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Federal Regulation on the Inclusion of Students With Disabilities by the Use of Accommodations and Modifications

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FEDERAL REGULATION ON THE INCLUSION OF STUDENTS WITH

DISABILITIES BY THE USE OF ACCOMMODATIONS AND MODIFICATIONS

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Abstract

When the federal government enacted No Child Left Behind (NCLB) in 2001, it set the stage to provide inclusion to all students regardless of their academic or physical abilities in the classroom. However, there is often confusion between the federal and state governments, administrators, and teachers regarding what it entails and what accommodations are being recommended, and which ones work in the classroom. An examination of these levels is done to see where these confusions and interpretations arise when it comes to applying these in the field. The challenge is the federal government's legal authority and applying it in a way that does not leave any student population out. Once the reader can understand how the federal government interprets special education through the Individuals with Disabilities Education Act (IDEA) and No Child Left Behind (NCLB), the reader then needs to understand what accommodations and modifications are by examining how researchers and educators use them in various settings. Finally, recognizing how administrators and schools responded to IDEA and NCLB will help complete the circle regarding how accommodations should be taught to educators and then applied in their classrooms. Answering how accommodations and modifications are interpreted at various levels will help determine the future of their application in schools.

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CHAPTER I: INTRODUCTION

In one way or another, students with special needs or disabilities have always been a part of the education systems that have existed throughout human history. In the case of the United States, this statement remains true even as far back as the 18th century as students who were deaf or blind were catered to with permanent facilities (Winzer, 2009). The unfortunate attitude at this time were that people with disabilities were incapable of benefiting from instruction of any kind and their affliction was caused by divine influence (Winzer, 2009). However, during the 18th century, the Enlightenment brought to light the, "humanitarian philosophy that emphasized the equality of all people and the human responsibility to take care of others" (Winzer, 2009, p. 2). While this was a giant step forward for the education of students with disabilities, much more work was needed before special education and the education of these students would receive the attention it deserved.

In the early 20th century, educators and administrations across the United States became under attack because most influential psychologists at the time began to be opposed to the use of IQ tests that determined the abilities of particular students with various disabilities (Winzer, 2009). More structural and universal special education programs and laws seemed to be the desire of many school districts by the mid-20th century.

After calls from these school districts and the civil rights movement to the federal government to provide quality education to students with disabilities and provide equality in the classrooms across the United States (Winzer, 2009). The

Education for All Handicapped Children Act, also known as Public Law 94-142, was signed into law by President Gerald Ford in 1975. The act required, "clear management procedures for special education at all levels; it provided federal funds to supplement the costs of state and local governments special education programs" (Winzer, 2009, p. 119).

However, Public Law 94-142 was not perfect. It enforced many conditions on state and local school systems. For example, "all educators became subject to the national policy put forth in the legislation. After that date, it is no longer permissible for school administrators or others to exclude handicapped children on the grounds that they could not learn, that their handicaps were too severe, or that there were no programs for the problems in question" (Winzer, 2009, p. 119). On the surface, this was a revolutionary movement in the correct direction when it comes to special education. However, the sweeping changes, even with federal funding, strained schools as they scrambled to put together programs, train educators, and maintain standards set up by Public Law 94-142. Even with the federal law, the major expenses came from state and local expenditures.

While Public Law 94-142 was a giant step forward in providing students with disabilities, the strain it put on school administrators and teachers was felt for years to come. Further laws and acts passed such as the Individuals With Disabilities Act (IDEA) of 1990, gave legal and clear definitions of specific disabilities such as emotional or behavioral disorder, Attention Deficit Hyperactivity Disorder (ADHD), and autism that would be adhered by schools (Winzer, 2009). While this gave guidance to public school

districts, ultimately the challenge persisted to train, educate, and organize special and general education teachers to teach their students with disabilities using accommodations and modifications to the curriculum. While most school districts and administrations have been able to develop effective training modules and programs for their teachers, many teachers to this day still do not feel confident using accommodations and modifications in their classrooms.

One of the largest turn-ups of the education system in the United States took place in 2001 when the Bush administration passed the No Child Left Behind Act (NCLB). This brought another test to teacher and administration requirements (Winzer, 2009, p. 193). It was the first legal legislation that introduced requirements for "high quality teachers" and that all teachers meet these requirements. While this legislation in itself is effective in producing "high quality teachers," (which just about everyone could agree is a good thing) it put pressure on school districts to find and hire qualified teachers based upon the new legislation. New professional groups, focus groups, and training seminars began springing up, providing effective training to teachers on how to help their students with disabilities in their general classrooms.

To this day, studies have been done to identify the most effective accommodations and/or modifications to curriculum for various disabilities. However, many challenges face researchers when developing and testing the results of their studies. One of the greatest challenges is the variability of the accommodations and modifications needed for any given disability. There are two reasons for this. Firstly, not all students respond to accommodations or modifications the same, given that there is

great variability to individual disabilities. For example, one student with autism may have difficulties reading while another student with autism may be an effective reader. Secondly, not all teachers teach the same subjects or in the same way. This variability creates a problem for school districts as they cannot establish set-in-stone regulations on which accommodations or modifications should be used in the general education classrooms.

This literary research of the federal and state regulations and how they have been received, interpreted, and practices in schools across the United States has been an interest for many over the years. Because schools and teachers across the United States have been given the extra challenges in regards to the adoption of Public Act 94-142, IDEA, and NCLB, it is evident that there remains confusion and a lack of training to ensure the inclusion of all students with various abilities and disabilities. The question that this research aims to answer is: How have federal and state regulations and laws regarding special education and the inclusion of students with disabilities affected school districts', administrators', and teachers' abilities to provide these services to all students? and If the results are backed-up by researchers and their findings, which accommodations and modifications have been proven to be effective in the classrooms?

Terms and Definitions

Before diving into the research, it is important to be able define specific words that are used repetitively throughout. Understanding these terms helps provide background and context to the discussions that are being had about the various subjects discussed in this review.

Accommodations

When discussing accommodations in the context of this review, it refers to the alterations in the way tasks are presented that allow children with learning disabilities to complete the same assignments as other students (National Center for Learning Disabilities, 2006). These accommodations can take the form of various changes to daily activities, assignments, and assessments that provide a student with specific disabilities the ability to complete the assignment at the same level as their peers. There is a common conception that these accommodations give students with disabilities a measurable advantage over general education students. However, the emphasis is made that these accommodations are meant to provide the students with the opportunity to meet the requirements of the curriculum to the best of their abilities. Accommodations are take many forms, but when it comes to grading students, assignments and tests completed are graded the same as any student because the accommodations aren't meant to give an advantage, but to "level the playing field" (National Center for Learning Disabilities, 2006).

Modifications

While like accommodations, modifications refer to a change in what is being taught to or expected from the student (Center for Parent Information & Resources, 2020). What this means for the teacher, is that they must adjust their instruction to meet the requirements of a student's needs. This can be teachers using more auditory or visual instruction strategies, larger print documents, providing students with

disabilities accepting different assessments or assignments to accomplish the same purpose of the original assignment. Modifications can be made to: what a child is taught, and/or how a child works at school (Center for Parent Information & Resources, 2020). For example, "Jack will have shorter reading and writing assignments," or "Jack's textbooks will be based upon the 8th grade curriculum but at his independent reading level (4th grade)," are what modifications could look like in the classrooms.

Individuals with Disabilities Education Act (IDEA)

The Individuals with Disabilities Education Act (IDEA) is, "a law that makes available a free appropriate public education to eligible children with disabilities throughout the nation and ensures special education and related services to those children" (U.S. Department of Education, 2020). This act has made special education services available to over 6.5 million infants, toddlers, children, and youth with programs to ensure inclusion and equal access to education opportunities. While these have been addendums and added over the years, the goal is that school districts must provide these programs and teachers to be able to provide positive educational opportunities and outcomes.

No Child Left Behind Act (NCLB)

Passed with bipartisan support by a Republican Congress in 2001, No Child Left Behind touched every public-school classroom in the country (Hayes, 2008). In a speech given by President Bush in 2002, he said that, "every child in every school must be performing at grade level in the basic subjects that are the key to all learning, reading and math" (Hayes, 2008, p. 18). The goal was to standardize education and to, according

to Bush's secretary of education, Rod Paige, "is to see every child in America –

regardless of ethnicity, income, or background- achieve high standards" (Hayes, 2008, p.

18). While there has been criticism for the act by some, NCLB has provided many

students with opportunities to receive effective educational possibilities, it has also

created challenges for schools across the United States to meet the requirements laid

out in NCLB.

Individualized Education Plan (IEP)

Ever since the 1970s, the Individualized Education Plan (IEP) has been used to

provide efforts to individualize services through the construction of child goals and

objectives (Pretti-Frontczak & Bricker, 2000). The success and effectiveness of these

plans and objectives are that they are accessible and operationally defined making them

useful across all team members of each school. The definition of a team includes family

members and professionals working together to meet the needs of individual children

(Pretti-Frontczak & Bricket, 2000, p. 92). The plans often have objectives and goals for

each student that give the teacher guidance on which accommodations and

modifications can be had to provide the student while in the classroom. The goals of the

IEP are established from a comprehensive assessment process and linked to

intervention and evaluation (Pretti-Frontczak & Bricket, 2000).

CHAPTER II: LITERATURE REVIEW

Literature Search Procedures

To locate the literature for this thesis, searches of Educator's Reference

Complete, Expanded Academic ASAP, Education Journals, ERIC, JSTOR Arts & Sciences VI

Archive Collection, ECO, Academic Search Complete, and EBSCO MegaFILE were

conducted for publications from 1999 to 2017. This list was narrowed by only reviewing

published and empirical studies articles from peer-reviewed journals that focused on

special education and classroom accommodations for students with disabilities, found in

journals that addressed the guiding questions. The key words that were used in these

searches were "classroom accommodations," "IEP and 504," "Special Education," "ELL

assessment accommodations," and "Students with learning disabilities." The structure

of this chapter is to review the literature on classroom accommodation in three sections

in this order: Federal and state regulations, accommodations and modification studies,

and Educators creation and attitudes towards accommodation models.

Federal and State Regulations

Reforms and Acts. Whether teachers like it or not, federal law plays an

important role in special education, accommodations, and modifications in classrooms

across the United States. In chapter two of Burney's book, The Impact of Reforms and

Interventions on K-12 Education, the legality and constitutionality of the federal

government and education are discussed. However, Burney states that, "since the

Constitution never mentions education, one of the states' powers is to have plenary, or

absolute, power in the area of education" (Burney, 2015, p. 23). Burney makes sure to

emphasize that the Constitution still has an impact on public education. Acts such as the Individuals with Disabilities Education Act (IDEA) of 1990; No Child Left Behind (NCLB); 504 Rehabilitative Act (1973); and Adults with Disabilities Act (ADA, 1990) have all made sweeping changes to the education system to be as inclusive as possible for all students.

Burney's goal of this chapter is to inform on how education laws are affected by state constitutions and local governments, such as the establishment of standards, graduation requirements, and special education requirements for Individualized Education Plan (IEP) and 504 cases. According to Burney, close to 6 million students from all grade levels receive some form of special needs education throughout their schooling experience (Burney, 2015, p. 29). Burney also discusses the history of why this is. For example, the passing of IDEA ensured these services to students with disabilities as well as details of the law when it was first passed and the current version of the law (Burney, 2015).

