Differentiated Learning Strategies for Children Across the Autism Spectrum In An Inclusion

Classroom

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Abstract

One special education teacher, one inclusion teacher, and one general education teacher from a small southern town in the United States participated in two, one-hour interviews in order to understand their perspectives on differentiated learning strategies for students across the Autism Spectrum in an inclusion classroom. Three chosen participants were familiar with Autism in the classroom and the importance of differentiating teaching for specific learning styles. The data from these interviews was analyzed in order to help better understand the perspectives and reality of differentiated learning styles and how they affect students with Autism in an inclusion classroom.

Chapter 1: Introduction to the Problem

Introduction

Autism is a spectrum disorder that may result in an individual possessing a single or multiple characteristics that directly and indirectly affect their daily lives and ability to learn. Autism Spectrum Disorders, ASDs, are neurological disorders that "affect communication, behavior, and social skills" (Saunders, Page, & Wood, 2011, p. 21). This cognitive disorder can affect a child's ability to focus in the classroom, verbal and motor skills, attention, outbursts, social interactions, and most importantly for this research, the child's ability to learn and perform educationally.

Many general educators have limited in-depth knowledge of special education because it was not their chosen field of study in post-secondary education. With the growing changes in special education, keeping current with practices and strategies can affect a professional's ability to "reach" a student who may otherwise have been unsuccessful in the classroom.

The challenges faced, as an educator, were having 20 to 30 students in one's classroom and recognizing that each individual student learns differently and needs the attention and mentoring on a different level than what is traditionally taught. Having to plan ahead and anticipating multiple teaching strategies provided an alternative to the student-teacher struggle within the classroom. Many professionals teach the way they were taught or the method in which they learn best. Not in all instances are the methods that work for one, the methods that work for all.

Differentiation was a method in which educators acknowledged a difference in learning. The understanding and acceptance that every child learns differently opened the mind to the

possibility of implementing new teaching and learning styles for children. This was most often successful with educators who planed ahead and anticipated some resistance. Students with Autism may resist change, initially. It was important that before any major changes occur, whether it includes schedules, academic curricula, or social interventions, the child(ren) were made aware of the upcoming addendums.

With the growth and abundance of knowledge and information regarding the Autism Spectrum, professionals had the opportunity to become more versed and informed about the disorder and what resistances and acceptances learners often possessed. When planning to incorporate new learning strategies, Crandell and Johnson (2009) stated that it was crucial to identify target behaviors and the times behaviors occurred for the purpose of improving class participation. If the educator intended for the student(s) with Autism to become more active participants in the classroom and to learn the curriculum being presented, it was vital that target behaviors that often create barriers be identified.

When addressing learning needs of students with disabilities, specifically Autism because of the range of symptoms one can possess, it was imperative that the educators identified barriers in the student's learning. Some frequent barriers that affected students with Autism include, but are not limited to: excessive or minimal noises, visual distractions such as colors and shapes, other students' behaviors, the size of a classroom, where the student(s) is located in a room arrangement, if the student is placed near an electronic device or heavily trafficked area, or how close a student is placed to a window (Cahill, 2008).

After a target behavior was identified, support was implemented, and graduated guidance was established for the student, the differentiation process was more accepted and utilized

through a smoother transition. Differentiating instruction was referred by Stanford et al. (2010) as "a common sense approach to planning instruction" (p. 3). As educators, planning and often times over planning were terms that have become incredibly significant. Knowing what was taught and having guidelines to support the curriculum presented throughout the day made a grave difference in a way a student responds to the material.

With the increasing pressure of incorporating cross curriculum into every day practices and differentiating teaching styles for learners, finding what worked for each student appeared as a challenge; however, with the growing trend in the diagnosis of Autism within educational settings, more information and resources became readily available to educators across the world via the World Wide Web. For students with Autism, some popular teaching and learning strategies that were effective included, but are not limited to, visual representations, power cards, social stories, incorporating technology, and use of self-directed learning.

Visual representations have various stigmas attached depending on the professional or student asked. Meadan et al. (2011) mentioned, "Moreover, having words attached to photographs, line drawings, or objects can support parents or other caregivers in using similar language during instruction" (p. 30). Providing the student with additional, tangible representations for visual supports increased the likelihood that a student will achieve or maintain the skill desired.

Meadan et al. (2011) emphasized that critical value was placed on the research and proven data that maintained thinking where visual supports, when used on a daily basis, ultimately provided a more successful learning experience for students with Autism Spectrum

Disorder. In addition to visual supports that were placed within a classroom, social stories and power cards were useful and vital to the success of teaching new social skills.

Social stories and power cards provided students with a private reminder of the skill taught and thus provided a different style of learning for the student. As opposed to the teach one day and test the next day method, it was understood that students with Autism required additional practice and reinforcement of the skill that was taught. The understanding and knowledge of what each student needed to become successful, especially those with exceptionalities, heavily shaped his or her future learning and the attitude the student(s) had towards learning (Spencer, Simpson, Day, & Buster, 2008).

Gaining an inside perspective of a special education classroom further provided infinite data on what was widely accepted and successful within a school system and what tools became essential to providing a more solid foundation to students who were diagnosed on the Autism Spectrum. While it was becoming a growing trend within the United States to educate students in their least restrictive environments, and ultimately the general education classroom if possible, adapting teaching styles to the students' style of learning was no longer a hope but an obligation in order to provide children with the best education possible.

In this qualitative study, I attempted to gain an understanding of each of the professional's perspectives on the use of differentiated learning strategies for students across the Autism Spectrum in an inclusion classroom. During the interviews, I focused on what specific strategies, from the educators' perspective, work well, and what were the teachers' perspectives of incorporating new strategies into their daily routines, and how well a student with Autism responded to new changes within the current teaching styles they became accustom to.

Problem Statement

Throughout my experiences within a classroom, I have had the opportunity to see what children with disabilities are required to do and how they are forced to learn with the strategies that mimic the majority of the classroom. Some of the most common styles of learning strategies that were used within the classrooms included auditory and visual learning. There was a certain stereotype that followed students with Autism, regardless of the possessed symptoms or severity. Berube (2007) explained that it was crucial for assumptions about Autism be kept at bay. It was often described that if one person with Autism was known, then one person with Autism was known. I conducted this study because as an educator, I wanted to understand the perspectives of educators about children with Autism and the various styles of learning they required to be successful in the classroom. I chose research concerning Autism because I felt that most have a particular bias about what conditions, exceptionalities, and limitations those students possessed and I wanted to cease the opportunity to gain additional knowledge to help students become successful in the classroom and in life.

Research Statement

In this interpretive study, I interviewed one special education teacher, one inclusion teacher, and one general education teacher in a small, southeastern town in order to understand the variety of learning strategies incorporated with an inclusion classroom for children with Autism.

Research Questions

The reason I conducted this research was I investigated three specific research questions. I received my information based upon the responses of my interviewees. As a teacher, I felt that further review of these questions guided me and benefited me, professionally as a general education and future special education teacher. My research questions are listed in order of priority:

1. What are the educators' perspectives of differentiated learning strategies in an inclusion classroom for students with Autism?

2. How are teachers implementing differentiated learning strategies in an inclusion classroom for students with Autism?

3. What are the responses of students with Autism, from an educators' perspective, towards differentiated learning strategies in an inclusion classroom?

First and most importantly, I wanted to know what the teachers' perspectives were concerning differentiated learning strategies within an inclusion classroom. Did the teachers feel that varying teaching styles to meet different learning styles for all of their students are important? Secondly, how were teachers implementing various learning strategies for students with Autism? I wanted to learn about the implementation process in combination with the perspectives on its use in an inclusion classroom in order to best answer my final research question. How were these strategies affecting the students with Autism and their ability to learn in an inclusion classroom? I believed that these questions built upon one another, and a positive or negative perspective on differentiated learning from the educator

shaped how strategies were implemented in the classroom, as well as, how students responded to new teaching and learning styles.

