

Attitudes of Elementary-Level and Secondary-Level Teachers toward Students with Disabilities

by

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Abstract

The purpose of the study was to explore teachers' attitudes toward students with disabilities in the southeastern United States. Variables such as gender, age, years of experience, grade level taught, extent of contact with individuals with disabilities, whether or not teachers have received any training about teaching students with disabilities, and teachers' perceptions toward their own level of expertise were explored in terms of how they were good predictors of teacher attitudes.

For the purpose of this study, the researcher selected one elementary-level school and one secondary-level school in Alabama. Teachers in those schools were asked to participate in this study and 84 teachers agreed to complete survey forms which includes demographic information sheet, and "A Survey of Teacher Attitudes Relative to Serving Students with Disabilities".

In terms of the results of the study, teachers' attitudes toward students with disabilities were mostly positive. Exploration of the mean scores and standard deviation of the survey results showed that; female teachers, older teachers, elementary school teachers, and teachers who received training related to teaching students with disabilities had received higher scores than the other categories within the variables. Multiple linear regression method did not yield statistically significant results which means that gender, age, years of experience, grade level taught, extent of contact with individuals with disabilities, whether or not teachers have received any training about teaching students

with disabilities, and teachers' perceptions toward their own level of expertise were not good predictors of the attitudes toward students with disabilities. The age variable was statistically significant predictor of attitudes when considered by itself.

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Table of Contents

Abstract.....	ii
Acknowledgments.....	iv
List of Tables	viii
List of Abbreviations	ix
Chapter 1. Introduction	1
Statement of the Research Problem	5
Purpose of the Study	5
Research Questions	5
Statement of the Hypotheses	7
Definition of the Terms	8
Limitations and Delimitations	8
Assumptions of the Study	9
Significance of the Study	9
Chapter 2. Review of Literature.....	11
Introduction	11
Legislative History of Inclusion	11
Prevalence and Definition of Common Disabilities	16
Terminology Associated with Disabilities	25
Attitudes toward Students with Disabilities	28

Teacher Challenges and Inclusion	39
Summary	41
Chapter 3. Methods of Study and Instrumentation	44
Introduction	44
Design of Study	44
Population	45
Instrumentation	45
Data Collection Procedures	46
Data Analysis Procedures	47
Summary	49
Chapter 4. Data Analysis and Results	50
Introduction	50
Data Analysis	50
Results for Research Question One	51
Results for Research Question Two.....	55
Results for Research Question Three.....	56
Results for Research Question Four	57
Results for Research Question Five.....	58
Summary.....	65
Chapter 5. Summary and Conclusion	67
Introduction	67
Overview of the Study	68
Summary of the Results	69

Limitations	74
Conclusions	74
Implications and Future Research	75
Summary	77
References	78
Appendix A. IRB Approval Letter from Auburn University	89
Appendix B. Letter of Permission to use “A Survey of Teacher Attitudes Relative to Serving Students with Disabilities”	91
Appendix C. Information Letter to Participants	93
Appendix D. Demographic Questions for Participants	96
Appendix E. A Survey of Teacher Attitudes Relative to Serving Students with Disabilities	98
Appendix F. Letter of Permission to Collect Data at Phenix City High School	101
Appendix G. Letter of Permission to Collect Data at Loachapoka Elementary School	104

List of Tables

Table 1. Number of Children Ages 3-21 Served under IDEA in Selected Years	16
Table 2. Frequency of Disabilities in General Education Classrooms in the United States	17
Table 3. Frequency, Percent, Mean Scores and Standard Deviation for Teacher Attitudes	53
Table 4. Minimum, Maximum, and Mean Scores and Standard Deviations by Item	61

List of Abbreviations

ADA	Americans with Disabilities Act
IDEA	Individuals with Disabilities Education Act
IDEIA	Individuals with Disabilities Education Improvement Act
IEP	Individualized Education Program
LRE	Least Restrictive Environment
NCES	National Center for Educational Statistics
NCERI	National Center on Educational Restructuring and Inclusion
NICHCY	National Dissemination Center for Children with Disabilities
REI	Regular Education Initiative

Chapter 1

Introduction

Teacher attitudes toward inclusion of students with disabilities in general education schools has been the subject of many studies since the Individuals with Disabilities Education Act (IDEA) was enacted in 1975. Although many of those studies focused on teachers' attitudes toward the concept of inclusion and least restrictive environment, there are not many studies specifically focused on teachers' attitudes towards students with disabilities.

Changes in the legislation over years had a great influence on the number of students with disabilities in educational facilities, especially in general education classrooms. In 1972, about the half of all students with disabilities were not receiving any educational services (Douvanis & Hulsey, 2002) and by 2009 about 95% of students with disabilities were served in regular schools (National Center for Educational Statistics, 2013). Increases in the number of students with disabilities in general education classrooms changed the environment of the general classrooms, and required some additional works on teachers and administrators previous duties. These changes might have seen as “problematic” for some teachers and administrators and the cause might be attitudes of the teachers in general education schools.

The combination of beliefs, feelings, and the intention to act are considered as the ingredients of attitudes (Breckler, 1984). As Ajzen & Fishbain (2005) mentioned

attitudes are a strong determinant of people's behavior, and changes in attitudes can have a great influence on behaviors towards people with disabilities as positive attitudes toward students with disabilities can lead to positive behaviors toward students with disabilities and their education.

Inclusion requires teachers to expect new roles in schools serving students with disabilities and other special needs in schools (Guterman, 1995). In view of the fact that the attitudes are directly related to behaviors, teachers' attitudes toward students with disabilities and the concept of inclusion may have a direct influence on their effective teaching and responsibility taking behaviors for achievement of all students assigned to their classrooms.

The literature has revealed that the attitudes of general education teachers is one of the most important predictors of successful integration of students with disabilities in the regular education classrooms (Bacon & Schultz, 1991; Semmel, Albernathy, Butera & Lesar, 1991; Van Reusen, Shoho, & Barker, 2000), and many studies indicated that the classroom teachers have more negative attitudes than other school staff such as administrators and advisers (Forlin, 1995; Garvar-Pinhas & Schmelkin, 1989; Norwich, 1994). In addition to that, the inclusion of students with disabilities in regular schools has consistently been reported as problematic for teachers and it is related to negative teacher attitudes (Cook, Cameron, & Tankersley, 2007). Therefore the attitudes of general school teachers toward students with disabilities have a significant role on including students with disabilities in regular education classrooms. It can be said that the teacher is a key factor for students' achievement in schools whether the student has a disability or not, and their attitudes is one of the important predictor of the achievement.

There are various variables that influence teachers' attitudes toward students with disabilities such as teachers' year of experience, knowledge about inclusion and students with disabilities, training teachers received on teaching students with disabilities, extent of contact with people with disabilities, grade level taught, age, and gender (Avramidis & Norwich, 2002). All of these variables, in different levels, contribute to teacher's attitude of students with disabilities and one of the purposes of this study is to ascertain how good predictors they are.

In several studies, the relationship between teachers' years of experience in field of education and their attitudes toward students with disabilities has been explored. In those studies, researchers compared teachers with different years of experiences in the education, and they have found that the less experience the teacher had, the more favorable attitudes they held toward the inclusion of students with disabilities in general education classrooms (Leyser, Kapperman & Keller, 1994; Soodak, Podell & Lehman, 1998; Wilczenski, 1994). And Forlin (1995) also found similar results as more experienced teachers were less accepting to students with disabilities, although less experienced teachers were more accepting to those children with disabilities.

Shoho, Katims, and Wilks (1997) argued that increasing teachers' knowledge about inclusion of students with disabilities in regular schools and those students' needs in terms of their education may minimize negative teacher attitudes toward inclusion and students with disabilities. In another study, it is discussed that the ability of teachers to instruct students with disabilities may be a significant determinant of positive teacher attitudes toward students with disabilities (Schumm & Vaughn, 1995).

Extent of contact with people with disabilities can be another important variable

that influences teacher attitudes towards inclusion and students with disabilities (Avramidis & Norwich, 2002). Although Leyser, Kapperman, & Keller (1994) found that having more experience yields more positive attitudes, Mclesky & Waldron (1996) found that extended contact with individuals with disabilities does not significantly improve teacher attitudes towards individuals with disabilities.

Several studies have focused on grade level taught and its influence on teacher attitudes toward students with disabilities. Teachers in higher grade levels had less positive attitudes toward inclusion than teachers in lower grade levels (Bender, Vail, & Scott, 1995).

Personal characteristics of teachers such as age and gender might be other factors that can influence teachers' attitudes toward students with disabilities in general education schools. Although, age has been reported as a significant predictor of the attitudes of teachers, gender was not a significant predictor of the attitudes of teachers (Leyser, Kapperman, & Keller, 1994).

As summarized, there might be many factors that influence teachers' attitudes toward students with disabilities. In this study the level of those various factors' contribution to the prediction of teachers' attitudes toward students with disabilities will be explored. The result of the study can provide good information about how to build positive attitudes toward students with disabilities. Results of this study can also be used to plan educational programs for teachers or teacher candidates. For example, if extent of contact with individuals with disabilities is a strong predictor of teacher attitudes toward students with disabilities, additional activities can be included in the pre- or in-service training programs to increase teachers' extent of contact with students with disabilities.

Statement of the Research Problem

Most of the studies conducted on the inclusion of students with disabilities in regular education classrooms found that teachers have negative attitudes toward these students (D'Alonzo & Ledon, 1992). Hasting, Hewes, Lock & Witting (1996) suggested that student teachers who experience high levels of interaction with individuals with disabilities have more positive attitudes toward people with disabilities than teachers who do not experience high levels of interaction with individuals with disabilities. The focus of this research is the lack of information related to attitudes of teachers toward students with disabilities in the inclusive classroom.

Purpose of the Study

The purpose of this study is to investigate attitudes of teachers toward students with disabilities in a large school district in the Southeastern United States. Teachers' attitudes will be examined in relation to selected demographic variables such as gender, age, years of teaching experience, grade level taught, extent of contact with individuals with disabilities, whether or not teachers have received any training for teaching students with disabilities, and teachers perceptions toward their own level of expertise.

Research Questions

1. What are the mean scores and standard deviations for the "A Survey of Teacher Attitudes Relative the Serving Students with Disabilities" based on participants' (a) gender, (b) age, (c) years of experience, (d) grade level taught, (e) extent of contact with individuals with disabilities, (f) whether or not teachers have received any training about teaching students with disabilities, and (g) teachers' perceptions toward their own level of

expertise?

2. To what extent can teacher attitudes toward students with disabilities be predicted by (a) gender, (b) age, (c) years of experience, (d) grade level taught, (e) extent of contact with individuals with disabilities, (f) whether or not teachers have received any training about teaching students with disabilities, and (g) teachers' perceptions toward their own level of expertise?
3. To what extent do personal attributes of teachers such as (a) gender, and (b) age contribute to prediction of teacher attitudes toward students with disabilities?
4. To what extent do professional characteristics of teachers such as (a) years of experience, (b) grade level taught, (c) extent of contact with individuals with disabilities, (d) whether or not teachers have received any training about teaching students with disabilities, and (e) teachers' perceptions toward their own level of expertise predict teacher attitudes above and beyond (f) gender, and (g) age?
5. To what extent do (a) gender, and (b) age predict teacher attitudes above and beyond professional characteristics of teachers such as (c) years of experience, (d) grade level taught, (e) extent of contact with individuals with disabilities, (f) whether or not teachers have received any training about teaching students with disabilities, and (g) teachers' perceptions toward their own level of expertise?

Statement of the Hypotheses

The following null hypotheses were formulated to respond to research questions two, three, four, and five.

Ho₁: (a) gender, (b) age, (c) years of experience, (d) grade level taught, (e) extent of contact with individuals with disabilities, (f) whether or not teachers have received any training about teaching students with disabilities, and (g) teachers' perceptions toward their own level of expertise are not statistically significant predictors for teacher attitudes toward students with disabilities.

Ho₂: (a) gender and (b) age are not statistically significant contributors on prediction of teacher attitudes toward students with disabilities.

Ho₃: (a) years of experience, (b) grade level taught, (c) extent of contact with individuals with disabilities, (d) whether or not teachers have received any training about teaching students with disabilities, and (e) teachers' perceptions toward their own level of expertise are not statistically significant predictors above and beyond (f) gender, and (g) age.

Ho₄: (a) gender and (b) age are not statistically significant predictors above and beyond professional characteristics of teachers such as (c) years of experience, (d) grade level taught, (e) extent of contact with individuals with disabilities, (f) whether or not teachers have received any training about teaching students with disabilities, and (g) teachers' perceptions toward their own level of expertise.

Definition of Terms

Attitude: “Any belief or opinion that includes a positive or negative evaluation of some target (an object, person, or event) and that predisposes us to act in a certain way toward that target” (Plotnik, 1996, p. 19).

Child with disability: According to IDEA a child with a disability means that a child was evaluated and found as having mental retardation, a hearing impairment (including deafness), a speech or language impairment, a visual impairment (including blindness), a serious emotional disturbance, an orthopedic impairment, autism, traumatic brain injury, an other health impairment, a specific learning disability, deaf-blindness, or multiple disabilities, and who, by reason thereof, needs special education and related services (Department of Education, 2006).

Inclusion: The term “inclusion” was neither used in federal nor state law but National Center on Educational Restructuring and Inclusion (NCERI, 1995) developed a comprehensive definition: “Providing to all students, including those with significant disabilities, equitable opportunities to receive effective educational services, with the needed supplementary aids and support services, in age appropriate classrooms in their neighborhood schools, in order to prepare students for productive lives as full members of society” (p.15).

Limitations and Delimitations

1. The sample for this study was limited to teachers who are currently employed in general public elementary and secondary schools located in the southeastern United States.
2. Results of this study were limited by the self-reported nature of the

responses.