Burney also explains the IEP process, such as the short-term objectives, providing students assistance in the classroom with accommodations and modifications, and support from special education professionals. Burney also explains how some short-term objectives are not mandated by law (Burney, 2015). Burney continues by explaining other parts of the method such as discipline for students with IEP's compared to general population students, how other acts like No Child Left Behind (NCLB), and the quality of teacher requirements by the act are measures that ensure quality and effective instruction to students with IEP or 504 plans (Burney, 2015, p. 46-49). Burney's

publication provides a great amount of information that serves as evidence or a guide

for schools to provide the best care for all their students.

The No Child Left Behind Act. The No Child Left Behind Act (NCLB) of 2001 began

the policy of school students throughout the country to participate in annual testing in

specific academic areas, including students with disabilities (Cortiella, 2005, p. 1). These

policies that were put in place were a change for many schools across the country and

established a system of accountability for schools to test and accommodate students

with disabilities. Throughout Cortiella's article, it explained that the intricacies of the act

as an educational tool for teachers, parents, schools, and states is better to be

understood implement the policies that NCLB enacted.

Cortiella begins by explaining that, "accommodations are tools and procedures

to ensure that all students with disabilities can take and complete assessments given by

the state to the best of their abilities" (Cortiella, 2005, p. 2). Cortiella does this by

comparing accommodations vs. modifications, assessments vs. instruction

accommodations, and standards vs. non-standard accommodations. This is done to

clear-up any confusion the reader may have on the vocabulary terms and to give

examples of each in the context of state assessments. Cortiella then explains how these

accommodations are chosen based on the IEP and 504 plan process by describing how

the child's strengths and weaknesses help determine this, and how the most

appropriate accommodation is selected (Cortiella, 2005, p. 3). The most helpful tool that

is provided by Cortiella is a chart that shows which accommodation or modification is

most appropriate for any given situation of a child's specific disability (See the chart

below).

Table 1

Guide to Choosing Accommodations

PRESENTATION ACCOMMODATIONS		
Who Can Benefit	**Questions to Ask**	**Examples**
Students with print disabilities, defined as difficulty or inability to visually read standard print because of a physical, sensory or cognitive disability.	- Can the students read and understand directions? - Does the student need directions repeated frequently? - Has the student been identified as having a reading disability?	- Large Print. - Magnification Devices. - Human Reader. - Audio Tapes. - Screen Reader. - Talking Materials (calculators; clocks; timers).
RESPONSE ACCOMMODATIONS		
Who Can Benefit	**Questions to Ask**	**Examples**
Students with physical, sensory, or learning disabilities (including difficulties with memory, sequencing, directionality, alignment and organization).	- Can the student use a pencil or other writing instrument? - Does the student have a disability that affects his ability to spell? - Does the student have trouble with tracking from one page to another and maintaining his/her place?	- Scribe. - Note-takers. - Tape Recorder. - Respond on Test Booklet. - Spelling and Grammar devices. - Graphic Organizers.
TIMING & SCHEDULING ACCOMMODATIONS		
Who Can Benefit	**Questions to Ask**	**Examples**
Students who need time, cannot concentrate for extended period, have	Can student work continuously during the entire time	- Extended time. - Frequent Breaks.

health-related disabilities, fatigue easily, special diet and/or medication needs.	allocated for test administration? • Does student tire easily because of health impairments? • Does student need shorter working periods and frequent breaks?	• Multiple testing sessions.
SETTING ACCOMMODATIONS		
Who Can Benefit	**Questions to Ask**	**Examples**
Students who are easily distracted in large group settings concentrate best in small groups.	• Do others easily distract the student? • Does student have trouble staying on task? • Does student exhibit behaviors that would disrupt other students?	• Change of room or location in room. • Earphone or headphones. • Study carrels.

The final element of the publication is used as a Q&A session to help

troubleshoot any questions that the reader may still have up to this point. Some of the

questions that are answered are: Is my child using accommodations during classroom

instruction that will not be allowed when taking state- or district-wide assessments?

Does my child show a documented need for all selected accommodations? And does my

child understand how to use the assessment accommodations that have been selected

(Cortiella, 2005, p. 6)? As an information tool, the publication by Cortiella is an effective

way for the reader to understand NCLB and how it is used in the schools and interpreted

by federal and state law.

SEA and LEA Guidelines. With IDEA and it's amendments passed in 1997, special educators and their teams were given the authority to select individual accommodations or modifications for a child with a disability and participate in district-wide assessments (Cohen & Heumann, 2001, p. 2). In a document written by the Office of Special Education and Rehabilitation Services, Cohen and Heumann outline the powers and requirements of IEP programs and the duty that they play in the United States schools as of 2001. In 2020, special education professionals have more support than ever (studies back this up), but this document shows where Special Education began to model itself as an inclusive, effective, and accommodating structure for students.

In the document, Cohen and Heumann describe the responsibilities of the IEP team by stating that they are to base all decisions regarding accommodations or modifications on a full understanding of the consequences for reporting and accountability for such reports (Cohen & Heumann, 2001). Cohen and Heumann continue by stating that the state education agency (SEA) and local education agency (LEA) cannot constrain the IEP team's decisions, but that they are set up to provide guidelines so that the IEP team can make as accurate and effective accommodations as possible for each student (Cohen & Heumann, 2001). Having these guidelines put in place gives the IEP teams in the United States schools the support they need, while the SEA and LEA remain protected from potential lawsuits for any wrongdoing or malpractice in a child's education.

Additionally, the guidelines that are chosen by the SEA and LEA, are selected, "based on the individual student's needs and should generally be consistent with the accommodations provided during instruction" (Cohen & Heumann, 2001, p. 4). This means that the IEP team is responsible for providing the students with the accommodations and modifications that they need to succeed in the classroom, but that these also cannot give students with disabilities an advantage over the general classroom students. They need to be based on what the student's abilities are and how they are limited by their disability.

IEP Form Effectiveness Studies. In the study conducted by Thompson, Thurlow, Esler, and Whetstone, it examined state IEP forms to determine the extent to which they include documentation of standards and assessments (Thompson, Thurlow, Esler, & Whetstone, 2001, p. 77). Every state in the United States was asked to send their IEP forms and to indicate if the samples provided were the required, recommended, or just sample forms. Thompson et al.'s findings were telling. Out of the 41 states that responded by sending their forms, only 5 addressed educational standards on their forms (Thompson et al., 2001, p. 77). It was also found that 31 addressed the general curriculum on their IEP forms, 30 listed three or more options for assessment participation, including standard participation in either state or district assessments, accommodated participation, and alternate assessment participation (Thompson et al., 2001, p. 77).

The study that was conducted in 2001 because special education services had been provided through Individual Education Programs (IEPs) for 25 years at this point

and it was necessary to determine the effectiveness and adherence to the program on a state by state basis (Thompson et al., 2001). Before the methodology of the study was conducted, the history and procedures of the IEP programs were clarified, from their adoption in 1975 and before IDEA in 1997. In a separate study by Sands, Adams, and Stout in 1995, over half (55%) of the 341 elementary and secondary special educators surveyed believed that each student with disabilities has his or her own curriculum based on their needs (Thompson et al., 2001, p. 78). This disconnect was the main reason Thompson et al. conducted the study, to determine if this attitude had changed by 2001.

Thompson et al.'s findings showed that in 2001, "many states had not developed or lacked efficient training or awareness of how the IEP addresses access to the general education curriculum within documentation requirements" (Thompson et al., 2001, p. 80). Another finding was that most forms that were sent by the different states "strongly" recommend but not required by the state to use when recommending and educating parents of that state's IEP practices (Thompson, et al., 2001). Thompson et al. proposed several things to the states that on their forms that state, "so that he or she can meet the education standards that apply to all children" and offering statewide training, ongoing technical assistance, and easily accessible information about standards-based IEPs (Thompson et al., 2001, p. 81-82).

State Responses to Education Legislation. Federal and state agencies both agree that assessments remain one of the most valuable tools for teachers and administration to be able to determine how the schools is performing and meeting the standards.

However, students with disabilities, IEPs, or 504 plans can have difficulties taking and finishing these tests to the best of their abilities without any modifications to make these assessments easier to complete. Thurlow, Lazarus, Thompson, and Morse in their study, *State Policies on Assessment Participation and Accommodations for Students with Disabilities*, provided an examination of, "states' participation and accommodations policies that were put in place at the beginning of the accountability requirements set by NCLB in 2001" (Thurlow, Lazarus, Thompson, & Morse, 2005, p. 232).

Thurlow et al.'s purpose for this study are to discuss the legal requirements and background information of NCLB and the accommodation policies that came with it. More so, it was an examination of how much states participated in the requirements set by the NCLB. This was done by, "contacting all 50 states in 2001 and asking for copies of their policies for the participation of students with disabilities in statewide assessments and the provision of accommodations that had been revised since 1999" (Thurlow et al., 2005, p. 233). After all of the 50 states responded, results showed that many of the states had not addressed all of the policies that NCLB lists in its requirements (See table on page 11).

Table 2

Summary of Participation Policy Variables

Policy Variable	Used w/o restrictions	Used w/ restrictions	Prohibited	Not mentioned
IEP team decides	49	0	0	1
Nature/category of disability	5	0	22	23

Course content or curricular validity	27	1	0	22
Parent/guardian involvement specified	20	5	1	24
Receiving special education services/% of time	1	0	10	39
Non-pursuit of standard diploma or general curriculum	12	1	0	37
Student emotional anxiety	3	3	0	44
Other	24	9	3	14

A year after NCLB was passed, most of these states continued to evolve with their policies pertaining to accommodations for state assessments. Thurlow et al. stated, "the changes that occurred following the adoption of NCLB, though slow, reflect a greater understanding of the details involved in the development of policies" (Thurlow et al., 2005 p. 239).

Supreme Court Rulings and Education. Often, a challenge for special education in public schools is navigating the legalities that are included the IDEA. In Yell and Rozalski's publication, *The U.S. Supreme Court and Special Education: 2005 to 2007*, explains how acts such as IDEA have shaped special education and the rights of schools and students. Yell and Rozalski use the publication to provide a summary of the

procedural rights that IDEA provides parents, a review of four rulings, and an address of

implication of these cases for educators and parents (Yell & Rozalski, 2009, p. 68-69).

In the body of the publication, Yell and Rozalski began by providing an overview

of the due process rights that are spelled out in IDEA. Yell and Rozalski explain that IDEA

extends procedural and substantive education rights to students with disabilities. These

rights are important because it ensures that these students will receive a free and

appropriate public education (FAPE). Yell and Rozalski explain that, "the most important

of these rights is that the student and parents are meaningfully involved in the special

education process, including IEP meetings and teacher conferences" (Yell & Rozalski,

2009, p. 69-70). It is also explained that Supreme Court decisions and cases explain

when and how these rights were used to protect students, parents, and schools. In one

such case, *Arlington Central School District Board of Education v. Murphy*, the rule by

the court determined that, "the responsibility of schools to provide FAPE is not

diminished as school districts have the affirmative duty to provide students with

disabilities an education that meets their unique educational needs" (Yell & Rozalski,

2009, p. 72).

Yell and Rozalski complete the publication by describing the principles form the

Supreme Court rulings between 2005 and 2007. Firstly, school districts must ensure that

parents are meaningfully involved in the development of their children's special

education program. Secondly, school districts must ensure that teachers and

administrators understand their responsibilities under FAPE requirements. Thirdly,

school districts must ensure that special education teachers understand how to develop

educationally meaningful and legally sound IEPs. Finally, school districts must ensure

that special education administrators and teachers receive meaningful and sustained in-

service training programs in new research-based practices and other developments in

special education (Yell & Rozalski, 2009, p. 74-75).