Chapter 2: Review of Literature

This review of literature pertaining to learning strategies for students across the Autism Spectrum within an inclusion classroom begins by introducing Autism and the roles it plays in a family's life. This was important for the reason that family and home life assist in setting a foundation for the child's education. The following sections include examples of studies of Autism within the family and establishing classroom strategies. The next section, visual representations of strategies, provides information and examples of differentiation and visual supports. The following section focuses on video modeling. This section provides examples and strategies regarding applications in learning, teaching social skills, and play skills. This literature review then addresses reading comprehension and provides examples in technological improvements, PowerPoint, and linking cognition and literacy. Finally, this review of literature concludes with section concerning self-regulation and self-determination with examples provided in self-determination and self-regulated learning strategies. This review of literature was written to provide the reader with specific information that is related to learning strategies for students across the Autism Spectrum as it relates to an inclusion classroom.

Autism

While it was important to understand how best to assist students with Autism through differentiated learning strategies, it was crucial to first define some frequent characteristics of Autism learners and how classroom strategies can aid in conjunction with additional learning strategies.

Family.

Ivey and Ward (2010) examined how a family is affected when one member has Autism and the effect it has on the child(ren). The participants of this case study and semi-structured interview are mother, Judy, who is 38, her husband, and their three biological children: Keith, a 13-year-old male with Asperger's Syndrome, Heather, a nine-year-old female, and Bill, a six-year old male. It is important to mention in this examination of families affected by Autism that Judy's only sibling, her brother Joe, is a 40-year-old who was not clinically diagnosed with Asperger's Syndrome as a child, however, he was labeled with the syndrome in adulthood as per physicians and other medical professionals. Judy began the interview by explaining although her parents were married, "she experienced a 'much divided' family unit" (Ivey & Ward, 2010, p. 5). She continued by explaining her parents were under an impression that Joe was different, but the communication opportunities to discuss these differences were not available. She felt as though her relationship with her family is still struggling, including that with her parents and her brother Joe. Judy was able to recall several memories from her past school experiences where Joe's behavior would directly affect her socially and academically. She felt embarrassed and confused by Joe and was unable to answer a teacher or friend when they asked for an explanation of Joe's actions. This is a parallel experience that Judy is now living through with her son, Keith. He encountered the same highs and lows as Joe; however, as a parent, she is now more aware of Keith's legal rights as a student and person and her rights as a parent. Judy maintained the importance of communication in order to ensure a more successful educational experience and family life. Daily communication must occur for the parents and teachers, as well as siblings and parents to eliminate some of the tensions that can arise out of frustration or confusion (Ivey & Ward, 2010, p. 5).

Berube (2007) wrote about the role and perceptions of Autism and its related issues. She contemplated the issues through her perspective first as an educator doing research in this field of study and also as a parent of a child with Pervasive Development Disorder, not Otherwise Specified, which can fit under the Autism Spectrum Disorder definition. Berube (2007) looked at the perspective the general public has on those with Autism, the general belief there is a genius abnormality and stereotypes that are placed involving lack of imagination, the one symptom that everyone affected with Autism has. She frequently refers to Dr. Temple Grandin and her experience of learning and imagination. Berube (2007) explained that it is crucial for assumptions about Autism to be kept at bay. If it is viewed as a curable disease, the opportunity for success with that individual diminishes and the focus becomes fixing what is perceived as broken as opposed to the parts of the brain that are highly functioning and have nothing to do with Autism.

Classroom Strategies.

Autism Spectrum Disorders, ASDs, are neurological disorders that "affect communication, behavior, and social skills" (Saunders, Page, & Wood, 2011, p. 21). While this disorder is referred to as being one of the most commonly diagnosed developmental disabilities, it is important to remember that students with Asperger's Syndrome, one of five forms of identified Autism, possess an average to above-average cognitive ability (Saunders et al., 2011). Saunders et al. (2011) concluded that one of the most influential characteristics that both children and adults with Autism possess is the impaired ability to function socially. Understanding body language, social cues, lacking ability to empathize and understand metaphors, figurative language, and having limited interests can severely impact a student's ability to socialize successfully (Saunders et al., 2011). Some classroom strategies to consider when structuring a

successful classroom environment are to create detailed visual schedules, provide adequate

working space, and willingness to make modifications and accommodations for students who

may be oversensitive to stimuli such as lighting, sound, temperature, and smells.   The students

may also demonstrate limited fine motor skills and may require extensive occupational therapy

services to be successful in a learning environment. Most importantly, Saunders et al. (2011)

reiterate the importance of social interactions versus special interest. While many school-aged

children are motivated by the desire to interact socially with others, students on the Autism

Spectrum typically demonstrate an overwhelming desire to engage in a special interest activity.

Visual Representations of Strategies

Visual representations were present within many day-to-day interactions, but more

specifically, within a classroom. It was important to examine the aspects that differentiation and

visual supports have on learners in the classroom.

Differentiation.

In another review of literature where setting the foundation, the classroom, was of the

upmost importance, Stanford, Crowe, and Flice, (2010), implicitly defined and outlined the

process of differentiating. An organized and appropriately equipped classroom provides a strong

foundation for differentiated instruction. Differentiating instruction was referred by Stanford et

al. (2010) as "a common sense approach to planning instruction" (p. 3). While effective teaching

may have included this method of instruction knowingly or unknowingly for many years,

differentiated instruction must be a primary method of planning for instruction. This was used to

assist in narrowing the widening gaps in achievement for student's education through the use of

assistive and adaptive technology, as well as computers for instructional purposes (Stanford et

al., 2010). Numerous examples of the use of technology in individual classrooms provide the

basis for using technology, while considering that the outline for setting up a classroom for successful differentiation is both physical and mental. The physical layout of an environment, modeling independent strategies through technology, and effective planning for future lessons are all key components to successful application of differentiation (Stanford et al., 2010). The authors stated that before anyone can begin implementation, it is critical that the instructor holds a knowledgeable and working understanding of the student's curriculum. The multiplicities of opportunities to differentiate are endless. Stanford et al. (2010) stated that "One of the most common is *PowerPoint*" (p. 6). Other technological devices and processes suggested by the authors included blogs, podcasts, weblogs, and Wikis. Because of today's fast-paced world, technology is one of the most readily available sources to educators that empower students to work independently, in pairs, or groups and help cross curriculums by implementing core subjects that are centered around high stakes tests and real-world skills.

Visual Supports.

 Meadan, Ostrosky, Triplett, Michna, and Fettig (2011) discussed the importance of visual representations, as well as visual supports and the significance of the aid they offered in the success of a young child in the classroom (Meadan et al., 2011). Several types of visual representations such as tangible objects are mentioned, but the article primarily focuses on visual supports and the distinct role held by the supports in the classroom. Meadan et al. (2011) mentioned, "Moreover, having words attached to photographs, line drawings, or objects can support parents or other caregivers in using similar language during instruction" (p. 30). The authors emphasized that critical value must be placed on the research and proven data that maintain thinking where visual supports, when used on a daily basis, ultimately provide a more successful learning experience for students with Autism Spectrum Disorder. Another example in

which the author detailed, was how the structure of the environment has central focus from visual representations. These prompts and methodically placed visual cues are effective, not only within a classroom setting, but they are proposed for use within homes and the community. Reasons Meadan et al. (2011) provided were that

> (a) visuals increase children's reliability…(b) visuals encourage children to be more independent, (c) visuals provided children with structure and predictability, and (d) visuals create orderliness in the environment that then provides children with a sense of stability. (p. 31)

The conclusions in this article reiterate the central focus of the entire article, which is, "By providing children with an accessible, visual reference guide, you can enhance children's independence and decrease or eliminate adult prompting" (Meadan et al, 2011, p. 33).