3. The results may not be representative of teachers at other general public elementary and secondary schools throughout the United States since the sample for this study was obtained from one public elementary and one secondary schools in the southeastern United States.

Assumptions of the Study

1. Teachers participating in this study are representative of the population of teachers who are currently employed in general public elementary and secondary schools in the State of Alabama.
2. Participants in this study will respond honestly to all items on the inventory.
3. Professional characteristics of the teachers may vary based on (a) gender, (b) age, (c) years of experience, (d) grade level taught, (e) extent of contact with individuals with disabilities, (f) whether or not teachers have received any training about teaching students with disabilities, and (g) teachers' perceptions toward their own level of expertise.

Significance of the Study

Research on teacher attitudes of students with disabilities is important because teachers' attitudes are one of the important variables in the success of educating students with disabilities (Hastings & Oakford, 2003).

There have been contradictory results about teachers' attitudes toward inclusion. It is found that teachers hold positive attitudes toward the idea of inclusion. It is also reported that teachers have been found to be averse to having students with disabilities in

their classrooms (Avramidis, Bayliss & Burden, 2000). The existing research mainly focused on inclusion and teachers' attitude about inclusion. It is not clearly reported whether teachers hold differing attitudes about students with disabilities based on personal attributes and professional characteristics of teachers and how attitudes can be predicted according to those variables.

Chapter 2

Review of Literature

Introduction

This chapter was divided into five sections and presents a review of literature relevant to attitudes of teachers toward students with disabilities and the variables that are related to attitudes of teachers such as gender, age, years of experience, grade level taught, extent of contact with individuals with disabilities, whether or not teachers had received any training related to teaching students with disabilities, and teachers' perceptions toward their own level of expertise. First, a brief overview of the legislative history of inclusion was provided. Second, common types of disabilities were listed and brief information about them was given. Third, the importance of teacher attitudes on inclusion was discussed. Fourth, review of literature about variables that are related to teachers' attitudes toward students with disabilities were provided. Finally, teachers' challenges with students with disabilities in general education schools were discussed.

Legislative History of Inclusion

Inclusion of the students in general education classrooms is one of the controversial topics in the education over years. People widened their views about disabilities and inclusion of students with disabilities in regular education classrooms with all of those debates and discussions over years. Laws and regulations took place along with the changes in the approaches to the education of students with disabilities.

The emphasis on the problems of students with disabilities first took place in 1960s and 1970s. Changes in social climate and educational legislations in these years highlighted the importance of educating people with disabilities. Legislation mandated the free and appropriate public education of individuals with disabilities; therefore, the number of the students with disabilities in public schools significantly increased (Martin, Martin, & Terman, 1996).

First, funding issues of educating students with disabilities were in discussion. In 1965, the Elementary and Secondary Education Act (P. L. 89-10) gave appropriate federal funding to state and local education agencies to facilitate educational opportunities for students with disabilities with the following statement:

... the establishment, maintenance, and operation of programs, including the lease or construction of necessary facilities and the acquisition of necessary equipment, designed to enrich the programs of local elementary and secondary schools and to offer a diverse range of educational experience to persons varying talents and needs by providing supplementary educational services and activities such as ... specialized instruction and equipment for students interested in studying advanced scientific subjects, foreign languages, and other academic subjects which are not taught in the local schools or which can be provided more efficiently on a centralized basis, or for persons who are handicapped... (p.41)

The importance of equal access to education was clearly highlighted in this act and it was an important step for the appropriate education of students with disabilities. After this act, students with disabilities had opportunity to benefit from public school education with no cost. More amendments and regulations followed and improved this

act in the following years.

Although students with disabilities had started to get into the general schools, there were still problems with some different disabilities such as intellectual disability. After the Elementary and Secondary Education Act of 1965, in 1971 and 1972, court decisions in Pennsylvania and District of Columbia established the right of all children with mental retardation to free and appropriate education, and court decisions made it much more difficult for students with disabilities to be excluded from public education. Section 504 of the Rehabilitation Act in 1973 emphasized that no one could be discriminated against based on having a disability (Stainback, Stainback, & Bunch, 1989).

Education for All Handicapped Children Act (P. L. 94-142) was enacted in 1975 and shaped inclusive practices of students with disabilities in public schools more than any previous act and regulation. This act required all educational facilities to create appropriate educational plans for students with disabilities in order to receive federal funding and secure the free appropriate education of students with disabilities. The purpose of the Education for All Handicapped Children Act was (1) to provide a free appropriate public education of the individuals with disabilities which emphasizes special education and related services designed to meet their unique needs, (2) to assure that the rights of handicapped children and their parents or guardians are protected, (3) to assist States and localities to provide for the education of all handicapped children, and (4) to assess and assure the effectiveness of efforts to educate handicapped children.

This act included eligible disability categories for inclusion and extended special education services to students ages three to 21. The Education for All Handicapped

Children Act also required unbiased testing and assessment procedures and child-find activities to identify children who needed special education. After identification, a multidisciplinary team should determine the most appropriate services for the children with disabilities (Fagan & Warden, 1996). Before the Education for All Handicapped Children Act in 1975, about 1,000,000 children with disabilities were not receiving any school education. Although another 4,000,000 children with disabilities were in educational facilities, they were not receiving the necessary support (Friend & Reising, 1993). The Education for All Handicapped Children Act (1975) had a great influence on providing appropriate education to the students with disabilities and their acceptance in general education classrooms; therefore the number of students with disabilities kept increasing in general education classrooms over the years.

The Education for All Handicapped Children Act was modified in 1986, 1990, 1997, and 2004 and is currently called “Individuals with Disabilities Education Act (IDEA)”. The Americans with Disabilities Act (ADA) was enacted in 1990 and additional changes were made on the previous legislation. These changes were mainly about the transition services for students with disabilities (Duran, 2006). After the changes in legislation, school districts were required to strengthen the transition services for students with disabilities for students’ life after graduating from high school (IDEA, 1990).

In 1997, IDEA was adjusted again and school districts were required to include students with disabilities in state assessments. General education teachers were also required to be a part of the Individualized Education Program (IEP) (IDEA, 1997). IDEA of 1997 had strengthened the rights of individuals with disabilities and individuals from

minorities by (1) improving the role of parents, (2) warranting access to the general education curriculum and reforms, (3) focusing on teaching and learning while reducing unnecessary paperwork requirements, (4) assisting education agencies in addressing the costs of improving special education and related services to children with disabilities, (5) giving increased attention to racial, ethnic, and linguistic diversity to prevent inappropriate identification and mislabeling, (6) ensuring that schools are safe and conducive to learning, and (7) encouraging parents and educators to work out their differences using non-adversarial means (Yell & Shriner, 1997).

In December 2004, the IDEA was reauthorized as The Individuals with Disabilities Education Improvement Act (IDEIA) and was signed into law. Then it became effective in July 1, 2005. Although there were some areas that had changed, IDEIA remains parallel to previous laws as highlighting the free and appropriate public education of the individuals with disabilities. Individuals with disabilities were still eligible for evaluation through the school system at no cost to their parents. IDEIA mainly encouraged the cooperation between parents and school system for students' sake. Individualized Education Programs (IEP) still should be provided by public schools as highlighted in IDEA in 1997. Main administrative duties still remained the same as reporting documents or certain forms etc. Other than the similarities with the previous acts, IDEIA clarified certain special education terms. In the previous acts, teachers and school administrators had to endure a burden of an extended notification process, but with the IDEIA, much of the paperwork was eliminated. Non-English speakers had taken consideration in IDEIA and their education was warranted without labeling them with learning disabilities. Additionally, IDEIA stressed the need of the measurement of special

and general education students consistently and comparably.

IDEIA in 2004 was the last main regulation on education of individuals with disabilities. Over the years, with the increased awareness of the problems of students with disabilities, so many changes had been made on the regulations, and all of those legislations tried to warrant the free and appropriate education of the students with disabilities.

Prevalence and Definition of Common Disabilities

Changes on the perspective of educating individuals with disabilities with the requirements of including students with disabilities in general schools increased the number of students with disabilities, as well as the kind of disabilities in the schools over the years. Table 1 displays the number of children three to 21 years old served under IDEA in the selected years (National Center for Education Statistics [NCES], 2013). According to NCES (2013), about 6.4 million (12.9 percent) children were reported to have a disability among those 50 million school-aged children in the United States in 2011-2012.

Table 1

Number of children ages 3-21 served under IDEA in selected years

School Year	Children served (in thousands)
1976 – 1977	3,694
1980 – 1981	4,144
1990 – 1991	4,710
2000 – 2001	6,296
2011 – 2012	6,401

Twelve different categories of disabilities were listed in the report of National Center for Education Statistics in 2013 with the other and multiple disabilities. They were reported in terms of their frequency among students in general school classrooms and their frequency within students with disabilities. Table 2 displays the various kinds of disabilities by number, and percent of total enrollment for the academic year of 2011-2012 according the National Center for Education Statistics (2013) reports.

Table 2

Frequency of disabilities in general education classrooms in the United States

Disability	Number of students served in 2011-2012 (in thousands)	Percent of Total Enrolment
Specific learning disabilities	2,303	4.7
Speech or language impairments	1,373	2.8
Other health impairments	743	1.5
Autism	455	0.9
Intellectual disability	435	0.9
Developmental delay	393	0.8
Emotional disturbance	373	0.8
Hearing impairments	78	0.2
Orthopedic impairments	61	0.1
Visual impairments	28	0.1
Traumatic brain injury	26	0.1

(table continues)

Table 2 (continues)

Disability	Number of students served in 2011-2012 (in thousands)	Percent of Total Enrolment
Deaf-blindness	2	0.0004
Multiple disabilities	132	0.3
Total	6,401	12.9

Among the reported students with disabilities in 2011-2012, specific learning disabilities were the most frequently reported disabilities. The reported number of students with specific learning disabilities was about 2.3 million, which was 4.7 percent of all students enrolled in public elementary and secondary schools. Specific learning disabilities is defined by IDEA (2004) as “disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which disorder may manifest itself in the imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations” (Sec. 602-30). This category of disabilities includes individuals with perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia; and does not include a learning problem that is primarily the result of visual, hearing, or motor disabilities, of mental retardation, of emotional disturbance, or of environmental, cultural, or economic disadvantage (IDEA, 2004).

Speech or language impairments were the second common disability in the academic year of 2011-2012 with more than 1.3 million students in United States (NCES, 2013). IDEA (2004) defines speech or language impairment as “a communication

disorder, such as stuttering, impaired articulation, a language impairment, or a voice impairment, that adversely affects a child's educational performance” (sec. 300.8-9). The National Dissemination Center for Children with Disabilities (NICHCY) (2011a) lists main characteristics of these disabilities as: producing sounds incorrectly; disruption on child’s flow of speech by sounds, syllables, and words; abnormal quality to voice of child’s pitch, resonance, or loudness; and problems on expressing needs, ideas, or in understanding what others say.

Another category of common disability in classrooms is the category of “other health impairments.” The number of the students with other health impairments was more than 700,000 in the United States in the school year of 2011-2012. According to IDEA (2004), other health impairment is:

...having limited strength, vitality, or alertness, including a heightened alertness to environmental stimuli, that results in limited alertness with respect to the educational environment, that is due to chronic or acute health problems such as asthma, attention deficit disorder or attention deficit hyperactivity disorder, diabetes, epilepsy, a heart condition, hemophilia, lead poisoning, leukemia, nephritis, rheumatic fever, sickle cell anemia, and Tourette syndrome, and adversely affects a child’s educational performance. (Sec. 300.8-9)

Combination of other health impairments was the third common disability group among students in general education classrooms in the United States in the 2010-2011 school year. Because this category does not include one kind of category of disabilities, it is important to have knowledge about those specific disabilities, in order to provide the appropriate education to those individuals with those disabilities. As mentioned in the

IDEA's definition for "other health impairments", there are many disabilities that fall under this category. The National Dissemination Center for Children with Disabilities (2012a) provides the definition of those disabilities:

Attention-deficit/hyperactivity disorder: This disorder makes it hard for children to sit still, control behavior, and pay attention to the other people. Usually starts before age of seven but it harder to diagnose in earlier ages.

Diabetes: The body of people with diabetes does not properly convert sugar, starches, and other food into the energy. Common symptoms include frequent urination, excessive thirst, extreme hunger, weight loss, fatigue, irritability, and blurry vision.

Epilepsy: This disorder is related brain cells and symptoms include "blackouts" or periods of confused memory, involuntary movement of arms and legs, distorted perceptions, and feeling of fear that cannot be explained.

Heart conditions: Problems with hearts that significantly affect the one's health.

Lead poisoning: This disorder caused by extensive lead in the body. Common symptoms include irritability, loss of appetite, weight loss, sluggishness, abdominal pain, vomiting and learning difficulties.

Leukemia: When the bone marrow produces too many abnormal white blood cells this illness occurs. Common symptoms include tiredness, shortness of breath during physical activity, pale skin, mild fever or night sweats, and aches in bones.

Nephritis: This illness happens when kidneys does not work properly in the body. Common symptoms include high levels of protein in the blood, less frequent urination, and weight gain.

Even though specific disorders were not very common in general schools, combination of all of those disabilities had a significant percentage in the schools.

Intellectual disability was the fourth common disability among students with disabilities in the educational year of 2011-2012 with the number about 435,000. Even though the term “intellectual disabilities” has been used interchangeably with the term “mental retardation”, recently “intellectual disabilities” is more commonly used. IDEA (2004) defines intellectual disability as “significantly sub-average general intellectual functioning, existing concurrently with deficits in adaptive behavior and manifested during the developmental period, that adversely affects a child’s educational performance” (Sec. 300.8-9). Students with intellectual disability have certain limitations in intellectual functioning such as limitations in reasoning, learning and problem solving. They also have limitations in adaptive behaviors, which include a range of everyday social and practical skills (National Dissemination Center for Children with Disabilities, 2011b).