State Response to Testing Accommodations. Maryland, like many states

throughout the United States, has been given the challenge of providing

accommodations on assessment for students with disabilities under NCLB. Researchers

Ysseldyke, Thurlow, Seyfarth, Bielinski, Moody, and Haigh conducted a study to examine

the relationship between instructional and assessment accommodations for students

with disabilities in grades 1-8 on the Maryland state tests comprising the Maryland

School Performance Assessment Program (Ysseldyke, Thurlow, Seyfarth, Bielinski,

Moody, & Haigh, 1999). The goal of this study was designed to examine the relationship

between instructional and assessment accommodations for the Maryland state tests

laid out by the state education agencies guidelines.

The study was conducted by first choosing the participants. It included 280

students who were on active IEPs at the time their records were pulled for analysis

(Ysseldyke et al., 1999, p. 6). Four LEAs were identified to also be part of the study. The

development of the data collection tool was created using a focus group that consisted

of various teachers, administrators, and school psychologists that created a draft survey

that was then revised by the National Center of Education Outcomes (NCEO) (Ysseldyke

et al., 1999, p. 6). Once Ysseldyke et al. gathered all the data from the survey, the results

were combined using a data collecting system that helped determine variables such as if

students had one or many accommodations, what their disability is, and grade level

(Ysseldyke et al. p. 7).

Results of the survey showed that of the 280 students, boys were represented

more often than girls (70% and 30% respectively). The study also had more white

students than any other ethnic/racial groups (77% while, 13% black, 7% Hispanic, and

the remainder reported missing data on ethnicity and race). Data was also collected on

the type of disability each student had (learning disability 46%, speech/language 25%,

multiple disabilities 12%, other 11%). Grades that were received by the students were

also collected on a 13-point scale (F = 0, A = 13). Finally, data was collected on how

many of these students had specific accommodations that help with reading (60%),

writing (64.5%), language usage (36.5%), Math (40.4%), Science (5.7%), Social Studies

(6.4%), and other (57.4%) (Ysseldyke et al., 1999, p. 11). Ysseldyke et al. were able to

determine from the data collected demonstrated that for most students, appropriate

accommodations to instruction and testing are being listed and do not provide the

students with an unfair advantage in school grades when compared to other students.

Finally, individual states are capable of addressing and following accommodation

guidelines laid out by federal and state education agencies (Ysseldyke et al., 1999).

Accommodation and Modification Studies

The Purpose of Special Education. An important part of understanding why

accommodations and modifications are used in the classroom of schools is to recognize

the importance and the purpose of special education. In Cook and Schirmer's journal,

What Is Special About Special Education, the question of whether special education is in

fact, 'special' is examined by reviewing relevant literature on the subject. The purpose

of the journal is to, "determine to what degree the effective techniques have been

developed to help students with disabilities, how these techniques are implemented,

and how the utilization of these techniques are unique to special education" (Cook &

Schirmer, 2003, p. 200).

Special education is often judged by the effectiveness of their efforts to educate

children and youth with disabilities as soon as it was introduced into United States

public schools (Cook & Schirmer, 2003). However, as special education programs have

become more established in schools and more resources have become available for

them, its effectiveness has been noticed by professionals from various institutions. Cook

and Schirmer explain that at the federal level, as soon as IDEA was reauthorized, Special

Education programs came under more scrutiny and legitimacy increased as questions on

the effectiveness of such programs in public schools if they could fulfill their missions in

every school (Cook & Schirmer, 2003, p. 200).

Regardless of these attitudes, many scholars and educators alike have reached

similar conclusions on the effectiveness of special education. A theme that emerged was

the number of effective accommodations and modifications that special education

programs were able to develop to help their students' unique abilities and challenges.

Another theme involved the frequency and fidelity with which these effective practices

are implemented in special education (Cook & Schirmer, 2003, p. 202). Cook and

Schirmer's journal sought out to determine whether special education is 'special,' they

determined that it certainly is. Cook and Schirmer explain that special education

professionals have developed accommodations and modifications that ultimately work

and help all students succeed in the classroom to the best of their abilities (Cook &

Schirmer, 2003, p. 204).

Determining Appropriate Accommodations. In Beech's publication,

Accommodations: Assisting Students with Disabilities, is written to direct personnel and

parents in the school district when making decisions on what accommodations should

be used by students with disabilities in instructional situations (Beech, 2010). Beech

explains the federal and state requirements when determining whether students are

eligible for accommodations under an IEP or 504 classifications, but also goes over the

decision-making guidelines for selecting such accommodations or modifications.

The first thing Beech states that needs to be done is, "determining which

accommodations will be used to assist in the child's learning is by having an IEP or

Section 504 planning meeting between a team of professionals, family members, and

the student" (Beech, 2010, p. 11). Some of the learning and behavior characteristics that

highlight the need for any accommodations include; difficulty following complex

directions and/or tasks, difficulty retaining information, inability to use regular print to

obtain new material, and difficulty organizing information when writing (Beech, 2010, p.

11). Beech uses this publication to outline the Student, the Environment, the Tasks, and

the Tools planning tool (SETT) that are used by the Department of Education of Florida

and most other schools throughout the United States.

By using SETT, educators across the United States are then able to determine

which accommodations should be used in any given situation or student. This includes

presentation accommodations that answer how the students will access information,

response accommodations that answer how the student will demonstrate competence,

setting accommodations that answer where the student will be instructed and assessed,

and scheduling accommodations that answer when the student will be instructed and

assessed (Beech, 2010, p. 19). By providing detailed examples of how to assess the

needs of all students, Beech's publication is a valuable tool for educators to use in their

classrooms.

Theoretical Models of Learning. In the third chapter of Burney's publication, *The*

Impact of Reforms and Interventions, the psychological aspect of interventions in

classrooms are discussed. Burney describes the 'behaviorist perspectives,' which are

based on principles of operant conditioning, and how it is often used to explain the

positive and negative reinforcement devices that are used in interventions in the

classroom by teachers and other school personnel (Burney, 2010, p. 57). To explain how

these reinforcements work, Burney explains the Skinner box experiment and how it

affected the behavior of rats in a closed system. The Skinner box experiment proves that

when a positive reward (food) is presented for good behavior, the rat will perform the

task more often than if the rat received the negative reward (loud noise) (Burney, 2010,

p. 57). Burney used this example to explain how teachers and adults use these

conditioning strategies all the time when choosing effective interventions. For example,

if a child is misbehaving, removing their favorite toy would be the negative

reinforcement while giving the child a gold star for continued good behavior is the

positive reinforcement.

Burney also explains other theories such as cognitive perspective, social

cognitive theory, and constructivist perspective to provide other avenues for

intervention for students with various disabilities and behaviors in the classroom. One

way that Burney does this is by implementing a visual aid such as a table to help explain

which theory can be used and what it looks like (Burney, 2010, p. 61). (See the table

below)

Table 3

Theoretical Models of Learning

THEORY/MODEL	LEVEL	KEY CONCEPT
Behaviorist Theory	Individual or Group	- Reinforcement. - Cues. - Shaping.
Social cognitive theory	Interpersonal or Group	- Reciprocal determinism. - Behavioral capability. - Self-efficacy. - Outcome expectations. - Observational learning. - Reinforcement.
Theory of planned behavior	Interpersonal or Group	- Attitude toward the behavior. - Outcome expectations. - Value of outcome expectations. - Subjective norm. - Beliefs of others. - Motives to comply with others.

		• Perceived behavioral control.
Social Support	Interpersonal or Group	• Instrumental support. • Informational support. • Emotional support. • Appraisal support.

Constructive Theory	Interpersonal/Interpersonal	• Multiple levels of influence.
		    ○ Intrapersonal.
		    ○ Interpersonal.
		    ○ Institutional.
		    ○ Community.

Using this table, an educator can determine which intervention strategy should be used for any situation. This would also work when deciding which accommodations and modifications a teacher can use to help a student with emotional behavioral disorders.

Burney finished up the chapter by examining the different modes of intervention and accommodations that can be applied in the classroom. Burney includes assessments (qualitative and functional), schedules for reinforcement (when to apply these interventions and how often), and how education can have behavioral changes in students if all these strategies are applied (Burney, 2010). Burney's publication is best described as being a formal guide for teachers, special education professionals, and administration for establishing the school methodology when conducting interventions that lead to accommodations or modifications in the classroom that are based on empirical evidence and academic research.

Autism and Asperger Syndrome in the Classroom. In modern American classrooms, teachers see many students throughout their day with many different

learning abilities. Echaniz and Cronin's journal, *Autism Spectrum Disorders, and*

Implications for Teachers, seeks to underline the characteristics and the strategies that

can be used to help students with autism in their classrooms with accommodations and

modifications that work. Firstly, Echaniz and Cronin set out to define what autism is in

the modern sense. Autism is defined as, "being a Pervasive Development Disorder

(PDD), which means it is a complex developmental disability that typically affects a

person's ability to communicate and interact with others" (Echaniz & Cronin, 2014, p.

27). Next, Echaniz and Cronin explore how autism is diagnosed, the causes of autism,

the demographics, and the special education laws that are associated with autism in the

schools.

As autism relates to classrooms, Echaniz and Cronin explain how, "school teams;

including special education teachers, speech-language pathologists, physical therapists,

occupational therapists, psychologists, the parents of the child, and the general

education teachers work together to create successful learning opportunities and

interventions to help the student learn, grow, and succeed" (Echaniz & Cronin, 2014, p.

34). This collaboration is necessary to ensure that each child who is diagnosed with

autism gets the learning opportunities that they deserve. What is challenging about

students with autism, is that no two cases are the same. Autism cases in children vary in

severity and indicators.

Some of the pedagogical strategies to help students with autism first involve the

teacher getting to know the student and gain their trust and respect (Echaniz & Cronin,

2014). Echaniz and Cronin also state that one strategy that has worked is by introducing

drama and role-playing as a learning medium during lessons. The reason is that the student can then explore social and moral issues and engage in investigative problem-solving. Echaniz and Cronin also state that "drama can teach students with autism to use the narrative form to explain the social context and encourage interaction with other students" (Echaniz & Cronin, 2014, p. 35). Another challenge that teachers face with students with autism is language skill deficits. To help with this, strategies include encouraging spelling and decoding by using instruction that includes reading instruction with five essential components: phonemic awareness, phonics, reading fluency, vocabulary, and comprehension (Echaniz & Cronin, 2014, p. 38). Finally, Echaniz and Cronin highlight that it is the collaboration between the general and special education teachers that are crucial to creating a plan to best educate students with autism and ensure the inclusion of these students in their classrooms.

Along with ADHD, EBD and other disabilities, students increasingly have been getting assistance with accommodations and modifications for High-functioning Autism and Asperger's (HFA/AS). In Sansosti, Powell-Smith, and Cowan's book, *High-Functioning Autism/Asperger Syndrome in Schools*, the educators examine and explore the different accommodations and modifications used by general educators. Because HFA and AS vary vastly between child to child, this task can be challenging for general and special education teachers. In chapter 5, Sansosti et al. address the needs of students with HFA and AS all while explaining the strategies and interventions used in schools with the emphasis that these are not "one-size-fits-all" solutions (Sansosti, Powell-Smith, & Cowan, 2010, p. 81).