In this case study, Owen, a five year-old boy with Autism was the focus of the strategy determining the effectiveness of power card strategies. Owen attended a public elementary school and spent his day in a self-contained classroom for students with severe communication disorders. He received speech therapy 60 minutes per week and occupational therapy for 30 minutes per week (Spencer, Simpson, Day, & Buster, 2008). Owen was a child, who at the beginning of this study was lacking interaction skills that prevented him from playing or interacting with other classmates on the playground. If there were only a few classmates on the playground, Owen continued playing by himself; however, when the rest of a class or grade level entered the play area, he left the playground or hid behind a tree or bench and covered his eyes so he was not able to see the other student. In Owen's case, the power card strategy was implemented using his favorite character, Lightening McQueen, from the Disney movie *CARS*.

The purpose behind this card was to write a brief ideal scenario, at the child's comprehension level, that addressed the problem behavior or situation through the child's interest (Spencer et al., 2008). The cards were written small enough so that they included the essential information and easily carried between situations. Owen's initial playground behavior was recorded, and as he progressed through intervention with his card, data were continually collected and recorded. In Owen's case study, the power cards were an effective strategy in helping him learn appropriate social behaviors and skills. Scaffolding and appropriate goals ensure the highest opportunity for success when utilizing power cards (Spencer et al., 2008).

The Picture Exchange Communication System, PECS, according to Ganz, Cook, Corbin-Newsome, Bourgeois, and Flores (2005), was a picture-based communication program that is often beneficial and useful for students across the Autism Spectrum and others who are nonverbal. The PECS system was integrated through six phases to help those who are unable to communicate, be able to communicate with others. In this case study, Elise, rarely made eye contact, initiated social interactions, and played independently (Ganz et al., 2005). Elise moved through the initial phases of PECS where she did not successfully make progress, and baseline data was conducted through eight sessions. The method of fading in and out Elise's preferred items were used and it was ultimately concluded that Elise was unable to perform the picture exchanges independently. As a result of this study, Ganz et al. (2005), suggested that a comprehensive approach needed to occur to ensure that students with severe cognitive disabilities have means of communication.

Creating a comprehensive means of communication for exceptional children was the viewpoint taken when looking to adapt the thematic photobook strategy. Veksler, Reed, and Ranish (2008), simply stated, "A picture is worth a thousand words, and sometimes, as in the

case of exceptional children, worth many more" (p. 3). Exceptional children, specifically those with communication disabilities and Autism, often have difficulties expressing their thoughts verbally; however, visuals were often used as not only communication but a calming mechanism when the lack of ability for being understood develops into an overwhelming sensation. Katie, a twelve-year-old girl with physical and intellectual disabilities, was the central focus. Katie had a fascination with photography and the camera. While Katie was learning to read in school, she was incorporating her interest in photography and cameras to help her learn to count. She was asked to take pictures of something that appeared in twos, threes, and etcetera. After Katie took the pictures, they were placed within a book where she was able to identify the number of objects in the photograph to help reinforce the skill of counting. Besides providing the child with a sense of accomplishment, thematic photo books served as an alternative to other picture communication strategies. Children had the opportunity to input creativity and write their own captions, providing a more personal form of communication (Veksler, Reed, and Ranish, 2008).

Video Modeling

While video modeling was becoming a frequent use within the mainstream classrooms, both special education and inclusion, it was important to examine the foundation it provided for learning and the acquisition of new social skills.

Applications in learning.

In this case study reviewed, a four-year-old preschool student is diagnosed with Asperger's Syndrome. For this case study, specifically, he is referred to as James. James was educated in a self-contained early childhood special education day school with nine other students. Crandell and Johnson (2009) identified target behaviors and the times behaviors

occurred for the purpose of improving class participation. When James was presented with new rules and behaviors that affect him socially, he had difficulty adjusting. Circle time, sharing of toys, different centers each day, and singing during music were identified as areas James needed to improve upon and these were the areas chosen to implement the video modeling strategy. For video modeling, 10 to 30 second clips were made addressing the skill needed for that specific area. After the tape was made, it was then transferred to a digital disc so that James could view it from a classroom computer. Over the course of eight weeks, James was shown the video clips daily, the teacher made observational notes, records data, and discussions that occur in class (Crandell & Johnson, 2009). After the eight–week trial period, James often chose the clips he wanted to watch and would watch the same clip multiple times. Both James' teacher and the researcher noted improvements in behaviors and skills over those eight observable weeks, with the exception of one week. The teacher made note that James was not feeling well. Overall, the success of the study led the researcher to encourage readers to think of implications of video modeling for the future use in classrooms.

In the case study by Lindsey-Glenn and Gentry, 2008, case study, Rick, an 11 year old boy with Autism Spectrum Disorder was observed; the researchers posed the thought that while no specific learning strategy worked best for everyone, applying multiple strategies within a support system increased success. Effective strategies that were built within one another included, but are not limited to, visual aids and supports, including assistive technology as a visual support, and reinforcing communication with the student(s). Rick's teacher initially worked with him in the classroom to improve his vocabulary, without the assistance of technology. She proceeded gradually and allowed his moods to initially dictate whether or not the activity was successful. As the intervention continued, the teacher integrated assistive

technology to assist Rick in decoding unfamiliar words. The teacher chose to use the Franklin Language Master 6000b, FLM-600b. The device, after several uses and practice time, helped Rick to "efficiently enunciate the words and to match the words with a set of flash cards and a folder game created by the teacher as a guided practice activity and visual support system" (Lindsey-Glenn & Gentry, 2008, p. 5). Flashcards, digital storybooks through Microsoft PowerPoint, and the use of the Franklin Language Master 600b were assistants in the successful outcome. Not only was Rick more social with his classmates in the inclusion and self-contained classrooms, but he also interacted more spontaneously with his teacher and peers. As per, Lindsey-Glenn and Gentry (2008), it was important that educators bear in mind the particular skill set and needs required of those children having Autism. The use of assistive technology, in combination with visual aids and additional literacy intervention, were beneficial to improving his proficiency in reading.

Teaching Social Cues.

Incorporating video feedback to promote social cues to children with feedback can be incredibly beneficial to students with Autism. The observational experiment by Deitchman, Reeve, Reeve, and Progar (2010) focused on Charlie, age six, Jason, age five, and Trevor, age seven. All received primary education from a self-contained, public special education classroom for children with Autism. This study examined the use of video feedback to help teach social initiations. After baseline data were retrieved, it was determined that the participants were recognizing social cues in the special education classroom, but not the general education classroom, recess, or during lunch (Deitchman et al., 2010). It was concluded through the informal observations and examinations performed in this research that emphasis is placed on investigating what strategies work and do not work for an exceptional child in an inclusion

classroom. Occasionally the instructor needed to be removed from the social situation of the inclusion classroom to foster independence while still continuing to provide guided support.

The use of video-modeling was steadily increasing to assist in providing instruction to those with cognitive disabilities; however, its continued use in social and communication skills and the research that supported that was increasing. Tetreault and Lerman (2010) examined three participants with mild-moderate to severe autism. Three scripted series were conducted in small room a treatment center. The series included a script for how to "get attention," "request assistance," and "share a toy" (Teterault & Lerman, 2010, p. 398). The treatment phase of this study included watching the video and is reinforced with food. Gradual fading continued through the use of video only, least-to-most prompts, generalization, maintenance, and finally follow up which occurs ten days after the last maintenance. For each participant, graphic data were provided throughout each phase and is compared to baseline data. It was summarized that eye contact continues to be an issue for the students, but it was mentioned that the shift in eye gaze was mimicked in the video and was clearly visible which was a drawback to the experiment, but it was evident that through this behavior, the participants are paying close attention to every detail of the video and incorporating these strategies into their social skills.

