students with ASD DLS. Teachers who implement best practices for teaching DLS to students with ASD should implement strategies that are function-based (Reeves et al., 2013). For students with severe disabilities, such as ASD, teaching functional skills such as DLS have been the focus for teachers (Spooner & Browder, 2014). Acquiring DLS are necessary for students with ASD to independently function in society.

The instructional strategies used for teaching DLS to students with ASD may require that teachers engage in more repetition, using various modalities (especially visuals) as a way of enhancing student retention. In order for students with ASD have improved quality of life, they must first be able to achieve independence in DLS. This ensures they have the opportunity to function in other environments that are outside of

school such as the work force. Full participation in other environments besides the home and/or school, requires adequate and efficient instructional methods to teach and sustain DLS for students with ASD. In order to help students with ASD develop DLS, researchers (Burton, Anderson, Prater, & Dyches, 2013; Shrestha, Anderson, & Moore, 2013) have identified different strategies used to teach them. Rather than attempting to identify one particular strategy that is affective in teaching DLS to students with ASD, teachers should direct their attention to all the strategies that provide an effective guideline for these students. Understanding the growth of (Green & Carter, 2014) DLS in students with ASD may also help to identify and employ interventions, created to improve student functioning.

In-vivo instruction. In-vivo instruction has shown to be an effective strategy for teaching DLS to students with ASD (Day, 2015). In-vivo instruction uses normal incentives in a normal setting (Ninci et al., 2015). For example, if the DLS were to wash dishes, then students with ASD would be taught this skill in the criterion environment, the kitchen. The teacher would first perform the DLS while the student observes. After the teacher demonstrates the DLS, the student is then guided by the teacher to imitate the DLS observed. Afterwards, the student is allowed to practice the skills taught for a period of time in the context of the community location where the skills are helpful. When taught DLS via in-vivo, students with ASD are more likely to independently use the skills taught (Wilson, 2013b) and transfer these skills to other environments without assistance.

Computer-based instruction. Computer-based instruction (CBI) was noted to be an effective strategy for teaching DLS to students with ASD (Hong et al., 2015). CBI is the use of a computer or computer-based programs to deliver instruction on specific DLS

to students with ASD (Ramdoss et al., 2012a). Using CBI to teach DLS is interactive, and students are able to use external hardware devices such as touch screens, keyboards, scanners or switches, which allow for easier access for some students. The integration of technology along with the importance of the teacher's knowledge on how to effectively utilize technology in the classroom for learners with moderate/severe intellectual disability and/or autism spectrum disorder is very important (Ayres, Mechling, & Sansosti, 2013). The use of handheld devices such as an iPod with video-prompting procedure, a personal digital assistant (PDA) with video and photographic prompts, and a portable DVD with prompt procedure were some of the technological tools paired with instructional techniques used to successfully instruct DLS (Ganz, Boles, Goodwin, & Flores, 2014). Handheld computer devices are also beneficial in teaching students with ASD different skills, and they are socially acceptable when used by students with ASD (Thomeer et al., 2015). Handheld computer devices seem to decrease the need for external prompts and they help to foster the independence of students with ASD (Alzrayer, Banda, & Koul, 2014). Using CBI to teach DLS tends to capture the interest of students with ASD and it allows them to enhance newly taught skills (Bimbrahw, Boger, & Mihailidis, 2012). Teachers anchor instruction and use logical situations that are as comparable as possible to the setting in which the objective DLS would be utilized.

Video-based instruction. Another strategy for teaching DLS to students with ASD is video-based instruction. There are two forms of video-based instruction: video prompting (VP) and video modeling (VM; Gardner & Wolf, 2015). When VM is used with individuals, it is extremely effective for teaching DLS to students with ASD (Mason, Ganz, Parker, Burke, & Camargo, 2012). VM can be presented in three different

ways (Mason et al., 2012); VM with another person who serves as a model, and video self-modeling, and point-of-view modeling (Shrestha et al., 2013). When VM is used, students with ASD working on a particular DLS observe a video of an adult or peer performing the targeted (Cardon, 2012) skill in a natural environment. When video self-modeling is used to teach a student with ASD, the teacher records the student performing the targeted DLS. Teaching DLS with point-of-view modeling requires someone replicate their own ideas at hand-level with no facial recordings (Mason et al., 2012). Students with ASD with ASD are then provided the opportunity to practice the DLS observed in the video.

Video prompting. Video prompting (VP) has also been successful in the teaching of DLS to students with ASD. VP was used to teach price comparison with three students and the findings indicated that VP was effective in teaching this skill (Weng, & Bouck, 2014). When VP is used to teach DLS to students with ASD, they observe video clips of the specific DLS task to be mastered, and the task is broken down into clear short steps. The subjects observe the first step, and then they are prompted to perform that step. The subjects also receive feedback (Gardner & Wolfe, 2015) before observing the next step and are given opportunities to practice that step. This process continues until the students complete the specific DLS. VP yields successful results when teaching a variety of DLS to students with ASD (Cannella-Malone, Brooks, & Tullis, 2013). VP is an effective instructional method that teachers can use to enhance DLS for students with developmental disabilities, such as ASD (Gardner & Wolfe, 2015). To optimize teaching DLS using VP teachers should use portable devices such as the iPod Touch or the iPad.

Not only is VP effective in teaching DLS, it is also efficient in facilitating continuation of (Mechling, Ayres, Foster, & Bryant, 2013) the DLS skill taught. VPs were delivered to an iPod Touch to teach a DLS to two students and VP was found to be extremely effective in teaching the required DLS (Johnson, Blood, Freeman & Simmons, 2013). Special education teachers administered the intervention with no interruption in the students' normal instructional routines (Johnson et al., 2013). VP was a great way of teaching the specific DLS to students with ASD and it was viewed as feasible, productive, and purposeful (Johnson et al., 2013). VP is inexpensive, is not time consuming, and can be used to deliver DLS instruction to students with ASD, by carefully selecting and recording the required skill based on the student's individual needs.

Video modeling. Like VP, video modeling (VM) is also used to teach a number of DLS skills to students with ASD (Meister & Salls, 2015). VM normally uses a picture model (e.g., peer, grown-up) showing positive cases of the sought behavior (Wilson, 2013a). The task or skill is recorded on a television, a computer, an electronic tablet, a smart phone, or SmartBoard, etc., and the student learning the skill observes the entire video before practicing the skill or task. VM was used to assist in the performance of three different DLS activities (Walser, Ayers, & Foote, 2012). Even with distractors present, VM allowed for the performance of the targeted behaviors (Walser et al., 2012). Another reason for the success of VM when used with students with ASD is that it allows for instruction that does not require the presence of an adult.

Applied behavior analysis. Applied Behavior Analysis (ABA) is an intervention that is used to address the absence of adaptive skills such as DLS in students with ASD

(Matson et al., 2012c). ABA is an area of research that looks at the utilization of the standards, techniques, and methodology of scientific behavior (Pierce & Cheney, 2013). When using ABA, the teacher maintains focus on the targeted DLS, and directly measures and records the change that he/she observes (Flynn & Healy, 2012). When ABA methods are used to address deficits in students with ASD, students make progress (Leaf et al., 2015). If used with fidelity, ABA is considered an effective approach for teaching DLS to students with ASD (Ivy & Schreck, 2016) providing it is used with fidelity.

Picture prompting. Picture prompting is another method used to teach DLS to students with ASD. Picture prompting is described as a series of pictures that depict the different steps for completing a specific DLS (Carp, Peterson, Arkel, Petursdottir, & Ingvarsson, 2012). These pictures are used to deliver prompts to students with ASD throughout the instruction of DLS. Along with verbal prompts, picture prompting is also effective when utilized to acquire a specific task (Bimbrahw et al., 2012). When using picture prompting to teach students with ASD, one must exercise effort in making sure that the complete steps to the specific DLS are set up for the student in advance (Chang, Wang, Chen, & Ma, 2012). Once the student completes the steps in the activity, the teacher must then check off the steps that the student has acquired (Chang et al., 2012). This will signal to the students to proceed to the remaining steps. It also serves as confirmation of the steps that they have mastered and achieved.

Perceptions of Teachers

Research on special education elementary teachers' perceptions towards DLS instruction is somewhat limited, however, there is a focus on teachers' perceptions

toward the inclusion of students with ASD in the general education settings (Chung et al., 2015). Students with ASD who are enrolled in mainstream schools face many challenges, and teachers should be prepared to teach these students (Lindsay, Proulx, Scott, & Thomson, 2014). The perceptions of special education elementary teachers concerning their ability to teach DLS to students with ASD are significant (Lindsay et al., 2014), and if they are not prepared to teach DLS, then self-efficacy about appropriate strategies that could be used to facilitate DLS learning for students with ASD could be influenced (Lastrapes & Negishi, 2012). Their experiences about how these strategies are applied may shed light on the ones that are deemed more effective.

Special education elementary teachers should have basic knowledge to plan effectively and deliver DLS instruction to students with ASD. Instruction for students with ASD focuses on the basic skills needed to teach students with ASD to perform DLS independently (Lindsay et al., 2014). Although DLS are necessary for students with ASD to be included in the general population, it is still important for teachers to maintain a positive attitude, regardless of educational setting, for the successful education of students with ASD. For this reason, these educators must trust their own ability to teach DLS to students with ASD so they can perform these same skills in adulthood (Curry & Jones, 2014). When teachers possess high self-efficacy, they are more likely to modify instruction based on the needs of their students (Curry & Jones, 2014). Special education elementary teachers' perceptions are instrumental in the identification of appropriate instructional DLS practices that may bring about changes for students with ASD (Curry & Jones, 2014). Therefore it is important that special education elementary teachers

prepare students with ASD for adulthood by teaching them to DLS in order for them to perform these skills in any environment that they are in.

Summary and Conclusions

In this review of literature, a description of the history of ASD, the definition and description of DLS, and the characteristics of students with ASD were pointed out. The groundwork for understanding some of the difficulties faced by special education elementary teachers of students with ASD in providing appropriate, effective strategies for teaching DLS were identified. This task can be challenging for many special education elementary teachers, not only because of the deficits in students' experiences as a result of the characteristics of ASD, but as pointed out by the CDC (2014), because of the increase in prevalence of students with ASD in many schools in the United States of America which is estimated to be 1 in 68 children are identified with ASD.

Empirical support for the different strategies that have been used to teach DLS for students with ASD were discussed. Based on the review, peer-reviewed studies were published about a broad range of strategies to teach DLS, however, no one single strategy deemed superior for teaching DLS to students with ASD have been identified. A body of research regarding the specific strategies that have been proven to be effective for teaching DLS to students with ASD is available for special education teachers to view. Very few studies are available that explore the perceptions of special education elementary teachers in terms of their ability to teach DLS to students with ASD. The studies that were highlighted in the review focused on the perspectives of teachers toward the inclusion of students with ASD in the general population. A gap exists in the research literature, and therefore, there is a need for research on special education elementary

teachers' perspectives concerning their ability to teach DLS students with ASD and therefore it was appropriate to highlight special education teachers' views regarding the phenomenon. The perspectives of special education elementary teachers are also important in order to provide a richer understanding of how they view the adequacy of various educational strategies for teaching DLS to students with ASD, the obstacles they encounter implementing those strategies, and their prospectus on collaborating with stakeholders in order to address DLS needs.

Chapter 3: Research Method

Introduction

The purpose of this qualitative case study was to explore special education elementary teachers' perceptions of their ability to teach DLS to students with ASD. In this chapter, the research design and rationale are outlined for selecting a qualitative case study approach. My role as the researcher and the possible biases in the study are discussed. Details concerning the sampling strategy and recruitment criteria, data collection, and data analysis procedures are provided. The perceptions of special education elementary teachers regarding their ability to carry out DLS instruction for students with ASD are also analyzed. Strategies for addressing issues of trustworthiness and ethical procedures are pointed out, and a summary and transition to Chapter 4 are provided.

Research Design And Rationale

The reason for this subjective contextual analysis was to capture the points of view of special education elementary teachers concerning their ability to teach DLS to students with ASD. Qualitative researchers should articulate in their questioning exactly what they want to know about the expectations and points of view of the participants who are involved in a study. Research questions should focus on the *why* and *how* of a particular phenomenon or human interactions (Creswell, 2012). When researchers pose questions that are clearly expressed, the premise for a satisfactory study can be established (Khankeh, Ranjbar, Khorasani-Zavareh, Zargham-Boroujeni, & Johansson, 2015). The research questions that directed this study were as follows:

RQ1: To what extent do special education elementary teachers believe that they have the ability to provide DLS to students with ASD?

RQ2: What do special education elementary teachers perceive as barriers to DLS instruction for students with ASD?

In this study, I explored special education elementary teachers' perceptions of their ability to address DLS deficiencies in students with ASD. The qualitative case study design was determined by the research questions that guided this study and the phenomenon experienced by a group of individuals. Qualitative case study also helps researchers to investigate specific, in-depth information from a limited number of participants (Yin, 2014). Creswell (2014) pointed out that conducting a qualitative study helps researchers ask questions that lead to answers that may lead deeper into more questions. Therefore, it helps researchers gain a deeper understanding of topics at hand. By talking to participants more than once, a researcher can develop a sense of understanding.

Central Phenomenon of The Study

The central phenomenon of this study was special education elementary teachers' perceptions concerning their ability to teach DLS to students with ASD. Special education elementary teachers are faced with challenges in presenting DLS instruction for students with ASD in several public school districts (Ruteere, Mwoma, & Mutia, 2015; Wehman et al., 2013). DLS instruction is vital because it can help to prevent low-functioning students with ASD from experiencing limited DLS that are needed for them to succeed in future environments (Bennett & Dukes, 2014). Special education elementary teachers hold convictions that students with ASD can be taught regardless of

their deficits, and that they are capable of bringing out positive change in their students (Dimopoulou, 2012). Different instructional strategies or interventions have been used to address DLS deficits in students with ASD, but presently, few exist that are viewed as solid means of enhancing DLS in students with ASD (Drahota, Wood, Sze, & Van Dyke, 2011). It was therefore necessary to conduct this study to identify elementary special education teachers' perceptions of their ability to address DLS deficits demonstrated by students with ASD.

Research Tradition

The research tradition for this study was qualitative with a case study design. Qualitative research is used for the investigation of people and their situations in environments formed by nature (Taylor, DeVault, & Bogdan, 2015). Qualitative research is descriptive in nature; it uses an inductive method of reasoning, and the researcher is able to identify themes that may exist (Lewis, 2015). Qualitative research fit this study because it addressed how the participants deciphered their encounters, how they built their universes, and the definitions they gave to their encounters (Arthur, Waring, Coe, & Hedges, 2012). A case study "provided an opportunity for me to gain a deep holistic view of the research problem" (Baskarada, 2014), and facilitated the descriptions and explanations of the special education elementary teachers perceptions of their ability to teach DLS to students with ASD. A case study design was appropriate for this study because I sought to explore and reveal various aspects of the phenomenon within the context of special education elementary teachers' natural setting, which is consistent with the features of a case study (Yin, 2013). For this study, the phenomenon of interest was special education elementary teachers' perceptions regarding their ability to teach DLS to

students with ASD. The special education elementary teachers were asked to share their experiences about their ability to teach DLS instruction to students with ASD, discuss how their knowledge and experiences had played a role in their DLS instruction, describe the barriers they had faced to teaching DLS, and offer their ideas on the strategies they had used and found effective in addressing DLS for students with ASD.

Rationale

One of the strengths of qualitative design is that researchers are focused on explaining and interpreting the views of participants and identifying unknown themes among them (Lewis, 2015). Qualitative research is a form of naturalistic inquiry based upon the different views of individuals being studied and the ways in which they perceive and interpret their lived experiences (Merriam, 2015). Research designs such as ethnography, case study, phenomenology, and grounded theory are most widely used to conduct qualitative research (Cohen, Manion, & Morrison, 2013). A case study design was chosen for this study for several reasons. First, the study looked at the individual perspectives of special education elementary teachers regarding their ability to teach DLS to students with ASD. Second, in that special education elementary teachers' perceptions of DLS instruction for students with ASD were not clearly defined, a case study design provided an avenue for me to document and interpret special education elementary teachers' perspectives on the specific topic of interest (Lewis, 2015) and revealed numerous viewpoints on the phenomenon within the context of the participants' natural setting (Yin, 2013). Third, because a case study design is explanatory, exploring the perceptions of the participants yielded no single or clear-cut outcome, and it allowed for

the development of an understanding of the special education teachers' perceptions of the phenomenon being studied.

Other qualitative approaches for this study were considered. One of the qualitative approaches considered was grounded theory; however, it was deemed inappropriate for this study because when using this approach, a researcher must develop a theory to offer an explanation about the concerns of the participants (Wolfswinkel, Furtmueller, & Wilderom, 2013). One of the requirements of a grounded theory approach is that the researcher takes a philosophical standpoint and provide an explanation of the topic of interest based on emergent theory from data analysis (Lichtman, 2012). Data must also be collected for an extended period, in many stages, with constant analysis of the data collected to support the theory (Creswell, 2015). This approach was not considered for this study because of the exhaustive process involved.

Another qualitative approach that was considered was phenomenological design, which requires that a researcher rely only on in-depth interviews with participants. In comparison, when using a case study approach, a researcher uses various forms of data collection, such as interviews and observations (Walsh, 2012). Phenomenological research study attempts to answer the question of what a situation is like as an experience from the participants' perspectives (Chan, Fung, & Chien, 2013). Phenomenology is a philosophical approach that a researcher uses to view the lived experiences of people, whereas a case study allows a researcher to understand an individual, a group, or a specific topic of interest (Walsh, 2012) while obtaining data that are rich and of great depth.

An ethnographic approach was considered; however, it was not a good fit for this study because an ethnographic research design is used to comprehend the cultural characteristics of participants (Lichtman, 2012). Data collection and analysis for ethnographic research involve sociocultural information about a single social group, society, or phenomenon (Lichtman, 2012). Ethnographic research is used when a researcher wants to test a hypothesis, by observing and/or interacting with the research participants in their environment (Green, Camilli, & Elmore, 2012). The researcher immerses him- or herself inside the community being studied for a period of time in order to understand members' beliefs, behaviors, and attitudes (Green et al., 2012). The task of identifying the perspectives of special education elementary teachers concerning their ability to teach DLS to students with ASD was not viewed as having a cultural aspect; therefore, an ethnographic approach was not suited to this study.

Role of The Researcher

In this study, my role was that of an interviewer with the purpose of describing the perceptions of special education elementary teachers regarding their ability to teach DLS to students with ASD. In my current professional role, I am an elementary special education teacher in a self-contained special education classroom for students with ASD in a public school district. I have been in this role for the past 10 years. My role as an elementary special education teacher enables me to work closely with students identified with severe disabilities such as ASD, as well as parents, administrators, and other teachers who work within the special education setting and outside the school district.

I work in the same school district as the participants. The district is composed of over 50 schools; however, I am not employed in any of the school sites at which

participants were employed. I was the primary instrument for data collection; I collected data rather than using instruments such as questionnaires, surveys, or inventories (Unluer, 2012). Additionally, I took on the role of listener and an observer during individual interviews with participants, using an interview guide (see Appendix D). The study was introduced to the participants via email (see Appendix B). In undertaking each role within this study, I did not know any of the participants and did not have any personal or professional relationship with them that might have affected data collection.

In qualitative research, it is assumed that the researcher identifies his or her biases during data collection by imparting his or her opinions beforehand (Long, 2012). In this study, however, my role was to remain neutral in producing evidence-based data. As an elementary special education teacher of students with ASD, I am a proponent of DLS instruction because these skills are needed for everyday functioning. I did not share my personal opinions with participants, and the information about the topic that I discussed had prior approval from the Institutional Review Board (IRB) of Walden University (see Appendix G) as well as the participating institution (see Appendix H). It was necessary for me to acknowledge that biases can jeopardize the results of a study and that researchers must minimize the effects of researcher bias (Chalmers et al., 2014). An approach to minimizing researcher bias in data collection, analysis, and interpretation process is the practice of *epoche*, also referred to as *bracketing* (Tufford & Newman, 2012). In qualitative research, bracketing is used to prevent any detrimental consequences associated with a study (Tufford & Newman, 2012). One of the ways that a researcher can accomplish bracketing is by writing memos during data collection and analysis

processes (Tufford & Newman, 2012). For this study, memos took the form of notes that allowed me to explore the perceptions of the participants.

My role also involved complying with ethical research protocols highlighted by Walden University's IRB. Researchers should identify the risks and benefits of a study for participants (Gubrium, 2012). Other ethical concerns such as respecting the rights and welfare of participants must be a priority for a researcher. Prior to conducting the study, I received approval from Walden University's ethical committee. Informed consent was provided to participants that highlighted the aim, the research method, and the institutional affiliation of the study (Erickson, 2012). Participants were not coerced into taking part in the study and were informed that participation was voluntary and that they would not be reimbursed. As trust developed between the participants and myself, personal information, such as the participants' names, places of employment, current professional roles, professional email addresses, and professional licensure were shared, and I informed participants that confidentiality would not be breached. I informed the participants that they would not receive gifts or monetary compensation during or after the study.

Methodology

There are a number of techniques that are accepted in qualitative measurement. In truth, the techniques are generally restricted by the creative ability of the researcher. The qualitative research method is applicable when the aim of the study is to acquire in-depth understanding of a particular issue (Creswell, 2012). As the researcher, I was able to focus closely on the analysis of accounts obtained from a small number of participants through the use of the qualitative research method in order to explore the perceptions of

special education elementary teachers about DLS instruction for students with ASD. A description of the methods used to investigate this phenomenon is provided.

Participant Selection Logic

Qualitative research sampling varies and there is no right way to identify a specific sample size for a qualitative study (Maxwell, 2013). As the researcher, I considered the research questions, the research approach taken, and the methodology of design when determining the research sample size (Maxwell, 2013). In alignment with qualitative research design, purposeful sampling was used to select participants for this study, and I recruited teachers who agreed to furnish their beliefs about DLS instruction for students with ASD in order to obtain a deep understanding of the problem being studied (Creswell, 2012). In this study, the group of people that shared a common interest was 10 special education elementary teachers who taught students with ASD who demonstrate difficulty performing DLS. The rationale for only selecting 10 special education elementary teachers was that I wanted to ensure that data were obtained from an array of special education elementary teachers. According to Yin (2015), generalization to a larger population is not the intent of qualitative research, and therefore a small sample size is feasible.