Sansosti et al. begin the examination by explaining the general strategies and the challenges students with HFA and AS experience in the classroom. Sansosti et al. describe how, "tasks are presented to students in a way that ensures that classroom structure, organization, and assignments are broken up into smaller parts remain" (Sansosti et al., 2010, p. 82). Teacher communication also can be used as an avenue of support for students with HFA and AS. Sansosti et al. explain that, "seating the student close to the teacher or where the instruction is taking class ensures that the student remains in the line of sight of the teacher" (Sansosti et al., 2010, p. 82-83). Sansosti et al. also describe the strategies for assignments, homework, study skills, reading, writing support, and math support, all while providing examples, tables, and visual aids to help the reader understand (Sansosti et al., 2010).

Sansosti et al. complete the chapter by explaining how, "the general and specific strategies that were listed are there to enhance the academic successes of students with HFA and AS" (Sansosti et al., 2010, p. 101). It is also driven home that the use of visual cues, the high degree of structure, and explicit instruction should be used with the goal of increasing positive school outcomes for students with HFA and AS (Sansosti et al., 2010).

EBD and ADHD in the Classroom. Policies in many states mandate the use of accommodations so students with disabilities can be effective in the classroom. However, no policies or empirical research provide adequate guidance for educators to effectively select and use accommodations for these students in the classroom (Bunford, Evans, Harrison, & Owens, 2013, p. 551). A large part of Nora Bunford et al.'s

publication, *Educational Accommodations for Students With Behavioral Challenges: A Systematic Review of the Literature*, is spent defining the terms *intervention, accommodation,* and *modification* which are used heavily throughout. However, the key purpose of the publication is to educate the reader about the specifics of each of these definitions and to explain their differences. Bunford et al. believe that clear definitions of the terms provide a foundation for a scientific approach and increase the probability of consistency, completeness, and uniformity in each of these three definitions in classrooms (Bunford et al., 2013, p. 555).

Bunford et al. explain that *modifications* are changes to practices in schools that alter, lower, or reduce expectations to compensate for a disability. Bunford et al. also explain that *accommodations* are changes to practices in schools that hold a student to the same standard as students without disabilities, but provide a differential boost to mediate the impact of the disability on access to the general education curriculum. Finally, Bunford et al. explains that, "*interventions* are changes made through a systematic process to develop or improve knowledge, skills, behaviors, cognitions, or emotions" (Bunford et al., 2013, p. 556).

Bunford et al. used these definitions to review literature that describes the uses of different strategies with students that had Emotional Behavioral Disorders (EBDs) or Attention Deficit Hyperactivity Disorder (ADHD). Bunford et al. then reviewed studies that assess the effectiveness of one or more of these strategies. A four-step process of the literature review was used to locate 149 strategies that intended to address academic or behavioral impairment associated with students with EBD or ADHD.

Bunford et al. then evaluated the strategies and narrowed them down to 111 total but excluded those that met the definition of intervention or modification (Bunford et al., 2013, p. 559). With these 111 strategies, Bunford et al. summarized the results for each accommodation in categories such as presentation, response, timing/scheduling, setting, and packages of delivery. By setting up a clear categorizing system, Bunford et al. were able to begin compiling accommodations that have proven to be effective in the classroom.

IEPs and Students with Disabilities. Most students with disabilities in the United States public school system fall under the realm of Attention Deficit Hyperactivity Disorder (ADHD) at 8.8% of the population of students K-12. A study conducted by Spiel, Evans, and Langberg evaluated the, "degree with which Individualized Education Programs (IEPs) and 504 Plans are prepared for middle school students with ADHD, if they conformed to the best practices, and included-evidence based services" (Spiel, Evans, & Langberg, 2014, p. 452).

There were two main goals of this study. Firstly, it was to identify the concerns documented at the present level of academic achievement and functional performance (PLAAFP) and measurable annual goals and objectives (MAGO). Secondly, to examine the services listed on IEP and 504 plans to determine which of these IEP and 504 plans with a given service, and then compare these percentages between students receiving services under IDEA and Section 504. With these percentages, Spiel et al. then evaluate whether services listed are recommended by the education department (ED) or are research-based (Spiel et al., 2014, p. 455). Spiel et al. had 97 students in sixth through

eighth grades selected into three cohorts over the course of three years from nine

separate schools. They were recruited by mailing a letter about the study to the parents.

Those that responded were then screened by phone to determine if the child would

best suit the study (Spiel et al., 2014, p. 455).

The results of this study were found to be mixed. The findings suggested that

IDEA regulations regarding the provision of need-based services may be inconsistently

applied to every student in different schools (Spiel et al., 2014, p. 461). What this means

is that even though there are federal and state laws put in place, schools remain

inconsistent with how these regulations are applied to each student and their IEP or 504

plan(s). Spiel et al. also found that students with IEPs had lower cognitive ability and

significantly greater academic difficulties that were not always being addressed or not

always being given the same frequency of service. It was also found that 88% of the

services listed on IEPs and 504 plans were recommended by ED, only 18% were

considered research-based (Spiel et al., 2014, p. 465). Spiel et al.'s conclusion is that

most services listed on IEPs and 504 plans are not research-based and come from state

and federal guidelines.

Deaf or Hard of Hearing. For many educators, providing accommodations for

students with EBD, ADHD, and other learning disabilities are more commonplace and

are supported by the school administration and special educators in the building. In

Cawthon and Leppo's study, they wanted to tackle the challenge of identifying the

accommodations that work best for students who are deaf or hard of hearing. Cawthon

and Leppo set out to conduct a study of which of these accommodations are supported

by research findings from literature and the effects on students who are deaf or hard of hearing during assessments, determining what test-level factors are included in the literature on the effects of accommodations on test scores for students who are deaf or hard of hearing, and what student-level factors are included in the extant literature on test scores for student with hearing disabilities (Cawthon & Leppo, 2013, p. 366).

To collect the literature needed, Cawthon and Leppo researched for published works that focused specifically on empirical investigations of accommodations on tests and assessments and the results of students with hearing disabilities. They used four research databases: PsycINFO, ERIC, Dissertation Abstracts International, and Educational Abstracts (Cawthon & Leppo, 2013, p. 366). They used these databases and searched using terms such as: *accommodations, tests, modifications, deaf, hard of hearing, hearing loss, hearing impaired, and deaf and hard of hearing*. The articles that Cawthon and Leppo used included articles with experimental, quasi-experimental, or correlational designs, research that was specifically conducted with deaf and hard of hearing children in mind, studies with statistically significant findings, educations settings ranged from K-12 to secondary, and dissertation studies and published manuscripts (Cawthon & Leppo, 2013, p. 367).

With Cawthon and Leppo's three research questions (What are the effects of accommodations? What are test-level factors? What are student-level factors?), it was determined that the studies reflected the priority to provide access to English print for students who are deaf or hard of hearing, matching accommodations specifically for each individual student's case, using American Sign Language (ASL) as an

accommodation, and visual computer-based assessment. Cawthon and Leppo's study concluded that large-scale, standardized assessment is likely to remain a foundational part of how the United States educational system for K-12 and postsecondary levels measures student proficiency and progress towards academic goals (Cawthon & Leppo, 2013). However, additional accommodations have become the norm for students who are deaf or hard of hearing as technology, ASL, and other accommodations become more known and accepted in schools across the country.

Anxiety. Like many neurobiological disorders, anxiety also has increasingly been diagnosed in students in schools across the United States. In Killu, Marc, and Crundwell's journal, *Students With Anxiety in the Classroom: Educational Accommodations and Interventions*, an attempt is made to help clarify what anxiety is, how it manifests itself in these children, and what kind of modifications and accommodations can be given to students while in the classroom. Killu et al.'s conducted qualitative research by evaluating the specific case of a child, Abbey, and her challenges with anxiety in the classroom.

Killu et al. explain that while anxiety is suffered by everyone at some point in their lives, anxiety disorders are caused by genetic, temperamental, psychosocial, and parental factors (Killu, Marc, & Crundwell, 2016, p. 30). Killu et al. describe that genetic factors, the passing down of anxiety in families, account for one-third of all cases. Temperamental factors refer to the early personality style that includes emotionally and behavioral styles of children. And finally, psychosocial factors refer to the experiences that children experience and the environment they live and grow in (Killu et al., 2016, p.

30-31). With this understanding of where anxiety comes from, Killu et al. then describe what anxiety looks like in the classroom and how it affects academic performance. Once the reader knows how it affects the students in the classroom, Killu et al. describe how teachers and special educators can address anxiety in the classroom. This includes, but not limited to, cognitive behavioral therapy (CBT), the use of a "peer buddy," graphic organizers, a reduced workload, avoiding lengthy emotional discussions, and notifying the students of any dramatic changes to routine and the daily schedule (Killu et al., 2016, p. 32-33).

To better explain how these challenges and accommodations, Killu et al. use the case study of Abbey, a twelve-year-old female. Abbey increasingly struggled with school and classwork, including how her mind seems to go blank when confronted with challenging work, not completing work, and she began giving up more easily (Killu et al., 2016, p. 34). After approaching her parents about the issues Abbey was having in school, observations and interventions were conducted. These observations and interventions were done to assess her attendance and test scores to observe a pattern of behavior. With the data collected, accommodations were made to her daily school day including a quiet place to retreat, teaching stress management, allowing Abbey to use a tape recorder, and reducing the workload (Killu et al., 2016, p. 35-36). Killu et al. concluded that while anxiety has draining consequences on children, resources are available to help understand the impact of anxiety and that the child can be provided care on a daily basis to help them succeed in the classroom (Killu et al., 2016).

ELL and LEPs. Another phenomenon that is increasingly common in the United

States, are that teachers see more students who are English Language Learners (ELL)

and/or Limited English Proficient (LEP). The challenges that teachers face when

determining the appropriate methods and practices to ensure that these students are

assessed properly in their classes have increasingly been studied and debated by

researchers and educators at all grade levels. According to Jamal Abedi, Carolyn

Hofstetter, and Carol Lord, as of 1998-1999, thirty-seven states reported using test

accommodations for ELL and LEP students (Abedi, Hofstetter, & Lord, 2004, p. 2).

However, at that time there was not a 'one-accommodation-fits-all' approach in these

schools as other questions such as (1) are some accommodations more effective than

others, (2) is it meaningful to compare English learners' accommodated scores with

English-proficient students' non-accommodated scores, (3) do accommodations give

students who receive them an unfair advantage (Abedi et al., 2004, p. 2).

One of the goals of Abedi et al. was to underline that the decisions of the

education, inclusion, and assessment of all students are founded on considerable

historical, legal, and judicial precedents (Abedi et al., 2004, p. 3). This is also stressed

with the accountability for educators in the classroom to guarantee that all children are

appropriately assessed for their knowledge on any given subject all while maintaining

standards that are laid out by the state and federal governments. When trying to

determine which students would meet the criteria of an ELL or LEP students, many

accommodations are determined by the cultural and linguistic variation of the student

population in the United States. In 2000-2001, LEP students comprised of nearly 4.6

million public school students (Abedi et al., 2004, p. 4). The majority were Spanish

speakers (79.0%), followed by Vietnamese (2.0%), Hmong (1.6%), Cantonese (1.0%), and

Korean (1.0%) (Abedi et al. p. 4).

Other than determining what the relationship is between language proficiency

and test performance, understanding what accommodations are and who uses them,

Abedi et al. studied to determine how these accommodations are used in the classroom

and which ones have been tested and applied. Some of those accommodations included

writing tests in the students' native language, linguistic modification of test items, extra

time, published dictionaries, oral administration (Abedi et al., 2004). As predicted

though, some of these accommodations are not as effective as others due to the

specific criteria that Abedi et al. outline in the study. To determine whether these

modifications should be used, Abedi et al. considered that these accommodations need

to meet criteria the estimate their effectiveness, validity, differential impact, and

feasibility for the student and for the teacher in the classroom.