Play Skills.

Video modeling demonstrates behavior via video and was presented in order to help reinforce or change existing behaviors or to teach new skills. Sancho, Sidener, and Reeve (2010) proposed ways to "directly compare the effectiveness of two variations of video modeling typically used in clinical settings for teaching play skills to children with autism" (p. 423). A comparison was made between traditional video modeling with and without supplementary

instruction. Mark and Erin, both five-years-old and diagnosed with Autism were case studies in multiple locations including a classroom, conference room, office, and gym stage in the school. Each play set was designed to foster one learning condition that each participant was said to have a weakness in. For each video that is shown, data were collected. For Mark, it was determined that he acquires the skill both with and without instruction. Erin, on the other hand, appeared to acquire the skills more quickly through videos with instruction. Neither procedure showed significant results about the effectiveness of one strategy compared to the other. Sancho et al. (2010) concluded that it was best to determine what strategy works best for each individual, with or without verbal instructions, in order to help the students be the most successful.

Reading Comprehension

Reading comprehension was an important aspect with any classroom, but especially an inclusion classroom where additional interventions needed to be implemented outside the traditional intervention.

Technological Improvements.

When examining the use and practicality of technology in the classroom, the data were overwhelming. According to Price (2011), apparent reactions to the use of technology often include how a particular item looks and that the marketing strategies are a big seller such as how fast the technology was and what information could processed in lightening fast speed. In this small case study, a group of students with Autism were chosen based on significant deficits in reading comprehension. Price (2011) inquired whether or not students with Autism showed an increase in comprehension when they used interactive e-readers and also whether or not iPads provide students with Autism the skills needed to overcome information barriers. During this

study, data were taken from middle school aged children grades six through eight, high school

grades nine through 12, and 10 students over the age of 18. Students were asked to read

traditional books in print and answer a list of comprehension questions twice. After reading the

traditional paper book, students were asked to use an e-reader, or iPad, that contains full color

pictures, audio, and text. Price (2011) was able to determine through this case study that each

child with Autism improves when using an interactive reader or iPad with the exception of one

child. This one child was able to answer all comprehension questions with one hundred percent

mastery. Because of the majority of the case sampling having success with interactive

technology and improving comprehension, suggestions were made that libraries and schools

consider the use of these, but to keep in mind that no two children with Autism are alike.

PowerPoint.

Microsoft *PowerPoint* software was a powerful presentation tool that the business world

and higher education universities use. With the growing number of computers in elementary,

middle, and high schools, teachers are helping students to create their own visual presentations.

While Coleman (2009) reinforced the role of a teacher in the classroom and the fact that a

computer cannot change that role, adding technology can improve methods of assessment by

providing students an alternative to demonstrating their independent knowledge of previously

taught skills. Coleman (2009) provided sample activities and purposes behind the motivation in

integrating this technology in all classrooms. Letter sound recognition was one example of a

use. In this activity, teachers were able to present material with text, pictures, and even include

verbal narratives. Practicing reading decoding, creating books, and social stories were a few of

the infinite examples that Coleman (2009) reiterated.

Linking Cognition and Literacy.

In this case study, Connor, a 12–year old has Autism. Connor's schedule changed depending on the curriculum that is studied that day and his individual needs. Connor was able to verbally communicate, but he often needed multiple verbal cues and reminders. He struggled with reading comprehension, but was able to complete independent tasks when first provided with verbal direction. Carahan et al. (2011) looked to provide suggestions to aid in the support of reading comprehension for those learners with Autism Spectrum Disorder. The definition of reading comprehension and its components were broken down and served as the foundation to help any child, with and without Autism, learn to read. Many individuals with Autism were able to decode words silently but were unable to comprehend. Carahan et al. (2011) explained that reading was both the ability to decode words and the ability to comprehend the meaning of those words. Characteristics related to the reader, the text, and the learning situation all influenced comprehension (Carahan et al., 2011, p. 54). It was crucial to build a solid reading foundation for a student with Autism that the reader, text, and influences on comprehension be identified. The article looked deep into the meaning behind comprehension and explains both the rules and meanings of language and their effect on a child's comprehension. Carahan et al. (2011), detailed that the more teachers know about comprehension and the multitude of components that affect comprehension in students with Autism, the more foundation was provided. Connor's teacher was able to recognize a struggle that prevents him from being more successful: organization. Mrs. Harper, Connor's teacher, used video modeling and his strong interest in transportation to help gain Connor's attention and help him identify information that is either related or unrelated to the story. She provided significant guidance initially and by the end of the year, Connor was able to complete some comprehension work in small groups without the need

for constant assistance from his teacher. The central findings of this article were reinforcing the building of a solid reading comprehension foundation for students with Autism Spectrum Disorder through the various components of influences, word meaning, and cognitive processing.

This case study examined an elementary school teacher observed based on her practice in a self-contained, Living in a Functional Environment, LIFE skills, classroom that serves 11 students, two girls and nine boys, with Autism Spectrum Disorders with severe cognitive impairments. The guided practice strategies she used to help her students become more independent and successful leads to the expansion of their own reading abilities. Guided reading is defined by Simpson, Spencer, Button, and Rendon (2007) as:

> A teaching approach used with all readers…to meet the varying instructional needs of all students in the classroom; to teach students to read a variety of increasingly challenging text with understanding and fluency; and to construct meaning while using problem solving strategies to figure out complex sentence structure and gain an understanding of new ideas or concepts. (p. 3)

This process was observed and examined to help teach students with Autism Spectrum Disorders. Simpson et al. (2007) suggested that in order for guided reading to occur and be successful, the elementary school teacher provided a framework that includes taking into consideration what the students' present level of functioning was and this helped identify how essential a teacher's role to guided reading is. The elementary school teacher created a classroom design that promoted independent work stations, guided reading groups, and lessons that followed the district's curriculum based on the functioning level of each child. Baseline data were also a key element in designing a curriculum that helps meet the students' individual needs.

The teacher broke each group into smaller groups where she was able to help focus more on individual needs. When there were a few minutes of independent work that was assigned to students, the teacher documented and recorded progress on skills taught during their reading group. Baseline data, benchmark assessments, and day-to-day running grades helped identify the growth in reading scores. Simpson et al. (2007) stated that "small groups and guided reading instruction has incredible value to teachers and students" and they continue to clarify their findings by adding, "these findings suggest that guided reading can serve as successful reading intervention for students with Autism Spectrum Disorder" (p. 7). While small groups and guided reading serve as benefits to aid in reading, they should not be a primary source of reading strategies; teachers should have alternative strategies that are equally as effective and more readily implemented.

Self-Regulation and Self-Determination

In this section information was presented to arm the students and educators with the tools necessary to aid in providing each child a more solid foundation by helping them become more involved and aware of their needs in their education.

Self-determination.

Self-determination was a progression in which students take charge of his or her individual learning and their attitudes and behaviors that affect learning (Murawksi & Wilshinsky, 2005). This combination of skills enabled the learner to engage in goal-oriented learning where the learner was aware of his or her strengths and capabilities, take charge of their behaviors, and make decisions that strengthen his or her self-esteem. When beginning to teach self-determination skills, it was important to remember that students engaged in frustrating

behaviors because of the lack of problem solving skills or attention controls that make this

strategy successful (Murawksi & Wilshinsky, 2005). Before beginning, it was explained that

parents were made aware to help communicate any concerns and to openly identify areas of

strengths, not just weaknesses. Students were taught about parts of the brain. It was presented in

a fashion that was grade and age-level appropriate to help foster comprehension. Several

activities were performed to help reinforce the skills being taught and positive reinforcement is

used when a child successfully completed the activity and when appropriate classroom behavior

occurs. At the conclusion of one week where every child participates in this project, students

were excited. They were comprehending skills and completing tasks by themselves. This

provided a sense of accomplishment and self-esteem boost. An unexpected find, according to

Murawski and Wilshinsky (2005), was the parental support of parents and increased interest in

the project. While modifications were made to some of the tasks, all students had the

opportunities to utilize their self-determination skills to complete their work.

