

SECONDARY EDUCATION TEACHERS' PERCEPTIONS RELATED TO THEIR  
KNOWLEDGE AND EFFECTIVENESS OF ACCOMMODATIONS FOR  
STUDENTS WITH MILD DISABILITIES

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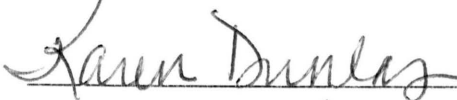
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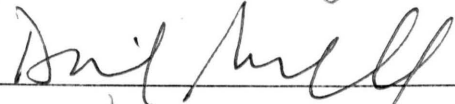
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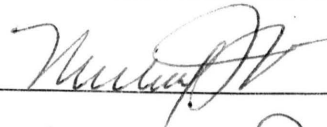
  
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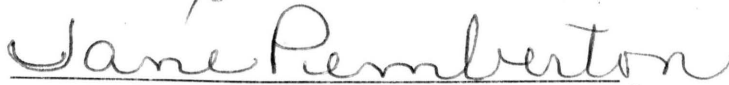
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## DEDICATION

To my husband, William Davis, thank you for your encouragement to begin this journey and your love and support throughout.

To my son, Neal Davis, thank you for the hugs, shoulder messages, and belief in me.

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Although they must remain anonymous, I want to express my deepest appreciation to the teachers who completed my survey and to district administrators and teachers alike for encouraging my work. Likewise, I would like to thank my fellow doctoral students and close friends, who lifted me up and gave me the strength to complete this journey.

## ABSTRACT

JULIE E. DAVIS

### SECONDARY EDUCATION TEACHERS' PERCEPTIONS RELATED TO THEIR KNOWLEDGE AND EFFECTIVENESS OF ACCOMMODATIONS FOR STUDENTS WITH MILD DISABILITIES

MAY 2011

The purpose of this study was to determine secondary general education teachers' (grades 9-12) perceived level of knowledge of testing accommodations and practices relative to the effectiveness of accommodations for students with mild disabilities. The survey instrument used in the study was researcher developed. Content validity was established through a factor analysis. Then, internal consistency was established through Cronbach's alpha coefficient. The results of the following four research questions were discussed:

1. What is the perceived level of knowledge of testing accommodations by secondary general education teachers for students with mild disabilities?
2. What are the perceived practices relative to the effectiveness of accommodations by secondary education teachers for students with mild disabilities?
3. Do secondary general education teachers' perceive that accommodations "level the playing field" for students with mild disabilities?
4. What do secondary general education teachers' perceive are barriers to implementing accommodations for students with mild disabilities?

The participant population for this study consisted of 60 core/content area secondary general education teachers who teach grades nine through twelve in one non-comprehensive high school and three comprehensive high schools from one metropolitan school district in North Central Texas.

The study consisted of a survey methodology to provide descriptive data on secondary general education teachers' perceived level of knowledge of testing accommodations and practices relative to the effectiveness of accommodations for students with mild disabilities using a non-experimental research design. The first two questions were answered by descriptive analysis. Qualitative methodology was chosen for research questions three and four to look for themes in reference to secondary general education teachers' perception as to if accommodations "level the playing field" and perceived barriers to implementing accommodations for students with mild disabilities.

Several important findings regarding secondary general education teachers' perceived level of knowledge of testing accommodations and practices relative to the effectiveness of accommodations for students with mild disabilities were revealed. In addition, findings regarding secondary general education teachers' perception as to if accommodations "level the playing field" and perceived barriers to implementing accommodations for students with mild disabilities were unveiled.

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## CHAPTER I

### INTRODUCTION

For more than a decade, special education has shifted from a focus on procedural compliance to a focus on results within the overall educational accountability system (Shriner & Ganguly, 2010). Two federal laws, the No Child Left Behind (NCLB) Act 2002 and the Individuals with Disabilities Education Improvement Act 2004 (IDEIA), have contributed to this shift and to the implementation of accommodations in the general education setting to promote access to the general education curriculum for students with disabilities. Educators must acknowledge that the key to success for some students is to identify and implement appropriate accommodations, especially for students with disabilities.