Extended Time on Assessments. One of the most common testing

accommodations for students with disabilities is providing them with more time to

complete assessments. While immensely helpful for these students, it remains

controversial for critics as it is claimed that it is used too often and gives an unfair

advantage to the student who uses it. Benjamin Lovett's study, *Extended Time Testing*

Accommodations for Students With Disabilities: Answers to Five Fundamental Questions,

reviews the evidence of this accommodation and the appropriateness of extended time

on assessments (Lovett, 2010, p. 611).

Lovett first explains, "the controversy that has surrounded the use of extended time for assessments. The concerns of critics are that this extension of time, if not used appropriately, can be abused, and used to give students with disabilities an advantage" (Lovett, 2010, p. 612). This controversy is stemmed from the differences in the achievement gap. While accommodations like extended time are protected and required by law, they are given based on the student's disability diagnosis or other classifications (Lovett, 2010). On the other side of the aisle, advocates of the extended time accommodations agree that providing this during classroom assessments and cautiously on the state or licensure testing, ensures that it is used without abuse (Lovett, 2010).

Lovett's answer on whether extended time as an accommodation for assessments is by asking five questions. Firstly, does extended time alter the construct validity of inferences based on test scores? If scores obtained under standard and extended time conditions both have similar validity evidence, then it is appropriate. The second question concerns whether non-disabled examinees benefit from extended time. The third asks if the students with disabilities could adapt to the standard testing conditions. The fourth concerns the disability diagnoses that led to eligibility for extended time accommodations. Finally, are the procedures used to make the accommodation decisions of adequate technical quality (Lovett, 2010, p. 616-617)? Lovett explains that if these questions can be answered positively towards the use of extended testing time, then it is appropriate to be used.

High Stakes Testing. In a study done by Lai and Berkeley, the goal was to

determine how accommodations given during high stakes testing to general education

students and students with learning disabilities affects their performance and how it

aligns or does not align with state policies of accommodations in the classroom. The

study utilized a total of 719,012 students, 708,712 of the students being general

education and 10,300 students with learning disabilities. Lai and Berkeley gathered data

that determined that while accommodations made during assessments gave students

with learning disabilities a way to hold their own compared to general education

students, state accommodation policies tend to be vague and do not lend to the

decision making of how to apply accommodations in all situations.

The research that Lai and Berkeley compiled for this study was both quantitative

and qualitative. Lai and Berkeley began by searching research databases looking for

applicable studies using keywords and phrases that will help find relevant studies for the

purposes of the study. Lai and Berkeley then compiled and compared the data with the

policies from state manuals that lay out the practices and methods for teachers to apply

accommodations for student during assessments. To understand the correlation

between the accommodations used and what is allowed by the state, Lai and Berkeley

split up the data acquired on the student's grade, subject, whether the students are

general education or learning disabilities, and the type of accommodation made (Lai &

Berkeley, 2012).

The results of the study showed that while the accommodations made for the

students with learning disabilities did in fact, "level the playing field," compared to the

general education students, it is often the cases that accommodations that are used on a regular basis in the general classroom are allowed and used during high stakes tests (Lai & Berkeley, 2012, p. 158). The test also showed that the vagueness of state standards on accommodations leads teachers and administration to usually determine the school's own practices of what accommodations to allow and use for assessments.

Paraeducators. Sometimes, teachers with larger classroom numbers, need more assistance in the classroom for students with disabilities. Paraeducators provide a presence in the classroom for students with disabilities, IEPs, and 504 plans by assisting the teacher in daily lessons, providing supports for students, and to ensure that these students meet the standards that are laid out in class. In an example provided by Haegele and Kozub in their journal, *A continuum of paraeducator support for utilization in adapted physical education*, attempt to describe the three ways of using paraeducators during adapted physical education.

One way that Haegele and Kozub describe how a paraeducator is to be used during an adapted physical education class is that they read a portion of the lesson plan that described the desired support towards lesson objectives (Haegele & Kozub, 2010, p. 4-5). Using the lesson plans, paraeducators are then able to stay within proximity to the students with disabilities so that they can support them when needed. Also, Haegele and Kozub describe how paraeducators can assign specific accommodations and modifications for a student listed on the lesson plan with an IEP or 504 plan (Haegele & Kozub, 2010, p. 5). According to Haegele and Kozub, this is a higher level of support and can involve specific behavior management or activity related assistance. In physical

education this could mean helping the student participate in activities to the best of their abilities given the type of disability present. Finally, the last support paraeducators can provide is by using video modeling to create media clips for other paraeducators to view prior to assisting children during lessons (Haegele & Kozub, 2010, p. 5-6). In this highest level of support, a paraeducator could reach all students with disabilities by ensuring they are getting the structured activity time, they work at a pace consistent with the learning rate of the student, the paraeducators can take ownership of the accommodations that they use with these students, and the students can work on different activities designed for their specific learning needs (Haegele & Kozub, 2010, p. 7-8).

Haegele and Kozub's journal serves are an effective manual to define the strategies, recommend suggestions for paraeducators, and how general educators can best use the paraeducators that are assigned to the students in their classroom. Most paraeducators are not as informed about the content and lesson material that the general educator teachers are. By keeping paraeducators as informed as possible, they can help their students the best ways possible (Haegele & Kozub, 2010).

IEPs and 504s in Physical Education. In physical educations, one of the biggest challenges for the teachers is when a student with a disability has different goals and objectives from the rest of the class. Kowalski, Lieberman, Pucci, and Mulawka wrote the journal, *Implementing IEP or 504 Goals and Objectives into General Physical Education*, to tackle the challenge that many teachers face when figuring out ways to provide accommodations and modifications to their students. Kowalski et al. begin the

journal by explaining what an IEP or 504 plan is. The reasoning for this is to introduce

the readers who many are not aware of the purpose or definition of IEPs.

Kowalski et al. then explain how to incorporate objectives into an inclusive class

of general education students, students with disabilities, and students with IEPs or 504

plans. Kowalski et al. give multiple examples and explanations on how this can be done.

Firstly, the teacher can incorporate the objectives into existing, non-accommodated

units. The unit's objectives can be flexed to fit many types of disabilities and still reach

the same goals that are intended in the unit objectives (Kowalski et al., 2005, p. 35).

Kowalski et al. also give specific examples of how this has been done in classrooms

around the United States. Secondly, teachers can incorporate the objectives into the

class rubric. Daily classes and the projects, assignments, and assessments all have

rubrics to determine the grading requirements for all students. However, when teachers

have students with disabilities, IEPs, and 504 plans, these rubrics are modified to

accommodate the student and their abilities (Kowalski et al., 2005, p. 36). Kowalski et al.

go on to explain multiple accommodations, modifications, and strategies that can be

used not only for physical education teachers but for general classroom teachers as

well.

Students with disabilities, IEPs, and 504 plans are increasingly becoming part of

increasingly inclusive schools. Kowalski et al. use the journal as a learning tool to teach

the importance of making sure all educators are aware of the steps required to ensure

that these students are properly given the best education possible with the tools the

teachers have at their disposal (Kowalski et al., 2005, p. 37).

TBIs. Today in the United States, more than 1 million children have sustained a traumatic brain injury (TBI), and over 30,000 of those children become permanently disabled (Stavinoha & Woolston, 2008, p. 479). Because brain injuries are becoming more numerous, it is increasingly more important for educators to be able to understand what the causes are for a traumatic brain injury, how it affects the mind of a child, and what a teacher can do in the classroom to accommodate these affects. Stavinoha and Woolston, throughout chapter twenty-one of the book, *Children with Complex Medical Issues in Schools*, explain the causes and injury-related factors that educators need to be aware of when a student with a TBI is in their classroom. Stavinoha and Woolston argue that though students' symptoms with TBI vary in severity, depending on where the injury occurred in the brain, it could affect the challenges that the student may experience in the classroom (Stavinoha & Woolston, 2008).

The publication also highlights several of the developmental disabilities that arise with a TBI. Issues such as ADHD, migraines, sleep issues, and decreased mobility are just some of the symptoms of the much larger injury that the student can endure. In a case study, Stavinoha and Woolston highlight the case of a 13-year-old boy named Chris. Chris is left-handed and before his brain injury, he was an above-average student with no prior behavioral or emotional symptoms. However, when Chris lost control of his motocross bike and landed face-first into the ground, he showed damage to the brain and required eight weeks of hospitalization. With these injuries, Chris's behavior and cognitive abilities decreased during inappropriate times in the classroom (Stavinoha

& Woolston, 2008, p. 490-491). Chris is just one case in many where students following a brain injury can change dramatically.

The most devastating consequences of TBI are the ones that never go away. Stavinoha and Woolston explain what educators can do to support these students in multiple ways. In the case of Chris, in times where he showed impulsivity and inhibition, positive reinforcement and rewards improved behavior. For Chris' organizational issues, the teacher created a structured environment such as having Chris' things in a specific place and trained him to always put things back in this place. Having him also keep a detailed schedule was also beneficial in Shavinoha and Woolston's findings (Stavinoha & Woolston, 2008, p. 496). Assessment accommodations such as 75% reduction in test questions and answers and eliminating writing and reading were also conducted by the teacher. This helped Chris feel included and welcome in the classroom all while ensuring he continually grew academically, socially, and behaviorally. Stavinoha and Wollston concluded the chapter by explaining the complexity and lengthy process of cooperation and treatment with a student with a TBI. Accommodations are essential for a student's success in the classroom following a brain injury and deserve as much attention as a student with ADHD, ASD, and other disabilities.

Music Education. Alice-Ann Darrow, a professor of music education and music therapy at Florida State University, works exclusively with students in postsecondary, but often is challenged with finding adaptations for her students who have special needs. In Darrow's publication, *Adaptations in the Classroom: Accommodations and Modifications: Part 1*, Darrow explores different accommodations that can be used in

the classroom. Darrow first defines what accommodations are and what that requires of

the teacher when planning and assigning projects, assessments, or any other work for

the student to complete. Some of the examples Darrow provides are: extra time to learn

a skill, extra peer support during class, or additional instruction after class for the

students to participate and achieve at the same level as other students (Darrow, 2007,

p. 32).

Darrow continues by explaining other strategies and accommodations that she

has used personally in the classroom. With these modifications and accommodations,

Darrow explains the importance of why they were implemented in the music classroom.

The goal is to have the student participate in the educational experiences at the highest

level that they are capable of (Darrow, p. 32). This means that the teacher needs to be

aware of the students' strengths and weaknesses to be able to implement these

accommodations and modifications effectively. This starts with building relationships

with these students and working to help build on the abilities that they have and add

other skills (Darrow, p. 32).

Darrow also explores ways that teachers may change their instructional

strategies and curriculum to help students who have disabilities, and seamlessly provide

engaging material to general population students. Darrow explains multiple ways to do

this, (1) varying the level of required participation expected of students with disabilities,

(2) the type of input such as the way that instruction is delivered to the students by

using visual aids, (3) hands-on learning, (4) participation, (5) and cooperative ground

exercises. Adjusting the type of output, such as the way students respond to instruction,

can also be a telling and effective tool for any teacher (Darrow, p. 33). Finally, the difficulty of the material and how the students are able to solve a problem and the rules attached to a task are the final strategies a teacher can use on a daily basis to accommodate students with disabilities (Darrow, 2007, p. 33).