   Self-Regulated Learning Strategies.

   Cahill (2008) explored self-regulated learning strategies and their implementation in

classrooms for students with Autism. This case study focused on Joe, a 13-year-old male

entering seventh grade in a junior high, special education classroom. Joe had Asperger's

syndrome. Joe had a special education team which meets to review his current progress and

what works well and not as well during his educational experiences. Cahill (2008) stated that

"Joe preferred to work independently on assignments and avoided working with other students

(p. 3). Joe did not like having physical contact with other students and avoids physical

interactions especially during Physical Education class. His mother described him a "creature of

habit" (Cahill, 2008, p. 3). In order to help Joe become more successful in his own learning, his

team helped to develop a series of activities that strengthen his own learning and focus his

attention on what he is and is not doing. Some activities included in the study were keeping an

assignment journal where he was able to physically see what he needs to complete as opposed to

rote memorization where Joe had been unsuccessful in past attempts, guided self-observation

questions where Joe was able to set learning goals for himself that are smaller and more easily

attainable, recording sheets to keep track of what was turned in and when he submitted the

assignment, and a self-evaluation sheet where Joe had the opportunity to reflect on his past work

and see areas he wanted to improve. Each of the self-regulated learning strategies were an

assistant to Joe. These strategies helped him to become more organized and provided him the

tools necessary to find what worked best for his individual learning and build a foundation on

those strategies.

According to Asaro-Saddler and Saddler (2010), students with Autism Spectrum

Disorders are sometimes less likely to possess the ability to elaborate on internal feelings and

thoughts and in turn write those thoughts down onto paper. This inability leads to a non-

descriptive writing that was short and leads to writings that were often difficult to decode and

understand. Asaro-Saddler and Saddler (2010) stated that the ability to self-regulate in writing is

a multi-step process that involves monitoring, assessing, and reinforcing writing simultaneously

without the assistance or prompting from anyone. In this study, students were taught the self-

regulated strategy development (SRSD) method to instruction. Asaro-Saddler and Saddler

(2010) described the process as "direct instruction and guided and independent

practice…develop the knowledge and self-regulatory procedures they need to utilize the writing

strategies while composing…and targets specific motivational aspects such as self-efficacy and

effort" (p. 108). Participants with Autism Spectrum Disorders were examined to determine the

extent in which they were able to transfer their knowledge of a story to paper using a written prompt. This research method was chosen because according to Asaro-Saddler and Saddler (2010) this was the instructional genre that is expected and given on standardized assessments. Participants in this study attended a public school in New York where the school had approximately 350 students, grade kindergarten through grade four. Instruction included general education and special education classes. Mike, a nine-year-old- student with Asperger's Syndrome, Justin, a six-year-old student with Autism, and George, a seven-year-old with Autism were the active participants to which the major findings are related. After retrieval of baseline data and comparing current progress, all three students made improvements in their ability to advance their story quality. While improvements were evident, some barriers that caused students to struggle were typical functions of children with Autism Spectrum disorders; however, with daily routines and reinforcement, those typical functions became less and less affecting to the student (Asaro-Saddler and Saddler, 2010).

Subjectivity Statement

I am a female who was born and raised in a large, white, middle to upper class family. My life has been incredibly blessed where I have not had the misfortune of knowing extreme sadness, lack of family support, the difficulty of struggling in school, or the great effort to fit in with those around me. My parents have always instilled in me the knowledge to accept others even if they seem different than me. It was not until I had the opportunity to work with severely cognitive impaired students in high school that I came to the realization: I lived a very sheltered life of how others proceed day-to-day. This experience and the challenges these students face drove me to graduate with a Bachelor's degree in elementary education. I want to understand the differences we as humans have on various levels, but more specifically how we learn differently.

My Master's degree is in special education. My interest in this field sparked my interest in those affected with Autism. I am passionate about helping others and my drive for children with disabilities helped me decide I was involved in the right field of study. I feel that the information I gain from this study will help me not only as a general educator and a future special educator, but help me to become a more compassionate, understanding, and open-minded educator; however, because I am so driven and supporting of the special education field, more specifically, Autism, limitations may arise. When interviewing one special education teacher, one inclusion teacher, and one general education teacher, I may highlight the positive aspects of their interview more than drawing attention to set backs and negative aspects of my research. I designed my research questions to help open the communication for the interviewees' perceptions rather than my personal opinions.

Chapter 3: Methodology

Research Methods

For this interpretive study, I selected a special education teacher, inclusion teacher, and a general education teacher within the same school system from a small, rural town in the United States to participate in my interview. When I interviewed the participants, they were asked questions concerning their views and experiences with differentiated learning styles for students across the Autism Spectrum in an inclusion classroom [see Appendix A].

To take precautionary measures with my research and ensure that it was examined as reliable information, I made every effort to ensure its validity by understanding that there was a chance that I could be wrong. Addressing my validity threat, which was that differentiating instruction makes a difference with every child, helped me to establish strategies that I use to

identify and rule out these threats (Maxwell, 2005, 106). As a result my interview, one special education teacher, one special education teacher, and one general education teacher, I made them feel as comfortable as possible throughout the interview process by ensuring them their information will remain anonymous throughout the entire process. Before beginning the process, I am presented the interviewee with an informed consent page that required the signatures of the interviewer and interviewee. Ensuring their confidentiality, I believe, helped gain their confidence and allowed them be honest and speak candidly with me regarding my interview questions and their personal opinions. The participants were aware they may cease participation in this research study at any time, allowing them to choose what questions they would prefer not to answer. The interviews were conducted in two one-hour segments that were auditorally recorded.

Setting

The setting of the study was the community and school system of a small, rural town in southeastern United States.   I chose this location for my research because of the practicality it presents for my participants. This allowed and promoted communication because the location was convenient to where they live and work every day within the community. Both the general education teacher and special education teacher are employed by a high school, grades ninth through twelfth. There were approximately 1,200 students and the race that accounted for nearly 95 percent of the school was Caucasian with the remaining 5 percent being composed of Hispanic and African American.

Theoretical Perspective

The perspective that was used in this research was interpretive. I chose to do an interpretive study so that I could attempt to understand the phenomenon of differentiated learning strategies for students across the Autism Spectrum within an inclusion classroom through the vantage point of my participants which include: one special education teacher, one inclusion teacher, and one general education teacher. The importance of the chosen participants was based on their knowledge and access within the school system to students with Autism Spectrum Disorders, and I also chose these particular positions within the interviewed school system to gain the perspective of inside the classrooms to a vantage point as an observer (Maxwell, 2005, 125).

Methodology

The method used for this research was a case study. I chose to complete my research through the method of a case study so that I will be able to take an in-depth look at the perspectives one special education teacher, one inclusion teacher teacher, and one general education teacher have towards students across the Autism Spectrum and their learning styles. I selected these participants based on their knowledge and access within the school system to students with Autism Spectrum Disorders (Maxwell, 2005, 79).

Sampling Strategies

I used purposeful, non-random sampling by personally choosing my research participants and the setting in which the interviews took place. The special education teacher, inclusion teacher, and general education teacher are all employed by the school system in which I graduated from. The participants are females who vary in age between 25 and 60. These

participants are chosen not only for their knowledge of special education, but they are also chosen for the profession they currently hold. I was able to gain a better understanding of what my research is intended through my research questions and the interviews with these participants (Maxwell, 2005, 124).