Initially, the IRB office of the public school district was contacted via email for permission to conduct research. In order to complete the application process for the school district's IRB, documented approval from Walden's University's IRB (see Appendix G) was necessary. Once this was provided, approval was granted by the participating school district's IRB (see Appendix H). I contacted the principals via email and requested permission (see Appendix A) to conduct research using the special

education elementary teachers who matched the study's criteria. Once the principals' approvals were received, a letter of invitation (see Appendix B) was placed in the mailboxes of all special education elementary teachers at all participating schools. To allow for diversity within the study, participants were selected from different elementary schools within the district. A teacher must have a minimum of three years of experience to be considered an experienced teacher within the New York City Department of Education; this was used as a criterion for selecting participants. Additional criteria specified that all participants needed to currently teach DLS to elementary special education students identified with autism and needed to hold an initial, professional, or permanent teaching license from the State of New York. In order to ensure that the additional criteria were met, each principal of the participating schools verified the grade level and the disability of the class population that the participants taught. Participants also showed me a copy of their New York State Teaching License. The participants' years of teaching experience were also verified by the principals of the participating schools. There are over 150 special education elementary teachers who teach students with ASD within the district; requesting the participation of all of these teachers would have been overwhelming and time consuming where data collection and analysis were concerned.

I contacted the participants once again and informed them about the nature of the study and then arranged individual interview dates and times. Participants and were emailed the Informed Consent and the Certificate of Confidentiality (see Appendix C) document. They were asked to complete and email or fax the documents back to me prior to the interview. Special education elementary teachers who were not chosen to

participate in the study were also contacted via email and thanked for their desire to be a part of the study.

Instrumentation

All data collection instruments within the study were researcher produced and included interview questions (see Appendix D). Some of the example questions asked were: What are some of the duties of a special education teacher in addressing DLS deficits in students with ASD? Please describe the knowledge you obtained from your education, training, and/or work experience that support DLS instruction for students with ASD? How often do you attend professional development opportunities for the population you work with and do any of these provide instructional strategies focus on DLS? If so, to what extent?

One of the advantages of a case study is the use of one or more instrument as data collection tools. Yin (2014) stated that qualitative researchers use one or more of six sources of evidence, such as direct observations, documentation, physical artifacts, archival records, interviews, emailed responses, and participant-observation. For purposes of this study, evidence was collected through individual interviews to questions from the interview guide. The individual interviews were used to provide an in-depth look at the phenomenon being studied as well as to understand participants' point of views of their ability to teach DLS to students with ASD. Individual interviews lasted approximately 30 to 45 minutes. Each participant was interviewed once at a time and/or place most convenient for the participant. Face—to—face individual interviews were conducted with some of the participants and phone interviews for other participants who were unable to meet with me. An interview guide (see Appendix D) containing interview

questions was used for each interview session to construct open—ended questions. Open—ended questions were used so that participants would be able to provide full descriptions of their views about their ability to teach DLS to students with ASD that would establish sufficiency of the data collection instrument to answer the research questions. The predetermined questions focused on DLS instruction and elementary teachers' perceptions of their ability to deliver DLS instruction. By collecting in—depth information during interviews, statements were listed as a way of pinpointing the basis of the problem (Johnson & Christiansen, 2012). Participants were reminded that face—to—face individual interviews would be audio recorded. At the end of the interview, each participant was encouraged to send me an email should he or she want to share additional information.

In establishing validity of a research instrument, the researcher must be free from doubt that data-gathering instrument measured what it was presumed to measure. Content validity of the measuring instrument was instituted by pinpointing the general content to be spoken to (Leung, 2015). For this study, the identification of a group of special education elementary teachers is necessary to investigate the phenomenon being studied. Prior to interviewing the participants, conducting a thorough investigation of participants' expertise was a way of establishing content validity (Shultz, Whitney, & Zickar, 2013). Information about the participants' qualifications and their knowledge skills and ability in relation to the phenomenon being studied was obtained. In addition, the responses of participants were compared with the refereed literature.

Expert review was one of the main evaluation approaches taken to ensure that the research instrument was reviewed. Expert review of the research question included the

study's committee members, the study's university reviewer, and three professionals within the special education field who have had experiences working with students with ASD. The names and contact numbers of expert panel members used by the district were obtained from the office of the superintendent. The expert panel reviewed the interview questions being used to obtain data from the participants. An expert panel selection criteria (see Appendix G) was used to choose the members of the panel. Expert panel members were also chosen based upon their insights into the topic contained in the study. When researchers elicit an expert panel, these members, must be experts whose knowledge can bolster the educated judgment and prediction about the phenomenon being studied (Morgan, 2014). The panel members were emailed an Expert Panel Letter (see Appendix F), Chapter 1 of the study (in order to provide them with a general outline of the study), and a copy of the study's interview questions (see Appendix D). The feedback received from the expert panel members were reviewed, discussed with my advisor, and incorporated into the study.

Procedures For Recruitment, Participation, And Data Collection

Permission from Walden University's IRB was received in written form highlighting the approval number (is 08-23-16-0361400) (see Appendix G) and I proceeded to reach out to the NYC DOE for permission to conduct research in one of the school districts. The recruitment plan for this study included initial contact with the NYC DOE IRB. Researchers interested in conducting educational research within NYC DOE completed an online application and submitted it to the NYC DOE IRB submission site. The application with supporting documentation was submitted and permission was granted from the NYC DOE IRB (see Appendix H). I then sent an email to the principals

(see Appendix A) of all the elementary special education schools within the district that has elementary students with ASD enrolled. These schools were obtained from NYC DOE's website and confirmed with the district office. The principals of the participating schools were informed of my role, purpose, a description of the research topic, and the criteria for participation in the study. Permission was obtained from the principals of the participating schools and I visited each school's site and placed the Letter of Invitation (see Appendix B) in the mailboxes of the special education elementary teachers. The responses of potential participants were awaited. The participants responded via email and confirmed their qualifications and participation in the study. In the event that one or more of the participants had to withdraw from the study, plans were put in place to follow the same procedures in terms of participant recruitment. After receiving the initial email from the participants, I replied to each email and attached the Informed Consent and Certificate of Confidentiality (see Appendix C) documents and requested that these be reviewed, signed and emailed or faxed back to me. Once the documents were received from each participant, contact was made via email and set time and date feasible for the participant to conduct face—to—face interviews. For some of the participants, individual interviews were conducted in the conference rooms of their schools, and for others, individual phone interviews.

For this study, data collection included recorded individual interviews and the interviews lasted 30 to 45 minutes. For the participants who agreed to audio recording, the interview was audio-recorded using a Panasonic Micro-cassette Audio Recorder to capture participants' responses to interview questions in its entirety. I listened to each interview, wrote what the participant stated, and then typed it in Microsoft Word

document on my computer. A general interview guide (see Appendix D) was used in order to ensure consistency of questioning, to guarantee that the exact areas of data are gathered from every participant (Seidman, 2013). Researcher-participant interaction should be free from distractions (Seidman, 2013) in order to record clear views expressed by the participants. The interview consisted of open-ended and demographic questions. During the interview, notes were taken on a notepad and then entered the notes in Microsoft Word, a computer—based program. Following each interview, transcription of the Panasonic Micro—cassette audio recordings took place by listening to each participant, writing what each participant stated, entering the responses in Microsoft Word document file, and then transporting the file into the NVivo software program for analysis. The transcription of the Panasonic Micro-cassette audio recordings was labeled with a participant identification number to protect participants' privacy. In the event one or more participants withdrew from the study, recruitment of participants from the selected schools would take place, following the same participant selection procedure used prior. At the end of each interview, participants were debriefed by responding to questions or concerns pertaining to the study. Participants were thanked for participating in the study and advised that they would be contacted via email for member checking if necessary, and for dissemination of the study's results.

Data Analysis Plan

Qualitative researchers seek to gain an understanding of a phenomenon through participants' detailed descriptions. Once this information was obtained, careful management took place (Ritchie et al., 2013). Managing data means organization and interpretation of the findings (Huberman, & Saldaña, 2014). For purposes of data

collection, I obtained individual interviews and notes and then transcribed the data at a later date. To authenticate the data, participants were asked to review the transcriptions and provide feedback via email on the accuracy of the data in order to increase validity. Each participant read the write—up of the interview and agreed that the information written was the actual account of the individual interview. All identifying information of participants were redacted. The recordings and transcripts were stored on a Panasonic Micro—cassette Audio Recorder dedicated to this study with identifying information removed to protect each participant’s privacy. On completion of the study, the recordings and transcriptions of the interviews will be retained for the required 5 years and then destroyed, leaving only the analyzed data.

In this study, individual interviews were the main methods to obtain the various perspectives on the research questions related to the perceptions of special education teachers’ concerning their ability to teach DLS to students with ASD. Qualitative interviews allows for a deeper understanding of a social phenomenon as participants reflect and reason on a variety of topics in a different way (Folkestad, 2008). In interpreting the findings, the method of analysis chosen for this qualitative case study was thematic coding. Thematic coding is common qualitative approach used to analyze interviews. The conceptual framework of the thematic analysis for the individual interviews conducted was built upon Bandura’s (1986) SCT of self-efficacy. Thematic coding is a method used for identifying, analyzing, and reporting patterns (themes) within the data (Alhojailan, 2012). Coding is also described as the application of characteristics that appoint symbolic meaning to the detailed or presumed data information accumulated during the research (Miles et al., 2014). Thematic coding was chosen for this study

because I was able to check if consistency existed between the data collected and the research questions in order to provide sufficient information. After collecting data through individual interviews and notes taken during the individual interviews, data analysis began within one week of all data transcription. Qualitative data analysis is a continued course of action that involves managing data and understanding the evidence through anecdotic or illustrative records (Ritchie et al., 2013). Audio recordings and interview notes were transcribed verbatim into Microsoft Word document. Analysis of data was done by arranging and organizing the information received (Miles, Huberman, & Saldaña, 2014) in order to identify themes in the data.

In order to connect the data to specific research questions, transcription of the data collected was done by familiarization with the information I recorded, and notes that were taken during individual interviews were reviewed. The recordings were listened to several times in order to accurately translate and transcribed the information into a Microsoft Word Office document. Each of the interviews was translated verbatim and then I communicated with my chairperson by providing a copy of the translated interviews to obtain her advice before coding of the data began. The data were transported and transcribed into NVivo (Eker & Zimmermann, 2016) by first using the constructs of the conceptual framework, and then going back through, re-reading the data to do open coding for any emerging themes.

Coding the data was informed by the constructs from Bandura's (1986) SCT of self-efficacy, such as self-belief, teachers' perceptions, and teachers' ability. To develop the themes, I identified features of all participants' perceptions pertaining their ability or self-belief to teach DLS to students with ASD that were relevant to the research

questions, and the accounts of the participants that recurred several times within the data transcripts. The data were first coded by looking for the themes of the framework, and then open coding was done by reviewing the data several times in order to identify emerging themes. Throughout the data analysis process, continuous review of data entries related to the typologies were highlighted, denoting the areas in the information where proof pertaining to the typology was identified (Creswell, 2013). The term typology refers to certain commonalities participants shared, such as being elementary special education teachers and instructing DLS to students with ASD who demonstrate difficulty performing DLS skills. During the process of open coding, the transcripts were read line-by-line, topics to key words or phrases that were repeatedly used by the participants were assigned (Miles et al., 2014). This means that similar words and/phrases that are identified were grouped together. Coded data should identify themes in order for the researcher to interpret the participants' perceptions regarding DLS instruction for students with ASD.

The software NVivo 11 (Eker, & Zimmermann, 2016) was also used in analyzing and managing data. NVivo 11 is a qualitative software tool used to help the researcher in undertaking an investigation of qualitative information (Ishak, & Bakar, 2012). Using NVivo (QSR International, 2014) was beneficial to this study because it is cost effective in terms of managing and analyzing data. In using NVivo 11 (QSR International, 2014) software, nodes are created, and each node was named, described, data were coded, and themes were identified once more. These themes correlated with or were similar to the ones generated in the first round of coding. Data were reviewed repeatedly so that it could be condensed to themes that were more specific (Miles et al., 2014). This reduced

researcher bias and allowed for validity and credibility in data analysis (Noble, & Smith, 2015). If there were any variation to the themes, they were noted in the study. Based on the conceptual framework of the study, themes that emerged were also applied and interpretation of the problem was developed using the themes that were identified.

In the event that there was a case of discrepant data, I searched for and discussed the elements of the data that do not support explanations that emerged from data analysis (Maxwell, 2012) with my chairperson. The data were examined carefully for negative or discrepant cases in order to magnify the validity of the study if I recognized data that did not fit the analysis of the phenomenon being studied (Maxwell, 2012). Discrepant data were scrutinized rigorously as well as the supporting data to determine whether it is more feasible to retain or adjust the findings (Maxwell, 2012). Consultation took place with the participants in order to confirm the credibility of the data.

Issues of Trustworthiness

Qualitative researchers should incorporate measures to deal with issues of trustworthiness (Erlingsson, & Brysiewicz, 2013). Trustworthiness alludes to the certainty or credence a participant can have of a research and its results, and is controlled by the parties appraising the research (Petty et al., 2012). Trustworthiness was fostered by providing participants with examples from data collection and data analysis processes that illustrated the findings (Erlingsson, & Brysiewicz, 2013). Other criteria for establishing trustworthiness in qualitative research are credibility, transferability, dependability, and confirmability (Erlingsson, & Brysiewicz, 2013). Other ways that trustworthiness were fostered in this study were through the description of the methodological steps, and the request for participants to confirm the authenticity of

interview transcripts and analysis. This process is called member checking. Member checking is defined as the management procedure taken by the researcher to ameliorate the definitiveness, the plausibility, and the effectiveness of what has been registered throughout a study's interview (Harper & Cole, 2012). Participants reviewed the collected data in order to check for accuracy, as opposed to incongruity. Information obtained from the participants were restated and/ or summarized, and participants were asked questions for clarification. This allowed me to determine if the participants have agreed or disagreed with the data that reflect their perceptions and experiences.

Credibility

Qualitative researchers cannot control all the factors that affect the research phenomenon, so they seek to explore the phenomenon in its entirety. Interpreting the complexities of the study was challenging, and therefore, researchers use strategies to establish credibility, also known as internal validity (Petty, Thomas, & Stew, 2012). Credibility addresses how closely the research findings match the perspectives of the participants (Tong, Palmer, Craig, & Strippoli, 2014). For this study, the strategies used to enhance credibility were triangulation, reflexivity, and member checking. Triangulation entailed crosschecking and comparing the data from multiple perspectives to guarantee that the broadness and extent of important information are caught in its entirety (Tong et al., 2014). Reflexivity was used to acknowledge and address any biases to avoid unnecessary influence on the research findings (Tong et al., 2014). A journal was be used for bracketing to keep track of these possible preconceptions. I also used member checking to verify if the analysis accurately reflected the participants'

perspectives (Erlingsson & Brysiewicz, 2013), as well as it was used to set up the legitimacy of the information captured.

Transferability

Transferability, or external validity refers to the extent to which the research findings are applicable to other contexts or settings (Petty et al., 2012). For this study, transferability was facilitated through thick descriptions of participants' information the study's setting, and the research findings. In order for researchers to consider transferability of findings, they should properly examine and understand the information (Boffa, Moules, Mayan, & Cowie, 2013). Description of the findings are detailed in order for readers to estimate or judge the extent to which applicability to other settings can be done.

Dependability. Where dependability, or reliability is concerned, research findings are not replicable. Dependability alludes to the clearness and examination of the study's procedure and guarantees that the researcher's determinations are straightforward (Tong et al., 2014). For this study, an audit trail was used to keep track of the procedures and methods used. The review catches the inescapable change and variety in the researcher's point of view to give trackable variance (Petty et al., 2012). To increase dependability, a computer—assisted data analysis software, NVivo 11 (QSR International, 2014) was used to manage coding decisions, as well as to confirm that coding was recorded and can be traced.

Confirmability

The results of any study must be verifiable and must reflect the perspectives of its participants. This is referred to as confirmability. Confirmability is defined as the degree

to which the results mirror the center of the study and not the predisposition of the researcher (Petty et al., 2012). To minimize bias and increase confirmability, data presented in this study were checked by an investigator to confirm that coding and inquiry comprehensively reflected data furnished in the primary studies (Tong et al., 2014). Upon request, the interview recordings were provided to one of the research committee members who independently read the data collected and analyzed in order to confirm “that the coding and analytical framework encompass all the data” (Tong et al., 2014, p. 901) were presented by the participants. Reflexivity was also used to reinforce awareness of biases, personal experiences, and subjectivity, and to ensure that data interpretations were not misconstrued.

Ethical Procedures

Participants are governed by ethical principles and guidelines put in place for the protection of human subjects, and researchers must adhere to those guidelines (Fiske & Hauser, 2014). Special education elementary teachers were recruited via a Letter of Invitation (see Appendix B) that was placed in their mailboxes and they replied via email. Their identifying information was removed to ensure their privacy. Participants were informed of the nature of the study, specific requirements concerning interview time and location, and confidentiality agreement. Participants were also informed that there was no compensation for their participation in the study, and that their involvement was voluntary, and withdrawal from the study would not result in penalization or repercussions. Participants were asked to sign the agreement documents before the study began (Creswell, 2012). Should participants withdraw from the study, the same

recruitment guidelines and ethical standards as outlined in the section entitled, 'Participant Selection' will be followed.

Complying with ethical standards and federal regulations through Walden's IRB was the first step to providing the participants protection from harm. Potential risks of the study, such as restrains associated with interview scheduling, and requested time allocated from their time to participate in the study were discussed with each participant. They were informed of the potential benefits of the study, such as increased awareness of professional learning needs associated with teaching DLS to students with ASD, and increased DLS for students with ASD who demonstrate difficulty performing DLS. Participants must be protected from harm physically and emotionally (Aluwihare-Samaranayake, 2012). Data collected was provided to each participant for review. Participants also had the opportunity to review and discuss the findings of the study for the purposes of member checking.

Prior to data collection, permission from the IRB of Walden University (see Appendix G) and the IRB of NYC DOE (see Appendix H) were obtained and the IRB approval number was provided (08-23-16-0361400). Once this was received from the IRB, participants' permission and the Informed Consent document (see Appendix C) were obtained via email. Participants were not subjected to harm and they were respected prior to, during, and after the study (Cresswell, 2012). Participants were informed that their decision to take part is voluntary, and that there was no compensation for participating in the study. Participants were informed that if they plan to withdraw prior to conclusion of the study, they will be thanked, and they will not be penalized for withdrawal. The IRB of Walden University will also be informed of the withdrawal of

any participant and ethical protocols would be followed to protect the participant's privacy.

Ethical consideration was also necessary where data were concerned. Participants were informed that data collected would be maintained in confidence whether data were provided verbally or in writing. Participants were asked to complete a Certificate of Confidentiality document (see Appendix C), ensuring that all their identifying information was kept confidential, and their personal information would only be used for the purposes of this study (Cresswell, 2012). Participants were assigned a numerical code to maintain anonymity and increase the confidentiality (NIH, Office of Extramural Research, 2011) of participant and data information. Participants were aware that data collected was only discussed with the dissertation committee at Walden University and would be secured in a file cabinet in the researcher's home. Participants were informed that data would be disseminated to Walden University, the participants, special education stakeholders, such as special education teachers, principals, district representatives, and policyholders. The researcher will not provide any misleading information where data is concerned. The participants were also informed that the data would be maintained for a period of 5 years, after which it will be destroyed. Other ethical issues applicable to this study were related to the potential relationship that formed between the participant and the researcher. This relationship could be exploitative in that the manner in which it was formed could potentially create a power imbalance between the researcher and the participant (Belzile & Öberg, 2012). To address this power struggle, both researcher and participants must confront power relations by laying their issues on the table and present written accounts with the actual views of research.

Summary

An overview of the research methodology and design for this qualitative case study that investigated special education elementary teachers' perspectives of DLS instruction for students with ASD in one of the school districts in New York City's public school system was discussed. A description of the design of the study, and the research questions were identified as well. The methods and procedures that were used for data collection and data analysis were provided. Issues of trustworthiness to ensure credibility, transferability, dependability, and confirmability were addressed. The agreements to gain access to participants, and ethical concerns were also discussed. In Chapter 4, the purpose of the study and the research questions are re-introduced. The study's setting, the participants' demographics, data collection, data analysis, evidence of trustworthiness, and the study's results are discussed.

Chapter 4: Results

Introduction

This qualitative case study was conducted to investigate special education elementary teachers' perceptions concerning their ability to teach DLS to students with ASD. It was my goal to gain an understanding of the current and future professional development needs of special education elementary teachers specifically in the area of teaching DLS to students with ASD. In the following chapter, I provided a comprehensive explanation of the procedures used to collect, categorize, and interpret the information obtained from the participants pertaining to the phenomenon for this study. In concluding this chapter, I provided an explanation of how data accuracy and integrity were ensured. A summary of answers to the research questions and a transition to Chapter 5 are also provided. I analyzed data obtained from 10 participants through individual interviews in order to address the following research questions:

RQ1: To what extent do special education elementary teachers believe that they have the ability to provide DLS instruction to students with ASD?

RQ2: What do special education elementary teachers perceive as barriers to DLS instruction for students with ASD?

Setting

The settings of this qualitative case study were six public elementary schools from one of the public school districts in New York City; these particular public schools are designed to serve only students with severe disabilities. For anonymity, the six special education elementary schools were assigned letters of the alphabet (Schools A, B, C, D, E, and F). The population of this study included 10 special education elementary teachers

who possessed a minimum of 3 years of teaching experience with students with ASD: one teacher from School A, two teachers from School B, one teacher from School C, two teachers from School D, three teachers from School E, and one teacher from School F. Participants were selected based on their responses to the letter inviting them to participate in the study that they received. The schools were equipped with necessary tools and materials (e.g., updated technology, resource rooms, and individual classrooms) to address the needs of the diverse population being served. The dynamics of the schools were as follows: Two of the elementary schools served students enrolled at the kindergarten through fifth grade level, one elementary school served students enrolled at the kindergarten through eighth grade level, another elementary school served students enrolled at the first through 12th grade level, one elementary school served students from kindergarten through second grade and from Grades 9 through 12, and the final elementary school served students from prekindergarten through age 21. Some schools had the elementary grade level located in one building, whereas others had separate locations for different grade levels and were co-located within other school buildings. The schools chosen for this study were diverse in that that they were located in different boroughs of NYC.