The cause of intellectual disabilities is not well known. The causes that are known can be classified into genetic conditions, problems during pregnancy, problems related to birth, and poverty and cultural deprivation. Genetic conditions include genetic disorders and abnormalities in the genes. For example, Down syndrome is one of the genetic disorders, which causes intellectual disability. Pregnant mother’s use of alcohol or drugs, or difficulties in the birth process such as temporary oxygen deprivation can cause the intellectual disabilities. Also some childhood diseases can cause intellectual disability such as whooping cough, measles, and chicken pox. In addition to those causes, some environmental factors can cause the intellectual disabilities like malnutrition or receiving

inadequate health care (The Arc, 2011).

According to the National Center for Education Statistics (2013), almost one student in every hundred students had autism in the education year of 2011-2012. Autism is a disability that significantly affects children's verbal and nonverbal communication skills and social interactions with others. Students with autism can also engage in repetitive activities and stereotyped movements as well as resistance to environmental change or change in daily routines. Autism does not apply if the children's educational performance is adversely affected primarily because the child has an emotional disturbance (IDEA, 2004). Even though The American Psychiatric Association lists diagnostic categories of autism as autism, pervasive developmental disorder, Asperger's syndrome, Rett's disorder, and childhood disintegrative disorder in the fourth edition of Diagnostic and Statistical Manual (2010), the listed disabilities are combined under one diagnosis as Autism Spectrum Disorder in the fifth edition of the Diagnostic and Statistical Manual (2013).

Emotional disturbance is another common disability in schools. About eight in 1,000 students had emotional disturbance in the educational year of 2011-2012 in United States. IDEA (2004) defines emotional disturbance by:

Emotional disturbance means a condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree that adversely affects a child's educational performance: (1) An inability to learn that cannot be explained by intellectual, sensory, or health factors. (2) An inability to build or maintain satisfactory interpersonal relationships with peers and teachers. (3) Inappropriate types of behavior or feelings under normal circumstances. (4) A

general pervasive mood of unhappiness or depression. (5) A tendency to develop physical symptoms or fears associated with personal or school problems (Sec. 300.8-9).

IDEA (2004) also makes the distinction as “emotional disturbance includes schizophrenia but the term does not apply to children who are socially maladjusted, unless it is determined that they have an emotional disturbance” (Sec. 300.8-9). The term emotional disturbance includes disabilities such as anxiety disorders, bipolar disorder, conduct disorder, eating disorder, obsessive-compulsive disorder and psychotic disorders. Although all of these disabilities have different diagnosis criteria, they have some common characteristics. These characteristics include hyperactivity (short attention span, impulsiveness), aggression or self-injurious behavior (acting out, fighting), withdrawal (not interacting socially with others, excessive fear or anxiety), immaturity (inappropriate crying, temper tantrums, poor coping skills), and learning difficulties (academically performing below grade). Many children may have some of these listed behaviors, but in order to diagnose children with a specific disability, these behaviors continue over long periods of time (NCHCY, 2010). The cause of the emotional disturbances has not been known yet, but there are some possible causes such as biological factors (ex: genes), family factors (ex: domestic violence), school factors (ex: failure to accommodate for individual needs), and cultural factors (ex: peer group) and all of these factors may contribute to emotional disturbances (Kauffman, 2001).

Developmental delay is another common disability among students; eight of 1000 students were diagnosed with developmental delay in the education year of 2011-2012, which was about 373,000 students. IDEA (2004) gives the definition of the

developmental delay:

The term ‘child with a disability’ for a child aged 3 through 9 (or any subset of that age range, including ages 3 through 5), may, at the discretion of the State and the local educational agency, include a child— (i) experiencing developmental delays, as defined by the State and as measured by appropriate diagnostic instruments and procedures, in 1 or more of the following areas: physical development; cognitive development; communication development; social or emotional development; or adaptive development; and, (ii) who, by reason thereof, needs special education and related services (Sec. 300.8-9).

The developmental evaluation of the child requires finding the child’s strengths and weaknesses across the range of five areas, which are physical development (fine motor skills, gross motor skills), cognitive development (intellectual abilities), communication development (speech and language), social or emotional development (social skills, emotional control), adaptive development (self-care skills) (NICHCY, 2012).

Hearing impairments, orthopedic impairments, visual impairments, and traumatic brain injuries are other common disabilities. Although these disabilities are not as common as the other disabilities, cumulative percentage of these disabilities was about 0.5 per cent in the educational year of 2011-2012 in the United States.

According to The Centers for Disease Control and Prevention (n.d), a considerable numbers of babies are born with a hearing loss in the United States. Often the cause is unknown, but common causes are genetic factors, maternal infections during pregnancy, complications after birth, and head trauma. Hearing loss can be in any part of

the ear. Hearing loss is categorized in terms of which part of the ear causes the hearing loss: conductive hearing losses (caused by diseases or obstructions in the outer or middle ear), sensorineural hearing losses (result from damage to the delicate sensory hair cells of the inner ear or the nerves that supply it), mixed hearing loss (combination of conductive and sensorineural loss) and central hearing loss (caused by damage of the nerves of central nervous system) (Centers for Disease Control and Prevention, n.d.).

The numbers of students with disabilities in schools are relatively high and those different categories of disabilities have different characteristics and should be treated differently. Inclusion of those students with disabilities in regular education classrooms would help them to feel as a part of the community and be productive individuals.

Related terminologies about those students with disabilities in general schools are defined in the next section.

Terminology Associated with Disabilities

The terminology used in reference to inclusion in education changed through the decades and at some points that caused confusion to parents and educators (Bartlett, Weisenstein, & Etscheidt, 2002). Primary terms referenced in the literature based on the inclusion of students in public schools are mainstreaming, least restrictive environment (LRE), regular education initiative (REI), and inclusion, and all of these terms share the same goal of providing education to students with disabilities with their peers in general education classrooms.

Mainstreaming and Least Restrictive Environment (LRE)

In the late 1970s and early 1980s, as schools had started to provide free public education to students with disabilities by mainstreaming, the most appropriate way of

including students with disabilities in general education schools was researched by many researchers. Different approaches to the education of students with disabilities were taken in consideration and one of them was mainstreaming. Integration of selected students with disabilities in general education classrooms for part of a school day was called mainstreaming (Bateman, 2006). People who proposed mainstreaming usually believed that a student must earn his or her chance to be mainstreamed through the ability to keep up with the work assigned by the teacher to the other students in the class (Bartlett, Weisenstein, & Etscheidt, 2002). Mainstreaming required including students with disabilities in the general education classroom for specific classes based on those students' skill levels, such as music, art, etc. (Koutrouba, Vamvakari, & Steliou, 2006).

According to Bartlett et al. (2002), the concept of mainstreaming is now clearly inappropriate and students with disabilities can not be required to demonstrate specific skills in order to be placed in regular education classrooms. A series of court decisions between 1989 and 1994, as well as the 1997 IDEA Amendments, have provided a clear perspective that student with disabilities are not required to earn the opportunity to be placed in a regular education class (Bartlett et al., 2002) and its their right to be educated in general classrooms.

In 1975, The Education for All Handicapped Children Act used the term “least restrictive environment” (LRE) which sometimes is used interchangeably with mainstreaming in later researches (ex: Leyser, Kapperman, & Keller, 1994). IDEA (2004) defined LRE as:

...to the maximum extent appropriate, children with disabilities, including children in public or private institutions or other care facilities, are educated with

children who are not disabled, and special classes, separate schooling, or other removal of children with disabilities from the regular educational environment occurs only when the nature or severity of the disability of a child is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily. (Sec. 612)

According to Gordon (2006), least restrictive environment made it possible to match students' individual needs with specific educational services, although it was not a placement for students with disabilities as thought. The main idea is to include students with disabilities into the general education classrooms to maximum extent appropriate. The placement of students with disabilities starts with the least restrictive environment then it takes its shape according to students' abilities those with disabilities.

Regular Education Initiative (REI) and Inclusion

In 1980s, Madeline Will, an assistant secretary of education, mentioned the shared responsibility of regular and special education programs toward students with disabilities, and a movement called "Regular Education Initiative" (REI) was begun (Mastropieri & Scruggs, 2004). Will (1986) proposed that special and regular education programs should work together for integrating students with mild and moderate disabilities into regular education classrooms. The inclusion movement is often referred to as the regular education initiative so that special and regular education systems could work together to find ways to serve students with disabilities (Bartlett et al., 2002).

Recently, the movement of integrating students with disabilities in general education classrooms is called inclusion (Smith, Polloway, Patton, & Dowdy, 1998). Inclusion, as a term, is neither used in federal nor state law but the National Center on

Educational Restructuring and Inclusion (NCERI, 1994) developed a comprehensive definition of it:

Providing to all students, including those with significant disabilities, equitable opportunities to receive effective educational services, with the needed supplementary aids and support services, in age appropriate classrooms in their neighborhood schools, in order to prepare students for productive lives as full members of society. (p.15)

Although the term “inclusion” has not been used in legislation, it is very much used in the literature to explain the appropriate integration of the students with disabilities into regular education classrooms.

Attitudes toward Students with Disabilities

Including students with disabilities in general education classrooms and the problems that arose with the inclusion have been discussed and researched by many researchers for decades. In 1972, about the half of all students with disabilities were not receiving any educational services (Douvanis & Hulsey, 2002) and by Fall 2011 about 95 percent of students with disabilities were served in regular schools (National Center for Educational Statistics, 2013). Legislation changes increased the number of students with disabilities in educational facilities, especially in general education classrooms. Although the percentage of the students with disabilities in individual schools is not huge, there are still considerable numbers of students with disabilities in general education schools.

The inclusion movement merged special and general education efforts for the success of students with disabilities. As mentioned before, general education teachers have to include more students with severe disabilities in classroom settings with the laws

(Henley, Ramsey, & Algozzine, 2006), like The Education for All Handicapped Children Act (P. L. 94-142). At the same time, the overall student population is becoming more diverse in terms of ethnicity, language, and poverty (Brownell, Yeager, Sindelar, vanHover, & Riley, 2004). The diversity in classrooms requires general school teachers to be more responsible for each of the student's learning by different approaches or instruction methods. Specifically with the inclusion of students with disabilities made classrooms more diverse and brought specific difficulties for the general school teachers.

The belief behind inclusion is that all students with disabilities should be fully integrated into the general education community, and the instruction should be designed to meet their individual needs with their nondisabled peers in the same environment (Hallahan, Kauffman, & Pullen, 2009). If a student cannot meet the current curriculum expectations, the expectations of current curriculum should be changed without changing the students' placement (Friend & Bursuck, 2009).

Attitudes are latent or referred psychosocial processes that are present and inactive in all people unless evoked by specific referents (Antonak & Livneh, 2000). Combination of beliefs, feelings, and the intention to act are considered as the ingredients of attitudes (Breckler, 1984). Attitudes help us to make sense of the world, and also serve the same function as stereotyping and categorization of people or events (Loreman, Dappeler, & Harvey, 2005). Tervo, Palmer, and Redinius (2004) defined positive attitudes toward disabilities as:

... a belief that those with disability can be productive community members, decide what is their own self-interest, and lead a normal life. At the affective level, it suggests sensitivity toward positive attributes and liking the person. At the behavioral

level, it implies fashioning conditions to help an individual actualize their creative capacity toward self-sufficiency and contribute to the community (p. 908–909).

Inclusion requires teachers to expect new roles in schools as serving students with disabilities and other special needs in schools (Guterman, 1995). In view of the fact that the attitudes are directly related to behaviors, teachers' attitudes toward students with disabilities and the concept of inclusion may have a direct influence on their effective teaching and responsibility taking behaviors for achievement of all students assigned to their classrooms.

The literature has revealed that the attitudes of general education teachers is one of the most important predictors of successful integration of students with disabilities in the regular classroom (Semmel, Albernathy, Butera & Lesar, 1991). Van Reusen, Shoho, & Barker (2000) discussed that successful education of students with disabilities is dependent upon the attitudes of teachers and the support they receive during the education year about teaching students with disabilities. The inclusion of students with disabilities in regular schools has consistently been reported as problematic for teachers and it is related to negative teacher attitudes (Cook, Cameron, & Tankersley, 2007). Several studies indicated that classroom teachers have more negative attitudes than other school staff such as administrators and advisers. As reported by the researchers the teacher is a key factor for students' achievement in schools whether student has a disability or not, and teachers' attitudes is one of the important factors on education (Forlin, 1995; Garvar-Pinhas & Schmelkin, 1989; Norwich, 1994).

Bender, Vail, and Scott (1995) found that teachers' attitudes toward inclusion influence their use of effective teaching strategies in classroom; as teachers having less

than positive attitudes toward inclusion resulted with less frequent utilization of effective strategies in classrooms. Teachers who had more positive attitudes toward inclusion consistently utilized effective strategies for classrooms which include students with disabilities (Bender, Vail, & Scott, 1995). Sharma, Forlin, Loreman, & Earle (2006) and Rojewski & Pollard (1993) conducted studies and reached similar conclusion as the Bender and colleagues' research; teachers are more likely to modify and change their instruction and curriculum to meet the needs of individual students with a range of abilities if they hold more positive attitudes toward students with disabilities.

Wilczenski (1994) mentioned that attitudes held by both regular and special educators towards students with disabilities determine the success or the failure of students in an included classroom. If educators hold a positive attitude towards persons with disabilities, this allows and encourages the establishment of policies that guarantee the students' rights to be educated in regular classrooms, whereas negative attitudes towards persons with disabilities in all aspects limits their opportunities to be integrated into regular classrooms (Jamieson, 1984).