Data Collection

I used open-ended interviews as my data collection method. This method, I believe, provided the interviewee the greatest opportunity to speak freely and provided me with the maximum amount of detailed information and helped direct me to the correct data needed to answer my research questions. I used a tape recorder for both one-hour interviews needed by each participant. I also used a writing instrument and notepad to make important notes and write down minimal thoughts that occurred during the interview process.

Ethical Issues

I did not foresee any risks involved with my study. To ensure that the participants remained confidential, I used pseudonyms in place of their names and school system, any soft copies of documents were stored on a password protected computer, and hard copies of transcripts and documents were stored in a locked file cabinet where only I, the interviewer, had access.   The participants were made aware that they may opt-out of the study at anytime, without penalty. A written informed consent [see Appendix B] was provided. Internal Review Board approval was sought before conducting this study.

Monitoring Subjectivities

As previously mentioned, I am incredibly passionate about the special education field, more specifically; I am passionate about teaching those with Autism. In order to present my findings in a way that demonstrated a minimal bias from the perspective of the interviewer, I read back my findings to my participants to ensure that I was interpreting their opinions and perspectives correctly and conveying the message they wanted to get across. I also used a journal to write any feelings that I had during the research, especially those concerning biases or differing opinions than my participants. I consulted with my advisor and colleagues to ensure that my research was balanced and does not contain over exaggerated, highlighted aspects of differentiated learning strategies for students across the Autism Spectrum. The combination of these monitoring tools, I believe, helped ensure that my research is precise and truthful, as well as, ultimately providing that this research was valid information.

This research was important to the growth of my professional character. I believe this case study provided an in-depth understanding of the perspectives some hold regarding differentiation for those with disabilities, particularly students with Autism. The more I understood about the world in which I live and work, the more I am able to help those around me.

Chapter 4: Data Presentation & Analysis

I chose to do this research because I wanted to gain and understanding of how differentiation affects an inclusion classroom. By interviewing one special education teacher, one inclusion teacher, and one general educator, I was able to see how differentiation is perceived by educators within an inclusion classroom.

Presentation of Data

During my interviews, there were two reoccurring themes that resonated throughout each interview: lack of training and instructional strategies. Within each major theme were key words that each interviewee described as being a deficit or barrier to the successful implementation of true inclusion in the classroom. The answers to the primary research questions, *What are the educators' perspectives of differentiated learning strategies in an inclusion classroom for students with Autism, How are teachers implementing differentiated learning strategies in an inclusion classroom for students with Autism, and What are the responses of students with Autism, from an educators' perspective towards differentiated learning strategies in an inclusion classroom?* are embedded within the identified themes and categories. Below is a table that defines the major themes and categories of this research and how to interpret the findings of this research.

Table 4.1 *Themes, Definitions, and Categories Identified in the Data*

Themes	*Definition*	*Categories*
Lack of Training	The connection between training and availability of support for expanding knowledge was sometimes problematic.	Differentiation Inclusion
Instructional Strategies	Ways to help educate and prepare students across the Spectrum depended upon what the educator was able to pull research.	Peer support Teacher collaboration

Lack of Training

When each participant was initially interviewed, it was important, as the researcher, to appreciate that each interviewee held a diverse position in the county in which they are employed. Not only are their job descriptions varied, but their educational backgrounds contrast to a certain degree, specifically content area in which they were certified. When data was collected a recurring category emerged of lack of training with regard to differentiation.

Differentiation.

All participants were asked about their perspective on differentiation and how it is implemented within their school system. All three of the participants in this research had similar perspectives of what differentiation was, but specifically addressed that it was not something they felt was implemented well within the school district because teachers were not trained adequately in order to feel that they were serving the students properly.   Ana, a special education teacher in Apple School Systems, defined differentiation as, "Covering the same content in a different way that any student, every student can understand. To allow them to master the same grade level content standard as the kid next to them, even if it has to be taught verbally."

Ana felt that her school system valued the importance of differentiation but provided no assistance to helping promote the teaching style in the classroom. She continued by adding, "They are going to say, 'Make sure it is happening.' and I have to make sure it is." She described this as a difficulty because most general educators have a limited background in special education and this limits their ability to know what is appropriate for helping students with disabilities.

Janet, an inclusion teacher within Apple School Systems, was asked the same question about differentiation and she said,

> To me, differentiated learning is taking place on the grade level that they are working, but I go back to help the students in the areas in which they struggle. If they are in fifth grade and reading on a second grade level, I am going to teach them the fifth grade skills necessary; however, I am going to pull them aside and work on refining their reading abilities. I am not changing the content in which they are taught, I am simply intervening where I find necessary.

Janet explained that she felt the school system in which she was employed share that same perspective, but that teachers, both general education and special education, did not have the proper training to know if they were implementing it correctly. Janet continued by adding, "I don't know if there is a proper training for this, but there has to be something to help us get on the same page." She feared that if teachers, regardless of where and what position they held, did not come to a consensus on how to implement differentiation, the children and their learning would be severely affected.

Fran, a general educator in Apple School System, began the conversation regarding differentiation by immediately telling that she did not know if she was differentiating correctly in her classroom. She was apprehensive about her effectiveness as an educator because the way that she believed she differentiated was different than an evaluator that observed her. She explained that she was open to learning various styles of teaching but that the school system needed to be more concise on what it was to differentiate. Fran explained that her definition of differentiation was, "Giving every student the tools they need to be successful with a concept

being taught, just teaching it the way they need in order to understand it without changing the standard." She thought that this was a general understanding of most effective educators and that every school system could build on the values of this.

All three participants shared the same general perspective on differentiation and that they believed the school system in which they were employed, Apple School Systems, thought each educator was implementing this strategy within in the classroom. However, each educator expressed the concern that lack of training and a general understanding, district wide, prevented team collaboration.

Inclusion.

Another category in which all three educators claimed to be an area that lacked training was a general view point of what true inclusion is. Each educator examined their own perspective of what true inclusion was and after reviewing the data, they all have similar view points and interpretations of what inclusion is and how it should be implemented; however, they expressed a huge disconnect between defining the term and implementation in every classroom.

Ana defined inclusion as, "everybody in the same room, everybody together, being part of the same thing." She explained that in this method of including students with disabilities in a general education setting, each individual is treated as an individual and never singled out. She expressed a serious concern that it is not being implemented that way, not only in other schools but in classrooms just down the hall. Inclusion, according to Ana, is a relatively new term to educators in this small, rural, southeastern school system and there has not been an explanation or training to help all teachers see what it is and how to participate in it. She explained that the older generation of educators had more of a difficulty understanding what needed to be done for

students who participated in inclusion classrooms, and that even some of the newer teachers just did not want to participate in this style of teaching for various reasons.

Janet continued the general accord of inclusion by defining it as, "a general educator and a special educator working together and saying, 'Hey! Lets help this kid.'" Janet, like Ana, expressed a grave concern from the perspectives that not everyone within each school shared that same collaborative attitude that students with Autism could benefit from. According to Janet, it can become an incredible barrier not only between educators, but bridge a learning gap between the student and teachers. She said that the school district feels everyone understands what inclusion is and that each teacher has the time to effectively collaborate in order to teach the way inclusion is intended.

Fran added to research on perspectives of inclusion by stating that true inclusion is not, "Lumping a great amount of special education students into one classroom and handing them a single teacher because you have other teachers who refuse to be a part of this movement." She explained her opinion by noting that it was unfortunate to have educators in this age feel so defiant towards helping a student. Her opinion expressed that students with Autism needed structure and consistency and it was lacking in the classroom. She noted, "We need to have the attitude of doing whatever we need to do in order to help the student." She said that this was unfair not only to the educator with ten special education students in their room, but also unfair to the students, disabled or non-disabled.