The original enactment of Individuals with Disabilities Education Act (IDEA) known as Public Law 94-142, the Education for All Handicapped Children Act (PL 94-142; 1975), sought to change the standards for educating all students with disabilities by requiring states to ensure that public schools provide a free, appropriate, public education for students with disabilities in the least restrictive environment (Sack, 2000). The 1997 reauthorization of Individuals with Disabilities Education Act shifted the main focus from access to quality and required that every Individualized Education Plan (IEP) include how the student will progress in the general education curriculum and meet the same high standards available to non-disabled peers (Soukup, Wehmeyer, Bashinski &

Bovaird, 2007). Students with disabilities were also required to be included in all national, state, and local assessments, with appropriate allowable accommodations on state and district assessments (Sack, 2000; Elliott, 2003). With IDEIA (2004) came greater clarification for integrating students with disabilities into the general education curriculum. Soukup, Wehmeyer, Bashinski, and Bovaird (2007) noted that IDEIA (2004) requires that the “IEPs of all students receiving special education services...identify specific accommodations and curriculum modification to ensure student involvement with and progress in the general education curriculum” (p. 101).

Providing education for students with disabilities in the general education classroom has also been implicated in the NCLB, formerly known as the Elementary and Secondary Education Act (ESEA) originally passed in 1965. NCLB built on the requirements originally established by the IDEA by adding increased accountability for student outcomes. With the influence of NCLB accountability requirements, schools, local education agencies (LEA) and states are held accountable for improving academic performance of all students including children with disabilities (U. S. Department of Education, 2004; Simpson, LaCava, & Graner, 2004).

NCLB drastically extends the contingencies of high-stakes assessments by creating brawny rewards and punishments based on students’ performance. Under NCLB, schools that perform well may receive public recognition (i.e. school ratings), as well as, financial rewards. However, schools that perform poorly could receive sanctions, such as loss of financial rewards, and be subject to state takeover (Simpson, LaCava, & Graner, 2004). The state of Texas is not exempt from the NCLB mandate.

While general education teachers are in a vital position for expanding opportunities for students with disabilities, they are nevertheless challenged by the stringent demands of increased accountability for student outcomes by both IDEIA (2004) and NCLB. In response, consideration must be given to how accommodations can be made available for students with mild disabilities served in the general education classroom. In order to effectively implement accommodations, general education teachers must have knowledge of accommodations and routinely implement accommodations in the general education setting to help students with disabilities find success both within grade-level curriculum and on high-stakes achievement testing.

As federal and state educational accountability continues to increase in emphasis, high-stakes achievement testing continues to be mandated for all students. Students appropriately qualifying as special education students are permitted to use testing accommodations (Lang, Elliott, Bolt, & Kratochwill, 2008). Due to their potential to positively or negatively impact the accountability system ratings, including students with disabilities in both academic standards and accountability systems is one of the key challenges facing school districts (Shriner & Ganguly, 2010).

A state's academic content standards guide the instruction of all students – formerly utilized separate content standards for students with disabilities are no longer allowable (U.S. Department of Education, 2004). While state content standards are a guide for all students, states may have differentiated sets of academic achievement standards within each content area. As noted by Shriner and Ganguly (2010), five assessment options are possible under NCLB and IDEIA (2004). The five options are:

(a) general assessment based on grade-level academic achievement standards, no accommodations; (b) general assessment, with accommodations based on academic achievement standards; (c) alternate assessment based on grade-level academic achievement standards; (d) alternate assessment based on modified academic achievement standards; and (e) alternate assessment based on alternate academic achievement standards (Shriner & Ganguly, 2010, p. 233).

Testing accommodations are defined by Lang, Elliott, Bolt, and Kratochwill (2008) as "...changes made to the administration of standardized tests to provide students with disabilities the opportunity to demonstrate their knowledge and understanding of constructs measured by the test without the interference of their disability" (p. 108). Testing accommodations are not the skills targeted for measurement by the test; instead, they are strategies intended to influence positively the student's ability to perform successfully on the test (Elliott, Braden, & White, 2001). Accommodations take various forms, including but not limited to changes in setting, test presentation, response format, and timing (Lang, Elliott, Bolt, & Kratochwill, 2008).