Scruggs & Mastropieri (1996) noted that, it is generally agreed that the administrators and teachers in the school are directly responsible for the effectiveness of the inclusion. Teachers typically have positive attitudes toward the general concept of inclusion. Cook, Tankersley, Cook, & Landrum (2000) proposed that teachers' attitudes toward their actual students with disabilities represent a stronger and more appropriate predictor of the quality of education for students with disabilities, rather than teachers' attitudes toward general concept of inclusion. So it is important to highlight that positive attitudes toward the concept of inclusion would not be enough for better education of

students with disabilities, but teacher attitudes toward individuals with disabilities would change many things in students' education.

According to literature review done for this study, there are various variables that may have an influence on teachers' attitudes toward students with disabilities such as teachers' year of experience, knowledge about inclusion and students with disabilities, training teachers received on teaching students with disabilities, extent of contact with people with disabilities, grade level that they taught, age, and gender (Avramidis & Norwich, 2002). The literature was reviewed for these specific variables and reported in the following sections.

Attitudes Related to Teachers' Years of Experience

Years of experience can make so many changes in teachers' life and profession; they became more experienced, and can handle problems easier than the first years of the experience. Years in the profession can also make some ideas to be become stronger and teachers may become hard believers of their ideas. At this point Leyser, Kapperman, & Keller (1994) reported that "teacher's years of experience" is related to teacher's attitude towards students with disabilities. General literature about teachers' years of teaching experience in relation to their attitudes toward students with disabilities was in the similar direction as teacher attitudes are related to their years of experience in the field of education. As reported in the following paragraphs, teachers who had less experience mainly hold more positive attitudes toward inclusion and students with disabilities.

Forlin (1995) did a study in United States that compared three groups of teachers' attitude scores in terms of their years of experience (less than six years of experience, six to ten years of experience, and more than eleven years of experience) and found that

more experienced teachers were less accepting to students with disabilities, although less experienced teachers were more accepting to those children with disabilities.

Leyser and his friends (1994) surveyed 3639 teachers among six nations (USA, Taiwan, Philippines, Germany, Ghana, and Israel) using an attitude scale and a demographic questionnaire. They compared teachers' attitudes toward inclusion in terms of teachers' years of teaching experience. They reported that teachers who have 14 years or less teaching experience had significantly higher positive attitudes than teachers who have more than 14 years of teaching experience. The differences between three groups – one to four years, five to 9 years, and nine to 14 years – were not significant in terms of their attitudes towards inclusion.

Wilczenski (1994) conducted a study with 229 undergraduate pre-service teachers of a small college in the northeastern United States and found that the less experience the teacher had, the more favorable attitudes they held toward the inclusion of students with disabilities in general education classrooms. Soodak, Podell, & Lehman (1998) surveyed 188 general educators and found similar results as Wilczenski (1994) as teachers being more experienced they hold less positive attitudes toward inclusion of students with disabilities in their classrooms regardless of type of disabilities. Soodak, et. al. (1998) explained one of the reasons of this as teachers work with students with disabilities sometimes experience failure and they do not reach the desired performance with those students with disabilities, therefore their willingness to work with students with disabilities decreases.

Most studies reported the results that teachers who had less experience in the field of education hold more positive attitudes toward students with disabilities. There are

might be various reasons about why less experienced teachers hold more positive attitudes toward students with disabilities; such as current teacher preparation programs might provide better understanding of students with disabilities, or in-service training might have an influence on this particular variable. In terms of the purpose of this study, experience was considered as a potential predictor of teacher attitudes toward students with disabilities.

Teacher Training and Attitudes toward Disabilities

It has been reported by many researchers that many teachers do not have adequate knowledge about disabilities and especially students with disabilities. Kraska (1996) conducted a study to examine the knowledge of trade and industrial teachers' knowledge related to special populations; and it was reported that 40 percent of trade and industrial teachers had inadequate knowledge about people with disabilities.

One way of increasing teachers' knowledge about teaching individuals with disabilities is in-service trainings. In a study, Leyser, Kapperman, & Keller (1994) compared teachers' attitude scores in terms of how much training they received previously on teaching individuals with disabilities (very much, much, some, and no training), and reported that teachers who had received "very much" training significantly get higher attitude scores than those teachers who received lesser training.

Shoho, Katims, and Wilks (1997) argued that increasing teachers' knowledge about inclusion of students with disabilities in regular schools and those students' needs in terms of their education may minimize the negative teacher attitudes toward inclusion and students with disabilities. In another study, it is discussed that the ability of teachers to instruct students with disabilities may be a significant determinant of positive teacher

attitudes toward students with disabilities (Schumm & Vaughn, 1995). In other studies, it is also found that teacher resistance and acceptance to the inclusion of students with disabilities into general education classrooms is related to teachers' knowledge base and experience about teaching individuals with disabilities (Stoler, 1992; Taylor, Richards, Goldstein, & Schilit, 1997). Therefore, it can be said that teachers' knowledge about inclusion and teaching students with disabilities is an important predictor of the teacher attitudes toward students with disabilities.

In addition to previous reported research, Bender, Vail, and Scott (1995) found that attitudes toward inclusion is positively correlated with the number of courses taken previously on teaching students with disabilities, which means that more course work taken in the past increased the positive attitudes toward inclusion. Educating teachers about disability is one of the most effective variables that change teacher attitudes toward inclusion (Sharma, Forlin, & Loreman, 2008).

Moreover, Swain, Nordness, & Leader-Janssen (2012) conducted research on changes in pre-service teacher attitudes toward individuals with disabilities and concluded that providing students with a variety of experiences on teaching students with special needs may reduce the misperceptions of special education and complexities of the disabilities.

Avramidis, Baylis, & Burden (2000) surveyed teachers about their attitudes towards the inclusion of students with disabilities and found that teachers who have been implementing the inclusion programs in schools, and therefore have an active experience with students with disabilities, have more positive attitudes toward inclusion. It is also found that teachers who had substantial training in the area of special education held

significantly higher positive attitudes than those who had little or no training about inclusion and teaching students with disabilities.

According to literature, teachers' knowledge on students' with disabilities and also knowledge on teaching strategies may have a great influence on teachers' attitudes toward students with disabilities. Other than knowledge about individuals with disabilities extent of contact can be another variable that may have an influence on teachers' attitudes toward students with disabilities. In the following part literature review about how one's extent of contact is related to ones attitudes toward students with disabilities will be reported.

Attitudes and Extent of Contact with Individuals with Disabilities

Extent of contact with people with disabilities is one of the important variables in shaping teacher attitudes towards inclusion and students with disabilities (Avramidis & Norwich, 2002). The hypothesis behind the influence of the variable of "contact with people with disabilities" comes from that higher extent of contact increase the positive attitudes of people toward individuals with disabilities. According to Olson and Zanna (1993) attitudes are learned knowledge structures and prone to change. Therefore the extent of contact of teachers with students with disabilities may influence their attitudes in a negative or positive way.

There are many studies that explored the influence of extent of contact with individuals with disabilities on people's attitudes toward individuals with disabilities. In one of those studies, Leyser, Kapperman, & Keller (1994) compared teachers' attitude scores in terms of having different levels of experience (very much, little, some, little, none) with students with disabilities and they found have an influence on teachers'

attitudes toward inclusion, by having more experience yielding more positive attitudes. In contrast, Mclesky & Waldron (1996) found that staff development programs and extended contact with individuals with disabilities does not significantly improve teacher attitudes towards individuals with disabilities.

Van Reusen, Shoho, and Barker (2000) found that high school teachers who reported higher levels of special education training or experience in teaching students with disabilities have more positive attitudes toward including students with disabilities in regular education classrooms. Similar results reported by Cook (2002) and Rojewski & Pollard (1993) as the lack of experience and training in the field of special education can have a negative effect on teacher attitudes toward students with disabilities.

Alghazo, Dodeen, & Algaryouti (2003) surveyed 597 pre-service teachers and found varying attitude scores toward individuals with disabilities in terms of the amount of contact with persons with disabilities. Even though the group of pre-service teachers who selected their extent of contact as “at least one contact per month” received the higher attitude scores than the other groups, the analysis showed no statistically significant difference between groups.

Krahè and Altwasser (2006) conducted a study to find out how an intervention program influences participants’ attitudes toward people with physical disabilities. They created two treatment groups – one received cognitive intervention and other received cognitive-behavioral intervention – and one control group which took no intervention. Although the control group did not receive any intervention, participants in cognitive intervention group received lectures about people with disabilities. Cognitive-behavioral intervention included personal contact with people with disabilities in addition to

cognitive intervention. In the results, Krahe and Altwasser (2006) found that cognitive-behavioral intervention can significantly reduce negative attitudes towards people with physical disabilities. Krahe and Altwasser (2006) have also found that participants who had previous contact with people with disabilities had more positive attitudes towards people with disabilities. It can be said that extended contact with people with disabilities can have an influence on attitudes in a positive way.

Attitudes toward Disabilities based on Age and Gender

Teachers' attitudes toward students with disabilities vary by their age. According to Leyser, Kapperman, and Keller (1994) younger teachers hold more positive attitudes toward inclusion than their older colleagues. In a similar way, Avramidis, Bayliss, & Burden found no significant difference between attitudes of teachers toward inclusion of students with disabilities in general education classrooms in terms of the age. Most of the previous research about the influence of age on teacher attitudes did not find significant results.

Gender might be another predictor of teachers' attitudes toward students with disabilities. There are not so many studies worked on gender variable in the past. However, Leyser, Kapperman, & Keller (1994) conducted an analysis to see if "gender" have an influence on teacher attitudes toward inclusion, and the differences between males and females were not significant in terms of their attitude scores. Alghazo, Dodeen, & Algaryouti (2003) surveyed 227 males and 270 females and compared their attitude scores toward individuals with disabilities. Even though they found females' scores a little bit higher, the difference was not statistically significant. Pearman, Huang, Barohart, & Meliblom (1992) found a significant difference between males and females in terms of

their attitudes toward inclusion; but Jobe, Rust, & Brissie (1996) reported no statistical significant difference between males and female.

Attitudes and Grade Levels Taught

Several studies have focused on grade level taught and its influence on teacher attitudes toward students with disabilities. Teachers in higher grade levels had less positive attitudes toward inclusion than teachers in lower grade levels (Bender et al., 1995).

Leyser, Kapperman, & Keller (1994) surveyed 3639 teachers among six nations (USA, Taiwan, Philippines, Germany, Ghana, and Israel) via an attitude scale and a demographic questionnaire. Researchers compared attitude scores of participants in terms of their grade level taught, and found that scores of teachers at the senior high school level were significantly higher than those of teachers at the junior high school and elementary school levels. Scores of teachers at the junior high school were higher than teachers at the primary level (Leyser et al., 1994).

Bender et al. (1995) found that high school teachers have less positive attitudes and are more resistant toward the additional responsibilities that come with the inclusion of students with disabilities in regular education classrooms.

Salvia and Munson (1986) explained the relationship between grade level taught and teacher attitudes. They noted that as children's age increased, teacher attitudes became less positive to integration because in higher grades teachers' tend to be concerned about subject-matter and concerned less with individual differences. So, they mostly have challenges with managing the classroom activities. In the following part teacher challenges will be summarized in term of including students with disabilities in

general school classrooms.

Teacher Challenges and Inclusion

The number of the general education teachers, who had received a little training about educating students with disabilities, was increased with the Education for All Handicapped Children Act of 1975 (Campbell, Dobson, & Bost, 1985). Various problems arose with including students in general education classrooms because of the different characteristics of the new students and pressure on teachers' to change usual teaching instruction methods.

Each student in the classroom needs specific instruction because of the uniqueness of being a human. This is not an easy task for one teacher since there are usually so many students in each classroom. Adding students to the regular classroom who have learning disorders or developmental issues makes teaching more challenging for general education teachers, since each student has different needs in terms of learning and completing educational tasks. Teachers often feel the lack of specific information or knowledge to respond to students' needs when there are students with disabilities (Brownell, Yeager, Sindelar, vanHover, & Riley, 2004). Similar results found by DeSimone and Parmar (2006) about how well undergraduate and graduate school experiences prepared them for inclusive teaching. All of the participants in the study believed that their undergraduate and graduate schools did not prepare them to effectively teach inclusion students. Lack of the specific instructional information about included students with disabilities makes teaching challenging for regular classroom teachers. General education teachers, many with little or no special education training, have been assigned the responsibility of teaching students with disabilities with the increasing

number of the inclusion students (DeSimone & Parmar, 2006). Many of beginner general education teachers are challenged by the needs of students with disabilities, as those teachers are often less prepared to make accommodations for individual students (Kagan, 1992), although more experienced teachers have more knowledge and skills (Munby, Russell, & Martin, 2001). Idol (2006) interviewed educators for a study and those interviewed teachers indicated that more professional development related to inclusion was needed.

General education teachers' experiences with inclusion of students are researched by Kent-Walsh and Light (2003) and they have reported three different types of school-related barriers from the analysis of the interview of teachers: (1) The physical condition of the classrooms, which is the lack of necessary adjustment for students with disabilities; (2) schools' tendency to stick pretty close to the legalities while providing service to the students with disabilities, without necessarily meeting the educational needs of these students; and (3) including large number of students with disabilities in regular classrooms, which is reported in the study as teachers cannot help those students as much as they should because of having so many students with disabilities in the same classroom.

Kent-Walsh & Light (2003) also reported some team-related barriers such as collaboration/communication issues among school teams and lack of home support and participant teachers' concerns about not actively involving in the process of developing individualized educational goals for students who have disabilities included in their classrooms. Parents and teachers had different expectations in terms of the education of students with disabilities in the included setting (Kent-Walsh & Light, 2003).

Some other barriers related to inclusion of students with disabilities were also discussed by Kent-Walsh & Light (2003) such as limited training on teaching students with disabilities and required skills in order to achieve effective teaching, time constraints which result in inadequate planning and preparation for the class, negative teacher attitudes, and teacher “burnout”.