Elementary School B had 441 students enrolled and 400 staff members to serve the students. The number of classes was 61. Coverage subjects such as art, science, and adapted physical education were provided to students. Related services such as occupational therapy, speech therapy, physical therapy, and counseling were provided within classrooms, as well as in separate locations within the school.

Elementary School A had a total of six sites with 363 students enrolled and 52 classes. Coverage subjects such as art, science, and adapted physical education were provided to students. Related services such as occupational therapy, speech therapy, physical therapy, and counseling were provided within the classrooms as well as in separate locations within the school.

Elementary School C had 11 site locations. One of the site locations chosen for this study had a total of 56 students and 50 staff members. The site had eight classrooms and services students enrolled between kindergarten and Grade 5. The site provided coverage subjects to students such as art, science, and adapted physical education. Students also received speech therapy, occupational therapy, counseling, and physical therapy within the classrooms or in a separate location within the school.

Elementary School D had seven different site locations; the site chosen for this study had a staff population of 76 and had 105 students enrolled. Students enrolled at this site were at the kindergarten through Grade 5. Students received instruction in art, science, technology, and adapted physical education as coverage subjects. Students also received related services such as occupational therapy, speech therapy, physical therapy, and counseling, and these services were provided within the classrooms as well as in separate locations within the school.

Elementary School E had 264 students enrolled and 37 classes, had students enrolled from prekindergarten age to the age of 21, and had eight different site locations. One of the sites that was chosen for this study served students enrolled at the prekindergarten and kindergarten levels. The student population was 24. The other offsite location chosen for this study served 52 students. There were seven classrooms in total;

six classrooms served students whose grade levels ranged from kindergarten to Grade 2, and one inclusion classroom served students ranging from kindergarten through Grade 8. Coverage subjects such as art, science, and adapted physical education were provided to students. Related services such as occupational therapy, speech therapy, physical therapy, and counseling were provided within the classrooms as well as in separate locations within the school.

School F had a total of three sites, with 310 students enrolled and 285 staff members. This school had 46 elementary classes, and coverage subjects such as art, science, and adapted physical education were provided to students. Related services such as occupational therapy, speech therapy, physical therapy, and counseling were provided within the classrooms as well as in separate locations within the school.

Each elementary school was selected because all of the teachers were certified to teach students with disabilities. The participants were recruited via the letter of invitation (see Appendix B) that was placed in their work mailboxes. Potential participants first responded via email. The first two participants from each school or site that met the research requirements who responded to the letter of invitation (see Appendix B) were accepted to participate in the study. Individual interviews were conducted in conference rooms or classrooms at the participants' schools (face to face) or over the phone at convenient dates and times for the participants. I conducted the interviews on different dates and times based on the participants' availability.

Demographics of All Participants

There were 10 special education elementary teachers who responded to the letter of invitation to participate in this qualitative case study: one teacher from School A, two

teachers from School B, one teacher from School C, two teachers from School D, three teachers from School E, and one teacher from School F. All of the participants were special education elementary teachers who taught students with ASD demonstrating deficits in DLS, and participants' students ranged from prekindergarten to fifth grade. All participants were certified teachers holding master's degrees along with initial, professional, or permanent New York State teaching certification and 3 or more years of teaching experience. Participants were informed that the information I collected would be kept confidential throughout this study and would only be shared with the research team at the supervising institution. A pseudonym along with a numerical code was assigned to each participant in order to conceal his or her identity. A table outlining the participants' demographics was provided (see Table 1).

Participant A1.1. Participant A1.1 had been working in the current district since 2005 and had worked with students with ASD since 2005. Participant A1.1 had been a classroom teacher in her current school since 2012. At the time of the study, the participant provided instruction to students in kindergarten through Grade 8 and served as a school—based coach. Participant A1.1 held a master's degree in special education. The participant's certification included a New York State Professional Teaching License—Elementary General Education (Grades 1–6) and Elementary Special Education (Grades 1–6). Some of the students the participant taught were high functioning as well as students with ASD. As a school-based coach, Participant A1.1 supported teachers in the instruction of students with ASD, including behavior management, curriculum, and DLS.

Participant B1.1. Participant B1.1 had a master's degree in special education and had been teaching students with ASD for 4 years. The participant was a self—contained

Grade 4 teacher and held an Initial Teaching License to teach elementary special education (Grades 1–6) with an extension for birth through age 2. The participant's teaching career started in in the school district.

Participant B1.2. Participant B1.2's current role was self-contained classroom teacher. The participant taught Grades 3 through 5 and had been teaching for 4 years. Participant B1.2 had a New York State Professional Teaching License and was certified to teach students with disabilities in Grades 1 through 6. The participant also had a master's degree in special education and held a New York State Initial Teaching License, and was certified to teach students with disabilities in Grades 1–6. The participant had been teaching in the current district for 4 years. The participant had been teaching students with ASD for 4 years and started her career in the school district of employment.

Participant C1.1. Participant C1.1 was a current classroom teacher and a teacher mentor. The participant had been teaching students with low-functioning ASD for 9 years within the current public school district. The participant's experience included both classroom teaching and early intervention (EI) specialization. The participant had a total of 16 years of experience within the public school setting. Prior to the current school district, the participant taught in a community school (general education) for 2 years. The participant held a master's degree in special education. Participant C1.1 was also pursuing Board Certified Behavior Analysis Certification (BCBA) in Applied Behavior Analysis (ABA). The participant held a Permanent New York State Teaching License for General and Special Education (prekindergarten–Grade 12). Participant C1.1 had not attended any professional development workshops or any other formal training for teaching DLS to students with low-functioning ASD. The participant assessed the DLS

needs of the students with low-functioning ASD by using a formal assessment provided by the school district (Assessment of Basic Language and Learning Skills [ABBLS]), as well as observation.

Participant D1.1. Participant D1.1 currently taught five 4th grade students and one 5th grade student in a self-contained 6:1:1 classroom. All six students were identified with ASD and were low functioning. Participant D1.1 had been teaching in the current public school district for 6½ years and held a master’s degree in special education. The participant’s licensing included Professional New York State Teaching Licenses for Elementary General Education (Grades 1–6) and Elementary Special Education (Grades 1–6). Participant D1.1 obtained formal DLS training while attending graduate school and participating in collaboration meetings with current staff members. In the current position and school district, the participant had not attended any professional development workshops for teaching DLS to students with students with ASD. Participant D1.1 assessed the DLS needs of students with low-functioning ASD by using a formal assessment provided by the school district as well as teacher observations.

Participant D1.2. Participant D1.2 currently taught students enrolled at Grade 3 through Grade 5 level. Participant D1.2 had only been teaching for 4 years and had worked in the current elementary school district for 4 years. The participant held an Initial New York State Elementary General Education (Grades 1–6) teaching license and an Initial New York State Elementary Special Education (Grades 1–6) teaching license. Formal DLS training was only obtained once at the participant’s current elementary school, but the participant claimed that no subsequent training pertaining to DLS

instruction was provided. DLS were assessed using the Brigance Early Childhood Assessment provided by the school.

Participant E1.1. Participant E1.1 had been teaching for 5 years and was a current self-contained kindergarten teacher of low-functioning students with ASD. The participant currently held a master's degree in early childhood and elementary education. The participant's licensing included Professional New York State Teaching Licenses in Early Childhood General and Special Education (Birth-2) and Elementary General and Special Education (Kindergarten–Grade 6). Participant E1.1 had no formal training in teaching DLS to students with ASD. Participant E1.1 assessed the DLS needs of kindergarten students with ASD by way of teacher observation and information gathered from parents in order to address the students' deficits.

Participant E1.2. Participant E1.2 had been teaching kindergarten students with low-functioning ASD in the current public school district for 1 year. The participant was in a self-contained 6:1:1 classroom. Prior to that, the participant taught the same population at the prekindergarten and kindergarten grade levels in a private school for 9 years. The participant held a master's degree in early childhood and elementary education. Participant E1.2 also held a master's degree in theoretical statistics. The participant's licensing included Professional New York State Teaching Licenses in General and Special Education (Birth–2) and Elementary General and Special Education (Grades K–6). In terms of formal training, while working at the private institution, Participant E1.2 attended professional development workshops for teaching DLS to students with ASD on a consistent basis. In the participant's current position and school district, formal training in teaching DLS to students with ASD was not offered.

Participant E1.2 assessed the DLS needs of kindergarten students with low-functioning ASD by way of teacher observation and information gathered from parents in order to address the students' deficits and prior knowledge.

Participant E1.3. Participant E1.3 had been teaching in the current public school district for 15 years but had been teaching kindergarten through Grade 2 students with low-functioning ASD for 11 years. The participant was a self-contained special education 6:1:1 teacher. Participant E1.3 held a master's degree in special education and an additional 30 college education credits. Participant E1.3 held a Permanent New York State Teaching License in Special Education (kindergarten through 12th grade). In terms of formal training, Participant E1.3 had attended professional development workshops for teaching DLS to students with ASD more than 7 years ago. The participant assessed the DLS needs of kindergarten through Grade 2 students with low-functioning ASD by way of teacher observation and one the formal assessments required by the school.

Participant F1.1. Participant F1.1 currently taught a Grade 3 self-contained 6:1:1 classroom in which all students had been identified with ASD. The participant had been teaching students with ASD for a total of 5 years. Participant F1.1 taught this population in a private ABA school for 1 year and had been teaching in the current school district for 4 years. Participant F1.1 completed a master's degree in special education and held Professional New York State Teaching Licenses in Elementary General Education (Grades 1–6) and Elementary Special Education (Grades 1–6). In terms of formal training, Participant F1.1 obtained training while working at her previous school, and she pointed out that over the years in her current district, an autism coach had usually provided training, identified the DLS needs of her students, and provided her with

information on tools and strategies that could be used to address DLS deficits. Formal DLS assessment was done using an assessment provided by the school district.

Table 1

Demographics of All Participants

Participant	Grade level	Years of teaching experience	
		Total	In current district
Participant A1.1	K-8	11	5
Participant B1.1	4	4	4
Participant B1.2	3-5	4	4
Participant C1.1	3	16	9
Participant D1.1	4-5	6½	5
Participant D1.2	3-5	4	4
Participant E1.1	K	5	5
Participant E1.2	K	10	11
Participant E1.3	K-2	15	11
Participant F1.1	3	5	4

Data Collection

I began data collection by first obtaining permission from the participating school district's IRB, Approval File Number 1400 (see Appendix H), from Walden University's IRB, Approval Number 08-23-16-0361400 (see Appendix G), the participating schools' principals, and the participants. I collected data by conducting individual interviews and from 10 participants. Individual interviews were done via face—to—face for some of the participants, and via telephone for others. The research questions were presented to the participants using an interview guide (see Appendix D). Interview questions were open-ended, allowing participants to expand on their responses. All participants were special education elementary teachers and have been teaching students with ASD for three or more years. Prior to conducting the interviews, an expert panel was chosen to review the research questions. The reviewers were contacted via email feedback were received from each reviewer via email. Interviews between the participants and I were conducted the participants' school conference rooms. For other participants, individual interviews took place via telephone after school hours. Participants were interviewed only once and each individual interview lasted between 30 and 45 minutes. A microcassette tape recorder was used to record individual interviews. Participants signed the Certificate of Confidentiality and the Informed Consent documents prior to being interviewed. Using the microcassette recorder was important because the recordings contained all of what was said in the interviews and I was able to replay each recording during data transcription. The researcher received a signed copy of the documents from each participant prior to the interview (by fax or email) or upon the scheduled interview. The

signed Informed Consent and Certificate of Confidentiality were scanned and saved on a password—protected computer. Interviews were conducted between October 2016 and February 2017.

To protect the participants' identity, I assigned a letter and number to each participant to prevent their identity or information from being compromised and I shredded the original documents. I initially received 6 responses from special education elementary teachers who met the study's criteria and were willing to participate. All participants had three or more years of teaching experience with students with ASD, possessed a New York State Teaching License (Initial, Professional, or Permanent), and currently teach students with ASD who demonstrate deficits in DLS. Three of the teachers who responded to the email for participation in the study were excluded because their teaching experience was less than the required years outlined in the study.

During data collection period, I requested a change in procedure from the research team, Walden University and New York City Department of Education's IRB when other potential participants voiced that they preferred to do a phone or video interview because they were incapable of meeting with me face—to—face. Once the change in procedure was approved by both IRB institutions, I informed the participants, and then implemented the change. For participants who gave consent to record the interview, I recorded the interview using a Panasonic Micro-cassette Recorder and during the interview, I took notes on a notepad. Upon completion of each interview, participants were thanked and reminded they would be asked to review the summarized findings from each interview to ensure accuracy of transcriptions. The recordings were transcribed verbatim and participants were asked to review the transcription for data accuracy. Participants were

asked to respond to data inaccuracies by highlighting them, adding the corrections in parenthesis, and emailing their responses back to me within four days. There were no inaccuracies noted by participants and therefore, transcription of the interviews were valid.

Data Analysis

In looking at the responses obtained from individual audiotaped interviews and written notes from interviews, data were analyzed by condensing large amounts of raw information gathered into a more manageable content, such as codes, categories, and themes using constructs from the conceptual framework. The research questions that guided this study are as follows:

RQ1: To what extent do special education elementary teachers believe that they have the ability to provide DLS instruction to students with ASD?

RQ2: What do special education elementary teachers perceive as barriers to DLS instruction for students with ASD?

After becoming familiar with the information that was recorded, the initial step in the data analysis process was the transcription of each audiotaped interview into written notes in a Microsoft Word document. Transcribed data and notes taken during the interviews were transferred in a Microsoft Excel document that sorted the information by keywords and formatted the information on my laptop. I then communicated with my chairperson in order to receive guidance on coding the information received and transcribed. Data transcription took place three to five days after each interview.

The analytic method for data transcription was coding. Transcribed data and notes were uploaded into the computer software program, NVivo (QSR International, 2014).

To begin the process, thematic coding was done using the constructs of the conceptual framework. NVivo software program was used to run queries and reports including phrases or word search, word frequency corresponding with the research standard in order to organize and analyze data (QSR International, 2014). The data analysis was done in two ways: The first was to guide the coding process using constructs from the conceptual framework of the study, which is related to Bandura's (1986) SCT theory of self-efficacy: teachers' ability, self-beliefs, and perceptions. Codes were generated from the transcripts and were aligned with the research questions as well. In further examining the data, subthemes were generated that explained the interviewees' perspectives. For example, one of the codes generated was *lack of competency*, and the subtheme that emerged was *lack of training or professional development*.

The next stage in the data analysis process was done by conducting open coding. During this stage, I manually coded the data of the participants' transcripts by going back over each transcripts line by line. Although NVivo was beneficial in the data analysis process, there are limitations to the use of any data analysis software. According to Ishak and Baker (2012),

NVivo is just another set of tools that will assist a researcher in undertaking an analysis of qualitative data. However, regardless of the type of software being used, the researcher has to dutifully make sense of all the data him or herself, without damaging the context of the phenomenon being studied. Inevitably, the software cannot replace the wisdom that the researcher brings into the research because at the back of every researcher's mind lies his or her life history that will influence the way he or she sees and interprets the world. (p. 102)

As a result, I decided to use an alternative method by manually checking the data analysis and not just using the computer-assisted software, NVivo (QSR International, 2014), in order to improve the credibility, trustworthiness, and validity of this study's findings. To facilitate the process of manual coding, post—it notes, a pencil, and highlighters of different colors were used to pinpoint words, phrases, or concepts consistently referred to by the participants throughout the individual interviews. A word or phrase was used to represent the meaning of the participants' thoughts expressed, and these were written on the post—it note in order to identify possible themes. I further used axial coding (Corbin & Strauss, 1990) to generate themes to address the research questions directly by use of the codes obtained from the previous round of coding. Axial coding was beneficial to data analysis in order to identify a relationship among all the codes, labeling the identified themes. Confirmation of previous themes, development and/or redevelopment of the themes were guided through analysis of the participants' responses to the interview questions for data related to Bandura's SCT of self-efficacy constructs. These constructs highlighted by Bandura (1977) are teachers' ability, self-beliefs, and perceptions.

Results

The purpose of the study was to investigate special education elementary teachers' perceptions concerning their ability to teach DLS students with ASD. In adherence to the explanatory sequence qualitative case study design, data were collected in the form of individual interviews with the researcher to further elaborate on the interview questions. Open-ended questions were posed to 10 participants who took part in the study in order to answer the following research questions that guided this study:

RQ1: To what extent do special education elementary teachers believe that they have the ability to provide DLS instruction to students with ASD?

RQ2: What do special education elementary teachers perceive as barriers to DLS instruction for students with ASD?

An interview guide that included the interview questions was used during individual interviews. Participants were interview questions that allowed them to expand on their responses, and when necessary, participants were asked to elaborate or provide examples. Participants were provided the opportunity to be completely expressive when responding to interview questions because interview questions were open—ended.

The conceptual framework for this study was Bandura's (1986) SCT of self-efficacy. Self-efficacy is an individual's belief in his or her ability to carry out a specific task (Bandura 1993). In this study, the specific task was teaching DLS to students with ASD. Participants did not specifically refer to the term self-efficacy during the individual interviews; however, special education elementary teachers' perceptions of their ability to teach DLS to students with ASD were captured through the dialog recorded using the Panasonic micro-cassette recorder and the notes taken during the interviews. Bandura's (1986) SCT of self-efficacy highlighted constructs such as teachers' ability, self-beliefs, and perceptions. For the purpose of this qualitative case study, the research questions elicited the participants' views that related to the constructs of the conceptual framework. Analysis of the participants' interviews as they related to the constructs of the conceptual framework and the research questions revealed information pertaining to teachers' perceptions regarding their ability to teach DLS to students with ASD. Through coding, I identified both themes from self-efficacy and themes that were generated as a result of

open coding. Subthemes regarding the participants' perceptions were also identified. Throughout the analysis of the data, two themes from self-efficacy: lack of competency to teach DLS and teachers' beliefs about DLS instruction. Table 2 is a complete representation of the two themes from self-efficacy that were identified. The table is a visual representation of the data analysis.

Table 2

Themes From Self-Efficacy

Theme	Number of participants
Lack of competency to teach DLS	7
Beliefs about DLS instruction	10

Themes From Self-Efficacy

After evaluating the data collected from the 10 special education elementary teachers as participants of this study, using the constructs of the conceptual framework, my aim was to explain special education elementary teachers' perceptions concerning their ability to teach DLS to students with ASD. This was done by analyzing and categorizing information collected during individual interviews with participants in order to identify possible themes that existed in the data.

Lack of Competency to Teach DLS

Participants were asked interview questions relating to their ability to teach DLS to students with ASD. Seven out of 10 participants pointed out that they lacked the competency to address DLS for their students. Participants' D1.1, E1.2, E1.3, and F1.1 particularly spoke to not being exposed to a curriculum that addresses DLS skills. D1.1

stated, “we do not have a curriculum that addresses DLS and I do not feel I have the ability to effectively teach DLS.” Participant E1.3 claimed, “having the ability to teach diverse students such as students with ASD requires time and preparation, and there is no curriculum that I can at least become familiar with in order to teach DLS.” E1.2 claimed, “if I had some curricula materials I could review the materials and better prepare myself to improve my students DLS.” Participant F1.1 said, “my ability to teach DLS would have increased if I could follow a curriculum.”

Participants B1.2, D1.2 and E1.1 also agreed that they do not have the ability to teach DLS to students with ASD. B1.2 claimed, “my college did not prepare me for teaching DLS and preparation is necessary for me to possess the ability to teach DLS to my students.” Participant D1.2 expressed, “there is limited adjustments and resource options to foster my ability to teach DLS and therefore I cannot address my students DLS needs.” Participant E1.1 stated, “I lack the ability to teach DLS to my students and this is no fault of my own. There is nothing in place to in order to provide help for me to increase DLS in my students.” Participants expressed that they lacked training or professional development specific to DLS and as a result, they do not believe they are competent in teaching DLS to students with ASD.

Lack of training or professional development. Participants mentioned contributing factors to the lack of competency in addressing DLS in their students. Nine out of 10 participants discussed the lack of training or professional development opportunities pertaining to DLS as an inhibitor to teaching DLS. Participant C1.1 stated, “formal DLS training is not provided at my school, yet we are expected to address our students’ DLS deficits.” All 10 participants pointed out that lack of professional

development pertaining to DLS can affect their ability to appropriately address DLS deficits. Although 1 of the participants stated that professional development opportunities pertaining to DLS are provided, the participant noted that it is not consistently provided. Participants expressed that professional development opportunities are provided to address academic subject matters, however, none is provided to address DLS deficits, in students with ASD. As a result of the lack of professional development for DLS instruction, special education elementary teachers' perceptions of their ability to teach DLS to their students may decrease their self-efficacy over time (Bandura, 1993). Participants also identified the lack of professional development as a barrier to their ability to teaching DLS to students with ASD.

The lack of professional development contributed to them believing that they are not competent to effectively address DLS deficits. Nine out of ten participants expressed that they do not feel competent enough to teach DLS and may not increase a specific DLS skill in their students. 10 out of 10 participants indicated that training was minimal or they did not receive it specifically for teaching DLS. Participants F1.1, B1.2, C1.1, and E1.3 all noted they did not receive formal training on how to teach DLS to their students who display these deficits. Participant F1.1 stated:

Having the techniques or being equipped with the skills in order to address such deficits, are important, and for me, I do not know what to do in terms of teaching these skills because I was never formally trained to teach these skills.

Participant B1.2 believed that appropriate training is not provided on how to teach DLS and that limits her ability to address her students' DLS needs. Participant C1.1 said, "I am not aware of how to effectively teach DLS because I am not knowledgeable about

DLS instruction for the population I work with. I would love to attend PDs (professional development) on this.” Participant E1.3 also stated that DLS formal training was never provided so it is difficult to address DLS deficits in students. Based on the responses from data analysis revealed that professional development was a factor that contributes to special education elementary teachers perceptions about their ability to teach DLS to students with ASD. Participant B1.1 stated, “even if I am allowed to observe my colleagues within their sites or within their school so that I can see how other teachers address DLS deficits would be beneficial to me.” Participant A1.1 stated, “I think that my lack of competency where DLS instruction is concerned takes away from my ability to effectively teach these skills. PDs (professional development) can increase my ability to address DLS deficits.”

Seven out of 10 participants felt that they would benefit from training opportunities such as observing other teachers who teach DLS to students with ASD. Participant D1.2 believe that sometimes teachers possess a wide range of instructional knowledge and professional development opportunities “even peer observation and conference can increase my ability to teach DLS to my students with ASD.” Participant B1.2 said, “Observing other teachers who teach DLS would help me be more competent and build on the skills that I already have, heck, even learn additional strategies so that I can address the DLS deficits in my class.”