According to Phillips (1994), the purpose of valid testing accommodations is to provide differential increases for students with disabilities; in other words, appropriate testing accommodations should boost test scores when used by students with disabilities but little to no effect for students without disabilities (Lang, Elliott, Bolt, & Kratochwill, 2008). Today's general education teachers are charged with balancing the instructional needs of all students with today's accountability system (Shriner & Ganguly, 2010). General education teachers' perceived knowledge of testing accommodations and their

effective implementation of accommodations for students with disabilities are important components of the consequential validity of the use of accommodations.

### **Statement of Problem**

All teachers in our nation's classrooms are given the great responsibility of educating children from both varying backgrounds and different area(s) of academic strengths and weaknesses. Despite these differences, teachers are expected to ensure all children have a fair, equal opportunity to obtain a high-quality education which entails meeting a minimum proficiency on both state academic standards and state academic assessments. Through the implementation of NCLB, schools, local education agencies, and states are held accountable for improving the academic performance of all students including children with disabilities (U. S. Department of Education, 2004). As accountability measures increase, states put systems in place to level the playing field for students. For example, Texas allows specifically identified and qualified special education students to use Texas Education Agency (TEA) approved accommodations in high stakes testing situations only if the accommodations were accepted by the student's IEP team and used routinely by student in his/her classes. Therefore, general education teachers' knowledge of testing accommodations and effective implementation of accommodations is critical in ensuring all students find academic success.

### **Purpose of Study**

As special education continues to shift from a focus on procedural compliance to a focus on results with both state academic standards and state academic assessments, the key for success for students with mild disabilities in the general education setting, as well

as on high-stakes testing, is the implementation of appropriate accommodations. All students are required by federal and state legislation to participate in high-stakes testing to measure academic growth. In Texas, students in grades 3 through 11 take state academic assessments to measure their mastery of the state academic standards. Students who are served by special education are provided the opportunity to use TEA approved testing accommodations on high stakes testing provided the student's IEP team accepted accommodations are used routinely by the student during class time. As students with special needs are infused into the general education setting, it is an assumption that secondary general education teachers have both the knowledge of accommodations and know how to measure the effectiveness of those accommodations for students with mild disabilities in their classes. Therefore, the purpose of this study was to determine secondary general education teachers' (grades 9-12) perceived level of knowledge of testing accommodations and practices relative to the effectiveness of accommodations for students with mild disabilities.

### **Terms**

Accommodations – as defined by the Texas Education Agency accommodations are “changes to materials or procedures that provide equitable access to grade-level curriculum during instruction and testing. These changes do not substantially alter the content or performance criteria of assignments or assessments” (Texas Education Agency, 2010, p. 13).

General Secondary Education Teachers – certified personnel working with students in grade 9, 10, 11, and 12

Mild Disabilities – students who are served by special education with eligibility in areas such as learning disability (LD), emotional disturbance (ED), other health impairment (OHI), and a mild form of autism (AU) and have the ability to make academic gains through general education instruction

Special Education – means “specially designed instruction, at no cost to parents, to meet the unique needs of a child with a disability ...” (U. S. Department of Education, 2004)

Teacher(s) – refers to certified general education teachers unless otherwise specified

Testing Accommodations – “changes made to the administration of standardized tests to provide students with disabilities the opportunity to demonstrate their knowledge and understanding of constructs measured by the test without the interference of their disability” (Lang, Elliott, Bolt, & Kratochwill, 2008, p. 108)

### **Research Questions**

1. What is the perceived level of knowledge of testing accommodations by secondary general education teachers for students with mild disabilities?
2. What are the perceived practices relative to the effectiveness of accommodations by secondary general education teachers for students with mild disabilities?
3. Do secondary general education teachers’ perceive that accommodations “level the playing field” for students with mild disabilities?
4. What do secondary general education teachers’ perceive are barriers to implementing accommodations for students with mild disabilities?