Idol (2006) highlighted that noticeable efforts were being made to educate students with disabilities in general education programs. For example, every school used cooperative teaching (i.e., special education teacher in the general education classroom). The majority of the educators interviewed in Idol’s (2006) study liked the cooperative teaching approach but the concern was that most classroom teachers needed a cooperative teacher; yet ordinarily this is not financially possible and this stands as a barrier to the effective teaching of students.

An increased behavioral challenge in the classroom is another problem with the inclusion of students with disabilities in general school classrooms. So many general school teachers and special education teachers reported that the student behavior is the biggest disruption in their classrooms (Merrett & Wheldall, 1993).

Summary

After the legislations that mandated schools to educate students with disabilities and provide free and appropriate education the number of students with disabilities increased in the general education classrooms. Therefore, many researchers studied teacher attitudes toward the concept of mainstreaming and inclusion, and they tried to explain how attitudes influence teachers’ behavior toward students with disabilities.

Factors that are related to teachers’ attitudes towards students with disabilities

have varied among researchers. The literature review done for this study focused on the variables such as teachers' year of experience, knowledge about inclusion and students with disabilities, training teachers received on teaching students with disabilities, extent of contact with people with disabilities, grade level that they taught, age, and gender. Even though, for some variables studies showed parallel results, some others researchers reported contrary results to each other.

Chapter 3: Methods of Study and Instrumentation

Introduction

The focus of this research study was general education teachers' attitudes towards students with disabilities. Chapter I provided an introduction for this study, statement of the research problem, purpose of the study, research questions, hypotheses, definition of terms, significance of the study, limitations, and assumptions of the study. Chapter II included a review of literature related to teachers' attitudes toward students with disabilities and the variables that may have an influence on teachers' attitudes toward students with disabilities. This chapter, chapter III, includes the design of the study, sources of data, data collection procedures, student and teacher numbers in schools selected for this study, privacy and confidentiality of participant teachers, instrumentation, and method of procedure.

Design of Study

This was a survey research study to explore teachers' attitudes towards students with disabilities in an elementary-level and secondary-level school in southeastern United States. The dependent variable was teachers' attitude score on the "A Survey of Teacher Attitudes Relative to Serving Students with Disabilities". Independent variables were (a) gender, (b) age, (c) years of experience, (d) grade level taught, (e) extent of contact with individuals with disabilities, (f) whether or not teachers have received any training about teaching students with disabilities, and (g) teachers' perceptions toward their own level of

expertise.

Population

The target population for this study was classroom teachers in the southeastern United States. This study took place in two schools located in the southeastern United States. One of the schools was Loachapoka Elementary School in Loachapoka, Alabama and the other was Central High School in Phenix City, Alabama. The student enrollment of the Loachapoka Elementary School was 332 (Alabama State Department of Education, 2014) and according to school's web-page (<http://loachapoka.lce.schoolinsites.com>) the number of full time teachers was 39 in the educational year of 2013-2014. Student enrollment of the Central High School in Phenix City was 1346 (Alabama State Department of Education, 2014), and according to school's web-page (<http://www.pcboe.net/chs/>) full time teacher number were 78 in the educational year of 2013-2014. All of the teachers in both schools were asked to complete two questionnaires relative to their attitudes toward students with disabilities: one relative to their perception toward students with disabilities and one relative to their demographic information.

Instrumentation

The data were gathered using a two-part inventory. Part I of the inventory was addressed questions asking about (a) gender, (b) age, (c) years of experience, (d) grade level taught, (e) extent of contact with individuals with disabilities, (f) whether or not teachers have received any training about teaching students with disabilities, and (g) teachers' perceptions toward their own level of expertise.

Part II of the inventory included the "A Survey of Teacher Attitudes Relative to Serving Students with Disabilities" questionnaire. The original questionnaire was

developed by Larrive and Cook (1979) to measure teacher attitudes toward students with disabilities who were in elementary -level schools. This original instrument was later updated and revised by Kraska (2003) to measure attitudes of university faculty members toward students with disabilities. Larrive and Cook (1979) reported the split-half reliability coefficient for the original instrument as .92. Kraska (2003) reported the Cronbach alpha reliability coefficient for the revised instrument as .89. The researcher was granted permission by the author for using the instrument and also received permission to replace the word “faculty” with “teacher” (see Appendix B). Participants were asked to respond to a paper copy of the 30-item questionnaire on a Likert-type scale ranging from 5 for, “Strongly agree,” to 1 for “Strongly disagree.” Sample items include statements such as, “Inclusion of students with disabilities will require significant changes in classroom procedures,” and “Inclusion of students with disabilities will necessitate extensive re-training of teachers.” A total inventory score ranges from 30 to 150, with a higher score indicating a more favorable attitude toward students with disabilities.

Data Collection Procedures

Permission to conduct the study was obtained from the Institutional Review Board for Human Subjects of Auburn University. The researcher also secured permission from both Loachapoka Elementary School in Loachapoka and Central High School in Phenix City to conduct the study. Copies of these permissions are in the appendices.

Information letter for participants prepared by the researcher, which has the information about the research, the survey instrument, risks of the study, as participation

being volunteer basis, and the confidentiality of the data being collected during the study. Contact information of researcher was provided for any questions about the study. Copy of the information letter is in Appendix C.

The researcher prepared individual survey packets for each of the participants. Each packet included an information letter for participants, a 7-item demographic questionnaire, and the 30-item “A Survey of Teacher Attitudes Relative to Serving Students with Disabilities” survey form. Packages, including total of five pages, were put in a closed envelope.

The survey was administered during a staff development workshop in both schools. Prior to distribution of the survey packets, the researcher read the statement of the purpose of the study and the instructions to the participants. Their participation in the study was on a volunteer basis and this information was highlighted in the instructions. Participants were instructed to return all forms in the original envelope. Teachers who did not want to participate in the study were asked to return the survey package uncompleted. The researcher collected all of the completed and uncompleted survey forms.

Data Analysis Procedures

The analysis was completed by using IBM-SPSS (version 22) for Windows. Participants’ responses to the questions entered into an SPSS spreadsheet one by one by the researcher and checked for the mistakes that might occur during the entering data. Descriptive statistics computed to respond to the first research question. Null hypotheses for research questions two, three, four, and five were tested at the .05 level using multiple regression procedures.

The first null hypotheses included all predictor variables. The first null hypotheses

responds to the second research question, “To what extent can teacher attitudes toward students with disabilities be predicted by (a) gender, (b) age, (c) years of experience, (d) grade level taught, (e) extent of contact with individuals with disabilities, (f) whether or not teachers have received any training about teaching students with disabilities, and (g) teachers’ perceptions toward their own level of expertise?”

The third research question was answered, “To what extent do personal attributes of teachers such as (a) gender, and (b) age contribute to prediction of teacher attitudes toward students with disabilities?” by the second null hypotheses to test the effect of gender and age on scores for the attitudes toward students with disabilities.

The third and fourth null hypotheses tested for ordered sets of variables as stated in research questions four and five respectively. The third null hypothesis tested personal variables (gender and age group), while controlling for professional characteristics (years of experience, grade level taught, extent of contact with individuals with disabilities, whether or not teachers have received any training related to teaching students with disabilities, and teachers’ perceptions toward their own level of expertise).

The fourth null hypothesis tested all professional variables (years of experience, grade level taught, extent of contact with individuals with disabilities, whether or not teachers have received any training related to teaching students with disabilities, and teachers’ perceptions toward their own level of expertise), controlling for personal variables (age and gender).

Summary

This chapter discussed the methodology used in this study. The sources of data, data collection procedures, teacher and student numbers in the selected schools, privacy

and confidentiality of the teachers whom data were collected, instrumentation, and the method of data analysis were presented. The results of the analysis are presented in chapter IV.

Chapter 4: Data Analysis and Results

Introduction

Chapter I provided an introduction and theoretical framework for this study, statement of the research problem, purpose of the study, research questions, hypotheses, definition of terms, significance, limitations and assumptions of the study. The purpose of this study was to investigate attitudes of teachers toward students with disabilities in an elementary-level and secondary-level school in the Southeastern United States. For the purpose of this study, teachers defined as those individuals currently employed in one of the general elementary school or secondary school in the state of Alabama. Chapter II presented a review of related literature relevant to attitudes of teachers toward students with disabilities and its linkage with gender, age, years of experience, grade level taught, extent of contact with individuals with disabilities, whether or not teachers had received any training about teaching students with disabilities, and teachers' perceptions toward their own level of expertise. Chapter III discussed the design of the study, sources of data, profiles of schools used in this study, data collection procedures, teachers' privacy and confidentiality, instrumentation, and method of procedure. Chapter IV focuses on the results of the data analysis.

Data Analysis

Descriptive data were calculated by using SPSS (version 22) and summarized for gender, age, years of experience, grade level taught, extent of contact with individuals

with disabilities, whether or not teachers had received any training related to teaching students with disabilities, and teachers' perceptions toward their own level of expertise. Research question one was answered by using demographic information.

Results for Research Question One

The first research question was:

What are the mean scores and standard deviations for the "A Survey of Teacher Attitudes Relative the Serving Students with Disabilities" based on participants' (a) gender, (b) age, (c) years of experience, (d) grade level taught, (e) extent of contact with individuals with disabilities, (f) whether or not teachers had received any training related to teaching students with disabilities, and (g) teachers' perceptions toward their own level of expertise?

Demographic Characteristic for Teachers and Descriptive Information

Mean scores and the standard deviations of the teachers' attitude scores were summarized in terms of gender, age, years of experience, grade level taught, extent of contact with individuals with disabilities, whether or not teachers had received any training related to teaching students with disabilities, and teachers' perceptions toward their own level of expertise. The total number of teachers who participated in this study was 84; 22 from elementary-level school (26.2%), 62 from secondary-level school (73.8%). The mean scores of the elementary-level school teachers (mean = 99.14) were slightly higher than the secondary-level school teachers (mean = 94.18) in terms of their scores from "A Survey of Teacher Attitudes Relative the Serving Students with Disabilities". The majority of the teachers were female with the percentage of 70.2 (n = 59). Female teachers' mean score from attitude survey were higher than the male teachers

mean score, 96.61 and 92.80 respectively. Number of participants in each age group was fairly evenly distributed. The most selected age category was 30-39 and the least selected age category was 20-29. Mean scores of younger teachers scores were lower than the older teachers. In terms of the years of experience that teachers had in the teaching field, the number of the teachers in each years of experience category was almost evenly distributed. Most of the participants had six to 10 years of experience. The least number of years of experience was zero to five years. The mean score of the teachers who had 16 to 20 years of experience was the highest (mean = 98.06) and the mean score of teachers who had 5 years or less experience was the lowest (mean = 91.93). The variable for teachers' time spent with students with disabilities included four categories. The number of participants in each category was almost evenly distributed. For the variable, teachers who selected "little" for the time spent with students with disabilities received the highest mean scores (mean = 99.74). For the training variable, 92.9% of the teachers had received training for teaching students with disabilities (n = 78). Teachers who received training had higher mean score from the attitude survey (mean = 95.82) than the teachers who did not receive any training. In terms of the teachers' perception about their own level of expertise, the distribution of the number of participants in each category was very close to one other, with almost 55% of the teachers perceiving an adequate to high level of expertise; and approximately 45% perceiving no level of expertise to a minimal level of expertise. Each group's mean scores were almost same to each other. These data are reported in Table 3.

Table 3

Frequency, Percent, Mean Scores and Standard Deviation for Teacher Attitudes

Variable	Frequency	Percent	Attitude Scores	
			Mean	SD
Gender				
Male	25	29.8	92.80	11.84
Female	59	70.2	96.61	14.55
Age				
20 – 29	12	14.3	92.08	14.45
30 – 39	28	33.3	93.54	12.71
40 – 49	24	28.6	94.08	16.23
49+	20	23.8	101.90	10.43
Experience				
0 – 5	14	16.7	91.93	15.04
6 – 10	20	23.8	92.90	12.83
11 – 15	17	20.2	97.35	11.35
16 – 20	18	21.4	98.06	16.51
21+	15	17.9	97.00	13.65

(table continues)

Table 3 (continues)

Variable	Frequency	Percent	Attitude Scores	
			Mean	SD
Grade Level				
K - 8	22	26.2	99.14	12.81
9 – 12	62	73.8	94.18	14.06
Time spent				
None to Almost none	17	20.02	93.65	13.73
Little	23	27.4	99.74	13.21
Some	31	36.9	93.58	11.68
Most to Almost all	13	15.5	94.85	19.06
Training				
No	6	7.1	91.00	6.20
Yes	78	92.9	95.82	14.22
Perceived Expertise				
None to Minimal	38	45.2	95.63	13.66
Adequate to High	46	54.8	95.35	14.14

Null hypotheses for research questions two, three, four, and five were tested at the .05 level using multiple regression procedures. The first null hypothesis was formulated to answer first research question and included all demographic variables.

Results for Research Question Two

The second research question was:

To what extent can teacher attitudes toward students with disabilities be predicted by (a) gender, (b) age, (c) years of experience, (d) grade level taught, (e) extent of contact with individuals with disabilities, (f) whether or not teachers had received any training related to teaching students with disabilities, and (g) teachers' perceptions toward their own level of expertise?

The first null hypothesis was formulated to answer the second research question:

H₀₁: (a) gender, (b) age, (c) years of experience, (d) grade level taught, (e) extent of contact with individuals with disabilities, (f) whether or not teachers had received any training about teaching students with disabilities, and (g) teachers' perceptions toward their own level of expertise are not statistically significant predictors for teacher attitudes toward students with disabilities.