Participant D1.1 stated that being unaware of how to address DLS deficits will not decrease DLS challenges experienced by students with ASD. “If I am trained or if I have the opportunity to observe and learn from other professionals like me, I might be able to move my students from point A to point B!” Professional development

contributes to proper training so that teachers are aware of the instructional strategies that are used to diminish these challenges. Participant E1.1 claimed:

I have never been to a training on how to teach DLS, yet so many of my students cannot perform the basic skills---washing hands, brushing teeth, wiping themselves after using the bathroom, and more.

Participants C1.1, E1.1, and E1.3 mentioned that their administrators do not register them for nor approve professional development workshops on how to address DLS deficits, and they would like the opportunity to attend consistent professional development opportunities specific to teaching DLS in order to be knowledgeable to address DLS in their students. Participant C1.1 and E1.1 both suggested that special education elementary teachers' ability to provide effective DLS instruction depends on the level of professional development that they receive.

Teachers' Beliefs About DLS Instruction

All 10 participants provided their views on DLS instruction for students with ASD. All 10 participants expressed that they do believe that DLS instruction must be provided to students with ASD. None of the participants were against teaching DLS to students with ASD. Each participant expressed that DLS are vital skills that students use on an everyday basis. They also stated that it is importance to teach DLS to students with ASD at the elementary age. Participants also expressed that many students with ASD within their school lack DLS or are incapable of independently performing DLS. They believed that instruction of DLS to students with ASD is necessary for them to be able independently function in school as well as when they become an adult. Eight out of 10 participants (Participant A1.1, Participant B1.1, Participant B1.2, Participant C1.1,

Participant D1.1, Participant E1.1, Participant E1.2, and Participant E1.3) believed that the instruction of DLS is necessary for students with ASD who demonstrate difficulty performing these skills. Participant A1.1 claimed, DLS instruction “for my students is teaching them skills that they need such as feeding, toileting, hygiene, etc., that they can use to function in their everyday lives.”

Participant B1.2, stated:

I believe that special education teachers need to teach DLS to autistic students who are unable to perform these skills. DLS instruction is teaching students skills that they will need in order to function in their everyday lives and for my students, DLS instruction is necessary.

Participant E1.3 stated that providing instruction to students with ASD has changed and “although things have changed, one thing remains consistent with many students with ASD is that DLS instruction is necessary for them to function independently in any environment.”

Participant B1.1 echoed that DLS is necessary for students with ASD and that what they are being taught “should help them live independent lives. If they lack these skills to function in school as well as outside of school, then these should be taught.”

Participant C1.1 pointed out that upon most of her students require assistance with toileting, feeding, or grooming skills and that teaching DLS is necessary to help the students become more independent. Participant E1.1 demonstrated frustration by claiming that students with ASD should be able to perform independent skills without the help of an adult:

The aim of special educators for students with severe disabilities such as autism is to help them progress in ways that will allow them to depend less on someone to help them. In my class, students lack a lot of DLS and this slows the class down when we get ready for certain activities that entail the performance of DLS. It is incredibly important. I have students who cannot take off their own coats, they cannot use the bathroom by themselves, wash their hands, and I think that these skills are extremely important for these children and as they grow older in society they will need these skills. So, yes, DLS instruction is necessary for the students I work with.

Bandura (1993) believed that an individual determines how confident he or she feels about a particular topic, and as a result, self-efficacy either increases or decreases. Each participant provided their views on their ability to teach DLS to their students as well as the importance of DLS for their students. Participant F 1.1 voiced, “we as individuals without disabilities are fortunate to be able to perform DLS, why shouldn’t we appropriately address these skills for students with ASD in the elementary setting?” Participants also discussed the strategies that they use to address DLS deficits and pointed out the strategies that they find successful. I identified strategies influencing DLS acquisition as a theme that emerged from the data. Akomolafe and Ogunmakin (2014) stated that one’s success pertaining to how a specific task is addressed increases one’s self-efficacy, “while failures may inhibit its development” (p. 489). Participants provided examples of instructional strategies such as, Applied Behavior Analysis (ABA), picture prompting, video modeling, and elements of ABA such as task analysis, prompting strategies, and reinforcement that they have utilized to address DLS deficits, and the

participants consistently described that they have had successes with the listed instructional strategies. Participants believed that different instructional strategies produce different results for students in terms of their progress, and if teachers are not aware of how to address certain deficits in their students, then there is a low chance that their students' skills will improve. Participants also expressed that each strategy was specific to student learning needs.

Themes as a Result of Open Coding

Other themes were identified throughout the data as a result of open coding. Two other themes generated were: lack of administrative support in formally addressing DLS, and lack of time in schedule to teach DLS. Participants expressed that they lacked time in their schedule to teach DLS to students with ASD and that their administrators were not supportive in formally addressing DLS deficits for students with ASD. Table 3 is a complete representation of the two other themes that were identified as a result of open coding. The table is a visual representation of the data analysis. The data are also discussed below.

Table 3

Themes Resulting From Open Coding

Themes	Number of participants
Lack of time in schedule	10
Lack of administrative support in addressing DLS deficits	7

Lack of Time in The Schedule

Participants expressed that they lacked time to teach DLS. All 10 participants expressed that the focus is on academic content material, and there is little or no time to teach DLS. All 10 participants pointed out that DLS is minimally taught in the classroom, and in most cases, these skills are addressed in students' related service session such as occupational therapy or physical therapy, or occasionally in isolation (when students actually have to perform these skills). Participant A1.4 said, "it is sometimes difficult to find time to fit in my schedule to address these skills. My schedule is occupied with academic subjects so how then will my students improve DLS?" Participant B1.1 stated that, "there is so little time to cover the academic stuff, and there is no time allocated to teach DLS, so when do I increase my DLS instruction skills and when do I teach it?" Participant B1.1 continued to state that my students need these skills, so I will continue to address these skills in context."

All 10 participants expressed that their administrators need to set time aside in the classroom schedule so that teachers can teach DLS to the students, especially because

their students need DLS instruction. Participant C1.1 expressed, “I am willing to teach DLS if time is given in my schedule to do so, but I guess because my school is only for academic development, what students truly need they are not getting.” Participant E1.2 also expressed that there is a lack of time to teach DLS to students with ASD. Participant F1.1 elaborated that time should not only be allotted to teach, “Common Core related materials, but time should be allocated for teachers to teach DLS because functional skills are skills that they use now and will use later in their lives.”

Lack of Administrative Support in Formally Addressing DLS Deficits

Another theme identified in relation to the theoretical constructs as well as the research questions was the lack of administrative support in formally addressing DLS deficits. Eight out of 10 participants expressed that the support of school administrators is vital in order to increase DLS in students with ASD. Participant E1.3 stated, “although the administrators recognize the DLS deficits in students, no plan is put in place on how or when teachers should formally address this issue.” Administrators are in control of decision—making at the elementary school level, and if special education elementary teachers do not have their support in terms of the implementation and continuity of any program or curriculum designed to address DLS deficits, then teachers may not be able to effectively address such deficits. Participant A1.1 claimed, “I value the support of my administrators when it comes to addressing my students’ needs, however, I don’t feel they are in full support of formally addressing DLS.” Participant F1.1 stated, “my administrators are not exactly on board with addressing DLS for our students. If they were, then they would have taken the necessary steps to outline in writing that teachers can address these skills.” Participant C1.1 claimed that, “administrative support for

academic improvement is evident in my school, but for DLS, we have no support from our administrators so these skills are only addressed sometimes.” Participant E1.1 added, “my principal said DLS is not a curriculum focus so it does not require full support right now. I do not want to overstep my boundary so teaching the academic content material is priority.”

Participant E1.2 added, “my administrators do not support formal DLS instruction and I do not want any of my administrators to walk into my classroom and see me teaching DLS when I am supposed to be teaching content material.” Participant B1.2 stated, “the teachers have gone to the administrators a few times and discussed the need for support of DLS instruction and nothing has been done.” Although administrative support varied from participant to participant, the data revealed a commonality among 7 participants who identified the lack of administrative support pertaining to DLS instruction.

The final theme that was identified throughout the data as a result of open coding was, strategies influencing DLS acquisition. Throughout the analysis of the data, subthemes were also generated as the participants expressed that they have used strategies that they have picked up over the course of their career to teach DLS. Table 4 is a visual representation of the sub-themes that were identified as a result of open coding where DLS instructional strategies were concerned. The data are also discussed below.

Table 4

Strategies Influencing DLS Acquisition: Subthemes

Theme	Number of participants
Applied behavior analysis	7
Picture prompting	6
Video modeling	8

Strategies Influencing DLS Acquisition

Participants were asked interview questions related to how they address DLS deficits in students with ASD in their classrooms. It was evident that participants were exposed to a variety of instructional strategies that they have used in their classrooms to address DLS deficits displayed by students with ASD. All 10 participants stated that they were not formally trained to teach DLS but have picked up a few instructional strategies throughout their pedagogical experience that they have used when students are actually performing specific DLS to address their students' DLS deficits. The participants stated that the strategies that they have used to address DLS deficits have been successful for some students with ASD. Participant A1.1, Participant B1.2, Participant E1.2, and Participant E1.3 claimed that no one strategy is more effective over another when teaching DLS to students with ASD.

According to Participant A1.1, "the use of any one of these instructional strategies absolutely depends on the student. Students need to be taught everyday because these skills are necessary. Participant F1.1 stated, "there is no one specific strategy that I would

say works, because acquisition of these skills totally depends on the student.” The participant provided an example by identifying two students who are learning hand-washing skills, and claimed that for one student, video modeling works well, and the other student needs one-on-one ABA instruction. Participant B1.1 provided an example of the use of different instructional strategy for two different students as well and claimed, “I can tell you that the strategies are very specific to each student, and for one of my students, the use of picture symbols is effective teaching her to use the bathroom if the pictures are representative. For the other student, the use of videos work well for him in learning the same skill.” The key thing is that each strategy may work for one student but not work for another student.” Participant E1.2 also voiced that knowing each student helps to identify how he or she learns because what works for one student may not work for another student. Participant E1.3 also validated that the strategies used can all be effective depending on the student’s learning. She stated that she has used ABA, video modeling, and picture prompting, and that all three strategies can be effective depending on the student receiving the instruction. Majority of the participants responded that no matter the strategy, repetition is key and strategies must be used with fidelity.

For students with ASD, DLS instruction must be repeated for effective acquisition of DLS. Instructional strategies for addressing DLS must be used to deliver the teaching elements in the way they are designed to be used and delivered. Participant C1.1 stated:

In using the strategies mentioned, I think that having a consistent routine that is followed throughout the day with all staff members can contribute to student success and instructional routine must be done with fidelity and must be repeated

over and over. If this is not done, students might not grasp the DLS needed to perform independently.

Repetition and fidelity of instructional strategy is critical to achieving improved DLS results for students with ASD. When changes are made in how instruction is presented, students may be confused and clarity may not exist in terms of the effects on students. Participant E1.3 pointed out, “in my classroom, we allow students to practice the skills that they need throughout the entire day using the same strategy over, and over, and over. In order for students to be able to perform these skills independently, they must practice them repeatedly. How we teach them the skill must not change either unless we do not see progress.” Participant D1.1 also claimed that “repetition is important and using the instructional strategy, the way that it is supposed to be used and in the time frame that it is meant to be used will give students the opportunity to practice and attain the DLS they are learning.” Participant E1.1 stated that consistency and accuracy of DLS instructional strategies influences how well stakeholders stick to improving DLS deficits. The participant continued by explaining that because academic subject matters are at the forefront for students, then DLS continues to be a challenge for students with ASD.

The instructional strategies that the participants mentioned were applied behavior analysis (ABA), picture prompting, video modeling, and elements of ABA such as task analysis, prompting strategies, and reinforcement. The analysis indicated that eight out of 10 special education elementary teachers use video modeling to address DLS deficits, six out of 10 use picture prompting, and seven out of 10 use ABA. Participants claimed that sometimes one instructional strategy alone may not work well for a particular student and using two or more strategies may work better. Based on the analysis, the assertion was

that special education elementary teachers use numerous strategies to teach DLS in order to address their students' individual DLS needs. Special education elementary teachers also believe that to improve DLS in students with ASD, instructional strategies can be intertwined to achieve desired results and can be coupled with other approaches that can result in the improvement of student learning outcomes.

ABA as an instructional DLS strategy. Seven out of 10 participants indicated that they use ABA to address DLS deficits in students with ASD. Participant A1.1 stated that ABA allows for DLS to be broken down into smaller, more teachable components in order to teach the smaller components of DLS, and the use of ABA has been successful in DLS acquisition for most of the students.

Participant F1.1 added, "although we are not an ABA school, I use ABA to address DLS deficits, and I find that my students' targeted DLS behaviors tend to increase."

Participant D1.1 stated "using ABA has changed the DLS behavior for some of the students who demonstrate challenges performing these skills."

Participant B1.2 claimed, "I like using ABA, it is used to teach the same DLS until my students master the specific DLS."

Participant E1.1 claimed, "I use ABA to address these skills. This works for most of my students. I prefer to use discrete trial and other elements of ABA."

Participant E1.2 and E1.3 claimed that when they use ABA to address DLS, for the most part their students' skills increase.

Picture prompting as an instructional DLS strategy. Six out of 10 participants indicated that they use picture prompting to address DLS deficits in students with ASD.

Participant F1.1 claimed, “picture prompting is also helpful in teaching many DLS and it helps my students to remember where to begin when performing a specific DLS.”

Participant D1.2 stated, “I am always printing and creating pictures to prompt my students because it works well for some of them so I would definitely say that picture prompting is a strategy I use all the time.

Participant C1.1 expressed, “many of the students have shown improvement in certain DLS when I use picture prompting with fidelity to teach DLS.”

Participant E1.1 claimed, “I use various prompting strategies with ABA when teaching DLS and picture prompting works for some of my students.”

Participant E1.2 stated, “Another strategy that I have found to work well when I teach DLS, and when my students get it, I feel very proud.”

Participant E1.3 spoke about using picture prompting and that it works well with the students when addressing DLS deficits.

Video modeling as an instructional DLS strategy. Eight out of 10 participants indicated that they use video modeling to address DLS deficits in students with ASD. According to all eight participants, students tend to enjoy watching videos, especially on the iPad, and many of the videos are presented in a child friendly way so students are more motivated to pay attention to the videos. Participant B1.1 stated, “my students enjoy watching videos of themselves or of others performing specific DLS so I use video modeling to teach them the DLS that they lack” and my students’ DLS increase. Participant E1.3 claimed that, “students enjoy creating the videos of me performing the different DLS and then they watch these videos until they are able to perform the skill(s) they are working on.” Using video modeling to teach DLS to students with ASD is a

simple concept and students are able to try and copy the necessary DLS. Participant D1.1 told me that video modeling is used constantly for a few of the students learn better with this strategy and they are more motivated to learn the specific DLS. Participant F1.1 stated, “video modeling is very useful in her class because students prefer to use technology devices as a learning tools and many of my students learn the DLS best that way.” Participant B1.2 claimed, I have used video modeling to teach DLS to some students and I have found it effective.” Participant E1.3 said, “video modeling works well for some of my students, but for other students, I have to use other instructional strategies.” Participants A1.1 and C1.1 both claimed that video modeling works best for some students, while for other students they use other instructional strategies and meet them where they are at in terms of learning a specific DLS.

Participants stated that typically, learning how to perform DLS is challenging for students with ASD and acquiring DLS include multiple complex steps that need to be gradually learned through instructional strategies that match each student’s learning needs. Teachers must troubleshoot students’ DLS learning problems and try different instructional strategy as opposed to accepting just one strategy to teach DLS can produce better results for students in terms of acquisition of skills for students with ASD who demonstrate difficulty performing DLS. Participants elaborated on their experiences with the strategies that they use to address DLS deficits, and the analysis revealed that participants’ responses differed. Participants also pointed out that the use of other instructional strategies could be just as effective based on student needs. What may work well for one student with ASD, may not work for another student and therefore, special

education elementary teachers must know their students and how they learn in order to address their deficits.

Discrepant Cases

One of the aims of research analysis is to comprehend a study's phenomenon and report its findings. The research participants responded to questions asked that required their perceptions regarding their ability to teach DLS to students with ASD. All participants indicated that DLS instruction is beneficial for students with ASD. By engaging in a conversational approach with participants, trust was developed between the participants and myself, and this allowed participants to be open and expressive when answering the interview questions. Throughout data review and coding process, one discrepancy was identified. Although participants expressed that they are expected to address DLS deficits in their students, and they are afforded little to no opportunity for DLS training, one of the participants stated that teachers in the school use a curriculum that points out multiple ways of addressing her students DLS challenges. Participant B1.1 claimed that elementary teachers are given a curriculum to teach their students DLS and some support is provided if needed for teachers who need the support on instruction, differentiation, and/or adaptation where DLS instruction is concerned. The participant's view differed from the experiences of the other participants. Participant B1.1's view also contradicts the responses of the other participants in terms of professional development opportunities addressing DLS instruction for students with ASD. The other participants claimed that formal training is not provided for DLS instruction. This discrepant information was factored into data analysis and it did not affect the findings in any way. A total of 10 special education elementary teachers were interviewed and one out of the

10 participants' views indicated a discrepancy. This did not influence the research findings, however, it provided food for thought, allowing me to consciously recognize the discrepancy in an attempt to enrich data analysis and interpretation.

Evidence of Trustworthiness

In an attempt to foster trustworthiness throughout the study, thick, in—depth, and rich descriptions of the participants' perspectives regarding DLS instruction for students with ASD were collected through individual interviews. Trustworthiness in this study meant conducting the research to meet the criteria of credibility, confirmability, dependability, and transferability. In order to strengthen the authenticity of the study's results, I fostered trustworthiness by requesting participants to examine the transcription of each interview. I collaborated with the participants by working together to “problematize the relationship between trustworthiness and reciprocity in relation to the the research process, and the write-up (Harrison, MacGibbon & Morton, 2001, p. 324). It was important to foster trustworthiness from the stage of data collection through to the reporting of the research findings.

Credibility

In preparing, organizing, and reporting the study's results, I assured credibility by first ensuring that the participants were identified and described accurately throughout the study. The interview questions were reviewed by expert panel reviewers in order to “determine whether they were suitable for obtaining rich data that answered the proposed research questions” (Elo et al., 2014, p. 4). Throughout data collection and analysis process, triangulation was used to crosscheck and compare data from numerous viewpoints to ensure that the broadness and extent of vital information was highlighted in

its entirety. Reflexivity was also used to pinpoint and address any biases that may have an influence on the study's findings (Tong et al., 2014). Finally, I used member checking by asking participants to identify if data analysis reflected their views (Reilly, 2013).

Transferability

To identify transferability, the interview questions asked elicited thick descriptions from the participants about their perspectives concerning their ability to teach DLS to students with ASD. I carefully reviewed the information provided to understand the phenomena. This meant immersing myself into the phenomena as I constructed meaning. I provided detailed descriptions of the participants' views so that stakeholders, such as administrators, school district supervisors, and special education teachers could transfer the original results to another context, setting, or set of individuals.

Dependability

In terms of the implementation of dependability, I used an audit trail to keep track of the study's procedures and methods. I communicated with my chairperson to verify the research methodology was suitable to answer the research questions, and were in line with the chosen methodology. I clearly documented the research method to highlight to readers the logical process of the study. Using an audit trail allowed me to maintain stability of the data throughout the research process (Leung, 2015). The study's dependability was also increased through the use of NVivo 11 (QSR International, 2014), a computer—assisted data analysis software to manage and confirm coding decisions. Participants were also asked to evaluate the findings, interpretation and recommendations of the study.

Confirmability

The implementation of confirmability was ensured by conferring with and relying on my dissertation committee as external auditors to review and verify objectivity throughout the study. Confirmability was also established by interpreting the findings that derived from the data. This was achieved through the use of an audit trail, triangulation, and the use of a reflexive journal. The audit trail offered visible evidence from the beginning of the study to the end. I kept a reflexive journal for reflection, for use of tentative interpretations, and to plan data collection. I recorded all the events throughout the study.

Summary

In Chapter 4, the study's results were discussed. In an attempt to answer the qualitative research questions, special education elementary teachers' perspectives on DLS instruction for students with ASD were analyzed. A description of the study's setting, data collection, data analysis, and the findings was provided. I also demonstrated evidence of trustworthiness in Chapter 4. The study's findings were organized by constructs of self-efficacy and responses were also generated based on the research questions. The study was guided by two research questions in order to interpret the data collected.

The research questions were as follows:

RQ1: To what extent do special education elementary teachers believe that they have the ability to provide DLS instruction to students with ASD?

RQ2: What do special education elementary teachers perceive as barriers to DLS instruction for students with ASD?

The themes that emerged from an analysis of data collected were used to answer the research questions. These themes were generated using the construct of Bandura's (1986) SCT of self-efficacy. Two primary themes were identified: lack of competency to teach DLS and teachers' beliefs about DLS instruction. A subtheme was generated for the theme, lack of competency to teach DLS: lack of training or professional development. Other themes were generated as a result of open coding. The themes identified were lack of time in schedule to teach DLS, lack of administrative support in formally addressing DLS deficits, and strategies influencing DLS acquisition. There were subthemes identified for the theme strategies influencing DLS acquisition: ABA, picture prompting, and video modeling. Special education elementary teachers indicated a belief that DLS are necessary everyday skills that warranted DLS instruction for students with ASD. Participants expressed that their students lacked DLS skills and as a result, are unable to independently perform these skills. Participants believed that DLS instruction must be afforded to students with ASD in order to improve their performance so that they can depend less on an adult. Special education elementary teachers pointed out that receiving training on how to teach DLS contributes to the improvement of their ability to teach DLS to students with ASD and there is a need for professional development opportunities to increase competency of teaching these skills. Time allocation was one of the themes that emerged as a result of open coding, and participants substantiated this theme by expressing that time is not scheduled to teach DLS. Identified in the data analysis were strategies that the participants used to address DLS. Chapter 5 of the study contains a discussion, conclusion, and recommendations based on data collected and analyzed that

were presented in Chapter 4. I will also point out the limitations of the study and discuss the study's implications for potential social change.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of this qualitative case study was to investigate the perceptions of special education elementary teachers with regard to their ability to teach DLS to students with ASD. I obtained the views of 10 participants through individual interviews conducted in a location of the participants' choosing or via phone interviews. Special education elementary teachers delivered DLS instruction in self-contained classrooms with little or no training in DLS instructional practices. Two research questions were used in order to explore the participants' perceptions of their ability to deliver DLS instruction to students with ASD. Upon completion of the interviews, I reviewed and analyzed the data using open coding and a software analysis program, NVivo 11 (QSR International, 2014). In this chapter, I include a summary and my interpretations of the findings, limitations of the study, recommendations, and implications for potential social change. I also analyze and interpret the findings in the context of Bandura's (1986) SCT of self-efficacy.