## CHAPTER II

### REVIEW OF LITERATURE

The review of literature that frames this study is focused on accommodations provided for students with mild disabilities in the general education classroom and on high-stakes achievement testing. In addition, the effectiveness of accommodations and teachers' practices relative to the effectiveness of accommodations for students with mild disabilities will be discussed. In accordance with federal legislation, each state must determine appropriate accommodation guidelines for students with disabilities to ensure access to general education curriculum and participation in state and district assessments (Sack, 2000; Elliot, 2003). The purpose of this review is to examine current literature (1997 – present) supporting accommodations in the context of the general education classroom and statewide assessments and teachers' practices relative to the effectiveness of accommodations for students with mild disabilities. To complete this review of literature, the Texas Woman's University Search Database was utilized to search multiple educational databases. In addition, the internet was searched for related topics such as No Child Left Behind Act 2002 (NCLB), Individuals with Disabilities Education Improvement Act 2004 (IDEIA), and accommodations for students with disabilities.

The key to success for some students with mild disabilities in the general education setting, as well as high-stakes achievement testing, is the implementation of accommodations to promote access to the general curriculum. In order to effectively



implement accommodations, general education teachers must have knowledge of accommodations routinely implemented in the general education setting to help students with disabilities find success both on grade-level curriculum assignments and high-stakes achievement tests. Research, however, notes that “many educators have limited experience in planning and using testing accommodations for state and/or district testing” (Schulte, Elliott, & Kratochwill, 2000, p. 35).

### **Accommodations Defined**

Accommodations are defined by the Texas Education Agency as “changes to materials or procedures that provide equitable access to grade-level curriculum during instruction and testing. These changes do not substantially alter the content or performance criteria of assignments or assessments” (Texas Education Agency, 2010, p. 13). Testing accommodations are defined by Lang, Elliott, Bolt, and Kratochwill (2008) as “...changes made to the administration of standardized tests to provide students with disabilities the opportunity to demonstrate their knowledge and understanding of constructs measured by the test without the interference of their disability” (p. 108). Testing accommodations are not the skills targeted for measurement by the test; instead, testing accommodations are intended to influence the skills needed to access a test (Elliott, Braden, & White, 2001) and take various forms, including but not limited to changes in setting, test presentation, response format, and timing (Lang, Elliott, Bolt, & Kratochwill, 2008).

The IDEIA (2004) requires that the Individualized Educational Program (IEP) team address accommodations dealing with both classroom and testing for students with

disabilities to address individual differences. Each state department is responsible for providing guidelines to create consistency in the use of test accommodations (Zenisky & Sierce, 2007). Possible testing accommodations in one southwestern state are broken into four categories: presentation accommodations, response accommodations, setting accommodations, and time and scheduling accommodations.

Presentation accommodations refer to changes in the way test questions and directions are presented to the students (Elbaum, 2007) which allow students to access information in alternate formats other than regular print (Texas Education Agency, 2010). These types of accommodations include but are not limited to (a) use of colored overlay, (b) use of blank place markers, (c) student read aloud during testing, (d) oral administration, and (e) use of an amplification device.

Response accommodations refer to changes in the way students respond to test items or determine their answers (Cox, Herner, Demezyk, & Nieberding, 2006) which allow students to complete activities, assignments, and assessments using methods other than paper-and-pencil or machine-scorable responses (Texas Education Agency, 2010). Accommodations of this type include but are not limited to (a) use of a scribe, (b) use of supplemental aides, and (c) use of blank graphic organizers.

Both setting and time and scheduling accommodations are alternatives to where, when, and with whom the student takes the test (Elliott & Marquart, 2004). The 2010-2011 Accommodations Manual denotes differences. Setting accommodations are changes in location in which a test or assignment is given or the conditions of the assessment setting. Setting accommodations include but are not limited to (a)

minimizing external and/or internal distractions and (b) individual administration. Time and scheduling accommodations increase the standard length of time to complete an assignment or assessment or possibly change the way the time is organized.

Accommodations of this type include but are not limited to (a) testing over two days, (b) frequent or extended breaks, and (c) visual, verbal, or tactile reminders to stay on task (Texas Education Agency, 2010).