Entering all predictors (gender, age, years of experience, grade level taught, extent of contact with individuals with disabilities, whether or not teachers had received any training about teaching students with disabilities, and teachers' perceptions toward their own level of expertise) into the regression model did not yield a statistically significant regression model [$F(7, 76) = 1.31, p = .26$]. When considered together, all predictors accounted for only 11% of the variance in teacher attitudes toward students with disabilities.

Examination of the beta coefficients for the individual predictors revealed that none of the predictors were statistically significant at the .05 level of significance. However, it is noteworthy that the age variable was statistically significant at the .06

level. For this reason, the researcher investigated the influence of age on the teacher attitudes toward students with disabilities. Therefore, the researcher conducted a bivariate linear regression procedure using only the “age” variable as a predictor. Results of the bivariate linear regression using only age as a predictor revealed statistically significant results [$F(1, 82) = 4.53, p = .04$]. The age variable accounted for 5% of the variance in the scores on the attitudes toward students with disabilities scale. The beta coefficient for the age variable was 3.15, suggesting that for every increase in age by one year, the scores on the “Survey of Teacher Attitudes Relative to Serving Students with Disabilities” increased by 3.15 points.

Results for Research Question Three

The second null hypotheses was formulated to answer the third research question and tested the effect of gender and age on scores for the attitudes toward students with disabilities. The third research question was:

To what extent do personal attributes of teachers such as (a) gender, and (b) age contribute to prediction of teacher attitudes toward students with disabilities?

The second null hypothesis was stated as follows:

H_{02} : (a) gender and (b) age are not statistically significant contributors on prediction of teacher attitudes toward students with disabilities.

Entering the variables gender and age into the multiple linear regression equation did not result in a statistically significant regression model [$F(2, 81) = 2.88, p = .06$], even though the combination of age and gender accounted for 7% on the variance in the scores of the attitudes toward students with disabilities scale. For this model, the beta coefficient for age was 3.10 with a .04 level of significance, indicating that for every

increase in age by one year, the scores on the “Survey of Teacher Attitudes Relative to Serving Students with Disabilities” increase by 3.10 points.

Research questions four and five were addressed by third and fourth null hypothesis. The third and fourth null hypotheses tested for ordered sets of variables. The third null hypothesis was formulated for research question four and tested personal variables (gender and age group), while controlling for professional characteristics (years of experience, grade level taught, extent of contact with individuals with disabilities, whether or not teachers had received any training related to teaching students with disabilities, and teachers’ perceptions toward their own level of expertise).

Results for Research Question Four

The fourth research question was:

To what extent do professional characteristics of teachers such as (a) years of experience, (b) grade level taught, (c) extent of contact with individuals with disabilities, (d) whether or not teachers had received any training about teaching students with disabilities, and (e) teachers’ perceptions toward their own level of expertise predict teacher attitudes above and beyond (f) gender, and (g) age?

The third null hypothesis was formulated to answer the fourth research question:

H₀₃: (a) years of experience, (b) grade level taught, (c) extent of contact with individuals with disabilities, (d) whether or not teachers had received any training about teaching students with disabilities, and (e) teachers’ perceptions toward their own level of expertise are not statistically significant predictors above and beyond (f) gender, and (g) age.

Result of the multiple linear regression procedure for ordered sets revealed that

professional characteristics (years of experience, grade level taught, extent of contact with individuals with disabilities, whether or not teachers had received any training about teaching students with disabilities, and teachers' perceptions toward their own level of expertise) contributed only four percent of the variance in the scores on the attitudes toward students with disabilities scale above and beyond the personal attributes (gender and gender).

Neither the model using only personal attributes nor the model testing effects of professional characteristics above and beyond personal attributes was statistically significant [$F(2, 81) = 2.87, p = .07$] and [$F(5, 76) = .71, p = .62$] respectively. Even though the prediction model including only gender and age did not yield statistically significant results at .05 significance level, the model was significant at the .07 significance level. As reported previously, age was a statistically significant predictor by itself in the bivariate linear regression model. [$F(1, 82) = 4.53, p = .04$].

Seven percent of the variance in the scores on the attitudes toward students with disabilities can be attributed to the personal attributes (gender and age). When the professional characteristics were included in the model, an additional 4 percent of the variance can be accounted for.

Results for Research Question Five

Research question five was addressed by the fourth null hypotheses. The fourth null hypothesis tested professional variables (years of experience, grade level taught, extent of contact with individuals with disabilities, whether or not teachers had received any training related to teaching students with disabilities, and teachers' perceptions toward their own level of expertise), controlling for personal variables (age and gender).

The fifth research question was:

To what extent do (a) gender, and (b) age predict teacher attitudes above and beyond professional characteristics of teachers such as (c) years of experience, (d) grade level taught, (e) extent of contact with individuals with disabilities, (f) whether or not teachers had received any training about teaching students with disabilities, and (g) teachers' perceptions toward their own level of expertise?

The fourth null hypothesis was formulated to respond to the fifth research question:

Ho₄: (a) gender and (b) age are not statistically significant predictors above and beyond professional characteristics of teachers such as (c) years of experience, (d) grade level taught, (e) extent of contact with individuals with disabilities, (f) whether or not teachers had received any training about teaching students with disabilities, and (g) teachers' perceptions toward their own level of expertise.

Result of the multiple linear regression procedure for ordered sets revealed that personal attributes (age and gender) contributed only five percent of the variance in the scores on the attitudes toward students with disabilities scale above and beyond the professional characteristics (years of experience, grade level taught, extent of contact with individuals with disabilities, whether or not teachers had received any training about teaching students with disabilities, and teachers' perceptions toward their own level of expertise).

Neither the model using only professional characteristics nor the model testing effects of personal attributes above and beyond professional characteristics was

statistically significant [$F(5, 78) = 1.00, p = .42$] and [$F(2, 76) = 2.02, p = .14$] respectively.

Six percent of the variance in the scores on the attitudes toward students with disabilities scale can be attributed to the professional characteristics; however, when the personal variables (gender and age) were included in the model, an additional five percent of the variance can be accounted for.

To further probe responses on the attitudes toward students with disabilities scale, the researcher calculated minimum and maximum scores, mean scores and standard deviations for each item for all participants. The rationale for these calculations is based on results of the multiple linear regression procedures, which revealed non significant prediction models (except for the bivariate model using the age variable). Therefore, the researcher decided that an item-by-item analysis could be helpful in getting a closer view of the data.

The item-by-item analysis showed that more of the items have a mean score above three, which means that teachers selected “strongly agree” and “agree” more often than the other choices. Items 15 (mean = 3.89), 9 (mean = 3.74), and 30 (mean = 3.71) have the highest mean scores and items 3 (mean = 2.14), 2 (mean = 2.39), 13 (mean = 2.58) have the lowest mean scores. The items that received the higher scores were about students with disabilities being a good example for other students and decreasing the discrimination. The ones with the lowest scores were about separating students with disabilities from their peers in order to better educate students with disabilities as requiring more patience from teachers, and inclusion of students with disabilities as

requiring significant changes in classroom procedures. Average scores, minimum and maximum scores, and standard deviations of the scores are summarized in Table 4.

Table 4

Minimum, Maximum, and Mean Scores and Standard Deviations by Item

Items	Min.	Max.	Mean	SD
1. Many of the things teachers do with regular students in a classroom are appropriate for students with disabilities.	1	5	3.55	0.99
2. The needs of students with disabilities can be best served through special, separate programs.	1	5	2.39	1.03
3. Classroom behavior of students with disabilities generally requires more patience from teachers than does the behavior of students without disabilities.	1	5	2.14	1.23
4. The challenge of being in a regular classroom will promote the academic growth of students with disabilities.	1	5	3.31	0.90
5. The extra attention students with disabilities require will be to the detriment of the other students.	1	5	2.82	1.08

(table continues)

Table 4 (continues)

Items	Min.	Max.	Mean	SD
6. Accommodation offers mixed group interaction which will foster understanding and acceptance of differences.	1	5	3.67	0.77
7. It is difficult to maintain order in a class that includes students with disabilities.	2	5	3.31	1.09
8. Teachers possess a great deal of expertise necessary to work with students with disabilities.	1	5	2.92	1.08
9. The behavior of students with disabilities will set a bad example for other students.	1	5	3.74	1.01
10. Isolation in a class has a negative effect on the social and emotional development of students with disabilities.	1	5	3.45	1.05
11. Students with disabilities will probably develop academic skills more rapidly in a separate program than in a regular classroom.	1	5	2.8	0.92

(table continues)

Table 4 (continues)

Items	Min.	Max.	Mean	SD
12. Most students with disabilities do not make an adequate attempt to complete their assignments.	1	5	3.24	1.20
13. Inclusion of students with disabilities will require significant changes in classroom procedures.	1	5	2.58	1.11
14. Most students with disabilities are well-behaved in the classroom.	1	5	3.19	0.96
15. The contact other students have with students with disabilities may be harmful to those without disabilities.	2	5	3.89	0.92
16. Classroom teachers have sufficient training to teach students with disabilities.	1	5	3.39	1.03
17. Students with disabilities will monopolize teacher time.	1	5	3.1	1.00
18. Accommodations for students with disabilities will promote their social independence.	2	5	3.37	0.88

(table continues)

Table 4 (continues)

Items	Min.	Max.	Mean	SD
19. It is likely that a student with a disability will exhibit behavior problems in the classroom setting.	1	5	3.19	0.94
20. Diagnostic-prescriptive teaching is better done in special programs by tutors than by regular classroom teachers.	1	5	3.04	0.94
21. The inclusion of students with disabilities can be beneficial for all other students.	1	5	3.42	0.97
22. Students with disabilities need to be told exactly what to do and how to do it.	1	5	2.62	0.96
23. Accommodations are likely to have a negative effect on the emotional development of students with disabilities.	1	5	3.49	0.84
24. Increased freedom in the classroom creates too much confusion.	1	5	2.79	1.12
25. Students with disabilities will be socially isolated by other students.	1	5	3.54	0.95

(table continues)

Table 4 (continues)

Items	Min.	Max.	Mean	SD
26. Parents of students with disabilities present no greater problem for teachers than parents of students without disabilities.	1	5	3.21	1.07
27. Inclusion of students with disabilities will necessitate extensive retraining of teachers.	1	4	2.7	0.94
28. Students with disabilities should be given every opportunity to function in an included classroom setting when possible.	1	5	3.56	1.07
29. Students with disabilities are likely to create confusion in the classroom.	1	5	3.36	1.04
30. The presence of students with disabilities will promote acceptance of differences on the part of other students.	1	5	3.71	0.90

Summary

This chapter discussed the results of the data analysis. Descriptive data presented in this chapter summarized the demographic characteristics of the teachers who participated in this study. The results of the multiple linear regression procedures using

all variables did not yield any statistically significant model for predicting teacher perceptions toward students with disabilities. Even though age was not a statistically significant predictor in the prediction model using all variables, it was statistically significant when analyzed with bivariate linear regression procedures. An overview of this study, summary of results, limitations, implications, conclusion, recommendations for practical applications, and summary are presented in Chapter V.

Chapter 5

Summary and Conclusions

Chapter I provided an introduction and theoretical framework for this study, statement of the research problem, purpose of the study, research questions, hypotheses, definition of terms, significance, limitations and assumptions of the study. The purpose of this study was to investigate attitudes of teachers toward students with disabilities in an elementary-level and secondary-level school in the Southeastern United States. For the purpose of this study, teachers defined as those individuals currently employed in one of the general elementary school or secondary school in the state of Alabama. Chapter II presented a review of related literature relevant to attitudes of teachers toward students with disabilities and its linkage with gender, age, years of experience, grade level taught, extent of contact with individuals with disabilities, whether or not teachers have received any training about teaching students with disabilities, and teachers' perceptions toward their own level of expertise. Chapter III discussed the design of the study, sources of data, profiles of schools used in this study, data collection procedures, teachers' privacy and confidentiality, instrumentation, and method of procedure. Chapter IV focuses on the results of the data analysis.

This chapter presented an overview of the study, summary of results, limitations, implications, conclusion, recommendations for practical applications, and summary.

Overview of the Study

Many researchers have studied teacher attitudes over the years. Attitudes are defined as “the way you think and feel about someone or something; a feeling or way of thinking that affects a person’s behavior” (Merriam-Webster.com, 2014). As mentioned in the definition of the attitudes, attitudes are directly related to one’s behavior. In education, attitudes are important since they are vital predictor of the quality of education, especially for teaching students with disabilities (Rojewski & Pollard, 1993; Bender, et. al., 1995; Sharma, et. al, 2006). Even though the relationship between attitudes of teachers and their teaching strategies have been explored by many researchers, there are not many studies that explored the relationship between personal and professional characteristics of teachers and their attitudes.

The focus of this study was to investigate teacher attitudes toward students with disabilities in a large school district in the Southeastern United States. Attitudes of teachers were examined in relation to their personal attributes (gender and age) and professional characteristics (years of experience, grade level taught, extent of contact with individuals with disabilities, whether or not teachers had received any training related to teaching students with disabilities, and teachers’ perceptions toward their own level of expertise). In this study, teachers from both elementary-level and secondary-level schools were included.

The data for the study were collected from Loachapoka Elementary School (Loachapoka, Alabama) and Central High School (Phenix City, Alabama). Individual survey packages were used to gather data. Survey packets included a letter of consent form for participants, a 7-item demographic questionnaire, and the 30-item “A Survey of

Teacher Attitudes Relative to Serving Students with Disabilities” survey form.

Completed survey packets were received from 22 elementary-level school teachers and 62 secondary-level school teachers.

This study may add to the current body of knowledge on teacher attitudes toward students with disabilities, especially whether teachers hold differing attitudes toward students with disabilities based on their personal attributes and professional characteristics, and whether we can predict teacher attitudes by looking at personal attributes and professional characteristics.