Summary of Key Findings

During data analysis, I identified themes and subthemes that were reviewed in order to address the research questions that guided the study. These themes led to the key findings of the study that revealed the perceptions of special education elementary teachers concerning their ability to teach DLS to students with ASD. Key findings included for the research questions and the participants' responses identified the following two themes: lack of competency to teach DLS and teachers' beliefs about DLS

instruction. Other themes were identified as a result of open coding. Those themes were lack of time in schedule, lack of administrative support in formally addressing DLS deficits, and strategies influencing DLS acquisition. All participants expressed that students with ASD should be taught DLS in order to function independently in any environment. The data were analyzed using Bandura's (1986) SCT of self-efficacy constructs because participants expressed their beliefs about addressing DLS deficits for their students. Participants believed that teaching DLS would advance students' independence in many settings so that as they grew older, they could depend less or not at all on adult supervision and assistance when performing DLS. Findings for the research questions generated two themes, lack of competency and teachers' beliefs about DLS instruction. These themes were viewed under the lens of self-efficacy (Bandura, 1986). Participants believed that they were not provided training or professional development workshops that could provide knowledge to prepare them to fully influence their students' DLS acquisition. Participants also talked about lack of time to teach DLS; lack of support from administrators in formally addressing DLS deficits; instructional strategies such as ABA, picture prompting, and video modeling that they had to address DLS deficits; and the successes they had had using these strategies.

Interpretations of The Findings

The qualitative case study design elicited special education elementary teachers' perceptions regarding their ability to teach DLS to students with ASD. Participants shared their perceptions in detail, allowing me to gather rich, thick information that may confirm or extend knowledge in the discipline through comparison to similar research literature as well as in relation to the conceptual framework presented in this study. The

data analysis included becoming familiar with the interview transcripts, comparing the recorded data with written notes, cross-checking the information with each participant for consistency, reviewing the data with my chairperson, and coding the data both using NVivo 11 (QSR International, 2014) and manually. Applying Bandura's SCT of self-efficacy to teachers' beliefs and attitudes toward completing a specific task, I identified the following themes and subthemes related to special education elementary teachers' perceptions concerning their ability to teach DLS to students with ASD:

- Lack of competence
- Lack of training or professional development
- Teachers' beliefs about DLS instruction

Other themes were identified as well through open coding. These themes do not directly relate to Bandura's SCT of self-efficacy; however, they were frequent throughout the data analysis and were important to the reporting of the findings. The following themes and subthemes were identified as a result of open coding:

- Lack of time in schedule
- Lack of administrative support in formally addressing DLS deficits
- Strategies influencing DLS acquisition
 - ABA
 - Picture prompting
 - Video modeling

Peer-reviewed literature (Ayres et al., 2011) indicated that it is necessary to address DLS deficits in students with ASD in order to promote independence in their current and future environments. This study was needed to understand how the

participants viewed their ability to teach DLS to students with ASD and identify the strategies that they found to be effective when addressing DLS deficits in their classrooms. The following subsections include comparison of the study's findings with peer-reviewed literature.

Teachers' Beliefs About DLS Instruction

Research indicates that DLS instruction for students with ASD is vital because acquiring DLS is crucial to enhancing quality of life, and teaching these students these skills can foster independent functioning (Gardner & Wolfe, 2013). Participants pointed out that they were aware that DLS are necessary everyday skills that their students should have and that they felt very strongly about providing such instruction to students with ASD. Participants expressed that to become agents of change, they must be aware of how their practices influence their students' learning. Identifying how their practices influenced their students' DLS performance meant reflecting on how important DLS are to their students' functioning, as well as reflecting on their ability to teach DLS effectively. Many participants voiced that they felt that DLS are skills that students with ASD need to function day to day, so DLS instruction should be provided to students in order for them to function independently. Participant A stated, "I am able to independently perform these skills because I was taught how to. Many of my students lack these skills, so they deserve to be taught DLS." The participant continued, "knowing the life-long effect teaching DLS will have on my student, it is my belief that I teach these skills." DLS instruction for students with ASD prepares them for success in community integration and in employment. DLS

are often seen as distal indices for quality of life, as these skills are pivotal to independence and meaningful community participation. It is widely recognized that a functional curricular approach tailored to individual needs must be adopted to produce meaningful outcomes for people with ASD. (Ninci et al., 2015, p. 184)

According to the data, participants believed that DLS instruction should take place for students with ASD once it is evident that these skills are missing or if they demonstrate difficulty performing these skills. For students with ASD, the acquisition of DLS helps to gear them for independence in and out of their school environment because once they become older, fewer supports may exist (Ayers, Lowrey, Douglas, & Sievers, 2011). The participants also expressed that DLS instruction for students with ASD is vital because once students with ASD exit the public school system, caregivers become more responsible for them as they get older.

Lack of Competency

Participants responded that they lacked the competency to teach DLS to students with ASD. The findings indicated that many of the participants lacked competency because they lacked the training and professional development needed to address DLS deficits in students with ASD. According to Bandura (1997), an individual masters a particular skill by gaining experience. It is expected that special education elementary teachers are competent when there is a need to address their students' deficits.

Competency is influenced by the knowledge and skills that teachers acquire during their teacher preparation years, as well as from ongoing professional development opportunities (Hand, 2014). Participants pointed out that lack of competency influenced their perceptions about their ability to teach DLS. Participants made reference to not

being exposed to professional development workshops specific to DLS instruction that would enhance their ability to teach DLS. Gentry (2011) stated that professional development is crucial to teacher competency. Participants expressed that they were not trained to teach DLS and that professional development should be put in place and should be ongoing. Participants claimed that the absence of professional development specific to DLS instruction may contribute to teachers' lack of competency to teach DLS, therefore decreasing their self-efficacy.

Professional development affects whether special education elementary teachers can effectively contribute to student improvement in the area of DLS functioning. A review of the literature pointed out that a relationship exists between professional development and teacher self-efficacy (LaChausse, Clark, & Chapple, 2014). Self-efficacy in this case involves special education elementary teachers' awareness of their abilities to organize and carry out instructional actions (Cherian & Jacob, 2013; Dimopoulou, 2012). Teachers' personal beliefs based on their experiences provide significant influence on their effectiveness in delivering instruction (Bandura, 1997). The perceptions of the participants regarding factors that contribute to their ability to provide effective DLS instruction were consistent with research done on the perceptions of teachers in regard to teaching students with ASD (Garvis et al., 2012). For example, participants noted that they had received little to no formal training or professional development pertaining to DLS instruction for students with ASD. They stated that they had gained their knowledge through trial and error and from past experiences. A study conducted by Wang (2012) indicated that teachers reported a decrease in self-efficacy when it came to using instructional strategies in the classroom. Wang (2012) pointed out

that teachers attributed this to a lack of specialized training. Garvis et al., (2012) pointed out that special education elementary teachers' past experiences are a contributing factor to increased self-efficacy.

Bandura (1986) contended that if teachers feel competent about their own skills and knowledge, then they will be more likely to deliver instruction with strong self-efficacy. Bandura (1997) noted that attending professional development workshops can build instructional competencies. Special education elementary teachers' self-efficacy influences both the atmosphere they propose for themselves and the environment they create for their students. Professional development is a crucial factor that increases self-efficacy, which, in turn, influences the success of DLS instruction for students with ASD. Bandura (1986) also identified lack of training as a factor in decreased self-efficacy; if they do not have sufficient training, special education elementary teachers' ability or effort may reflect a "lack of teacher efficacy in promoting student learning" (Dixon et al., 2014, p. 115). Engaging in professional development opportunities may contribute to high teacher self-efficacy (Lee et al., 2013) so that students' learning needs are met.

Bandura (1993) stated that teachers must continuously seek to improve their knowledge in order to address their students' needs and decrease deficits. Participants pointed out that although professional development opportunities are provided to address academic subject matter, none is provided to address DLS deficits in students with ASD. Due to a lack of professional development on DLS instruction, special education elementary teachers' perceptions of their ability to teach DLS to their students with ASD may decrease their self-efficacy over time (Bandura, 1993). This, in turn, can have a negative effect on instruction (Lee, Cawthon, & Dawson, 2013) and how DLS

instructional strategies are used. According to Dixon, Yssel, McConnell, and Hardin (2014), teachers frequently find it challenging to provide their students access to distinct learning strategies that work best for them, and professional development opportunities “facilitate the development of foundational understanding and instructional competencies for the topic at hand” (Dixon et al., 2014, p. 114)—in this case, DLS instructional strategies.

Strategies Influencing DLS Acquisition

When elementary special education teachers practice a specific task or skill, they can become better at performing that task or skill. Bandura (1997) noted that for teachers to express success using certain instructional strategies within their field, they must have had some practice using the instructional strategy over and over. The participants agreed that their knowledge of the strategies they had used to address DLS deficits had been gained from teaching academic content materials to students with ASD. Many of the strategies they pointed out were used to teach DLS through trial and error. Peer-reviewed research has identified the strategies the teachers spoke about as strategies that have proven successful in teaching DLS to students with ASD. Participants identified ABA, picture prompting, and video modeling as instructional strategies used to address DLS deficits in students with ASD. Teaching DLS to students with ASD is meaningful, and educators should strive to address these skills (Bal, Kim, Cheong, & Lord, 2015). According to researchers (Bal, Kim, Cheong, & Lord, 2015), DLS are vital to independent functioning, yet many students with ASD exhibit challenges in performing these skills. Bal et al. (2015) claimed that it is therefore necessary to identify instructional strategies that teachers can use to address these deficits in their students.

Participants identified video modeling as a strategy used to address DLS deficits in students with ASD. Research confirmed that video modeling “has been shown to be effective in teaching a number of skills” (Aldi et al., 2016; Kellems & Morningstar, 2012) such as DLS to students with ASD. One of the goals of special educators is to improve quality of life for students with severe disabilities so that they can live, function, and actively participate in the communities in which they live. Video modeling is one of the instructional strategies that special education elementary teachers can use to foster DLS for independent functioning (Gardner & Wolfe, 2013). Aldi et al. (2016) stated that “empirical research supports video modeling as an effective pedagogical procedure that may produce quick skill acquisition” (p. 385). Additional research has suggested that the use of video modeling as an instructional strategy to teach DLS can contribute to the maintenance of skills over time (Burke et al., 2013). Participants stated that video modeling had been successful in teaching many of their students DLS, noting that their students would maintain these skills over a period of time, provided that the strategy was used with repetition and fidelity.

Another strategy that participants identified to address DLS in students with ASD was ABA. Peer—reviewed literature supports the use of ABA as an instructional strategy to improve the performance of DLS. Ivy and Schreck (2016) argued that DLS represent basic skills that students with ASD need to “adequately function in a typical, non-structured environment” (p. 60) or in their everyday environment. Students with ASD must learn these skills, and the discipline of ABA encompasses an extensive approach in order to comprehend and improve DLS (Ivy & Schreck, 2016). Participants stated that ABA is constructed on the methodical groundwork of empirical analysis in order to

improve the development of DLS. Wong et al. (2015) contended that ABA is an evidence-based instructional strategy that is effective in addressing DLS. Schmidt et al. (2016) claimed that the implementation of ABA principles is the best practice for increasing DLS in students with ASD. Participants' responses attested that they saw improvements in their students' DLS performance when they used ABA.

Participants also identified picture prompting as instructional strategy that they used to address DLS in students with ASD. Bimbrahw et al. (2012) claimed that picture prompting is an effective instructional strategy in addressing specific DLS tasks. Participants pointed out that when picture prompting is used, pictures are representational of the skill that the student is learning. Although picture prompting has been noted to be effective, research has suggested incorporating the use of technology and reinforcement with the strategy for full effect (Lee, Anderson, & Moore, 2014). An extensive search for more recent peer-reviewed literature corroborating the effectiveness of picture prompting was not successful.

When participants were asked about their experiences with the strategies that they used to address DLS deficits in students with ASD, their responses varied; however, all 10 participants noted that the strategies they used were specific to students' learning needs and that these strategies must be used with fidelity and repetition. Spooner, McKissick, and Knight (2017) stated that all students with severe disabilities, such as students with ASD, "must be taught both daily living and academic skills using evidence-based practices" (p. 1). According to researchers (Browder, Thompson, & Ribuffo, 2014; Bambara, Koger, & Bartholomew, 2011), special education elementary teachers must consider their students' individual needs by using a student-centered approach when

planning and delivering instruction. Although there is limited peer-reviewed literature that examines instructional strategies for teaching DLS to students with ASD (Bennett & Dukes, 2014), the strategies used should help students meet their criteria for maximum performance so that they can function adequately and as independently as possible in any environment. The other consideration that elementary teachers should take into account is that DLS instructional strategies should be used with repetition and fidelity. Peer-reviewed literature supports the notion that to improve the skills of students with ASD, teachers must consistently repeat what they want students to learn, and how they want students to perform specific DLS (Sibold, 2011). In an attempt to decrease these deficits and improve students' quality of life, special education elementary teachers should implement instructional strategies such as video modeling, ABA, or picture prompting with fidelity (Cardon, Guimond, & Smith-Treadwell, 2015).

Lack of Time in Schedule

According to the data, special education elementary teachers were not provided time in their schedule to teach DLS to students with ASD. In order for teachers to be able to address DLS deficits in students with ASD, time must be incorporated in their schedules to teach DLS. Participants stated that time is allocated for academic subject matters, however, DLS is taught in isolation and students usually do not master DLS in the little time that they are addressed throughout the school day. Participant B1.1 stated that having scheduled time to teach DLS would students with ASD to have consistency learning the DLS they lack. Participant D1.1 claimed, "not having time to teach DLS contributes to teacher frustration," because students with ASD who lack DLS depend on the adults to help them perform these skills, and adult assistance could be used during

instruction. If time is allocated in the teachers' schedules to teach DLS, it is possible for students with ASD to show improvement in independently performing DLS.

Lack of Administrative Support in Formally Addressing DLS

Identified in the data was the lack of administrative support in formally addressing DLS. Administrators should first be instructional leaders, by discussing student assessments and observations with their teachers in order to identify the learning deficits of students enrolled. According to Fullan (2014), administrators help to shape the instructional and learning culture of the school environment. Teachers should have full support of administrators in order to improve the teaching and learning school culture. In the data presented, seven out of 10 participants expressed that they lack administrative support where DLS instruction is concerned; therefore teachers are not able to address DLS deficits for students with ASD. Participant F1.1 pointed out that the "administrators are aware that many of our students demonstrate DLS deficits, yet teachers do not formally address students' DLS deficits." Participants stressed that administrators' support of formal DLS instruction is vital because this would allow them to help improve DLS for students with ASD.

Limitations

The study contained several limitations. Two of the limitations were the number of participants and their geographic location. The study was bounded by location and limited number of participants. Although participants' schools were located in different boroughs of New York City, the sample population did not include special education elementary teachers from other school districts in the same boroughs of New York City. As a result, the transferability of the study would not be increased due to resource and

time limitations; therefore these variables were uncontrollable. In order to obtain rich, thick information during data collection, one of the characteristics of qualitative case study methodology used was purposeful sampling (Robinson, 2014). Noting this as a limitation, it was necessary to limit the scope to a specified number of participants and school district for the study's purpose.

Another limitation to this study was the possibility of researcher bias. As an employee in the same districts as the participants, potential bias was acknowledged. In an attempt to diminish or eliminate prejudices, reflexivity was used to identify any biases (Tong et al., 2014), member checking (Reilly, 2013) was done to validate the collected information, and an audit trail provided evidence from the study's beginning to end.

Recommendations

The purpose of this qualitative case study was to identify the perceptions of special education elementary teachers regarding their ability to teach DLS to students with ASD. The following recommendations may be applicable for further research. Data was collected from 10 participants in one of the school districts in New York City. Based on the findings from the collected data, three recommendations for future research emerged; expanding the study to include other elementary special education schools outside of the specified school district in New York City that enrolls students with ASD, providing an array of professional development opportunities to special education elementary teachers on how to instructionally address DLS deficits for students with ASD, and providing administrative and collegial support as well as allocating time for elementary special education teachers to address DLS needs of students with ASD. The

recommendations are suggested to assist in increasing the special education elementary teachers' sense of self-efficacy in teaching DLS to students with ASD.

The first recommendation is to expand the study to include other elementary special education schools outside of the specified school district in New York City that enrolls students with ASD. There are other schools located within the New York City Department of Education. These schools also enroll students with ASD and provide instruction to meet the needs of this diverse population; therefore, it is vital that data from this study is compared with data from different settings. Expanding the study would assist in strengthening the study's validity as well as increasing the transferability of the findings.

Another recommendation identified is to provide an array of professional development opportunities to special education elementary teachers on how to instructionally address DLS deficits for students with ASD. Special education elementary teachers should be provided comprehensive training specific to addressing DLS deficits in their students. Participants in the study expressed that little or no training was received where DLS instruction for students with ASD is concerned. Professional development to address DLS should be an integral component of the school district's program if teachers are expected to address these skills. Additionally, in order to increase special education elementary teachers' level of self-efficacy for teaching DLS, teachers should be afforded frequent opportunities to engage in and build on their own successful DLS instructional strategies.

The third recommendation is that elementary special education school district leaders and school administrators should provide administrative and collegial support to

elementary special education teachers, as well as allocate time to address DLS needs of students with ASD. The participants in the study voiced that although they are expected to address DLS deficits in their students, they do not have the formal support of their administrators. School administrators can contribute greatly to students' optimal performance in DLS if they formally support their teachers and allocate time for administrative and collegial collaboration. Administrators can also provide opportunities for grade—level, school—wide, or site—wide planning once they inquire about students' DLS needs from their elementary special education teachers. Incorporating common collegial planning time into teachers' schedules can help to promote collaboration that may positively affect DLS instruction in order to meet the individual needs of students with ASD.

Implications

The purpose of the research was to identify special education elementary teachers' perceptions concerning their ability to teach DLS to students with ASD. In addition to the study's purpose, it was my expectation that the findings of the study would further influence stakeholders, such as special education school and district leaders, and special education teachers in supporting positive social change. Specifically, implications for positive social change include increased, ongoing, sustainable professional development opportunities related to teaching DLS to students with ASD, and increase awareness and comprehension of the value of teacher voice in DLS instructional practices for students with ASD.

Research findings have the potential to create positive social change for groups or voices in education that are generally underrepresented. The analysis of data from this

study indicated that special education elementary teachers of students with ASD felt strongly about formally providing DLS instruction to their students with ASD who display these deficits. They believed that DLS are necessary everyday skills that should be taught. Although this is noted, they explained that they are willing to teach DLS skills with the formal acknowledgement and support of their administrators, and time allotted to teach these skills. They also claimed that a factor that contributes to their ability to teach DLS instruction to students with ASD is the opportunity to attend professional development specific to DLS instruction. The participants have tried different strategies throughout their teaching experiences and as a result, identified ABA, picture prompting, and video modeling as strategies that they have used. Finally, some participants found that instructional strategies used to address DLS are only effective if they are specific to students' learning needs, and if strategies are used with repetition and fidelity.

The results of the study will encourage change at the organizational level in that teachers will benefit from increased, ongoing, sustainable professional development opportunities related to teaching DLS to students with ASD. Professional development would allow for teachers to advance in their practice. Professional development specific to DLS would also allow for the increase of teachers' self-efficacy. Teachers would benefit from meaningful professional development in that they would gain new skills, and their current instructional skills will be enhanced. Professional development opportunities would also provide teachers with learning experiences that are purposeful in order for them to meaningfully contribute to their students' learning.

The results of the study will encourage change at the organizational as well as at the societal level, in that there would be increased awareness and comprehension of the

value of teacher voice in DLS instructional practices for students with ASD. Kahlenberg and Potter (2014) pointed out that teacher voice is important because it can have a positive effect on school climate, which in turn can influence change at the district level. As a result of teacher voice, further research that examines ways to address DLS deficits in students with ASD could be sparked. Research could then help put in place meaningful quality DLS programs and/or curriculums that are geared toward addressing DLS deficits for students with ASD.

Recommendations For Practice

This qualitative case study was conducted to understand the perceptions of special education elementary teachers regarding their ability to teach DLS to students with ASD. The perceptions of the participants in this study were not representative of all special education elementary teachers who instruct DLS to students with ASD. The themes that emerged from this study furnished a framework for increasing understanding of teachers and positively influence DLS programs for students with ASD who demonstrate difficulty performing these skills. The analysis of data based upon the participants' perceptions revealed that DLS instruction is beneficial for students with ASD who have challenges performing these skills. As the researcher, it is vital to share the findings of the study so that principals, district and school leaders, and elementary teachers can pinpoint instructional strategies and ideas for DLS improvement in students with ASD. The findings of the study will be disseminated to members of the school district, the administrators of the participating schools and the teachers who participated in the study. The following recommendations for practice are suggested:

1. School administrators should discuss with their teachers students' deficits and formally recognize these deficits in order to provide opportunities for teachers to collaborate on addressing these deficits. Since the teachers are expected to address DLS deficits if they are noticed in students with ASD when they enter school, elementary special education teachers should rely on formal assessments that will identify DLS deficits so that they can target and plan for addressing them.
2. School administrators should support teachers in addressing DLS deficits that exist in students with ASD. Administrators should begin and continue communication with teachers about their DLS instructional needs that may positively influence students' learning outcomes. School—wide collaboration should be encouraged to discuss DLS performance expectations of students in order to develop a shared vision about DLS instruction. Administrators should formally support teachers by providing planning time to maximize collaboration to plan for DLS instruction.
3. In regards to DLS instruction, school administrators should identify the needs of their special education elementary teachers. They should address these needs by providing teachers with professional development opportunities that target these needs and improve their professional practice as special educators. Professional development should focus on assessing as well as addressing DLS. According to Kretlow, Cooke, and Wood (2012), professional development is an effective way to promote pedagogical change. Professional development should also be sustained and ongoing. Additionally, school

administrators could provide opportunities for special education elementary teachers to observe other teachers within their own schools or within the school district. Such experience would add to their knowledge of instructional strategies and approaches to address DLS deficits for students with ASD.