In Darrow's second entry to her *Adaptations in the Classroom* journal, more detail is provided about accommodations that were either missed or not covered in detail in the first journal. Darrow begins the second addition by introducing the focus of the previous publication and laying out the plan for part two. This journal serves as a continuation piece to provide more information on accommodations as well as new ones that should be considered for teachers at all education levels.

The accommodations and modifications that Darrow lists in the journal deal with the physical and behavioral environments in the classroom that often are forgotten about, especially in a general education classroom. The importance of altering the environment of the classroom such as managing the physical space of the classroom by arranging desks, decorations, visual and audio stimuli locations, where the props are located play a significant role, especially for students with ASL (Darrow, 2008, p. 32). This could also mean arranging the classroom in a way that is inclusive to students in wheelchairs or by keeping the classroom layout constant for a student who has visual impairments. Darrow also explains a specific situation in a music classroom by making sure there are instruments available that students with disabilities, especially of the physical, are able to play and feel included in classroom activities (Darrow, 2008, p. 32). Darrow continues by explaining how having extra peer supports in the classroom, such

as a 'peer buddy,' can help a student with disabilities but ensure that the school day is as normal as possible.

To finish the journal, Darrow provides a list of other strategies and teacher behaviors that promote student success in their classrooms such as (1) structured lessons to include a blend of auditory, visual, kinesthetic, and experimental and hands-on activities, (2) have high expectations for all students, (3) be flexible, (4) provide consistency, and many others (Darrow, 2008, p. 33-34). Darrow concludes by ensuring that it is normal for any students, disabled or not, to not have all the skills necessary on the first day of school and that it will take diligence, patience, and attention to all your students to give them all the best opportunity to be, "9 months better by the end of the school year" (Darrow, 2008, p. 34).
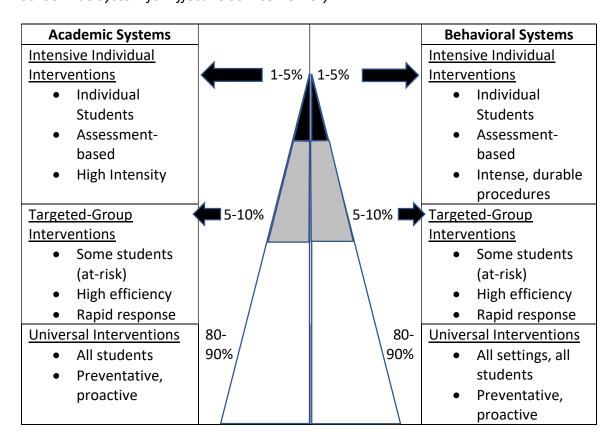
Creation and Attitudes Towards Accommodation Models

System for Effective Service Delivery. Teachers are increasingly expected to support all the needs of their students in their classrooms. Luckily, there are many descriptive and meta-analytical reviews of research that provide educators with evidence that supports various methods of intervention and accommodation in the classrooms. Before the introduction of NCLB, many teachers made accommodations in their classrooms based on what they observed or what was recommended by the special education professional in their school (Alfano, Coyne, Faggella-Luby, Madaus, Rhein, Shaw, Simonsen, & Sugai, 2010, p. 17).

The challenge identified by Michael Alfano et al. is, "once the schools identified the practices that would be used, the schools are then challenged to find the means to

use them" (Alfano et al, 2010, p. 17). The solution was to develop a three-tiered

schoolwide delivery model for academic and social behavior support for students with

disabilities (See the chart below).

Table 4

Schoolwide System for Effective Service Delivery

Academic Systems			Behavioral Systems
Intensive Individual Interventions • Individual Students • Assessment-based • High Intensity	← 1-5%	1-5% →	Intensive Individual Interventions • Individual Students • Assessment-based • Intense, durable procedures
Targeted-Group Interventions • Some students (at-risk) • High efficiency • Rapid response	← 5-10%	5-10% →	Targeted-Group Interventions • Some students (at-risk) • High efficiency • Rapid response
Universal Interventions • All students • Preventative, proactive	80-90%	80-90%	Universal Interventions • All settings, all students • Preventative, proactive

The three-tiered system created an effective model to be able to gauge which types of

interventions and accommodation were needed for certain populations of students on

the schoolwide and classroom levels. Universal Interventions (Tier 1), which comprises

80-90% of the students, meant for more preventative and proactive measures should be

used correct any academic and/or social issues. Targeted-Group interventions (Tier 2),

which are 5-10% of the student population, are meant for more at-risk students or more

rapid responses to any issues in the classroom. Finally, there are intensive, individual

interventions (Tier 3), which are 1-5% of students. This tier is assessment based and high

intensity intervention between the teacher and student (Alfano et al, 2010, p.18-19).

When this model was implemented in schools, it highlighted the requirements to

meet the needs of all students. As a result, special educators need to (1) be able to

collect and interpret data, (2) deliver instruction to academically and behaviorally

diverse student populations, (3) collaborate effectively with general education teachers,

support personnel, and administrations, (4) to ensure fidelity of evidence-based

instructional methods (Alfano et al, p. 20). While this is part of the job description for

special education teachers, it is becoming more apparent that general education

teachers are being expected to meet these same requirements.

Programs and Funding. One of the most challenging aspects of implementing

and practicing accommodations in the classroom are the debates and teacher shortages

the United States has faced over the last 15 years. In some cases, to crisis levels

(Brownell, Colon, McCallum, & Ross, 2005, p. 242). In just 2005, little research and

sources were available to inform and provide opportunities for teacher education

programs. Brownell, Ross, Colon, and McCallum sought out to analyze literature to

present a framework that underlines general education programs, their funding, and

effectiveness to teach educators the necessary steps and conducted a review of special

education programs in the hopes to improve the special education teacher research

base (Brownell et al., 2005, p. 242).

To conduct the research, Brownell et al. began by using the keywords: *research, teacher education, special education, effectiveness, preservice preparation, policy, program evaluations, program descriptions,* and *exemplary teacher education* into ERIC, PROQUEST, and PsychINFO databases (Brownell et al., 2005, p. 244). Brownell et al. also conducted hand searches in journals of teacher education by searching for publications and research dated between 1990 to 2003. The findings were that 42% of the programs were funded by the U.S. Department of Education while 58% were not, even though most of these programs (41%) were special education programs. Once Brownell et al. collected enough research, they collected the results.

In Brownell et al.'s review, specific characteristics that these programs underlined were found: extensive field experiences, collaboration, inclusion, cultural diversity, and program evaluation (Brownell et al., 2005, p. 245). In 84% of the reported programs, faculty described extensive experiences that were "well crafted, carefully supervised, and tied to practices acquired in coursework." Brownell et al. also found that collaboration was key with these programs to encourage conformity to accommodation practices in the classrooms for general and special education. Brownell et al. findings concluded that funding, either public or private, are important to be able to conduct effective teacher programs that focus on accommodations and modification workshops. This ensures that data-based research and accomplished educators are available to lead these programs and encourage teacher growth to implement accommodations and adaptations in the classroom for students with disabilities in the (Brownell et al., 2005, p. 248).

Creating Accommodation Models. Creating and establishing an accommodation model for schools and districts, especially in the early 2000s, was challenging. However, little guidance is given for effective practices on the inclusion of accommodations in the classroom. In Scanlon and Baker's journal, high school general and special educators collaborated in focus groups to formulate a model based on their experiences and perceptions of best practice (Scanlon & Baker, 2012, p. 212). Scanlon and Baker's findings are based on quantitative research and collecting multiple models that have been used by several school districts.

Scanlon and Baker began by defining what mild/moderate disabilities are and how they have been more present in modern American general classrooms. Scanlon and Baker also researched how accommodations are often minor changes in the daily instruction, how these changes are delivered, and how the student participates in that class with said accommodations (Scanlon & Baker, 2012, p. 212). This is called an inclusive environment, which is the focus of any modern United States classroom, whether it is general or special education. Scanlon and Baker use the first third of their publication breaking down each of these models and explaining the different instructional accommodations that are used, but emphasize the importance of how there is a need for a comprehensive, consistent model that should be adopted universally (Scanlon & Baker, 2012, p. 213-214). To get this information, Scanlon and Baker used digital voice recordings of teacher focus groups in suburban communities that are predominantly white (83%) with a substantial Hispanic community (9%) (Scanlon & Baker, 2012, p. 215).

Scanlon and Baker found that in the focus groups that were reviewed discussed and addressed both effective and ineffective practices – either what was experienced first-hand or imagined- the roles of individuals, and the importance of the practices discussed (Scanlon & Baker, 2012, p. 217). The model they determined was the most effective would include three phases: Preparation, Provision, and Evaluation, with each phase involving staff from general and special education collaborating to effectively create a comprehensive accommodation and intervention model for high schools (Scanlon & Baker, 2012, p. 217). Scanlon and Baker finish the study by stating that the model contributes to the broadening the profession's thinking about what it means to accommodate students but also reflects the practices that educators agree are realistic and appropriate for an effective and inclusive classroom teaching at the high school level (Scanlon & Baker, 2012, p. 223).

Teacher Confidence. Though accessibility features and accommodations have been an integral part of education over the last several decades, it is still a subject and practice that educators are unsure of how to implement in their classrooms. With an ever-increasing number of students who are diagnosed with learning disabilities like Attention Deficit Disorder (ADD), ADHD, ASD, EBD, and anxiety/depression disorders, it is increasingly more important to provide training to educators on effective accommodations and accessibility. It is for this reason that Thurlow, Larson, Lazarus, Shyyan, and Christensen (2017) conducted a study in which they, "reached out to educators from various education levels, experience, location of the school, and grade level taught, in order to investigate the general knowledge of accessibility features and

accommodations for special education students with IEPs and 504 plans in the modern classroom" (Thurlow, Larson, Lazarus, Shyyan, & Christiansen, 2017, p. 1).

A total of 2,250 teachers participated in the study by taking an online survey written and approved by DIAMOND state representatives and experts. Upon completion of the survey, Thurlow et al. compiled the information and data by inputting it into a spreadsheet and translated it into bar graphs. Because it is a quantitative study, the data Thurlow et al. collected could have been more specific. The data was collected by a wide variety of teachers in all settings, which helps create a general conclusion on the overall knowledge and understanding of how accommodations are used or if they are used in the classroom (Thurlow et al., 2017, p. 3).

The findings show that while most of the teachers (70%) are comfortable with using accessibility adaptations and accommodations in the classroom with special education students (Thurlow et al., 2017, p. 16). However, when it comes to teachers in general education, only 58% of educators feel comfortable with implementing these strategies (Thurlow et al., 2017, p. 16). In conclusion, the findings of this study show that while many of the educators who took part in the survey are comfortable with implementing accessibility features and accommodations on students with IEP's and 504 plans, training and professional development to keep up with the ever-increasing number of students who require additional help in the classrooms of American schools.

Accommodation Selection in Schools. NCLB added pressure for teachers, administrators, and support staff with the challenges of documenting improvement and providing accommodations for students in the classroom with disabilities. In Conover

and VanSciver's article, an examination of the different tools that help identify the academic needs are done to provide support for students and educators. The IEP is a model that helps determine which accommodation is necessary or used for individual students, and it is important to be able to identify, sustain, and evaluate whether these accommodations are effective or not.