Summary of the Results

The following research questions were investigated in this study: (1) What are the mean scores and standard deviations “A Survey of Teacher Attitudes Relative the Serving Students with Disabilities” based on participants’ personal attributes and professional characteristics? (2) To what extent can teacher attitudes toward students with disabilities be predicted by (a) gender, (b) age, (c) years of experience, (d) grade level taught, (e) extent of contact with individuals with disabilities, (f) whether or not teachers had received any training related to teaching students with disabilities, and (g) teachers’ perceptions toward their own level of expertise? (3) To what extent do personal attributes of teachers such as (a) gender, and (b) age contribute to prediction of teacher attitudes toward students with disabilities? (4) To what extent do professional characteristics of teachers such as (a) years of experience, (b) grade level taught, (c) extent of contact with individuals with disabilities, (d) whether or not teachers had received any training about teaching students with disabilities, and (e) teachers’ perceptions toward their own level of expertise predict teacher attitudes above and beyond (f) gender, and (g) age? (5) To what

extent do (a) gender, and (b) age predict teacher attitudes above and beyond professional characteristics of teachers such as (c) years of experience, (d) grade level taught, (e) extent of contact with individuals with disabilities, (f) whether or not teachers had received any training about teaching students with disabilities, and (g) teachers' perceptions toward their own level of expertise?

The first research question addressed participants' mean scores and standard deviations from "A Survey of Teacher Attitudes Relative the Serving Students with Disabilities" based on teachers' personal attribute and professional characteristics. Of the 84 teachers 70.2% were females and 29.8% were males and females received higher scores on the survey of attitudes. In terms of the age, there were four categories (0-5, 6-10, 11-15, 16-20, and 21+) and teachers who are in the higher age group received higher scores from the attitude scale. The mean score was higher in the category of teachers who have 16 to 20 years of experience and the mean was lowest at zero to five years of experience. Among 84 teachers, 26.2% were elementary-level teachers and their mean score from the attitude scale was 99.14; and 73.8% were secondary-level teachers and their mean score from the attitude scale was 94.18. Teachers who spent little time with individuals with disabilities received higher mean score (mean = 99.74). Most of the teachers had received training about teaching students with disabilities (92.9%) and their mean score was higher than the teachers who did not receive any training. Teachers' mean scores were almost same in terms of their perceived level of expertise related serving students with disabilities.

The second research question investigated the extent to which teacher attitudes toward students with disabilities can be predicted in terms of their (a) gender, (b) age, (c)

years of experience, (d) grade level taught, (e) extent of contact with individuals with disabilities, (f) whether or not teachers had received any training related to teaching students with disabilities, and (g) teachers' perceptions toward their own level of expertise. The following hypothesis was developed to address this research question:

Ho₁: (a) gender, (b) age, (c) years of experience, (d) grade level taught, (e) extent of contact with individuals with disabilities, (f) whether or not teachers had received any training about teaching students with disabilities, and (g) teachers' perceptions toward their own level of expertise are not statistically significant predictors for teacher attitudes toward students with disabilities.

Result of the analysis of prediction model, when including all variables, was not statistically significant at the .05 significance level. Examination of beta coefficients for the individual predictors revealed that only the "age" variable was significant at the .06 level. For this reason, bivariate linear regression analysis was conducted for the "age" variable and it was found that "age" was a statistically significant predictor at the .05 level and accounted for 5% of the variance in the scores on the attitudes toward students with disabilities scale.

The third research question examined to what extent personal attributes such as (a) gender and (b) age contribute to prediction of teacher attitudes toward students with disabilities. Following null hypothesis was developed to answer this question:

Ho₂: (a) gender and (b) age are not statistically significant contributors on prediction of teacher attitudes toward students with disabilities.

Even though the combination of age and gender accounted for 7% on the variance in the scores of the attitudes toward students with disabilities scale, entering the variables

gender and age into the multiple linear regression equation did not result in a statistically significant regression model.

The fourth research question explored to what extent professional characteristics of teachers such as (a) years of experience, (b) grade level taught, (c) extent of contact with individuals with disabilities, (d) whether or not teachers had received any training about teaching students with disabilities, and (e) teachers' perceptions toward their own level of expertise predict teacher attitudes above and beyond (f) gender, and (g) age. The following null hypothesis was used to answer this question:

Ho₃: (a) years of experience, (b) grade level taught, (c) extent of contact with individuals with disabilities, (d) whether or not teachers had received any training about teaching students with disabilities, and (e) teachers' perceptions toward their own level of expertise are not statistically significant predictors above and beyond (f) gender, and (g) age.

The findings of the multiple linear regression analysis showed that professional characteristics of teachers (years of experience, grade level taught, extent of contact with individuals with disabilities, whether or not teachers had received any training about teaching students with disabilities, and teachers' perceptions toward their own level of expertise) contributed only four percent of the variance in the scores on the attitudes toward students with disabilities scale above and beyond the personal attributes (gender and gender). Both of the models, one using only professional variables and one using only personal variables was not statistically significant.

The fifth research question investigated to what extent personal attributes (gender and age) predict teacher attitudes above and beyond professional variables (years of

experience, grade level taught, extent of contact with individuals with disabilities, whether or not teachers had received any training related to teaching students with disabilities, and teachers' perceptions toward their own level of expertise). In order to address the fifth research question, following null hypothesis was developed:

Ho₄: (a) gender and (b) age are not statistically significant predictors above and beyond professional characteristics of teachers such as (c) years of experience, (d) grade level taught, (e) extent of contact with individuals with disabilities, (f) whether or not teachers had received any training about teaching students with disabilities, and (g) teachers' perceptions toward their own level of expertise.

Model testing effects of personal attributes above and beyond professional characteristics was not statistically significant. Although professional characteristics contributed only six percent of the variance in the scores on the attitudes toward disabilities, when the personal variables included in the model, an additional five percent was accounted.

Further exploration of the survey responses showed that items 15, 9, and 30 received the highest mean scores, while 3, 2, and 13 received the lowest mean scores. The items received the higher scores were about students with disabilities being a good example for other students. The ones with the lowest scores were about separating students with disabilities from their peers, students with disabilities as requiring more patience from teachers, and inclusion of students with disabilities as requiring significant changes in classroom procedures.

Limitations

The results of this study were based on general education teachers in the Southeastern United States; therefore, the results may not be representative of teachers at other general public elementary and secondary schools throughout the United States. Another limitation of this study is the small sample size (n=84). A larger sample could yield different results. The results must be interpreted with caution because of the self-reported nature of the responses. This method of data collection depends on the ability and willingness of the respondent to provide accurate and honest input to the questions. Therefore, some possibility existed that participants responded to questions in a manner that reflected socially acceptable answers.

Conclusions

The present study surveyed teachers in one elementary-level school and one secondary-level school in Alabama and the percentages were 26.2% and 73.8% respectively. The majority of the participants were female (70.2%). Those teachers who participated in this study mostly received training related to education of students with disabilities (92.9%). Other categories were almost evenly distributed within the variables.

Based on the distribution and mean calculation of the data, female teachers' scores were higher than the male teachers. Previous research about differences between males and females in terms of their attitude toward students with disabilities vary; even though some researchers found significant difference between them, some others did not find the significant difference. It is noteworthy that females received higher scores than males in terms of their attitude scores, and this was parallel to some previous researchers' findings (Alghazo, Dodeen, & Algaryouti, 2003; Leyser, Kapperman, and Keller, 1994;

Pearman, Huang, Barohart, & Meliblom, 1992). In terms of the grade level taught, the mean score of secondary-level school teachers were higher than elementary-level school teachers, as concurred with the results of Bender et al. (1995) who found that high school teachers have less positive attitudes. In terms of the “age” variable, it can be said that teachers who were in the older age category received higher scores than the ones in the younger categories. This result did not match with Leyser, Kapperman, and Keller’s (1994) findings that they found younger teacher holding more positive attitudes toward inclusion. Age was also found to be a significant predictor of attitudes when separating it from other variables. In comparison to the teachers who did not receive any training, teachers who previously received training related to teaching students with disabilities had higher scores on the attitude scale.

The important finding of this study was that gender, age, years of experience, grade level taught, extent of contact with individuals with disabilities, whether or not teachers had received any training related to teaching students with disabilities, and teachers’ perceptions toward their own level of expertise were not statistically significant predictors of attitudes toward students with disabilities. They contribute to the attitudes of teachers in some ways, but their contribution was not statistically significant.

Implications and Future Research

This study was designed to assess attitudes of teachers toward students with disabilities and the variables that could help us to predict teachers’ attitudes; however, it does not directly assess teachers’ skills in actually instructing and teaching students with disabilities. Therefore, future research can focus on investigating if the level of teachers’ confidence and preparedness to work with students with disabilities has an influence on

teachers' attitudes toward students with disabilities. Within the same study teachers' attitude scores can be compared in terms of their instructional models that they actually possess in the classrooms. The information gathered from such study will allow teacher preparation programs and in-training sessions to design better curricula to meet the need of general education teachers. It will also help school districts determine how to best support teachers in the classroom.

The findings of this study indicated that teachers mainly hold positive attitudes toward students with disabilities. It can be implied that teachers' positive attitude will lead to significant change in the education of students with disabilities. Although none of the prediction models were statistically significant (except the age variable in the bivariate linear regression), selected variables somehow influenced the teachers' attitudes toward students with disabilities.

The current study did not inform or instruct participants about specific disabilities, and they asked to answer survey questions without any bias toward any category of disability. It is likely that teachers answered questions based on what they thought and believed fair for the students with disabilities. If they were instructed toward one specific disability category their answers would have been different and therefore their scores would be different. Another study can be conducted for specific group of disabilities.

In the current study, schools were selected from the state of Alabama, the study can be replicated with a larger group of participants and in a different region. Also teachers can be categorized in terms how many students with disabilities have in their classrooms. The training category can be also specified with specific trainings such as in-service training or college course that they took, or even self-education from different

sources such as books, internet, etc. This might give us important information about how to increase positive teacher attitudes toward students with disabilities and its relation to specific kinds of trainings.

Summary

The focus of this study was to explore teachers' attitudes in a large school district in southeastern United States. The results of this study showed that gender, age, years of experience, grade level taught, extent of contact with individuals with disabilities, whether or not teachers had received any training related to teaching students with disabilities, and teachers' perceptions toward their own level of expertise were not significant predictors of the teachers' attitudes toward students with disabilities except the age variable by itself. In terms of the exploration of the mean scores of the specific categories, it is found that older teachers comparing to younger ones, female teachers in comparison to male teachers, and teachers' who received training in comparison to one's who did not receive any training hold more positive attitudes toward students with disabilities.

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APPENDIX A

IRB Approval Letter from Auburn University

Office of Research Compliance
115 Ramsay Hall, basement
Auburn University, AL 36849



Telephone: 334-844-5966
Fax: 334-844-4391
IRBadmin@auburn.edu
IRBsubmit@auburn.edu

May 6, 2014

MEMORANDUM TO: Bekir Celik
Department of Educational Foundations, Leadership, and Technology

PROTOCOL TITLE: "Attitudes of Secondary-Level Teachers toward Students with Disabilities "

IRB FILE NO.: 14-167 EX 1404

APPROVAL DATE: April 24, 2014
EXPIRATION DATE: April 23, 2017

The referenced protocol was approved "Exempt" by the IRB under its FederalWide Assurance, number 0001104, and per 45 CFR 46.101 (b) (2):

- (2) "Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless:
- (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and
 - (ii) any disclosure of the human subjects' response outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation."

Note the following:

1. CONSENTS AND/OR INFORMATION LETTERS: Only use documents that have been approved by the IRB with an approval stamp or approval information added.
2. RECORDS: Keep this and all protocol approval documents in your files. Please reference the complete protocol number in any correspondence.
3. MODIFICATIONS: You must request approval of any changes to your protocol before implementation. Some changes may affect the assigned review category.
4. RENEWAL: Your protocol will expire in three (3) years. Submit a renewal a month before expiration. If your protocol expires and is administratively closed, you will have to submit a new protocol.
5. STUDY COMPLETION: When your study is complete, please notify the Office of Research Compliance via e-mail. (A final report is not needed for Exempt protocols.)

If you have any questions concerning this Board action, please contact the Office of Research Compliance.

Sincerely,



Christopher Correia, Ph.D.
Chair of the Institutional Review Board #1
for the Use of Human Subjects in Research

cc: Dr. Sherida Downer
Dr. Marie Kraska

APPENDIX B

Letter of Permission to use “A Survey of Teacher Attitudes Relative to Serving Students
with Disabilities”

From: Marie Kraska KRASKMF@auburn.edu
Subject: RE: Survey of Teacher Attitudes Relative to Serving Students with Disabilities
Date: February 26, 2014 at 10:45 PM
To: Bekir Celik bzc0012@tigermail.auburn.edu

Bekir,

Certainly, you have my permission to use "A Survey of Faculty Attitudes Relative to Serving Students with Disabilities" for your doctoral research. Also, you may use the word, "teacher" instead of "faculty" in the survey.

Dr. Kraska

Marie Kraska, Ph.D., M. C. Fraley Distinguished Professor, Research and Statistics
Dept. of Educ. Found., Leadership, & Tech.
4064 Haley Center
Auburn University, AL 36849-5512

From: Bekir Celik [bzc0012@tigermail.auburn.edu]
Sent: Wednesday, February 26, 2014 2:10 PM
To: Marie Kraska
Subject: Survey of Teacher Attitudes Relative to Serving Students with Disabilities

Dear Dr. Kraska,

I am conducting my dissertation on general school teacher attitudes toward students with disabilities. I would like to use your survey called "A Survey of Faculty Attitudes Relative to Serving Students with Disabilities" with your permission. May I please use the word "teacher" instead of "faculty"?