Conclusion

Identifying effective instructional strategies to the improvement of DLS for students with ASD continues to remain a focus in order to assist in enhancing their quality of life. Findings from the study indicated that special education elementary teachers believed DLS are necessary everyday skills, and DLS instruction is vital in fostering independent functioning for their students with ASD who demonstrate such deficit. Research has clearly concurred with these views, highlighting that DLS should be a priority in students with ASD' educational programs (Gardner & Wolfe, 2013) as teaching these skills "produce meaningful outcomes" (Neely et al., 2013, p. 184), especially when these students become adults. Participants voiced that although they are expected to address DLS deficits, they have very little DLS training or have never been trained, and time is not allotted to address these skills. Their experiences have stemmed from what they have tried over the years, causing them to rely only on what they have learned over the years of their teaching careers.

Although many instructional strategies to address DLS deficits for students with ASD exist, there are limited studies that indicate understanding of special education elementary teachers' perspectives regarding these strategies. In this study, participants' views were highlighted in order to add to existing research. The instructional strategies mentioned by participants must be used with repetition and fidelity in order to promote

acquisition of these skills. Addressing DLS deficits must be done with consistency so that students with ASD can make meaningful gains. Special education elementary teachers in this study were seen as change agents, and in order for change to be effective, school administrators and other stakeholders must be on board. They must enable teachers with the appropriate professional development opportunities to employ instruction appropriately. Although this study offered helpful knowledge in terms of instructionally addressing DLS for students with ASD, further studies are needed concerning the context in which DLS instruction for students with ASD have been evaluated.

References

- Akomolafe, M. J., & Ogunmakin, A. O. (2014). Job satisfaction among secondary school teachers: Emotional intelligence, occupational stress and self-efficacy as predictors. *Journal of Educational and Social Research, 4*(3), 487
- Aldi, C., Crigler, A., Kates-McElrath, K., Long, B., Smith, H., Rehak, K., & Wilkinson, L. (2016). Examining the effects of video modeling and prompts, to teach activities of daily living skills. *Behavior Analysis in Practice, 9*(4), 384-388.
- Alexander, J. L., Ayres, K. M., Smith, K. A., Shepley, S. B., & Mataras, T. K. (2013). Using video modeling on an iPad to teach generalized matching on a sorting mail task to adolescents with autism. *Research in Autism Spectrum Disorders, 7*(11), 1346-1357.
- Alhojailan, M. I. (2012). Thematic analysis: A critical review of its process and evaluation. *West East Journal of Social Sciences, 1*(1), 39-47.
- Allen, K. A., & Bowles, T. V. (2014). Examining the effects of brief training on the attitudes and future use of behavioral methods by teachers. *Behavioral Interventions, 29*(1), 62-76.
- Aluwihare-Samaranayake, D. (2012). Ethics in qualitative research: a view of the participants' and researchers' world from a critical standpoint. *International Journal of Qualitative Methods, 11*(2), 64-81.
- Alzrayer, N., Banda, D. R., & Koul, R. K. (2014). Use of iPad/iPods with individuals with autism and other developmental disabilities: A meta-analysis of communication interventions. *Review Journal of Autism and Developmental*

Disorders, 1(3), 179-191.

American Psychiatric Association. (2011) DSM-5 proposed criteria for autism spectrum disorder designed to provide more accurate diagnosis and treatment. Retrieved May 23, 2015, from <http://www.DSM-5.org/Documents/12-03%20Autism%20Spectrum%20Disorders%20-%20DSM-5.pdf>

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: American Psychiatric Association.

Arthur, J, Waring, M, Coe, R & Hedges, LV (eds) (2012). *Research methods and methodologies in education*. SAGE, Thousand Oaks, CA.

Artino Jr, A. R. (2012). Academic self-efficacy: From educational theory to instructional practice. *Perspectives on medical education*, 1(2), 76-85.

Ashwood, K. L., Tye, C., Azadi, B., Cartwright, S., Asherson, P., & Bolton, P. (2015). Brief report: Adaptive functioning in children with ASD, ADHD and ASD+ ADHD. *Journal of autism and developmental disorders*, 45(7), 2235-2242.

Asperger, H. (1944). Die 'aunstisehen Psychopathen' im Kindesalter. *Archiv fur psychiatrie and Nervenkrankheiten*, 117, 76-136.

Avanzi, L., Miglioretti, M., Velasco, V., Balducci, C., Vecchio, L., Fraccaroli, F., & Skaalvik, E. M. (2013). Cross-validation of the norwegian teacher's self-efficacy scale (NTSES). *Teaching and Teacher Education* 31, 69-78.

Ayres, K. M., Lowrey, K. A., Douglas, K. H., & Sievers, C. (2011). I can identify Saturn but I can't brush my teeth: What happens when the curricular focus for students with severe disabilities shifts. *Education and Training in Autism and Developmental Disabilities*, 46(1), 11-21.

- Ayres, K. M., Mechling, L., & Sansosti, F. J. (2013). The use of mobile technologies to assist with life skills/independence of students with moderate/severe intellectual disability and/or autism spectrum disorders: Considerations for the future of school psychology. *Psychology in the Schools, 50*(3), 259-271.
- Baghdadli, A., Assouline, B., Sonié, S., Pernon, E., Darrou, C., Michelon, C., ... & Pry, R. (2012). Developmental trajectories of adaptive behaviors from early childhood to adolescence in a cohort of 152 children with autism spectrum disorders. *Journal of Autism and Developmental Disorders, 42*(7), 1314-1325.
- Bal, V. H., Kim, S. H., Cheong, D., & Lord, C. (2015). Daily living skills individuals with autism spectrum disorder from 2 to 21 years of age. *Autism, 19*(7), 774-784.
- Bambara, L. M., Koger, F., & Bartholomew, A. (2011). Building skills for home and community. In M. E. Snell & F. Brown (Eds.), *Instruction of students with severe disabilities* (7th ed., pp. 529-569). Upper Saddle River, NJ: Pearson.
- Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice Hall.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. New Jersey: Prentice Hall.
- Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist, 28*(2), 117-148
- Bandura, A. (1995). *Self-efficacy in changing societies*. UK: Cambridge University Press.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York, NY: W. H. Freeman and Company.
- Bandura, A., & Walters, R. H. (1963). *Social learning and personality development* (Vol. 14). New York: Holt, Rinehart and Winston.

- Bandura, A. (2006). *Guide for constructing self-efficacy scales. Self-efficacy beliefs of adolescents, 5*, 307-337.
- Banks, J., & Mhunpiew, N. (2012). Authentic leadership, social cognitive theory, and character education: The transforming of theories into practices. Retrieved January 18, 2016, from <http://files.eric.ed.gov/fulltext/ED539795.pdf>
- Baron-Cohen, S. (2015). Leo Kanner, Hans Asperger, and the discovery of autism. *The Lancet, 386*(10001), 1329-1330.
- Baskarada, S. (2014). Qualitative case study. *The Qualitative Report, 19*(40), 1-18.
- Belzile, J. A., & Öberg, G. (2012). Where to begin? Grappling with how to use participant interaction in focus group design. *Qualitative Research, 12*(4), 459-472.
- Bennett, K. D., & Dukes, C. (2014). A systematic review of teaching daily living skills to adolescents and adults with autism spectrum disorder. *Review Journal of Autism and Developmental Disorders, 1*(1), 2-10.
- Bimbrahw, J., Boger, J., & Mihailidis, A. (2012). Investigating the efficacy of a computerized prompting device to assist children with autism spectrum disorder with activities of daily living. *Assistive Technology, 24*(4), 286-298.
- Blake, J., Hoyme, H. E., & Crotwell, P. L. (2013). A brief history of autism, the autism/vaccine hypothesis and a review of the genetic basis of autism spectrum disorders. *South Dakota Medicine, 15*, 58-65.
- Bleuler, E. (1911). Dementia praecox oder Gruppe der Schizophrenien. *Handbuch der psychiatrie.*
- Blumberg, S. J., Bramlett, M. D., Kogan, M. D., Schieve, L. A., Jones, J. R., & Lu, M. C.

- (2013). Changes in prevalence of parent-reported autism spectrum disorder in school-aged US children: 2007 to 2011–2012. *National Health Statistics Reports*, 65(20), 1-7.
- Boffa, J., Moules, N., Mayan, M., & Cowie, R. L. (2013). More than just great quotes: an introduction to the Canadian tri-council's qualitative requirements. *Canadian Journal of Infectious Diseases and Medical Microbiology*, 24(2), 103-108.
- Browder, D. M., Wood, L., Thompson, J., & Ribuffo, C. (2014). Evidence-based practices for students with severe disabilities. *CEEDAR Document NO. IC-3*. CEEDAR Center. Retrieved on March 7, 2017 from http://cedar.education.ufl.edu/wp-content/uploads/2014/09/IC-3_FINAL_03-0315.pdf
- Burke, R. V., Allen, K. D., Howard, M. R., Downey, D., Matz, M. G., & Bowen, S. L. (2013). Tablet-based video modeling and prompting in the workplace for individuals with autism. *Journal of Vocational Rehabilitation*, 38(1), 1-14.
- Burns, D. P., Leung, C., Parsons, L., Singh, G., & Yeung, B. (2012). Limitations of the case study approach to pedagogical ethics education. *Transformative Dialogues: Teaching & Learning Journal*, 6(1), 1-10
- Burton, C. E., Anderson, D. H., Prater, M. A., & Dyches, T. T. (2013). Video self modeling on an iPad to teach functional math skills to adolescents with autism and intellectual disability. *Focus on Autism and Other Developmental Disabilities*, 28(2), 67-77.
- Calik, T., Sezgin, F., Kavgaci, H., & Cagatay Kilinc, A. (2012). Examination of relationships between instructional leadership of school principals and self-

efficacy of teachers and collective teacher efficacy. *Educational Sciences: Theory and Practice*, 12(4), 2498-2504.

Cannella-Malone, H. I., Wheaton, J. E., Wu, P. F., Tullis, C. A., & Park, J. H. (2012).

Comparing the effects of video prompting with and without error correction on skill acquisition for students with intellectual disability. *Education and Training in Autism and Developmental Disabilities*, 47(3), 332-344.

Cannella-Malone, H. I., Brooks, D. G., & Tullis, C. A. (2013). Using self-directed video

prompting to teach students with intellectual disabilities. *Journal of Behavioral Education*, 22(3), 169-189.

Carbone, V. J., O'Brien, L., Sweeney-Kerwin, E. J., & Albert, K. M. (2013). Teaching

eye contact to children with autism: A conceptual analysis and single case study. *Education and Treatment of Children*, 36(2), 139-159.

Cardon, T. A. (2012). Teaching caregivers to implement video modeling imitation

training via iPad for their children with autism. *Research in Autism Spectrum Disorders*, 6(4), 1389-1400.

Cardon, T. A., Guimond, A., & Smith-Treadwell, A. M. (2015). Video modeling and

children with autism spectrum disorder: a survey of caregiver perspectives. *Education and Treatment of Children*, 38(3), 403-419.

Carp, C. L., Peterson, S. P., Arkel, A. J., Petursdottir, A. I., & Ingvarsson, E. T. (2012). A

Further Evaluation of picture prompts during auditory-visual conditional discrimination training. *Journal of Applied Behavior Analysis*, 45(4), 737-751.

Carter, E. W., Harvey, M. N., Taylor, J. L., & Gotham, K. (2013). Connecting youth and

young adults with autism spectrum disorders to community life. *Psychology in the*

Schools, 50(9), 888-898.

- Centers for Disease Control and Prevention (2014). Prevalence of autism spectrum disorder among children aged 8 years—Autism and developmental disabilities monitoring network, 11 sites, United States, 2010. In *Morbidity and mortality weekly reports*. Retrieved September 26, 2015, from http://www.cdc.gov/mmwr/preview/mmwrhtml/ss6302a1.htm?s_cid=ss6302a1wi
- Chakrabarti, S., & Fombonne, E. (2014). Pervasive developmental disorders in preschool children: confirmation of high prevalence. *American Journal of Psychiatry*, 162(6), 1133-1141.
- Chalmers, I., Bracken, M. B., Djulbegovic, B., Garattini, S., Grant, J., Gülmezoglu, A. M., ... & Oliver, S. (2014). How to increase value and reduce waste when research priorities are set. *The Lancet*, 383(9912), 156-165.
- Chan, Z. C., Fung, Y. L., & Chien, W. T. (2013). Bracketing in phenomenology: only undertaken in the data collection and analysis process?. *The Qualitative Report*, 18(30), 1.
- Chang, Y. J., Wang, F. T. Y., Chen, S. F., & Ma, T. S. (2012). Anomaly detection to increase commuter safety for individuals with cognitive impairments. *Journal of Developmental and Physical Disabilities*, 24(1), 9-17.
- Cherian, J., & Jacob, J. (2013). Impact of self efficacy on motivation and performance of employees. *International Journal of Business and Management*, 8(14), 80-88.
- Chung, W., Chung, S., Edgar-Smith, S., Palmer, R. B., Delambo, D., & Huang, W. (2015). An examination of in-service teacher attitudes toward students with

- autism spectrum disorder: Implications for professional practice. *Current Issues in Education*, 18(2), 1-10.
- Cohen, L., Manion, L., & Morrison, K. (2013). *Research methods in education* (7th ed.). London: Routledge-Falmer.
- Corbin, J., & Strauss, A. (1990). Grounded theory research: Procedures, canons, and evaluative criteria. *Qualitative Sociology*, 13(1), 1-21.
- Courtade, G., Spooner, F., Browder, D., & Jimenez, C. B. (2012). Seven reasons to promote standards-based instruction for students with severe disabilities. *Education and Training in Autism and Developmental Disabilities*, 47(1), 3-13.
- Creswell, J. W. (2012). *Educational research: Planning, conducting and evaluating quantitative and qualitative research* (4th ed.). Boston, MA: Pearson Education.
- Creswell, J. W. (2013). *Research design: Qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, CA: Sage Publications.
- Creswell, J. W. (2014). *A concise introduction to mixed method research*. Thousand Oaks, CA: Sage Publications.
- Creswell, J. W. (2015). *A concise introduction to mixed method research*. Thousand Oaks, CA: Sage Publications.
- Curry, V. E., & Jones, R. (2014). Implementing transition activities: How competent do special education teachers feel? *Delta Journal of Education*, 4(1), 104-114.
- Day, A. L. (2015). *Comparing the efficacy of video modeling to invivo modeling for teaching vocational skills to adolescents diagnosed with autism spectrum disorder* (Doctoral dissertation, Youngstown State University).
- Dimopoulou, E. (2012). Self efficacy and collective efficacy beliefs of teachers for

- children with autism. *Literacy Information and Computer Education Journal*, 3(1), 509-520.
- Dixon, F. A., Yssel, N., McConnell, J. M., & Hardin, T. (2014). Differentiated instruction, professional development, and teacher efficacy. *Journal for the Education of the Gifted*, 37(2), 111-127.
- Doris, I. (2012). Assessment of Autism Spectrum Disorder. *IFE Psychologia*, 20(2), 18-21.
- Drahota, A., Wood, J. J., Sze, K. M., & Van Dyke, M. (2011). Effects of cognitive behavioral therapy on daily living skills in children with high-functioning autism and concurrent anxiety disorders. *Journal of Autism and Developmental Disorders*, 41(3), 257-265.
- Dworkin, S. L. (2012). Sample size policy for qualitative studies using in-depth interviews. *Archives of Sexual Behavior*, 41, 1319-1320.
- Eker, S., & Zimmermann, N. (2016). Using Textual Data in System Dynamics Model Conceptualization. *Systems*, 4(3), 1-14
- Elo, S., Kääriäinen, M., Kanste, O., Pölkki, T., Utriainen, K., & Kyngäs, H. (2014). Qualitative content analysis. *SAGE Open*, 4(1), 1-10.
- Erickson, F. (2012). Qualitative research methods for science education. In *Second international handbook of science education*. Springer Netherlands.
- Erlingsson, C., & Brysiewicz, P. (2013). Orientation among multiple truths: An introduction to qualitative research. *African Journal of Emergency Medicine*, 3(2), 92-99.
- Ferraioli, S. J., & Harris, S. L. (2013). Comparative effects of mindfulness and skills-

based parent training programs for parents of children with autism: Feasibility and preliminary outcome data. *Mindfulness*, 4(2), 89-101.

Fiske, S. T., & Hauser, R.M. (2014). Protecting human research participants in the age of big data. *Proceedings of the National Academy of Sciences*, 111(38), 13675-13676.

Flynn, L., & Healy, O. (2012). A review of treatments for deficits in social skills and self help skills in autism spectrum disorder. *Research in Autism Spectrum Disorders*, 6(1), 431-441.

Folkestad, B. (2008). Analysing interview data: Possibilities and challenges. Eurospheres working paper series. Online Working Paper, (13), 1-18. Retrieved February 8, 2017 from <http://eurospheres.org>

Fullan, M. (2014). The principal: Three keys to maximizing impact. San Francisco, CA: Jossey-Bass.

Ganz, J. B., Boles, M. B., Goodwin, F. D., & Flores, & M. M. (2014). Efficacy of handheld electronic visual supports to enhance vocabulary in children with ASD. *Focus on Autism and other Developmental Disabilities*, 29(1), 3-12.

Gardner, S., & Wolfe, P. (2013). Use of video modeling and video prompting interventions for teaching daily living skills to individuals with autism spectrum disorders: A review. *Research and Practice for Persons with Severe Disabilities*, 38(2), 73-87.

Gardner, S. J., & Wolfe, P. S. (2015). Teaching students with developmental disabilities daily living skills using point-of-view modeling plus video prompting with error correction. *Focus on Autism and Other Developmental Disabilities*, 30(4), 195

207.

Garvis, S., Pendergast, D., & Keogh, J. (2012). Changes in teacher self-efficacy in the first year of primary school teacher education study. In *The Journal of the World Universities Forum* 5(1), 87-95

Gaver, W. (2012). *What should we expect from research through design*. Retrieved January 18, 2016, from http://www.researchgate.net/profile/William_Gaver/publication/239761323_What_should_we_expect_from_research_through_design/links/5458aa5a0cf2bccc49118a7b.pdf

Gentry, R. (2011). Economies and effectiveness in educating personnel for individuals with disabilities. *Journal of Instructional Pedagogies*, 6(1), 1-12.

Gibbs, V., Aldridge, F., Chandler, F., Witzlsperger, E., & Smith, K. (2012). Brief report: an exploratory study comparing diagnostic outcomes for autism spectrum disorders under DSM-IV-TR with the proposed DSM-5 revision. *Journal of Autism and Developmental Disorders*, 42(8), 1750-1756.

Gray, K. M., Keating, C. M., Taffe, J. R., Brereton, A. V., Einfeld, S. L., Reardon, T. C., & Tonge, B. J. (2014). Adult outcomes in autism: Community inclusion and living skills. *Journal of Autism and Developmental Disorders*, 44(12), 3006-3015.

Grzadzinski, R., Huerta, M., & Lord, C. (2013). DSM-5 and autism spectrum disorders (ASDs): an opportunity for identifying ASD subtypes. *Molecular autism*, 4(1), 1-6.

Green, S. A., & Carter, A. S. (2014). Predictors and course of daily living skills development in toddlers with autism spectrum disorders. *Journal of Autism and*

Developmental Disorders, 44(2), 256-263.

Green, J. L., Camilli, G., & Elmore, P. B. (2012). *Handbook of complementary methods in education research* (3rd ed.). New York, NY: Taylor and Francis.

Grierson, A. L., & Woloshyn, V. E. (2013). Walking the talk: Supporting teachers' growth with differentiated professional learning. *Professional Development in Education*, 39(3), 401-419.

Griffith, R., Massey, D., & Atkinson, T. S. (2013). Examining the forces that guide teaching decisions. *Reading Horizons*, 52(4), 305.

Gubrium, J. F. (Ed.). (2012). *The sage handbook of interview research: The complexity of the craft*. Thousand Oaks, CA: Sage Publications.

Gunn, K. C., & Delafield-Butt, J. T. (2015). Teaching children with autism spectrum disorder with restricted interests: A review of evidence for best practice. *Review of Educational Research*, 86(2), 408-430.

Guo, Y., Dynia, J. M., Pelatti, C. Y., & Justice, L. M. (2014). Self-efficacy of early childhood special education teachers: Links to classroom quality and children's learning for children with language impairment. *Teaching and Teacher Education*, 39, 12-21.

Guskey, T. R. (2002). Professional development and teacher change. *Teachers and teaching*, 8(3), 381-391.

Hallahan, D., Kauffman, J., & Pullen. (2012). *Exceptional learners: An introduction to special education*. (12th ed.). Upper Saddle River, NJ: Pearson Education Inc.

Hand, K. E. (2014). Building confident teachers: Preservice Physical education teachers' efficacy beliefs. *Journal of Case Studies in Education*, 6, 1-9.

- Harper, M., & Cole, P. (2012). Member checking: Can benefits be gained similar to group therapy? *The Qualitative Report, 17*(2), 510-517.
- Harrison, J., MacGibbon, L., & Morton, M. (2001). Regimes of trustworthiness in qualitative research: The rigors of reciprocity. *Qualitative Inquiry, 7*(3), 323-345.
- Heller, J. I., Daehler, K. R., Wong, N., Shinohara, M., & Miratrix, L. W. (2012). Differential effects of three professional development models on teacher knowledge and student achievement in elementary science. *Journal of Research in Science Teaching, 49*(3), 333-362.
- Hiebert, J., & Morris, A. K. (2012). Teaching, rather than teachers, as a path toward improving classroom instruction. *Journal of Teacher Education, 63*(2), 92-102.
- Higginson, R., & Chatfield, M. (2012). Together we can do it: A professional development project for regular teachers' of children with autism spectrum disorder. *Kairaranga, 13*(2), 29-40.
- Holzberger, D., Philipp, A., & Kunter, M. (2013). How teachers' self-efficacy is related to instructional quality: A longitudinal analysis. *Journal of Educational Psychology, 105*(3), 774-786.
- Hong, E. R., Ganz, J. B., Ninci, J., Neely, L., Gilliland, W., & Boles, M. (2015). An evaluation of the quality of research on evidence-based practices for daily living skills for individuals with autism spectrum disorder. *Journal of Autism and Developmental Disorders, 45*(9), 2792-2815.
- Houghton, C., Casey, D., Shaw, D., & Murphy, K. (2013). Rigour in qualitative case study research. *Nurse Researcher, 20*(4), 12-17.
- Ishak, N., & Bakar, A. (2012). Qualitative data management and analysis using NVivo:

An approach used to examine leadership qualities among student leaders.