According to Conover and VanSciver, "most of the research in special education accommodations has been focused on the benefit of accommodations for students during assessments" (Conover & VanSciver, 2009, p. 3). However, there is no set procedure put in place for every school because of the variability of student needs and school systems. Conover and VanSciver collected articles and journals from various researchers to help them determine the processes that different schools have implemented when assigning accommodations for students with IEPs. What was discovered is that often there is confusion between classroom teachers, special education teachers, and administration (Conover & VanSciver, 2009, p. 5). Firstly, Conover and VanSciver state that accommodations that are selected may just be a result of the fast-paced public education world of meetings and teachers returning to classrooms. Secondly, to answer the question of whether accommodations are based on data collected from assessments or based solely on observations.

Conover and VanSciver's ask the question of whether individual students need accommodations in the classroom on a day to day basis or just in testing situations (Conover & VanSciver, 2009, p. 8). They determined that each students' strengths and weaknesses need to be considered to do this. IEP teams must know what works best for

these students and help them achieve academically as well as actively participating in daily activities. With increased scrutiny coming from various national stages, Conover and VanSciver conclude that it is important, more than ever, to establish a system in which accommodations are developed, sustained, and evaluated as the result of quantification systems to verify the needs for the accommodations and enhance the academic process for the students receiving those supports (Conover & VanSciver, 2009).

The "Big Picture". Early when IDEA was passed, many school districts were questioning the effectiveness of the standards and classroom placement of students with disabilities. In his publication, *Getting the "Big Picture" of IEP Goals and State Standards*, Walsh goes into detail about the development of IEP programs and how it interacts with general education. James Walsh also sets out to explain the rationale for aligning IEPs with curricular standards, linking IEPs with instructional planning, and assessment of the staff development program (Walsh, 2001, p. 19).

Walsh uses this publication to explain the "big picture" of how IEPs and 504 plans are used to align students with disabilities learning goals with the curricular standards of general education students. Walsh began by explaining how staff development and training towards training teachers to align the IEP goals of students with disabilities with the general education curriculum (Walsh, 2001, p. 19). Walsh also explained the rationale for aligning IEPs to curricular standards by explaining that the process should involve collaboration with general education teachers regarding the instruction needed to enable students with disabilities to meet curriculum standards

(Walsh, 2001, p. 20). Walsh emphasizes that linking IEPs with instructional planning that comes from the specialized training of general education teachers to develop strategies to provide materials to special education teachers to link the IEPs more efficiently with planning (Walsh, 2001, p. 21). Walsh recommends using a printable checklist/matrix like what can be seen below to help reach the "big picture" (Walsh, 2001, p. 23). (See on page 53)

Table 5

"The Big Picture" IEP Objectives Chart

Subject: Teacher: Period: Skill:	**The Big Picture**									
	IEP Objectives									

Walsh completes the publication by giving final thoughts and plans for IEPs and how to gain the tools necessary to teach students with IEPs to the curriculum standards. Walsh explains that "The Big Picture" matrix is a tool that can be easily duplicated and

adapted by other school systems in their efforts to align IEPs and classroom instruction

with local general education standards (Walsh, 2001, p. 25).

CHAPTER III: DISCUSSION AND SUMMARY

Summary of Literature

When reviewing literature from multiple researchers, three main themes arose: Federal and State Regulations, Accommodation and Modification Studies, and Educators Creation and Attitudes Towards Accommodation Models. How these categories relate to one another is the best way to be able to understand why accommodations are assigned to certain students and the processes that are put in place to make it happen. Like most things though, rules and regulations are put in place to ensure a consistent model for schools in all states.

One of the most influential legal actions taken by the United States Department of Education was the implementation of No Child Left Behind (NCLB). Multiple researchers referenced the NCLB in each of the three main themes identified. When it comes to an understanding and breaking down the intentions of the act, several of the journals described how NCLB clarifies teacher requirements that measure the quality and effective instruction to students with IEP or 504 plans (Burney, 2015; Cortiella, 2005; Thurlow et al., 2005). However, these regulations have come into conflict with school administrators, general education teachers, and special education teachers when trying to implement NCLB soon after it was enacted in 2001. Several pieces of literature expressed doubts about whether their schools could enact NCLB. Some displayed results that showed a slow implementation of NCLB (Thurlow et al., 2005), a lack of understanding of how to apply it in their own school (Thompson et al., 2001), or added pressure for teachers, administrators, and support staff with the challenges of

documenting improvement and providing accommodations for students in the classroom with disabilities (Yell & Rozalski, 2009).

IEPs were also an important aspect of the literature as it is how these federal and state regulations are inferred and applied to students with disabilities. Nearly all the journals mention IEPs in some form. What they are, their processes, and how they help students with disabilities. However, a common pattern that arose was the differences between how the federal and state government agencies understood IEPs, and how schools applied and used the IEP process to assign accommodations and modifications for students. The federal and state governments show a sense of assurance and authority when assigning specific accommodations (Alfano et al, 2010; Beech, 2010; Burney, 2010; Burney, 2015; Cohen & Heumann, 2001; Cortiella, 2005) that are expressed by most are the fact that IEPs often are subjective to some scrutiny and confusion by various levels at the school level (Brownell et al., 2005; Conover & VanSciver, 2009; Lai & Berkeley, 2012; Lovett, 2010; Scanlon & Baker, 2012; Spiel et al., 2014; Thurlow et al., 2017). Even a study conducted for state testing in Maryland that adhered to the instructional and assessment accommodations established by state law showed that the adherence did not give students an unnecessary advantage but also allowed them to take assessments and complete them to the best of their abilities (Ysseldyke et al., 1999). Even with some of these successes, it would take years after IDEA was adopted in 1975 and NCLB in 2001 for researchers and teachers across the U.S. to begin to make dramatic strides towards providing effective accommodations to students with disabilities,

Even with confusion and apprehensive adoptions of certain special education policies, accommodations and modifications are still being made in schools across the United States. Understanding the importance of special education and what makes it so 'special' was the first step in understanding why accommodations are made for students with disabilities (Cook & Schirmer, 2003). Once this was done, most of the journals overwhelmingly agree that these accommodations are needed to give students the ability to meet curriculum needs. Several journals took a broad approach to recommending accommodations such as more test time, frequent breaks, a 'peer buddy,' and graphic organizers (Beech, 2010; Burney, 2010; Cortiella, 2005; Darrow, 2007; Haegele & Kozub, 2010; Lovett, 2010), while multiple took a more specific approach. When describing more specific accommodations, the specific child's disability played a large role in what kind of accommodation they received. A few others focused on ADHD, emotional behavior disorders (EBD), and other neurological disorders (Bunford et al., 2013; Sansosti et al., 2010; Spiel et al., 2014), traumatic brain injuries (TBI) (Stavinoha & Woolston, 2008), deaf or hard of hearing (Cawthon & Leppo, 2013), autism and Asperger's Syndrome (Echaniz & Cronin, 2014; Sansosti et al., 2010), anxiety (Killu et al., 2016), English Language Learners (ELL) and/or Limited English Proficient (LEP) (Abedi et al., 2004), and how these accommodations during testing are both beneficial and controversial (Lai & Berkeley, 2012). Other articles covered specific classroom scenarios in which accommodations (such as paraeducators) can be used in physical education classes (Haegele & Kozub, 2010; Kowalski et al., 2005) or to provide inclusion for students with disabilities in music classrooms (Darrow, 2007).

The final portion covered how education professionals have responded to special education policies like NCLB and IDEA and their attitudes towards these policies. Many teachers across the United States today have students in their classrooms that require special attention to ensure they are included and can meet curriculum requirements. Most teachers do this naturally without specific instruction, but many schools have adopted a three-tier system of intervention based on the needs of individual students and situations (Alfano et al., 2010). However, not all schools have programs put into place because of a lack of funding or teacher shortages. To combat this, some programs have been established to help give specialize training to teachers and schools to effectively provide accommodations to students (Brownell et al., 2005).

Much of what we know about how schools have responded to acts like NCLB come from focus groups that discussed and addressed both effective and ineffective practices – either what was experienced first-hand or imagined- the roles of individuals, and the importance of the practices discussed (Scanlon & Baker, 2012). The most effective model would include three phases: Preparation, Provision, and Evaluation, with each phase involving staff from general and special education collaborating to effectively create a comprehensive accommodation and intervention model for high schools (Scanlon & Baker, 2012). Even with these programs and training only 58% of general educators feel comfortable with implementing these strategies (Thurlow et al., 2017). In fact, even with federal and state laws regarding accommodations, there is no set procedure put in place for every school because of the variability of student needs and school systems (Conover & VanSciver, 2009).

There is still hope for accommodations though. Even with the red tape and expectations placed on schools and teachers to provide effective education opportunities, regardless of abilities. Just one of the many strategies used, "The Big Picture" chart, allows teachers in general and special education to track and ensure that IEP objectives for each child are being fulfilled (Walsh, 2001). Special education and accommodation, so far, are not a perfect science. Because all students with disabilities provide unique challenges, not a model or law that is put in place will be perfect, but educators and administration alike continue to learn and understand the implications of acts like NCLB and IDEA so that all students can get the education that they deserve.

Limitations of the Research

When conducting the research for this subject, some issues became apparent. Because special education on the federal level is regulated but leaves a lot of freedom by individual state education departments, another thing to consider is how unique each student's disability may. Because of this uniqueness, not all accommodations or modifications made in the classroom will help all students in the same way. This is the reason why research on this subject is not as tangible as one that has fewer variables.

In order to find the research, standard searches of Educator's Reference Complete, Expanded Academic ASAP, Education Journals, ERIC, JSTOR Arts & Sciences VI Archive Collection, ECO, Academic Search Complete, and EBSCO MegaFILE were done, but I also had to search full publications as well to dig up important relevant information. It was also important to find studies and literature that were from

accredited researchers, educators, and government sources that have been peer

reviewed or published by departments of educations in various states.

However, the challenge that arose when searching under these pretenses made

it difficult to find a quantity of research because of a lack of actual studies conducted to

answer the research question. The main reason for this seems to be because of the

variability of accommodation strategies and their successes or lack thereof depending

on many variables. These variables include funding, number of correctly conducted

studies, and more academically based data.

Implications for Future Research

To fill in the missing pieces of research, several things would need to occur.

Firstly, the largest gap in the research is the one-accommodation-fits-all answers to

various student disabilities that many in special and general education classrooms were

looking for. The reason that this research does not exist is because of the variability in

the realm of special education. Not all students who experience disabilities such as

ADHD, EBD, Deafness, or hard of hearing will respond universally to any given

accommodation. This reason alone makes it difficult to conduct studies with small

amounts of subjects and receive results that would eventually help determine if specific

accommodations are universally effective for certain disabilities.

What is also necessary to fill in gaps missing in the research is a coordinated

effort from federal and state education departments to fund these studies. Would

higher funding for special and general education at the state or federal levels allow for

more comprehensive research and studies to be conducted? Funding studies and

surveys would help collect more data for future researchers and educators to be able to make classroom, school, and district wide research-based decisions on effective interventions and accommodations for better academic outcomes for students with disabilities.

Finally, future research on this topic would benefit from a larger number of studies and surveys being conducted specifically on accommodation and modifications for students with disabilities. In the United States, special education has come a long way since the adoption of Public Law 94-142 in 1975. Students today have more resources, support, and accommodations to get better academic outcomes than even fifteen years ago. However, more comprehensive research with increased specificity will help determine the effectiveness of certain accommodations with certain disabilities.

Implications for Professional Application

While the main focus of this study was to determine how federal and state agencies recommendations for accommodations and modification may differ from what actually happens in the schools, the main takeaway should be how teachers, special educators, administrators, and federal/state authorities have all tried to answer the question: what can we do to best educate all our students?