### **Effectiveness of Accommodations**

Findings from various studies indicated testing accommodations overall had a positive impact on students with disabilities' test scores when compared to students without disabilities (Lang, Elliott, Bolt, & Kratochwill, 2008; Schulte, Elliott, & Kratochwill, 2001; Kosciulek & Ysseldyke, 2000; Ofiesh, 1997). However, some studies indicated that certain testing accommodations have no significant boost for students with or without disabilities (Elliott & Marquart, 2004).

Elliott and Marquart (2004) examined the effects of an extended time testing accommodation on the performance of ninety-seven eighth graders. The participants included students with disabilities (n=23), students identified as educationally at risk in mathematics (n=23), and students without disabilities (n=51). The students with disabilities who received special education services were students with mild learning disabilities, emotional disabilities, behavioral disabilities, mild physical disabilities, speech and language disabilities, and mild cognitive disabilities with noted deficits in math. Both standardized mathematics tests (TerraNova) and researcher developed mathematics tests were used. The findings indicated little evidence supporting the use of

extended time as an accommodation on standardized math tests. Both groups of students with and without disabilities achieved highly similar levels of performance under standard time and extended time testing conditions. Overall, extended time did not significantly improve scores of students with disabilities on math tests (Elliott & Marquart, 2004).

However, these findings are contradictory to the findings of Ofiesh (1997), who reported extended time as an accommodation has shown to have a differential boost in the performance of college students with disabilities compared to college students without disabilities. In this study, the participants included sixty college students – 30 students with learning disabilities (LD) and 30 students without learning disabilities (NLD). The Nelson Denny Reading test was administered in both timed and untimed conditions. The results indicated college students with learning disabilities performed significantly lower on processing speed tests, and when compared to college students without disabilities, college students with learning disabilities demonstrated a greater benefit from the extended time condition. The researcher noted the following implication: “In the context of an information processing model, the findings of this study demonstrate that students with LD do seem to process information differently than their NLD peers despite average to above average intelligence” (Ofiesh, 1997, p. 55).

Bolt and Thurlow (2007) examined the effects of the read-aloud accommodation for students considering both the reading and math complexity of the items. The overall intent of this study was to “identify whether the read-aloud accommodation had the intended effect of eliminating extraneous sources of reading difficulty for students with

reading disabilities on math tests” (Bolt & Thurlow, 2007, p. 24). Data was collected and analyzed from three consecutive annual administrations of the math section of a statewide assessment program for fourth- and eighth-graders. The primary analysis included performance data on special education students whose primary area of concern was reading. The authors noted it was possible that students who had additional disabilities and other areas of academic concern. The researchers investigated the effects of the read-aloud accommodation on two groups: (a) read-aloud (R-A) and (b) no read-aloud (NR-A). The R-A students consisted of 1,406 fourth-graders and 1,878 eighth-graders. These students may have also received the accommodation of small-group and/or extended-time. The NR-A students consisted of 431 fourth-graders and 720 eighth-graders. While this group did not receive the read-aloud accommodation, they may have received small-group/individual administration and/or timing accommodations. Findings differed for fourth- and eighth-graders. Results of the fourth-grade analysis indicated the read-aloud accommodation assisted students with reading disabilities to access math content, with greater effects on math items considered mathematically easy. Results of the eighth-grade analysis indicated a negative effect. Eighth grade students with reading disabilities performed lower when receiving the read-aloud accommodation. Various possible reasons for differences were noted, such as students who received read-aloud accommodations may have struggled across a variety of academic areas or may not have had access to accommodations during math instruction (Bolt & Thurlow, 2007).

Kosciolek and Ysseldyke (2000) examined the appropriateness of providing testing accommodations to students with disabilities on norm-referenced, standardized

high-stakes tests with a focus on reading accommodations. The participants were thirty-one students in grades third through fifth - seventeen general education and fourteen special education students. Two equivalent forms for the California Achievement Tests were administered to each student with the read aloud accommodation. One form was administered with the accommodation while the other form was administered without the accommodation. For the general education students, the effect of the accommodation was small ( $d=0.10$ ,  $p=0.69$ ) while the special education group was more sizeable and close to statistical significance ( $d=0.56$ ,  $p=0.06$ ) (Kosciolek & Ysseldyke, 2000).