Each of the three participants shared the same view of in differentiation and inclusion in the classroom and that a lack of training across the entire district had a grave impact on the district being able to move forward in education today. In response to the research question,

What are the educators' perspectives of differentiated learning strategies in an inclusion classroom for students with Autism? participants stated that differentiation was teaching each student in the way that they needed to learn without changing the curriculum being taught. This was especially important when addressing students across the Autism Spectrum. They needed to have the uniformity that collaboration provides between educators, but due to lack of participation, that perspective was not shared by all educators in the school district.

Instructional Strategies

The theme instructional strategies emerged from the participants' data when peer support and teacher collaboration was discussed. Instructional strategies were the strategies that teachers use in order to help differentiate in the classroom for students across the Autism Spectrum. This was a major theme that participants, again, agreed upon even though they held separate positions in separate schools within their school system.

Teacher Collaboration and Peer Support.

When Ana was asked what strategies did she use in order to help her students across the Autism Spectrum learn, she explained that it is all about "teachers working together to bounce ideas off of one another and being able to utilize the other students in the classroom to promote learning." This was especially important when teaching, according to Ana, because the school district is not overwhelmed with students with Autism and that in order to help each student, teachers need to work together and incorporate other students. She explained that both categories are "intertwined" in her my mind because students need teachers and teachers need students. Ana described that these relationships are the foundation in which good, quality education occurs, but that "we don't know enough about teaching students with Autism in order

to really help them. Maybe I look at this to strategically, but all this stuff on Google is great, but it all boils down to everyone working together." Ana went on to explain that earning every student's trust and getting to know them on a personal basis helped her to incorporate peer grouping, small groups, and what students had the potential to emerge as leaders as they helped others.

Janet, continued the same thought process by adding that she, too, was unfamiliar with the formal strategies that are now being presented by the "younger generation of educators" and contemplated their effectiveness if only a few teachers are using them. She said,

> If these are what I need to do, I am all for it, let's all jump on the bandwagon, but again,
> it comes back to the word "we" and meaning everyone has to be a part of this movement.
> I personally think until that time comes I am sticking with what works and that is small
> groups.

She explained that it was so important to reinforce to the students that they can each play a part in their education, but in order to do so teachers must collaborate and work together. Planning lessons that promote peer grouping and working together are the best ways to help foster education and even confidence in students. She explained that if students see teachers working together and they have good role models to help follow, the work of incorporating "fancy strategies" is not as necessary to include on a day to day basis.

Fran, when asked about the instructional strategies that she uses to help her students with Autism, she explained that she uses peer grouping and small groups nearly every day in almost every lesson. She was asked to identify in particular formal strategies that she might use and where she learned them from, but she responded,

I really don't know a lot about the fancy things, I know I have heard of doing picture

schedules and that works for all my students, not just those with Autism. But on a day-

to-day basis, I really don't use anything like that because I don't know enough about

them.

She continued by telling that students with disabilities, Spectrum or not, and typically

developing students want to be accepted by their peers and if there is a relationship that can be

developed between students and teachers and help them deepen their understanding of concepts

being taught.

In response to the research question, *What are the responses of students with Autism,*

from an educators' perspective towards differentiated learning strategies in an inclusion

classroom? participants' commented on that both incorporation of student to student interaction

and student-teacher interactions helped drive instruction. Each teacher, at the general education,

inclusion, and special education level found that focusing on each student's individual learning

needs helped address overall classroom needs of skill mastery.

Data Analysis

Data analysis was an ongoing process throughout the three interviews and after the three

interviews were completed. While each interview was recorded, notes were made that helped

identify specific emotions, and I immediately began processing the data and transcribing after

each interview. I chose to type the interviews immediately following because I wanted to make

sure that I immersed myself in what each participant had to say and provide myself the

opportunity to become more familiar with the data that I may have missed when listening to the

initial interview.

After each interview was transcribed, and notes were made, I was able to analyze the data. First, I printed the transcripts and separated them in three, lose leaf stacks. I wanted to make sure that I could tell exactly what each participant said, made notes about feelings or perceptions that they had, and address reoccurring themes and categories. This helped me identify responses that answered my research questions. I looked at each interview and asked questions. What do each participant have in common, different, or find important with regard to differentiation in an inclusion classroom. I also, with an ink pen, underlined specific comments and explanations that helped me separate my data into themes and categories.

After establishing common vocabulary and categories, I kept a record of evidence that all three interviews shared and how their interviews differed from the research I found initially in Chapter 2: Review of Literature. I chose initial each page of the transcription with a numerical page number, in order, and the interviewee's pseudonym. I was able then to separate each participant's response into separate stacks that followed the categories and eventually themes. I did not have trouble establishing categories or themes because research indicated that each participant shared similar feelings and thoughts with regard to each research question. Particularly, each participant seemed to have similar responses to the research question, *How are teachers implementing differentiated learning strategies in an inclusion classroom students with Autism.* Each response indicated that there was little background on formal teaching strategies for students with Autism, but they improvised and collaborated in order to find what worked for each student.

Chapter 5: Summary, Discussion, and Recommendations

In the beginning of this study, I set forth to learn about the perspectives of differentiation in an inclusion classroom for students across the Autism Spectrum. The fifth, and final chapter, examines the findings of my study. I will address each of my research questions, in detail, explain how this research will contribute to future policy, knowledge, practice, and how to give back to the participants what I gained from there interviews.

Summary of Findings

This study helped discover certain perspectives from educators within the school system. I discovered several topics that appeared in each interview. Each participant discussed the lack of training available in both differentiation and inclusion, as well as the importance of instructional strategies that included teacher collaboration and peer support. Each participant discussed how valuable it is to have support from one another, but in order to work collaboratively, there needed to be a general view point of what true inclusion is and how it is implemented, and what is the best way to differentiate instruction for students across the Autism Spectrum.

At the beginning of the study I wanted to answer three research questions with the responses from my participants. First, I wanted to know what were the perspectives held by educators towards differentiating learning strategies in an inclusion classroom. They felt that it was important to differentiate teaching strategies so that each student, especially those with Autism, are able to learn without a change in curriculum. My second research question discussed how teachers were implementing differentiation in an inclusion classroom from students across the Autism Spectrum. Based on the responses I received from each participant, it

was evident that each educator focused primarily on peer grouping and small groups as opposed to formal strategies. Lastly, my final research question addressed the responses of students with Autism, from the perspective of the educator, toward differentiated learning strategies in an inclusion classroom. It was the conclusion of the participants that the students responded better to a combination of peer interaction and teacher modeling when learning.

As stated in my problem statement, I noted that I would interview one special education teacher, one inclusion teacher, and one general education teacher from a small southeastern town in the United States in order to understand the variety of learning strategies incorporated with an inclusion classroom for children with Autism. I have come to understand, through this research, that for my participants it was not a lack of want to implement new strategies, but more a lack of training to learn about what can be done.

Discussion of Results

In this interpretive study, I wanted to understand what the perspectives of educators were in the classroom with regard to differentiated learning strategies for students with across the Autism Spectrum. I selected my participants based upon their knowledge of inclusion and Special Education, as well as their direct interaction with students across the Autism spectrum. I felt that the methodology chosen was a direct reflection of what would provide me with the most valuable information. Two, one hour interviews allowed me to meet face-to-face with each participant and carefully ask questions that were designed to provide me with the information I needed. After conducting my interviews and the analysis of my data, I was able determine and general understanding of my participants' perception of differentiating in an inclusion classroom.