However, the information in this study can be applied and divided in multiple ways. First, gaining a better understanding of how federal and state laws affect special education and accommodation/modification practices in the classroom. Second, to observe the many different accommodations/modifications that the researchers explored to see which ones might work in your own classroom. Finally, to see how the

different teams in schools have collaborated to create models in the hope that these models could pave the way for a more universal and final accommodation model to be used across the United States.

Educators would benefit from this research in their own classrooms by receiving information on various accommodations that they can implement in their classrooms for both students with disabilities and students without. The various authors and researchers present in depth reviews of certain accommodations, how they should be applied, and how they can provide better academic outcomes for students. Administrators can view the research to conduct more effective support structures in their schools for students with disabilities as well as support their teachers when these research-based decisions are being made.

As a new teacher myself, this research has provided me with essential background information to help my students succeed in the classroom. I work in an alternative high school. Many of the students who walk through the doors to my classroom are there for various reasons. One could be coming to the alternative high school because of a lack of academic success at the mainstream high school, another may be coming to the school as a behavior intervention. However, many of my students experience some form of disabilities that prevents them from reaching their highest potential in a mainstream classroom.

Because of these factors, the research presented in this thesis can help me conduct more effective lessons for the students in my classroom. Whether it is helping a student with EBD to manage their classroom outbursts and establish more effective

note-taking and test taking strategies, or providing students with stress and anxiety with more time to complete assignments and in smaller parts, the various accommodations learned in this thesis research and helped ensure that I create a welcoming and inclusive classroom for all students regardless of disability or level.

Conclusion

Accommodations and modifications in the classroom, especially for teachers in the modern United States classroom, have become commonplace and a daily occurrence and a challenge. With the adoption of IDEA and NCLB, inclusion for all students became the focus, but created new challenges. Over time, research, trial and error, and active practice have allowed educators and administrators to continue building on the list of accommodations and modifications to help their students, but also help each other form more effective programs and workshops to continue expanding the inclusion of all students, regardless of their abilities academically or physically in the classroom.

References

Abedi, J., Hofstetter, C.H., Lord, C. (2004). Assessment accommodations for English

    language learners: Implications for policy-based empirical research. *Review of*

    Education Research. Vol. 74, No. 1, 1-28. Retrieved from CLIC Research.

    DOI:10.3102/00346543074001001.

Alfano, M., Coyne, M.D., Faggella-Luby, M., Madaus, J.W., Rhein, B., Shaw, S.F.,

    Simonsen, B., Sugai, G. (2010). A schoolwide model for service delivery:

    Redefining special educators as interventionalists. *Remedial and Special*

    Education. Vol 31 (1), 17-23. Retrieved from CLIC Research.

    DOI:10.1177/0741932508324396.

Beech, M. (2010). Accommodations: Assisting students with disabilities. *Bureau of*

    Exceptional Education and Student Services. Third Edition. 3-71. Retrieved from

    Florida Department of Education.

Brownell, M.T., Colon, E.P., McCallum, C.L., Ross, D.D. (2005). Critical features of special

    education teacher preparation: A comparison with general teacher education.

    The Journal of Special Education. Vol. 38 (4). 242-252. Retrieved from CLIC

    Research. DOI:10.1177/00224669050380040601.

Bunford, N., Evans, S.W., Harrison, J.R., Owens, J.S. (2016) Educational accommodations

    for students with behavioral challenges: A systematic review of the literature.

    Review of Educational Research. Vol. 83 (4). 551-597. Retrieved from CLIC

    Research. DOI:10.3102/0034654313497517.

Burney, D.M. (2015) The impact of reforms and interventions on K-12 education: Ch. 2 education laws. *Momentum Press*. ProQuest Ebook Central. Created from betheluniversity-ebooks on 07/07/2020.

Burney, D.M. (2015). The impact of reforms and interventions on K-12 education: Ch. 3 the theories behind current education interventions. *Momentum Press*. ProQuest Ebook Central. Created from betheluniversity-ebooks on 07/07/2020.

Cawthon, S., Leppo, R. (2013). Assessment accommodations on tests of academic achievement for students who are deaf or hard of hearing: A Qualitative Meta-analysis of the Research Literature. *American Annals of the Deaf*. Vol. 158 (3). 363-376. Retrieved from JSTOR. DOI:10.2307/26324902.

Center for Parent Information & Resources. (2020). Supports, modifications, and accommodations for students. *Center for Parent Information & Resources*. Retrieved from the Parent Center Hub on 08/27/2020. https://www.parentcenterhub.org/accommodations/#:~:text=Usually%20a%20 modification%20means%20a,or%20work%20around%20the%20disability.

Cohen, M., Heumann, J.E. (2001) Clarification of the role of the IEP team in selecting individual accommodations, modifications in administration, and alternate assessments for state and district-wide assessments of student achievement. *Office of Special Education and Rehabilitation Services*. Washington, DC. 2-4. Retrieved from JSTOR on 07/07/2020.

Conover, V.A., VanSciver, J.H. (2009). Making accommodations work for students in the

    special education setting. *TEACHING Exceptional Children Plus*. Vol. 6 (2). 1-10.

    Retrieved from JSTOR on 07/07/2020.

Cook, B.G., Schirmer, B.R. (2003). What is special about special education? *The Journal*

    of Special Education. Vol. 37 (3). 200-205. Retrieved from JSTOR on 07/07/2020.

Cortiella, C. (2005). No Child Left Behind: Determining appropriate assessment

    accommodations for students with disabilities. *National Center for Learning*

    Disabilities. Retrieved from CLIC Research on 07/07/2020.

Darrow, A. (2007). Adaptations in the classroom: Accommodations and modifications:

    part I. *General Music Today (Online)*, Vol. 20 (3). 32–34.

    DOI:10.1177/10483713070200030108.

Darrow, A. (2008). Adaptations in the classroom: Accommodations and modifications,

    part 2. *General Music Today*, Vol. 21 (3), 32–34.

    DOI:10.1177/1048371308317089.

Echaniz, C., Cronin, K.A. (2014). Autism Spectrum Disorders and implications for

    teachers. *Journal of the American Academy of Special Education Professionals*,

    27-42. Retrieved from CLIC Search on 07/07/2020.

Haegele, J.A., Kozub, F.M. (2010). A continuum of paraeducator support for utilization in

    adapted physical education. *TEACHING Exceptional Children Plus*. Vol. 6 (5). 2-10.

    Retrieved from CLIC Research on 07/07/2020.

Hayes, W. (2008). No Child Left Behind past, present, and future. *Rowman & Littlefield*

    Education. 1-18. Retrieved from CLIC Search on 08/27/2020.

IDEA: Individuals with Disabilities Education Act. (2020). About IDEA. *U.S. Department of Education*. Retrieved from the U.S. Department of Education on 08/27/2020. https://sites.ed.gov/idea/about-idea/.

Killu, K., Marc, R., Crundwell, A. (2016). Students with anxiety in the classroom: Educational accommodations and interventions. *Beyond Behavior*. Vol. 25 (2). 30-40. Retrieved from JSTORE on 07/30/2020.

Kowalski, E., Lieberman, L., Pucci, G., Mulawka, C. (2005) Implementing IEP or 504 goals and objectives into general physical education. *Journal of Physical Education, Recreation & Dance*. Vol. 76 (7). 33-37. Retrieved from ProQuest on 07/07/2020. DOI:10.1080/07303084.2005.10609310.

Lai, S.A., Berkeley, S. (2012). High-stakes test accommodations: Research and practice. *Learning Disability Quarterly*, 35(3), 158-169. Retrieved from EBSCO. DOI:10.1177/0731948711433874.

Lovett, B.J. (2010). Extended time testing accommodations for students with disabilities: Answers to five fundamental questions. *Review of Educational Research*. Vol. 80 (4). 611-638. Retrieved from JSTOR on 07/30/2020.

National Center for Learning Disabilities (NCLD). (2006). Accommodations for students with LD. *National Center for Learning Disabilities*. Retrieved from LD Online on 08/27/2020. http://www.ldonline.org/article/8022/#:~:text=Accommodations%20are%20alterations%20in%20the,change%20what%20a%20test%20measures.

Pretti-Frontczak, K., Bricker, D. (2000). Enhancing the quality of Individualized Education

Plan (IEP) goals and objectives. *Journal of Early Intervention*. 23(2). 95-105.

Retrieved from SAGE Journals on 08/27/2020.

DOI:10.1177/105381510002300204.

Sansosti, F. J., Powell-Smith, K. A., & Cowan, R. J. (2010). High-functioning

autism/Asperger syndrome in schools: Assessment and intervention. *Guilford*

Publications. Retrieved from http://ebookcentral.proquest.com. Created from

betheluniversity-ebooks on 2020-07-07.

Scanlon, D., Baker, D. (2012). An accommodations model for the secondary inclusive

classroom. *Learning Disability Quarterly*. Vol. 35 (4). 212-224. Retrieved from

JSTOR on 07/30/2020.

Spiel, C.F., Evans, S.W., Langberg, J.M. (2014) Evaluating the content of Individualized

Education Programs and 504 Plans of young adolescents with Attention

Deficit/Hyperactivity Disorder. *School Psychology Quarterly*. Vol. 29 (4). 452-468.

DOI:10.1037/spq0000101.

Stavinoha, P.L., Woolston, D.J. (2008) Children with complex medical issues in schools:

Neuropsychological descriptions and interventions. *Springer Publishing

Company*. Edited by Christine L. Castillo. 479-502. Retrieved from ProQuest

Ebook Central on 07/07/2020.

Thompson, S.J., Thurlow, M.L., Esler, A., Whetstone, P.J. (2001) Addressing standards

and assessments on the IEP. *Assessment for Effective Intervention*. Vol. 26 (2).

77-84. DOI:10.1177/073724770102600213.

Thurlow, M.L., Larson, E.D., Lazarus, S.S., Shyyan, V.V., & Christensen, L.L. (2017). Educators' experiences with and attitudes toward accessibility features and accommodations. *Minneapolis, MN: University of Minnesota, Data Informed Accessibility—Making Optimal Needs-based Decisions* (DIAMOND).

Thurlow, M.L., Lazarus, S.S., Thompson, S.J., Morse, A.B. (2005). State policies on assessment participation and accommodations for students with disabilities. *The Journal of Special Education*. Vol. 38 (4). 232-240. Retrieved from CLIC Research on 07/07/2020. DOI:10.1177/00224669050380040401.

Walsh, J.M. (2001). Getting the "Big Picture" of IEP Goals and state standards. *TEACHING Exceptional Children*. Vol. 33 (5). 18-26. Retrieved from CLIC Research on 07/07/2020. DOI:10.1177/004005990103300503.

Winzer, M. (2009). From integration to inclusion: A history of special education in the 20th century. In From Integration to Inclusion. *Gallaudet University Press*.

Yell, M.L., Rozalski, M.E. (2009). The U.S. Supreme Court and special education: 2005-2007. *Abstracts from Teaching Exceptional Children*. Vol. 41. 69-75. Retrieved from CLIC Research on 07/07/2020. DOI:10.1177/004005990904100308.

Ysseldyke, J., Thurlow, M.L., Seyfarth, A., Bielinski, J., Moody, M., Haigh, J. (1999). Instructional and assessment accommodations in Maryland. State assessment series, Maryland/Kentucky report 6. *NCEO Publications Office*. 1-48. Retrieved from CLIC Research on 07/07/2020.