Education Research Journal, 2(3), 94-103.

Ivy, J. W., & Schreck, K. A. (2016). The efficacy of ABA for individuals with autism across the Lifespan. *Current Developmental Disorders Reports*, 3(1), 57-66.

Johnson, J. W., Blood, E., Freeman, A., & Simmons, K. (2013). Evaluating the effectiveness of teacher-implemented video prompting on an iPod Touch to teach food-preparation skills to high school students with autism spectrum disorders. *Focus on Autism and Other Developmental Disabilities*, 28(3), 147-158.

Johnson, B. & Christensen, L. (2012). *Educational research* (4th ed.). Thousand Oaks, CA: Sage Publications.

Kahlenberg, R. D., & Potter, H. (2014). Why teacher voice matters. *American Educator*, 38(4), 1-5.

Kanner, L. (1943). Autistic disturbances of affective contact. *Nervous child*, 2(3), 217-250.

Kanner, L. (1951). The conception of wholes and parts in early infantile autism. *American Journal of Psychiatry*, 108(1), 23-26.

Kanner, L. (1971). Follow-up study of eleven autistic children originally reported in 1943. *Journal of Autism and Childhood Schizophrenia*, 1(2), 119-145.

Karl, J., Collins, B. C., Hager, K. D., & Ault, M. J. (2013). Teaching core content embedded in a functional activity to students with moderate intellectual disability using a simultaneous prompting procedure. *Education and Training in Autism and Developmental Disabilities*, 48(3), 363-378.

- Kasari, C., Rotheram-Fuller, E., Locke, J., & Gulsrud, A. (2012). Making the connection: Randomized controlled trial of social skills at school for children with autism spectrum disorders. *Journal of Child Psychology and Psychiatry*, 53(4), 431-439.
- Kelley, K. R., Test, D. W., & Cooke, N. L. (2013). Effects of picture prompts delivered by a video iPod on pedestrian navigation. *Exceptional Children*, 79(4), 459-474.
- Kellems, R. O., & Morningstar, M. E. (2012). Using video modeling delivered through iPods to teach vocational tasks to young adults with autism spectrum disorders. *Career Development and Transition for Exceptional Individuals*, 35(3), 155-167.
- Khankeh, H., Ranjbar, M., Khorasani-Zavareh, D., Zargham-Boroujeni, A., & Johansson, E. (2015). Challenges in conducting qualitative research in health: A conceptual paper. *Iranian Journal of Nursing and Midwifery Research*, 20(6), 635.
- Kim, Y. S., Fombonne, E., Koh, Y. J., Kim, S. J., Cheon, K. A., & Leventhal, B. L. (2014). A comparison of DSM-IV pervasive developmental disorder and DSM-5 autism spectrum disorder prevalence in an epidemiologic sample. *Journal of the American Academy of Child & Adolescent Psychiatry*, 53(5), 500-508.
- Klett, L. S., & Turan, Y. (2012). Generalized effects of social stories with task analysis for teaching menstrual care to three young girls with autism. *Sexuality and Disability*, 30(3), 319-336.
- Kluckner, P. M., Weiss, A., Sundstrom, P., & Tscheligi, M. (2013). Two actors: Providers and consumers inform the design of an ambient energy saving display with persuasive strategies. *First International Conference on Behavior Change Support Systems*, pp. 33-44. Retrieved July 8, 2016, from <http://ceur-ws.org/Vol973/bcss6.pdf>

- Koegel, L., Matos-Freden, R., Lang, R., & Koegel, R. (2012). Interventions for children with autism spectrum disorders in inclusive school settings. *Cognitive and Behavioral Practice, 19*(3), 401-412.
- Koenig, K. P., Buckley-Reen, A., & Garg, S. (2012). Efficacy of the get ready to learn yoga program among children with autism spectrum disorders: A pretest–posttest control group design. *American Journal of Occupational Therapy, 66*(5), 538-546.
- Könings, K. D., Seidel, T., Jeroen, J., & van Merriënboer, G. (2014). Participatory design of learning environments: integrating perspectives of students, teachers, and designers. *Instructional Science, 42*(1), 1-9.
- Kramer, J., Liljenquist, K., & Coster, W. (2015). Validity, reliability, and usability of the pediatric evaluation of disability inventory-computer adaptive test for autism spectrum disorders. *Developmental Medicine and Child Neurology, 58*(3), 255-261.
- Kretlow, A. G., Cooke, N. L., & Wood, C. L. (2012). Using in-service and coaching to increase teachers' accurate use of research-based strategies. *Remedial and Special Education, 44*(4), 234–246.
- Kuo, R., Chang, M., Lyu, C. W., & Heh, J. S. (2013). A pilot study of situated game for autistic children learning activities of daily living. *Research and Practice in Technology Enhanced Learning, 8*(2), 291-315.
- Labaree, R. (2013). *Organizing your social sciences research paper: Purpose of guide*. Retrieved January 16, 2016, from <http://libguides.usc.edu/writingguide>
- LaChausse, R. G., Clark, K. R., & Chapple, S. (2014). Beyond teacher training: The

critical role of professional development in maintaining curriculum fidelity.

Journal of Adolescent Health, 54(3), S53 - S58.

Lakshmanan, A., Heath, B. P., Perlmutter, A., & Elder, M. (2011). The impact of science content and professional learning communities on science teaching efficacy and standards-based instruction. *Journal of Research in Science Teaching, 48(5), 534-551.*

Lastrapes, W., & Negishi, M. (2012). Foundational field experience: A window into preservice teachers' cultural consciousness and self-efficacy for teaching diverse learners. *SRATE Journal, 21(1), 37-43.*

Leaf, J. B., Leaf, R., Taubman, M., McEachin, J., & Delmolino, L. (2014). Comparison of flexible prompt fading to error correction for children with autism spectrum disorder. *Journal of Developmental and Physical Disabilities, 26(2), 203-224.*

Leaf, J. B., Leaf, R., McEachin, J., Taubman, M., Ala'i-Rosales, S., Ross, R. K., ... & Weiss, M. J. (2015). Applied behavior analysis is a science and, therefore, progressive. *Journal of Autism and Developmental Disorders, 46(2), 720-731.*

Lee, O., Deaktor, R., Enders, C., & Lambert, J. (2008). Impact of a multiyear professional development intervention on science achievement of culturally and linguistically diverse elementary students. *Journal of Research in Science Teaching, 45(6), 726-747.*

Lee, B., Cawthon, S., & Dawson, K. (2013). Elementary and secondary teacher self efficacy for teaching and pedagogical conceptual change in a drama-based professional development program. *Teaching and Teacher Education, 30, 84-98.*

Lee, C. Y. Q., Anderson, A., & Moore, D. W. (2014). Using video modeling to toilet

- train a child with autism. *Journal of Developmental and Physical Disabilities*, 26(2), 123-134.
- Leung, L. (2015). Validity, reliability, and generalizability in qualitative research. *Journal of Family Medicine and Primary Care*, 4(3), 324.
- Lewis, S. (2015). Qualitative inquiry and research design: Choosing among five approaches. *Health Promotion Practice*, 16(4), 473-475.
- Lindsay, S., Proulx, M., Scott, H., & Thomson, N. (2014). Exploring teachers' strategies for including children with autism spectrum disorder in mainstream classrooms. *International Journal of Inclusive Education*, 18(2), 101-122.
- Lichtman, M. (2012). *Qualitative research in education: A user's guide*. (3rd ed.). Thousand Oaks, CA: Sage Publications.
- Loh, J. (2013). Inquiry into issues of trustworthiness and quality in narrative studies: A perspective. *The Qualitative Report*, 18(33), 1-15.
- Long, N. (2012). *Is qualitative a viable means of educational research? Dealing with Substance and rigor in qualitative research*, (Doctoral dissertation, Walden University): Minneapolis, MN.
- Lopata, C., Smith, R. A., Volker, M. A., Thomeer, M. L., Lee, G. K., & McDonald, C. A. (2013). Comparison of adaptive behavior measures for children with HFASDs. *Autism Research and Treatment*, 2013: Article ID 415989.
- Lord, C., & Bishop, S. L. (2015). Recent advances in autism research as reflected in DSM- criteria for autism spectrum disorder. *Annual Review of Clinical Psychology*, 11, 53-70.
- Luft, J. A., Firestone, J. B., Wong, S. S., Ortega, I., Adams, K., & Bang, E. (2011).

- Beginning secondary science teacher induction: A two-year mixed methods study. *Journal of Research in Science Teaching*, 48(10), 1199-1224.
- Luft, J. A., & Hewson, P. W. (2014). *Research on teacher professional development programs in science*. In S. K. Abell & N. G. Lederman (Eds.), *Handbook of research on science education* (Vol. II). New York, NY: Routledge.
- Malinen, O. P., Savolainen, H., Engelbrecht, P., Xu, J., Nel, M., Nel, N., & Tlale, D. (2013). Exploring teacher self-efficacy for inclusive practices in three diverse countries. *Teaching and Teacher Education*, 33, 34-44.
- Manohari, S. M., Raman, V., & Ashok, M. V. (2013). Use of vineland adaptive behavior scales II in children with autism: An Indian experience. *Journal of Indian Association for Child and Adolescent Mental Health*, 9(1), 5-12.
- Martin, C. A., Rivera, D. E., Riley, W. T., Hekler, E. B., Buman, M. P., Adams, M. A., & King, A. C. (2014). A dynamical systems model of social cognitive theory. In *American Control Conference (ACC)*, pp. 2407-2412.
- Martyr, A., & Clare, L. (2012). Executive function and activities of daily living in Alzheimer's disease: A correlational meta-analysis. *Dementia and Geriatric Cognitive Disorders*, 33(2-3), 189-203.
- Mason, R. A., Ganz, J. B., Parker, R. I., Burke, M. D., & Camargo, S. P. (2012). Moderating factors of video-modeling with other as model: A meta-analysis of single-case studies. *Research in Developmental Disabilities*, 33(4), 1076-1086.
- Matson, J. L., Hattier, M. A., & Belva, B. (2012a). Treating adaptive living skills of persons with autism using applied behavior analysis: A review. *Research in*

Autism Spectrum Disorders, 6(1), 271-276.

Matson, J. L., Kozlowski, A. M., Hattier, M. A., Horovitz, M., & Sipes, M. (2012b).

DSM-IV vs DSM-5 diagnostic criteria for toddlers with autism. *Developmental Neurorehabilitation*, 15(3), 185-190.

Matson, J. L., Tureck, K., Turygin, N., Beighley, J., & Rieske, R. (2012c). Trends and topics in early intensive behavioral interventions for toddlers with autism.

Research in Autism Spectrum Disorders, 6(4), 1412-1417.

Maxwell, J. A. (2012). *Qualitative research design: An interactive approach*. Thousand Oaks, CA: Sage Publications.

Maxwell, J. (2013). *Qualitative research design: An interactive approach* (3rd ed.).

Thousand Oaks, CA: Sage Publications.

McPartland, J. C., Reichow, B., & Volkmar, F. R. (2012). Sensitivity and specificity of Proposed DSM-5 diagnostic criteria for autism spectrum disorder. *Journal of the American Academy of Child & Adolescent Psychiatry*, 51(4), 368-383.

Mechling, L. C., Ayres, K. M., Foster, A. L., & Bryant, K. J. (2013). Comparing the effects of commercially available and custom-made video prompting for teaching cooking skills to high school students with autism. *Remedial and Special Education*, 34(6), 371-383.

Meister, C., & Salls, J. (2015). Video modeling for teaching daily living skills to children with autism spectrum disorder: A pilot study. *Journal of Occupational Therapy, Schools, & Early Intervention*, 8(4), 307-318.

Meristo, M., & Eisenschmidt, E. (2014). Novice teachers' perceptions of school climate and self-efficacy. *International Journal of Educational Research*, 67, 1-10.

- Merriam, S. B., & Tisdell, E. J. (2015). *Qualitative research: A guide to design and implementation* (4th ed.). San Francisco, CA: John Wiley & Sons.
- Mertens, S. B., Flowers, N., Anfara Jr, V. A., & Caskey, M. M. (2010). Common planning time. *Middle School Journal*, 41(5), 50-57.
- Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative data analysis: A methods sourcebook* (3rd ed.). Thousand Oaks, CA: Sage Publications, Inc.
- Miller, N. E., & Dollard, J. C. (1941). *Social learning and imitation*. New Haven: Yale University Press, 1941.
- Milner, A. R., Sondergeld, T. A., Demir, A., Johnson, C. C., & Czerniak, C. M. (2012). Elementary teachers' beliefs about teaching science and classroom practice: An examination of pre/post NCLB testing in science. *Journal of Science Teacher Education*, 23(2), 111-132.
- Moreira, M., & Peixoto, C. (2014). Qualitative task analysis to enhance sports characterization: A surfing case study. *Journal of Human Kinetics*, 42(1), 245-257.
- Morgan, M. G. (2014). Use (and abuse) of expert elicitation in support of decision making for public policy. *Proceedings of the National Academy of Sciences*, 111(20), 7176-7184.
- Morris, D. B., Usher, E. L., & Chen, J. A. (2016). Reconceptualizing the sources of teaching self-efficacy: A critical review of emerging literature. *Educational Psychology Review*, 1-39.
- National Institute of Health Office of Extramural Research (2011). *Protecting human subjects research*. Retrieved September 29, 2015, from

<http://phrp.nihtraining.com>.

- Neely, L., Rispoli, M., Camargo, S., Davis, H., & Boles, M. (2013). The effect of instructional use of an iPad® on challenging behavior and academic engagement for two students with autism. *Research in Autism Spectrum Disorders*, 7(4), 509-516.
- Ninci, J., Neely, L. C., Hong, E. R., Boles, M., Gilliland, W. D., Ganz, J. B., et al. (2015). Meta-analysis of single-case research on teaching functional living skills to individuals with ASD. *Review Journal of Autism and Developmental Disorders*, 2(2), 184-198.
- Noble, H., & Smith, J. (2015). Issues of validity and reliability in qualitative research. *Evidence Based Nursing*, 18(2), 34-35
- Ohan, J. L., Ellefson, S. E., & Corrigan, P. W. (2015). Brief Report: The impact of changing from DSM-IV 'Asperger's' to DSM-5 'autistic spectrum disorder' diagnostic labels on stigma and treatment attitudes. *Journal of Autism and Developmental Disorders*, 45(10), 3384-3389.
- Ousley, O., & Cermak, T. (2014). Autism spectrum disorder: defining dimensions and subgroups. *Current Developmental Disorders Reports*, 1(1), 20-28.
- Owen-Smith, A. A., Bent, S., Lynch, F. L., Coleman, K. J., Yau, V. M., Pearson, K. A., ... & Croen, L. A. (2015). Prevalence and predictors of complementary and alternative medicine use in a large insured sample of children with autism spectrum disorders. *Research in Autism Spectrum Disorders*, 17, 40-51.
- Pacho, T. O. (2015). Exploring participants' experiences using case study. *International Journal of Humanities and Social Science*, 5(4), 44-53.

- Palmen, A., Didden, R., & Lang, R. (2012). A systematic review of behavioral intervention research on adaptive skill building in high-functioning young adults with autism spectrum disorder. *Research in Autism Spectrum Disorders, 6*(2), 602-617.
- Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N., & Hoagwood, K. (2015). Purposeful sampling for qualitative data collection and analysis in mixed method implementation research. *Administration and Policy in Mental Health and Mental Health Services Research, 42*(5), 533-544.
- Paul, R., Loomis, R., & Chawarska, K., (2014). Adaptive behavior in toddlers under two with autism spectrum disorders. *Journal of Autism and Developmental Disorders, 44*(2), 264-270.
- Payne, D., Cannella-Malone, H., Tullis, C., & Sabielny, L. (2012). The effects of self-directed video prompting with two students with intellectual and developmental disabilities. *Journal of Developmental and Physical Disabilities, 24*(6), 617–634.
- Pennington, M. L., Cullinan, D., & Southern, L. B. (2014). Defining autism: Variability in state education agency definitions of and evaluations for autism spectrum disorders. *Autism Research and Treatment, 2014* (2), 1–8.
- Petty, N. J., Thomson, O. P., & Stew, G. (2012). Ready for a paradigm shift? Part 2: Introducing qualitative research methodologies and methods. *Manual Therapy, 17*(5), 378-384
- Pierce, W., Cheney, C. (2013). *Behavior analysis learning*. Mahwah, New York, NY: Psychology Press.
- Powell, M. B., Hughes-Scholes, C. H., & Sharman, S. J. (2012). Skill in interviewing

reduces confirmation bias. *Journal of Investigative Psychology and Offender Profiling*, 9(2), 126-134.

Pugliese, C. E., Anthony, L., Strang, J. F., Dudley, K., Wallace, G. L., & Kenworthy, L. (2015). Increasing adaptive behavior skill deficits from childhood to adolescence in autism spectrum disorder: Role of executive function. *Journal of Autism and Developmental Disorders*, 45(6), 1579-1587.

QSR International. (2014). *QSR: Qualitative data analysis software for users worldwide*.

Retrieved October 6, 2015, from <http://www.qsrinternational.com/default.aspx>

Ramdoss, S., Lang, R., Fragale, C., Britt, C., O'Reilly, M., & Sigafos, J., et al., (2012a). Use of computer-based interventions to promote daily living skills in individuals with intellectual disabilities: A systematic review. *Journal of Developmental and Physical Disabilities*, 24(2), 197-215.

Ramdoss, S., Machalicek, W., Rispoli, M., Mulloy, A., Lang, R., & O'Reilly, M. (2012b).

Computer-based interventions to improve social and emotional skills in individuals with autism spectrum disorders: A systematic review. *Developmental Neurorehabilitation*, 15(2), 119-135.

Reeves, L. M., Umbreit, J., Ferro, J. B., & Liaupsin, C. J. (2013). Function-based intervention to support the inclusion of students with autism. *Education and Training in Autism and Developmental Disabilities*, 48(3), 379–391.

Reilly, R. C. (2013). Found poems, member checking and crises of representation. *The Qualitative Report*, 18(30), 1-18.

- Ritchie, J., Lewis, J., Nicholls, C. M., & Ormston, R. (2013). *Qualitative research practice: A guide for social science students and researchers* (2nd ed.). London: Sage Publications.
- Robinson, O. C. (2014). Sampling in interview-based qualitative research: A theoretical and practical guide. *Qualitative Research in Psychology, 11*(1), 25-41.
- Roine, U., Roine, T., Salmi, J., Wendt, N. V., Leppamaki, S., Rintahaka, P., et al. (2013). Increased coherence of white matter fiber tract organization in adults with Asperger syndrome: A diffusion tensor imaging study. *Autism Research, 6*(6), 642-650.
- Ruteere, R., Mwoama, T., & Mutia, J. M. 2015. Challenges experienced in teaching daily living skills to learners with mental retardation. *Journal of Education and Practice, 6*(7), 8-11.
- Rutter, M. (2012). Psychopathy in childhood: Is it a meaningful diagnosis? *The British Journal of Psychiatry, 200*(3), 175-176.
- Ryndak, D., Jackson, L. B., & White, J. M. (2013). Involvement and progress in the general curriculum for students with extensive support needs: K – 12 inclusive education research and implications for the future. *Inclusion 1*(1), 28-49.
- Samson, A. C., Huber, O., & Ruch, W. (2013). Seven decades after Hans Asperger's observations: A comprehensive study of humor in individuals with autism spectrum disorders. *Humor, 26*(3), 441-460.
- Schmidt, J. D., Rooker, G. W., Fodstad, J. C., Orchowicz, P., Goetzal, A., Kurtz, P. F., & Hagopian, L. P. (2016). On the relation between adaptive functioning and the reinforcement function of challenging behavior. *International Journal of*

Developmental Disabilities, 62(3), 174-182.

- Sciutto, M., Richwine, S., Mentrikoski, J., & Niedzwiecki, K. (2012). A qualitative analysis of the school experiences of students with Asperger syndrome. *Focus on Autism and Other Developmental Disabilities*, 27(3), 177-188.
- Seidman, I. (2013). *Interviewing as qualitative research: A guide for researchers in education and the social sciences*. Teachers college press.
- Sharma, U., Loreman, T., & Forlin, C. (2012). Measuring teacher efficacy to implement inclusive practices. *Journal of Research in Special Educational Needs*, 12(1), 12-21.
- Shearer, T., & Guthrie, S. (2013). Facilitating early activities of daily living retraining to prevent functional decline in older adults. *Australian Occupational Therapy Journal*, 60(5), 319-325.
- Shrestha, A., Anderson, A., & Moore, D. W. (2013). Using point-of-view video modeling and forward chaining to teach a functional self-help skill to a child with autism. *Journal of Behavioral Education*, 22(2), 157-167.
- Shultz, K. S., Whitney, D. J., & Zickar, M. (2013). *Measurement theory in action: Case studies and exercises* (2nd ed.). London: Routledge.
- Shurr, J., & Bouck, E. (2013). Research on curriculum for students with moderate and severe intellectual disability: A systematic review. *Education and Training in Autism and Developmental Disabilities*, 48(1), 76-87.
- Sibold, C. (2011). Building English language learners' academic vocabulary: strategies & tips. *Multicultural Education*, 18(2), 24.
- Simon, M. K., & Goes, J. (2013). *Scope, limitations, delimitations*. Retrieved November

6, 2015, from <http://www.dissertationrecipes.com/wp-content/uploads/2011/04/Assumptions-Limitations-Delimitations-and-Scope-of-the-Study.pdf>

Smith, T., & Eikeseth, S. (2011). O. Ivar Lovaas: Pioneer of applied behavior analysis and intervention for children with autism. *Journal of Autism and Developmental Disorders, 41*(3), 375-378.

Smith, L. E., Meanner, M. J., & Seltzer, M. M. (2012). Developmental trajectories in adolescents and adults with autism: The case of daily living skills. *Journal of the American Academy of Child & Adolescent Psychiatry, 51*(6), 622-631.

Sparrow, S. S., Balla, D. A., & Cicchetti, D. V (1984). *Vineland Adaptive Behavior Scales: Survey form manual*. Circle Pines, MN: American Guidance Service.

Spooner, F., & Browder, D. M. (2014). Raising the bar: Significant advances and future needs for promoting learning for students with severe disabilities. *Remedial and Special Education, 36*(1), 28-32.