Lang, Elliott, Bolt, and Kratochwill (2008) examined the effects of testing accommodations on students' test performance and reactions to the use of testing accommodations on widely used math and reading tests. The authors used the TerraNova Multiple Assessment Battery, which included two math and two reading subtests. There were 170 participants in fourth- ( $n=102$ ) and eighth-grade ( $n=68$ ), with and without disabilities. Out of the 102 fourth-graders, forty-three were students with disabilities, thirty-two of which were identified with a learning disability. For the sixty-eight eighth-graders, thirty-two were identified with a disability, twenty-five of which were identified with a learning disability. The findings indicated testing accommodations had an overall positive impact on students' individual scores for both math and reading regardless of the disability status. Testing accommodation had a larger effect on reading scores for students with disabilities in comparison to students without disabilities. Overall, testing accommodations had a greater impact for students with disabilities when compared to students without disabilities (Lang, Elliott, Bolt, & Kratochwill, 2008).

Elbaum (2007) examined the effects of an oral testing accommodation on the performance of students with and without learning disabilities on a mathematics test. The mathematics assessment instrument consisted of sixty items drawn from a variety of practice materials for the statewide assessment test that were not in use by the participating schools. The sixty items were piloted with groups of elementary, middle, and high school students with learning disabilities who were not part of this study to order items by level of difficulty. After ranking items, each item was alternately assigned to one of two test forms (Forms A and B). Participants consisted of 643 students in grades six through ten attending three public middle schools and three public high schools in a large, metropolitan school district in the southeastern United States. Out of the 643 students, 391 were boys identified as students with learning disabilities. Results revealed that elementary students with learning disabilities yielded greater gains when provided oral administration on a mathematics test than elementary students without learning disabilities. For secondary students, the converse was true (Elbaum, 2007).

Schulte, Elliott, and Kratochwill (2001) found testing accommodation had a positive effect on students with mild disabilities performance in the area of mathematics. This study focused on the effect of testing accommodations on students' test scores on equivalent forms of math test (TerraNova Multiple Assessments Practice Activities). The sample group included eighty-six fourth grade students, which included forty-three students with disabilities and forty-three students without disabilities from Wisconsin and Iowa. The majority of students was from Iowa and identified as "entitled individuals" (Schulte, Elliott, & Kratochwill, 2001, p.531). Iowa uses a noncategorical system. The

participants from Wisconsin were students with mild disabilities such as learning disabilities, speech/language disabilities, or mild cognitive disabilities. In this study, a variety of testing accommodations were used. The majority of participants were provided accommodations such as extra time with reading test items and questions (n=32), reading test items and questions without extra time (n=10), and extra time with reading test items and questions in conjunction with dictate responses (n=8). The remaining thirty six students were provided extra time with seventeen different variations of additional accommodations ranging from positive praise/encouragement to sitting in a quiet area away from peers. The most common components included reading the test/items to students (16 packages) and extra time (14 packages). Overall, the authors reported testing accommodations had a positive effect on students with disabilities' performance that approached statistically significant. No significant effect was noted in the performance of students without disabilities (Schulte, Elliott, & Kratochwill, 2001).

Contradictory findings may result due to a number of factors, "including students with varying types of disabilities, different accommodation packages, different approaches to determining and using accommodations, and the use of different research designs" (Lang, Elliott, Bolt, & Kratochwill, 2008, p. 109). Overall, the research on effects of testing accommodations is diverse, with some studies indicating that testing accommodations have a differential boost for students with disabilities and others demonstrating no significant interaction between students with disabilities and students without disabilities on testing accommodations.



### **Teachers' Practices Relative to the Effectiveness of Accommodations**

Each teacher's acceptability or practices in relation to various accommodations is a critical issue in understanding why or why not accommodations are made for students with mild disabilities in the general education setting. Teachers' practices may be impacted by the extent to which general education teachers view accommodations as fair, effective, reasonable, and easy to use. Findings from various studies indicate teachers' practices relative to the implementation of accommodations vary by teacher training, teacher demographics, and grade levels. In addition, teachers' practices generally differ among elementary and secondary teachers.