Thank you,

Bekir Celik
Educational Psychology, Ph.D. Candidate
Auburn University
bzc0012@auburn.edu

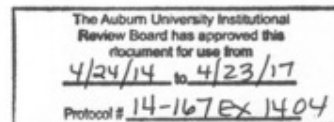
APPENDIX C

Information Letter to Participants

Auburn University
Auburn University, Alabama 36849-5221

Educational Foundations
Leadership and Technology
4036 Haley Center

Phone: (334) 844-4460
Fax: (334) 844-3072



(NOTE: DO NOT AGREE TO PARTICIPATE UNLESS AN IRB APPROVAL STAMP WITH CURRENT DATES HAS BEEN APPLIED TO THIS DOCUMENT.)

INFORMATION LETTER
for a Research Study entitled

"Attitudes of Elementary-Level and Secondary-Level Teachers toward Students with Disabilities"

You are invited to participate in a research study to investigate attitudes of teachers toward students with disabilities. The study is being conducted by Bekir Celik, doctoral student, under the direction of Dr. Marie Kraska in the Auburn University Department of Educational Foundations, Leadership and Technology. You were selected as a possible participant because you are a teacher either in the elementary-level school or secondary-level school and are age 19 or older.

If you decide to participate in this research study, you will be asked to complete a demographic questionnaire, and the 30-item "A Survey of Teacher Attitudes Relative to Serving Students with Disabilities" survey form. Your total time commitment will be approximately 10 to 15 minutes. Once completed, please place the questionnaire and survey in the provided envelope and return it.

There are no foreseeable risks involved with this study. The benefits which may reasonably be expected to result from this study is utilizing the data from your results to understand the effects of personal traits and professional characteristics on attitudes toward students with disabilities.

If you change your mind about participating, you can withdraw at any time during the study. Your participation is completely voluntary. If you choose to withdraw, your data can be withdrawn as long as it is identifiable. Your decision about whether or not to participate or to stop participating will not jeopardize your future relations with Auburn University or its Department of Educational Foundations, Leadership and Technology or your school.

Any data obtained in connection with this study will remain anonymous. Information obtained through your participation may be used to fulfill the educational requirements for the Doctoral Degree in Educational Foundations, Leadership and Technology, and for publication in professional journals, and presented at a professional meetings, etc.

Auburn University

Auburn University, Alabama 36849-5221

Educational Foundations
Leadership and Technology
4036 Haley Center

Phone: (334) 844-4460
Fax: (334) 844-3072

If you have questions about this study, please contact Bekir Celik at bzc0012@auburn.edu or Dr. Marie Kraska at kraskmf@auburn.edu.

If you have questions about your rights as a research participant, you may contact the Auburn University Office of Research Compliance or the Institutional Review Board by phone (334)-844-5966 or e-mail at IRBAdmin@auburn.edu or IRBChair@auburn.edu.

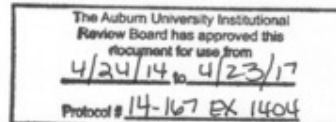
HAVING READ THE INFORMATION PROVIDED, YOU MUST DECIDE IF YOU WANT TO PARTICIPATE IN THIS RESEARCH PROJECT. IF YOU DECIDE TO PARTICIPATE, THE DATA YOU PROVIDE WILL SERVE AS YOUR AGREEMENT TO DO SO. THIS LETTER IS YOURS TO KEEP.


Investigator's signature

4-21-14

Date

Bekir Celik
Print Name



APPENDIX D

Demographic Questions for Participants

Demographic Questions for Teacher Attitudes of Students with Disabilities

1. Please indicate your gender.
 Male Female

2. Which range includes your age?
 20 – 24 45 – 49
 25 – 29 50 – 54
 30 – 34 55 – 59
 35 – 39 60 – 64
 40 – 44 65 or older

3. How many years of experience do you have in the education field?
 0 - 5 16 - 20
 6 - 10 21 - 25
 11 - 15 26 and more

4. What grade level do you teach?
 Kindergarten 7 - 9
 1 - 3 10 – 12
 4 - 6

5. How much of your free time do you spend with people with disabilities?
 Almost all Little
 Most Almost none
 Some None

6. Have you ever received training for teaching students with disabilities?
 Yes No

7. How do you perceive your level of expertise related to serving individuals with disabilities?
 None Adequate
 Minimal High

APPENDIX E

A Survey of Teacher Attitudes Relative to Serving Students with Disabilities

A Survey of Teacher Attitudes Relative to Serving Students with Disabilities

Marie Kraska

Copyright 1998

Directions: Please circle the letter that best describes your agreement or disagreement with the following statements. There are no correct answers. The best responses are those that reflect your honest attitudes. Thank you for your participation.

Use the following scale for your responses.

SA = Strongly agree A = Agree U = Undecided D = Disagree SD = Strongly Disagree

SA A U D SD	1. Many of the things teachers do with regular students in a classroom are appropriate for students with disabilities.
SA A U D SD	2. The needs of students with disabilities can be best served through special, separate programs.
SA A U D SD	3. Classroom behavior of students with disabilities generally requires more patience from teachers than does the behavior of students without disabilities.
SA A U D SD	4. The challenge of being in a regular classroom will promote the academic growth of students with disabilities.
SA A U D SD	5. The extra attention students with disabilities require will be to the detriment of the other students.
SA A U D SD	6. Accommodation offers mixed group interaction which will foster understanding and acceptance of differences.
SA A U D SD	7. It is difficult to maintain order in a class that includes students with disabilities.
SA A U D SD	8. Teachers possess a great deal of expertise necessary to work with students with disabilities.
SA A U D SD	9. The behavior of students with disabilities will set a bad example for other students.
SA A U D SD	10. Isolation in a class has a negative effect on the social and emotional development of students with disabilities.
SA A U D SD	11. Students with disabilities will probably develop academic skills more rapidly in a separate program than in a regular classroom.
SA A U D SD	12. Most students with disabilities do not make an adequate attempt to complete their assignments.

SA	A	U	D	SD	13. Inclusion of students with disabilities will require significant changes in classroom procedures.
SA	A	U	D	SD	14. Most students with disabilities are well-behaved in the classroom.
SA	A	U	D	SD	15. The contact other students have with students with disabilities may be harmful to those without disabilities.
SA	A	U	D	SD	16. Classroom teachers have sufficient training to teach students with disabilities.
SA	A	U	D	SD	17. Students with disabilities will monopolize teacher time.
SA	A	U	D	SD	18. Accommodations for students with disabilities will promote their social independence.
SA	A	U	D	SD	19. It is likely that a student with a disability will exhibit behavior problems in the classroom setting.
SA	A	U	D	SD	20. Diagnostic-prescriptive teaching is better done in special programs by tutors than by regular classroom teachers.
SA	A	U	D	SD	21. The inclusion of students with disabilities can be beneficial for all other students.
SA	A	U	D	SD	22. Students with disabilities need to be told exactly what to do and how to do it.
SA	A	U	D	SD	23. Accommodations are likely to have a negative effect on the emotional development of students with disabilities.
SA	A	U	D	SD	24. Increased freedom in the classroom creates too much confusion.
SA	A	U	D	SD	25. Students with disabilities will be socially isolated by other students.
SA	A	U	D	SD	26. Parents of students with disabilities present no greater problem for teachers than parents of students without disabilities.
SA	A	U	D	SD	27. Inclusion of students with disabilities will necessitate extensive retraining of teachers.
SA	A	U	D	SD	28. Students with disabilities should be given every opportunity to function in an included classroom setting when possible.
SA	A	U	D	SD	29. Students with disabilities are likely to create confusion in the classroom.
SA	A	U	D	SD	30. The presence of students with disabilities will promote acceptance of differences on the part of other students.

APPENDIX F

Letter of Permission to Collect Data at Phenix City High School

RE: Permission to Collect Data at Phenix City High School

Coleman, Lisa [lcoleman@pcboe.net]

Sent: Monday, April 21, 2014 1:20 PM

To: Marie Kraska

Cc: Vickers, Thomas [tvickers@pcboe.net]; Johns, Lara Beth [lbjohns@pcboe.net]; Coleman, Lisa [lcoleman@pcboe.net]; Hinton, Rod [rhinton@pcboe.net]

Hello Dr. Kraska,

I have received this request and I will be able to approve this data collection opportunity in Phenix City Schools. The site for the data collection is Central High School in Phenix City, Alabama. Central High School serves grades 10-12, it has a student population of 1400 and 85 certified staff members. The window of the data collection is May 5, 2014- May 16, 2014 and the method of collection is a paper survey. The survey distribution will be facilitated by Mr. Thomas Vickers, Principal of Central High School, or his designee. Mr. Vickers and I look forward to receiving a copy of the results from your study. If you should need any other assistance, please do not hesitate to contact me.

"It is easier to build strong children than to repair broken men." Frederick Douglass

Lisa B. Coleman

Director of Curriculum/Instruction & Federal Programs
1212 Ninth Avenue
P.O. Box 460
Phenix City, Alabama 36868
Office - 334-298-0534 Ext. 145
Fax - 334-298-6690

From: Marie Kraska [mailto:KRASKMF@auburn.edu]

Sent: Monday, April 21, 2014 1:57 PM

To: Coleman, Lisa

Subject: Permission to Collect Data at Phenix City High School

Good afternoon, Ms. Coleman,

I am requesting permission for my student, Bekir Celik, to collect data from teachers at a high school under your supervision (Central High School) in Phenix City, AL.

The data are to be used for his doctoral research. We have two instruments: one is a brief demographic questionnaire and the other is a brief inventory related to teacher perceptions of individuals with disabilities. Both instruments should take no longer than approximately 15 minutes.

Collecting information on teacher perceptions related to students with disabilities is important in helping us to better plan curriculum and courses at the university. Also, such information is useful for teacher in-service programs.

We have the packets ready to go. Each packet has a demographic form, an inventory, and an information letter to potential participants.

Participation by your teachers will be completely voluntary and anonymous. Only aggregated

<https://cas.auburn.edu/owa/?ae=Item&t=IPM.Note&id=RgAAAAAVLqXWYM%2fLQat6hbFMt...> 4/21/2014

data will be reported.

Ms. Coleman, if you will allow us the opportunity to collect the data, we will be happy to provide a copy of the results of the study to you. Also, we are very appreciative of your support in this endeavor.

Would it be possible for you to designate a school representative to distribute and collect the packets. No personal identification information is on any of the packets or contents.

I will get the packets to you asap I get your response to my email and we get IRB approval at Auburn University.

Thank you very much for your consideration.

Your response to this email will serve as an approval that we can use for the Internal Review Board protocol at Auburn University. If you can give me a **window of time** that is best to collect the data, that would be wonderful.

Many thanks. Your support is much appreciated.

Dr. Kraska on behalf of Bekir Celik, doctoral candidate

Marie Kraska, Ph.D., M. C. Fraley Distinguished Professor, Research and Statistics
Dept. of Educ. Found., Leadership, & Tech.
4064 Haley Center
Auburn University, AL 36849-5512

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APPENDIX G

Letter of Permission to Collect Data at Loachapoka Elementary School

RE: Collecting data at Loachapoka School

Marie Kraska

Sent: Friday, April 18, 2014 12:13 PM

To: Cox, Stan [Cox.Stan@lee.k12.al.us]

Thanks Mr. Cox,

I appreciate your positive response to my email.

Dr. Kraska

Marie Kraska, Ph.D., M. C. Fraley Distinguished Professor, Research and Statistics
Dept. of Educ. Found., Leadership, & Tech.

4064 Haley Center
Auburn University, AL 36849-5512

From: Cox, Stan [Cox.Stan@lee.k12.al.us]

Sent: Friday, April 18, 2014 12:10 PM

To: Marie Kraska; Ellen Reames

Subject: RE: Collecting data at Loachapoka School

Yes, I granted permission for Dr. Reames to deliver survey packets that include a short demographic data sheet, a short survey instrument and an information letter to teachers in Loachapoka Elementary School.

Thank you,

Stan Cox

Stan Cox, Ed.D.

Assistant Superintendent

Lee County Schools

2410 Society Hill Road

Opelika, AL 36804

334-705-6000 – Voice

334-745-9795 – Fax

From: Marie Kraska [mailto:KRASKMF@auburn.edu]

Sent: Thursday, April 17, 2014 10:40 AM

To: Cox, Stan

Subject: Collecting data at Loachapoka School

Hello Mr. Cox,

This email is to confirm that you have granted permission for Dr. Reames to deliver

<https://cas.auburn.edu/owa/?ae=Item&t=IPM.Note&id=RgAAAAAVLqXWYM%2fLQat6...> 4/18/2014

survey packets, which include a short demographic data sheet, a short survey instrument, and an Information Letter to teachers in Loachapoka. In turn, the packets will be distributed by you as a designated individual and once completed, Dr. Reames will pick up the completed packets.

The survey instrument asks questions about teacher perceptions of students with disabilities. Such information will be helpful to us in curriculum and program planning. My student, Bekir Celik, who is a doctoral candidate will use results of the survey for his doctoral research.

All information collected from teachers will be anonymous and only aggregated data will be analyzed and reported. Teacher participation is totally voluntary. The only thing I ask is that all who receive a packet, return one, whether or not they choose to participate in the study. No identifying information will be on any of the packets.

Also, I understand that we may collect the data between April 20 (which is impossible since I must get IRB approval first) up to May 31.

Mr. Cox, your support of this research and cooperation in helping us to obtain the data we need is much appreciated. Thank you very much for your time. I need a reply from you (even a brief one) so that I can assure the IRB of the proper procedures that I have written here and answer any questions you may have.

This email and your reply are simply to spell out in detail the study and to make it easier for the IRB to access that you are giving permission.

Thank you most kindly.

Marie Kraska

Marie Kraska, Ph.D., M. C. Fraley Distinguished Professor, Research and Statistics
Dept. of Educ. Found., Leadership, & Tech.
4064 Haley Center
Auburn University, AL 36849-5512