Each participant I interviewed felt very strongly about working collaboratively to help promote learning for the students. Each teacher made reference to the fact that if all educators could work together, towards a common goal, everyone would win, especially the student. Differentiating instruction was referred by Stanford et al. (2010) as "a common sense approach to planning instruction" (p. 3). Having the opportunity to plan and collaborate were strengths of this co-teaching method that was examined in the inclusion classroom.

When analyzing transcripts, it became evident that the knowledge of how Autism affects students individually was incredibly important to the learning process. According to Berube (2007), he looked at the perspective the general public has on those with Autism, the general belief there is a genius abnormality and stereotypes that are placed involving lack of imagination, the one symptom that everyone affected with Autism has. This affects the classroom because if uneducated in Autism, these stereotypes present boundaries not only between the teacher and the student, but the student to student interaction which is direct correlation to peer grouping as a learning strategy.

The central focus of each interview, regardless of the subject matter, each participant mentioned how invaluable it is to know your students and their capabilities. The understanding and knowledge of what each student needed to become successful, especially those with exceptionalities, heavily shaped his or her future learning and the attitude the student(s) had towards learning (Spencer, Simpson, Day, & Buster, 2008). According to my participants' responses, if the educator is able to set aside preconceived notions and biases one may have towards the capabilities one may present or lack, the basis for true learning can begin. It has been said during an interview, "If you know one person with Autism, you know one person with Autism." While this disorder is referred to as being one of the most commonly diagnosed

developmental disabilities, it is important to remember that students with Asperger's Syndrome, one of five forms of identified Autism, possess an average to above-average cognitive ability (Saunders et al., 2011). Having the understanding of how Autism can affect each student and the dynamic of the classroom helps direct a teacher's style of teaching and implement strategies necessary to ensure success.

While research in my the literature review suggested that strategies for teaching Autism are widely available, according to my participants, it was not something they were taught or knew much about. They felt there were certainly benefits of the learning strategies, especially the visual strategies mentioned by Meadan, Ostrosky, Triplett, Michna, and Fettig (2011) where it was discussed about the importance of visual representations, as well as visual supports and the significance of the aid they offered in the success of a young child in the classroom (Meadan et al., 2011). However, my participants felt that with the experience they had concerning their students with Autism, too many strategies and not being explicit became more of a hindrance.

When reflecting upon my research, I found that each participant was actively engaged in each of their student's learning process, disabled and non-disabled students; however, it was not something, from their perspective, that all teachers valued. They, at many times, felt that they are part of a small group that was willing to go above and beyond to help reach their students affected by the Autism Spectrum.

There were a few limitations to this research: educators were placing blame on the school system for not taking a more proactive approach in encouraging participation and providing resources for additional background knowledge and that because this study took place in a small rural southeastern town, the population of students affected by the Autism Spectrum was limited.

Implications (or Recommendations)

My research brings knowledge to the use of newer strategies in the classroom. While there was much new research and strategies to look into, the issue of theory versus practicality became apparent. The educators questioned the practicality of trying to implement multiple new strategies for students when they feel they uneducated and not qualified to teach such strategies in the classroom.

The research I have conducted could contribute to future policy by bringing awareness to the eyes of both general and special educators and the need for a collaborative relationship where both are viewed as equals by each other and the students they educate. I felt that by doing this research, I would be able to understand the roles and perspectives that the educators' feel they truly take part in within the classroom. Often times, the research can be skewed for fear of who might read the opinions, but through the assurance of privacy, I believe my participants were able to share valuable information on what truthfully happens in the classroom. In the future, additional research could be done to expand upon these findings by utilizing a larger sample size with more diverse population samples, and conduct a study of comparison and contrast to the findings in this small, rural town to that of an urban school district.

I believe that my research has contributed to my participants. The general educator, inclusion teacher, and special educator all reflected upon their views and perspectives of differentiation and inclusion for students with Autism and how it affected their ability to teach. This reflection provided the opportunity for the educators to see positives of their classrooms and their personal teaching styles while seeing areas of refinement not only in their school districts, but also to perceive them in their colleagues.

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Appendix A

Interview Questions

Interview Questions

Past Education

1. How long and in what capacity have you been involved with the special education field?

2. When you were in college, what was a general practice/understanding for students with special education and teaching?

3. During college, were any strategies being taught to you?

4. How were you taught to involve parents in their child's education?

5. During college, what was the thinking concerning Autism?

Current Practices

6. What changes have you noticed in the general thinking of how a child with special needs is educated?

7. How have the learning strategies evolved/changed during your educational career?

8. How often is there a setting change for the students involved in inclusion?

9. In your current position, how often do you work with a student with Autism?

10. What is your definition or interpretation of the term "differentiated learning?"

11. In your current position, to what capacity do you work with a child with Autism?

12. What do you notice to be the greatest shift in teaching strategies for children with Autism?

13. What is your interpretation of the term "inclusion?"

14. In what ways does your interpretation of "differentiated learning" differ from those of the school system in which you work?

15. In what ways does your interpretation of "inclusion" differ from those of the school system in which you work?

16. What learning strategies are you most comfortable with suggesting first in educating a student with Autism?

17. How often do you work with general education teachers who will educate a child with Autism through inclusion?

18. How often do you encounter resistance when working with general education teachers?

19. Through observations in your schools system, what strategies do you perceive to be the most successful?

20. Through observations in your school system, what strategies do you perceive to be the least successful?

21. What do you find to be the greatest asset in a child's education involving differentiated learning strategies?

22. What do you find to be the greatest barrier in a child's education involving differentiated learning strategies?

23. What is a typical process for implementing new learning strategies?

24. In what ways is funding for new strategies an issue or assistance in your school system?

25. How many children do you serve with Autism in your county/position?

26. In what ways does consistency between home and school with implementation of new learning strategies affect the child?

27. Is there anything else that you would like to add?

Appendix B

Informed Consent Agreement

INFORMED CONSENT

You are asked to participate in a research study conducted by ██████████████ from the department of Curriculum and Instruction at Tennessee Technological University for my Master's Thesis. I hope to learn how differentiated learning strategies impact an inclusion classroom for students across the Autism Spectrum. You should read the information below, and ask questions about anything you do not understand, before deciding whether or not to participate.

If you decide to participate, there are two one-hour interviews that will be scheduled at your convenience. There are no foreseeable risks or discomforts involved in participating in this study. You will be asked questions about your educational background, influences of new learning strategies for Special Education, and other information that may pertain to the subject. I am looking to understand and gain knowledge about differentiated learning strategies and how best to help those with forms of Autism.

Any information that is obtained in connection with this study can be identified with you and will remain confidential through the use of pseudonyms, information obtained will be kept on a password protected computer, and all hard copies will be kept in a locked file cabinet with a key that only I, the investigator, have. The information I gain from your interview, I believe, will help me as a professional educator.

Your decision whether or not to participate is voluntary and will not prejudice your future relations with Tennessee Technological University or your current employer. Refusal to participate will involve no penalty or loss of benefits to which you are entitled. If you decide to participate, you are free to withdraw your consent and to discontinue participation at anytime without penalty. The possibility of you gaining insight while discussing your personal experiences with learning strategies for students with Autism is a benefit of participating in the interview. If you have any questions or concerns, please contact me.

██████   Email: ████████21@students.tntech.edu   Phone: (931) ████████

Jason Beach   Email: jbeach@tntech.edu   TTU Research Advisor

You will be given a copy of this form to keep for your records.

YOU ARE MAKING A DECISION WHETHER OR NOT TO PARTICPATE. YOUR SIGNATURE INDICATES THAT YOU HAVE DECIDED TO PARTICIPATE, HAVING READ THE INFORMATION PROVIDED ABOVE.

Signature of Participant   **Date**

_____   _____

Signature of Investigator   **Date**

_____   _____