Spooner, F., McKissick, B. R., & Knight, V. F. (2017). Establishing the state of affairs for evidence-based practices in students with severe disabilities. *Research and Practice for Persons with Severe Disabilities, 42*(1), 8-18.

Stigler, K. A., Mullett, J. E., Erickson, C. A., Posey, D. J., & McDougle, C. J. (2012). Paliperidone for irritability in adolescents and young adults with autistic disorder. *Psychopharmacology, 223*(2), 237-245.

Tarman, B. (2012). Prospective teachers' beliefs and perceptions about teaching as a profession. *Educational Sciences: Theory & Practice, 12*(3), 1964-1973.

Taylor, S., DeVault, M., & Bogdan, R. (2015). *Introduction to qualitative research*

methods, 4th ed. Hoboken, N.J.: Wiley.

- Thomeer, M. L., Smith, R. A., Lopata, C., Volker, M.A., Rogers, J.D., & McDonald, C. A., et al.,(2015). Randomized controlled trial of mind reading and in vivo rehearsal for high-functioning children with ASD. *Journal of Autism and Developmental Disorders, 45*(7), 2115-2127.
- Tonge, B., Brereton, A., Kiomall, M., Mackinnon, A., & Rinehart, N. (2014). A randomized group comparison controlled trial of ‘preschoolers with autism: A parent education and skills training intervention for young children with autistic disorder. *Autism, 18*(2). 166-177.
- Tong, A., Palmer, S., Craig, J. C., & Strippoli, G. F. (2014). A guide to reading and using systematic reviews of qualitative research. *Nephrology Dialysis Transplantation, 31*(6), 897-903.
- Trela, K., & Jimenez, B. A. (2013). From different to differentiated: Using “ecological framework” to support personally relevant access to general curriculum for students with significant intellectual disabilities. *Research and Practice for Persons with Severe Disabilities, 38*(2), 117-119.
- Tufford, L., & Newman, P. (2012). Bracketing in qualitative research. *Qualitative Social Work, 11*(1), 80-96.
- Unluer, S. (2012). Being an insider researcher while conducting case study research. *The Qualitative Report, 17*(29), 1-14.
- Vaismoradi, M., Turunen, H., & Bondas, T. (2013). Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study. *Nursing & Health Sciences, 15*(3), 398-405.

- Valenti, D., de Bari, L., De Filippis, B., Henrion-Caude, A., & Vacca, R. A. (2014). Mitochondrial dysfunction as a central actor in intellectual disability-related diseases: An overview of own syndrome, autism, fragile X and rett syndrome. *Neuroscience & Biobehavioral Reviews*, *46*, 202-217.
- Ventola, P., Friedman, H., Anderson, L., Wolf, J., Oosting, D., & Foss-Feig, J. et al. (2014). Improvements in social and adaptive functioning following short-duration PRT program: A clinical replication. *Journal of Autism Developmental Disorders*, *44*(11), 2862-2870.
- Venuti, P., Caria, A., Esposito, G., De Pisapia, N., Bornstein, M. H., & de Falco, S. (2012). Differential brain responses to cries of infants with autistic disorder and typical development: An fMRI study. *Research in Developmental Disabilities*, *33*(6), 2255-2264.
- Vetter, A. (2012). Teachers as architects of transformation: The change process of an elementary-school teacher in a practitioner research group. *Teacher Education Quarterly*, *39*(1), 27-49.
- Volkmar, F. R., & McPartland, J. C. (2014). From Kanner to DSM-5: autism as an evolving diagnostic concept. *Annual review of Clinical Psychology*, *10*, 193-212.
- Wallace, M. R. (2009). Making sense of the links: Professional development, teacher practices, and student achievement. *Teachers College Record*, *111*(2), 573-596.
- Walser, K., Ayres, K., & Foote, E. (2012). Effects of a video model to teach students with moderate intellectual disability to use key features of an iPhone. *Education and Training in Autism and Developmental Disabilities*, *47*(3), 319-331.

- Walsh, R. (2012). On evidence and argument in phenomenological research. *Indo-Pacific Journal of Phenomenology, 12*, 65-71.
- Wang, M., Zan, F., Liu, J., Liu, C., & Sharma, U. (2012). A survey study of Chinese in-service teachers' self-efficacy about inclusive education. *Journal of International Special Needs Education, 15*(2), 107.
- Wehman, P., Schall, C., McDonough, J., Molinelli, A., Riehle, E., Ham, W., & Thiss, W. R. (2013). Project SEARCH for youth with autism spectrum disorders: Increasing competitive employment on transition from high school. *Journal of Positive Behavior Interventions, 15*(3), 144-155.
- Weng, P. L., & Bouck, E. C. (2014). Using video prompting via iPads to teach price comparison to adolescents with autism. *Research in Autism Spectrum Disorders, 8*(10), 1405-1415.
- White, P. J., Syncox, D., Heppleston, A., Isaac, S., & Alters, B. (2012). Putting research into practice: Pedagogy development workshops change the teaching philosophy of graduate students. *The Canadian Journal of Higher Education, 42*(1), 98.
- Whitworth, B. A., & Chiu, J. L. (2015). Professional development and teacher change: The missing leadership link. *Journal of Science Teacher Education, 26*(2), 121-137.
- Wilson, K. P. (2013a). Incorporating video modeling into a school-based intervention for students with autism spectrum disorders. *Language, Speech, and Hearing Services in Schools, 44*(1), 105-117.
- Wilson, K. P. (2013b). Teaching social-communication skills to preschoolers with

- autism: Efficacy of video versus in vivo modeling in the classroom. *Journal of Autism and Developmental Disorders*, 43(8), 1819-1831
- Wilson, S. M. (2013c). Professional development for science teachers, *Science*, 340(6130), 310-313.
- Wing, L. (1997). The history of ideas on autism: Legends, myths, and reality. *Autism*, 1(1), 13-22.
- Wing, L. (1981). Asperger's syndrome: a clinical account. *Psychological medicine*, 11(1), 115-129.
- Wing, L., Gould, J., & Gillberg, C. (2011). Autism spectrum disorders in the DSM-V: better or worse than the DSM-IV?. *Research in developmental disabilities*, 32(2), 768-773.
- Wolfswinkel, J. F., Furtmueller, E., & Wilderom, C. P. (2013). Using grounded theory as a method for rigorously reviewing literature. *European Journal of Information Systems*, 22(1), 45-55.
- Wong, C., Odom, S.L., Hume, K. A., Cox, A. W., Fettig, A., Kucharczyk, S., et al. (2015). Evidence-based practices for children, youth, and young adults with autism spectrum disorder: A comprehensive review. *Journal of Autism and Developmental Disorders*, 45(7), 1951-1966.
- Wyatt, M. (2013). Overcoming low self-efficacy beliefs in teaching english to young learners. *International Journal of Qualitative Studies in Education*, 26(2), 238-255.
- Yin, R. K. (2013). *Case study research: Design and methods* (5th ed.). Thousand Oaks, CA: Sage Publications, Inc.

Yin, R. K. (2014). *Case study research: Design and methods* (5th ed). Thousand Oaks, CA: Sage Publications, Inc.

Yin, R. K. (2015). *Qualitative research from start to finish*. Guilford Publications.

Zablotsky, B., Black, L.I., Maenner, M.J., Schieve, L.A., Blumberg, S.J., 2015. Estimated prevalence of autism and other developmental disabilities following questionnaire changes in the 2014 National Health Interview Survey. *Natl. Health Stat. Rep.* 87, 1–21.

Appendix A: Principal Letter to Conduct Research

September 8, 2016

RE: Permission to Conduct Research Study within your School

Dear Principal,

My name is Jamala Spencer, and with the permission from the New York City Department of Education Institutional Review Board (NYC DOE IRB) and the superintendent, I am writing to request permission to conduct a research study using participating teachers from your school. I am currently enrolled in the doctoral program at the Walden University and I am in the process of writing my proposal. The purpose of the study is to explore special education elementary teachers' perceptions of their ability to teach daily living skills to students with autism. I hope that your administration will allow me to recruit one teacher from your school to participate in individual interviews.

The research method will be a qualitative case study. Interested teachers who wish to participate in the study will be given a consent form to be signed and returned at the beginning of the study. The results of the study will remain confidential and anonymous. No costs will be incurred by your school or the individual participants.

I have provided a copy of the first chapter of my proposal which includes copies of the measure and consent forms to be used in the research process, a copy the approval letter which I received from the research ethics committee at the Walden University, a copy of the approval letter which I received from the superintendent of your school district, as well as a copy of the approval letter which I received from the NYC DOE IRB.

If you require any further information, please do not hesitate to contact me on my mobile number [REDACTED], or my email, [REDACTED].

Yours sincerely,
Jamala Spencer

Walden University

Appendix B: Letter of Invitation

September 20, 2016.

Hello,

My name is Jamala Spencer and I am a doctoral student at Walden University, and a special education teacher for the New York City Department of Education. You are receiving this letter as a request for participation in my study evaluating special education elementary teachers' perceptions of their ability to teach daily living skills (DLS) to students with Autism. For students with autism, being able to independently perform DLS in various environments is a key to independence. Without appropriate DLS instruction for students with ASD, transitioning into adulthood can be disappointing. In order to bridge the gap between school and adult life, it is important to identify effective instructional strategies aimed at increasing DLS. The purpose of this study is to determine teachers' perceptions of what strategies they find effective in addressing DLS deficits in order to meet the adaptive needs of students with ASD.

The screening criteria for participation is as follows:

1. The researcher is seeking teachers who currently hold an Initial or Professional Students with Disabilities K-6 License.
2. The researcher is seeking teachers who have been teaching low-functioning elementary students with ASD for 3 or more years
3. The researcher is seeking special education elementary teachers who currently teach in a specific school district in New York City.
4. The researcher is seeking special education elementary teachers who teach students with ASD who display deficits in daily living skills.

If you agree to be in this study, you will be asked to:

5. Participate in a confidential, individual audio taped interview lasting approximately 45 minutes.
6. Participate in member checks as necessary to assure accurate interpretation of the interview.

I ask for your consideration to participate in this important study. The results of this study will provide new knowledge about the support special education elementary teachers may need to teach DLS to low-functioning students with ASD and help fill the gap in literature.

Please contact me for more information or to volunteer for this study via e-mail at [REDACTED], or call me at (xxx) xxx-xxxx. Thank you for your consideration.

Appendix C: Certificate of Confidentiality

In order to protect the confidentiality of all participants who have agreed to be involved in the research study of special education elementary teachers' perceptions of daily living skills instruction for students with autism conducted by Jamala Johnson, the following procedures will be implemented:

1. A number combined with a letter of the alphabet will be assigned to each participant in order to protect his/her privacy. Identifying information will be deleted from recorded and transcribed data.
2. Prior to individual interview sessions and initial emailed responses, participants will be advised to refrain from providing any personally identifying information of themselves or others.

Individual interviews will be recorded using a microcassette recording device and data will be transcribed at a later date. Audio recordings will be kept on the micro cassette and stored in a locked drawer for at least five years.

By signing this document, both the researcher and the participant indicate an understanding of the certificate of confidentiality and consent to the interview being audio recorded.

Printed Name of Participant

Signature of Participant

Date

Appendix D: Interview Guide for Individual Interview

Participant: _____ **Date:** _____

Time: _____ **Length of Interview:** _____

Location of Interview: _____

Opening:

1. Each participant will be interviewed individually.
2. Welcome and thank participant for coming.
3. State the purpose of the interview.
4. Remind participant that participation is voluntary and there is no monetary compensation.
5. Inform participant that note-taking and audio recording will be done for the purpose of transcription.
6. Privacy and confidentiality will be protected by assignment of a number combined with a letter of the alphabet for each participant.
7. Participants will be reminded that data collection will only be used specifically for the study.
8. Participants will be informed that the interview will last for 45-60 minutes.
9. The interview will consist of fifteen questions that will be shared with the participants before the interview day and time. The questions pertain to special education teachers' perceptions concerning their ability to teach students with ASD.

Please take some time to introduce yourself to me. Please include:

1. Your name
2. The highest academic degree you have obtained
3. Your years of experience as an elementary special education teacher of students with ASD
4. Your current role within the self-contained classroom
5. How long have you taught in the current district and setting or in any other location?

1. Please describe what DLS deficits displayed by students with ASD in your classroom look like.

* What are some of the duties of a special education elementary teacher in addressing DLS deficits in students with ASD?

* Please describe the competencies that your students need to have in order to perform DLS.

2. Please describe the knowledge you obtained from your education, training, and/or work experience that support DLS instruction for students with ASD?

* Please explain the training you received to teach DLS to students with ASD throughout your academic education career?

3. Tell me about how you assess DLS competencies in students with ASD and provide examples.

4. Please describe the professional training pertaining to DLS instruction for students with ASD that you have had.

5. Please describe specific instructional strategies that you have used to address DLS deficits in students with ASD.

6. What are the challenges you experience during DLS instruction and how are these challenges handled?
7. What are your experiences with the specific instructional DLS strategies that you have utilized in your classroom?
 - * Do you find any one strategy to be more effective in addressing DLS deficits?
 - * How do students respond to the strategies used?
 - * How have you implemented the strategies (whole group/small groups/one-on-one instruction)?
8. What are some of the roles and responsibilities of other professionals (such as related service providers) who service your students and how do their roles influence DLS instruction?
9. Please describe how you have responded to or handled incidents during which a student with autism who display DLS deficits continues to struggle performing a specific skill.
 - * Describe your conversations with other stakeholders (parents, administrators, related service providers) related to addressing the student's struggles.
10. What do you consider to be successful experiences teaching DLS to students with ASD and what qualifies them as successful?
11. Please describe any contributing factors that have motivated you to improve DLS skills for students with ASD.
12. Please describe opportunities that you have had observing colleagues who teach DLS to students with ASD.
13. Please describe your perceptions about ensuring students with ASD who demonstrate

difficulty performing DLS skills succeed.

14. Please describe the barriers that you have faced teaching DLS to students with ASD.

15. Please describe the supports you perceive you require in order to teach DLS to students with ASD.

Appendix E: Expert Panel Selection Criteria

1. The ideal panel expert should have educational background and/or experience to demonstrate thorough comprehension of DLS instruction for students with ASD.
2. Expert panel members may include, education researchers as well as prominent persons from special education field, who through their educational background and experience are able to cautiously explain key factors pertaining to DLS instruction for autistic - students.
3. Expert panel members should be based in the United States of America.

Appendix F: Expert Panel Recruitment Letter

October 3, 2016.

RE: Expert Panel Review of Interview Questions Dear Sir/Madam,

My name is Jamala Spencer, and I am hereby requesting your professional review of the attached interview questions.

I am currently enrolled in the doctoral program at Walden University. I am in the process of writing my proposal. The purpose of this study is to explore special education elementary teachers' perceptions of daily living skills instruction for students with autism.

The research method will be a qualitative case study and the participants will be special education elementary teachers who teach students with autism. Participation in this study will involve individual interviews with the researcher. Individual interviews will last 30 to 45 minutes. I have provided a copy of the first chapter of my proposal to provide you with background knowledge of the study.

If you require any further information, please do not hesitate to contact me on my mobile number, [REDACTED], or my email, [REDACTED]

Yours sincerely,
Jamala Spencer

Statement of Consent:

I have read the above information, and have had the opportunity to have any questions about this study answered. **I consent to be an expert panel reviewer for this study's interview questions.**

(printed name)

(signature)

(date)

I have read the above information, and have had the opportunity to have any questions about this study answered. **I do not consent to being an expert panel reviewer for this study's interview questions.**

(printed name)

(signature)

(date)

Appendix G: Walden University Institutional Review Board Approval

Dear Ms. Johnson,

This email is to notify you that the Institutional Review Board (IRB) has approved your application for the study entitled, " Special Education Elementary Teachers' Perceptions of Daily Living Skills Instruction for Students with Autism" conditional upon the approval of the research partner, as documented in the partner's signed notification of approval, which will need to be submitted to the Walden IRB when obtained. The researcher may not commence the study until the Walden IRB confirms receipt of that notification of approval.

Your approval # is 08-23-16-0361400. You will need to reference this number in your dissertation and in any future funding or publication submissions. Also attached to this e-mail is the IRB approved consent form. Please note, if this is already in an on-line format, you will need to update that consent document to include the IRB approval number and expiration date.

Your IRB approval expires on August 22, 2017. One month before this expiration date, you will be sent a Continuing Review Form, which must be submitted if you wish to collect data beyond the approval expiration date.

Please note that this letter indicates that the IRB has approved your research. You may **NOT** begin the research phase of your doctoral study, however, until you have received official notification from the IRB to do so. Once you have received this notification by email, you may begin your data collection. Your IRB approval is contingent upon your adherence to the exact procedures described in the final version of the IRB application materials that have been submitted as of this date. This includes maintaining your current status with the university. Your IRB approval is only valid while you are an actively enrolled student at Walden University. If you need to take a leave of absence or are otherwise unable to remain actively enrolled, your IRB approval is suspended. Absolutely NO participant recruitment or data collection may occur while a student is not actively enrolled.

If you need to make any changes to your research staff or procedures, you must obtain IRB approval by submitting the IRB Request for Change in Procedures Form. You will receive confirmation with a status update of the request within 1 week of submitting the change request form and are not permitted to implement changes prior to receiving approval. Please note that Walden University does not accept responsibility or liability for research activities conducted without the IRB's approval, and the University will not accept or grant credit for student work that fails to comply with the policies and procedures related to ethical standards in research.

When you submitted your IRB application, you made a commitment to communicate both discrete adverse events and general problems to the IRB within 1 week of their occurrence/realization. Failure to do so may result in invalidation of data, loss of academic credit, and/or loss of legal protections otherwise available to the researcher.

Both the Adverse Event Reporting form and Request for Change in Procedures form can be obtained at the IRB section of the Walden website: <http://academicguides.waldenu.edu/researchcenter/orec>

Researchers are expected to keep detailed records of their research activities (i.e., participant log sheets, completed consent forms, etc.) for the same period of time they retain the original data. If, in the future, you require copies of the originally submitted IRB materials, you may request them from Institutional Review Board.

Both students and faculty are invited to provide feedback on this IRB experience at the link below:

http://www.surveymonkey.com/s.aspx?sm=qHBJzkJMUx43pZegKlmdiQ_3d_3d

Sincerely,

[REDACTED]
Research Ethics Support Specialist
Office of Research Ethics and Compliance

Fax: [REDACTED]

Phone: [REDACTED]

Office address for Walden University:
100 Washington Avenue South, Suite 900
Minneapolis, MN 55401

Information about the Walden University Institutional Review Board, including instructions for application, may be found at this link: <http://academicguides.waldenu.edu/researchcenter/orec>

Appendix H: New York City Department of Education Institutional Review Board

Approval



Carmen Fariña, Chancellor

Research and Policy Support

August 25, 2016

Group

52 Chambers Street

Room 310

Ms. Jamala Johnson

New York, NY 10007

13 Cathy Court

Wallkill, NY 12589

Dear Ms. Johnson:

I am happy to inform you that the New York City Department of Education Institutional Review Board (NYCDOE IRB) has approved your research proposal, “Special Education Elementary Teachers’ Perceptions of Daily Living Skills Instruction for Students with Autism” The NYCDOE IRB has assigned your study the file number of 1400. Please make certain that all correspondence regarding this project references this number. The IRB has determined that the study poses minimal risk to participants. The approval is for a period of one year:

Approval Date: August 25, 2016 Expiration Date: August 24, 2017

Responsibilities of Principal Investigators: Please find below a list of responsibilities of Principal Investigators who have DOE IRB approval to conduct research in New York City public schools.

1. · Approval by this office does not guarantee access to any particular school, individual or data. You are responsible for making appropriate contacts and getting the required permissions and consents before initiating the study.
2. · When requesting permission to conduct research, submit a letter to the school principal summarizing your research design and methodology along with this IRB Approval letter. Each principal agreeing to participate must sign the enclosed Approval to Conduct Research in Schools/Districts form. *A completed and signed form for every school included in your research must be emailed to IRB@schools.nyc.gov* . Principals may also ask you to show them the receipt issued by the NYC Department of Education at the time of your fingerprinting.
3. · You are responsible for ensuring that all researchers on your team conducting research in NYC public schools are fingerprinted by the NYC Department of Education. Please note: This rule applies to all research in schools conducted with students and/or staff. See the attached fingerprinting materials. For additional information [click here](#). Fingerprinting staff will ask you for your identification and social security number and for your DOE IRB approval letter. You must be fingerprinted during the school year in which the letter is issued. Researchers who join the study team after the inception of the research must also be fingerprinted. Please provide a list of their names and social security numbers

to the NYC Department of Education Research and Policy Support Group for tracking their eligibility and security clearance. The cost of fingerprinting is \$135.

A copy of the fingerprinting receipt must be emailed to IRB@schools.nyc.gov .

1. You are responsible for ensuring that the research is conducted in accordance with your research proposal as approved by the DOE IRB and for the actions of all co-investigators and research staff involved with the research.
2. You are responsible for informing all participants (e.g., administrators, teachers, parents, and students) that their participation is strictly voluntary and that there are no consequences for non-participation or withdrawal at any time during the study.
3. Researchers must: use the consent forms approved by the DOE IRB; provide all research subjects with copies of their signed forms; maintain signed forms in a secure place for a period of at least three years after study completion; and destroy the forms in accordance with data disposal plan approved by the IRB.

Mandatory Reporting to the IRB: The principal investigator must report to the Research and Policy Support Group, within five business days, any serious problem, adverse effect, or outcome that occurs with frequency or degree of severity greater than that anticipated. In addition, the principal investigator must report any event or series of events that prompt the temporary or permanent suspension of a research project involving human subjects or any deviations from the approved protocol.

Amendments/Modifications: All amendments/modification of protocols involving human subjects must have prior IRB approval, except those involving the prevention of immediate harm to a subject, which must be reported within 24 hours to the NYC

Department of Education IRB.

Continuation of your research: It is your responsibility to insure that an application for continuing review approval is submitted six weeks before the expiration date noted above. If you do not receive approval before the expiration date, all study activities must stop until you receive a new approval letter.

Research findings: We require a copy of the report of findings from the research.

Interim reports may also be requested for multi-year studies. Your report should not include identification of the superintendency, district, any school, student, or staff member. Please send an electronic copy of the final report to: irb@schools.nyc.gov.

If you have any questions, please contact Dr. Mary Mattis at 212.374.3913. Good luck with your research.

Sincerely,

████████████████████

████████████████████

Director, Institutional Review Board

████████████████████