Moltó's (2003) study explored general education teachers' perceptions of instructional adaptations/accommodations and the feasibility, effectiveness, and desirability of implementation in Spain. The final sample consisted of eighty-nine general education teachers – sixteen kindergarten, thirty-four elementary, twenty-six secondary, and thirteen high school teachers. Participants' ages ranged from twenty-four to sixty-four years. One hundred percent of the participants had students identified as special education in their classrooms: mental retardation (n=15); learning difficulties (n=41); emotional/behavioral disturbance (n=10); communication disorder (n=3); high risk (n=2); and multiple disabilities (n=1). Each teacher completed twenty-nine items on the Teaching Adaptation Scale (TAS) measuring feasibility, effectiveness, and desirability. The TAS includes a Likert-type scale (1= little; 5 = very/a lot). For this instrument and categories within, the Cronbach coefficient alpha was applied to measure the internal consistency for the three categories it intended to measure. Once the

instrument was completed by teachers, descriptive statistics were calculated to analyze demographic information and teacher ratings of instructional accommodations. In addition, successive analyses of variance (ANOVAs) were completed to determine if there were group differences between kindergarten, elementary, secondary, and high school teacher ratings. Results indicated a moderate teacher acceptance of instructional accommodations. Sixty-two percent of participants considered instructional accommodations as feasible and fifty-one percent considered them to be effective. Only fourteen percent considered some accommodations as desirable (Moltó, 2003).

McLeskey and Waldron (2002) interviewed teachers from six elementary schools that developed and implemented Inclusive School Programs (ISP) as part of an ongoing collaboration between three school districts and a large state university. The developed program was based on individualized schools perceived availability of resources, strengths, and related factors. Commonalities existed across all schools despite the individualized program development: (1) each school closed their separate classes for students with mild disabilities; (2) special education teachers who taught in separate classes were reassigned to work collaboratively with general education teachers to develop programs to support students with disabilities; (3) teachers worked collaboratively to base each student's program on general education curriculum; (4) attempts were made to avoid disproportionate numbers of students with disabilities together in one class; and (5) instructional assistants were used to provide support services for classroom teachers and students with disabilities in general education classrooms. The participating schools that developed the ISP were voluntary and

consisted of a team of 6 to 12 teachers and administrators at each school. The overall purpose in developing these programs was to “produce a system of service delivery for the education of students with disabilities, as appropriate, in general education classrooms on a full-time basis” (McLeskey & Waldron, 2002, p. 42).

The interview questions focused on the teachers’ perceptions regarding the changes that occurred in the general education classroom as an outcome of the implementation of ISP. Question topics related to curriculum content, curricular adaptations, pacing of instruction, grading, and use of teaming to meet needs of students. The data were analyzed using a constant comparative method. Categories were developed based on number of respondents who mentioned a theme, credibility of category to the audience, uniqueness of category, and/or categories that addressed areas of inquiry not otherwise recognized. In reference to curriculum content, teachers were in agreement that all elementary students with mild disabilities could best be met using general education curriculum with adaptations/accommodations if two basic changes were made: (1) modify curriculum to enhance the relevancy for each students and (2) modify instructional techniques. Examples included use of more hands on, oral, and cooperative activities. In addition, use of adaptations such as shortened assignments and allowing use of calculator (McLeskey & Waldron, 2002).

Leyser and Tappendorf (2001) noted general education teachers do not frequently implement differentiated instructional strategies necessary to accommodate students with special needs. Their study examined the attitudes and practices regarding mainstreaming of general and special educators in two small rural school districts. Ninety-one

participants responded to two questionnaires – opinions relative to mainstreaming scale (ORM) and instructional strategies scale (ISS). On the ORM (attitude scale), teachers were asked to rate items on a six-point scale (1 = strongly agree; 6 = strongly disagree). The ISS was composed of fourteen items assessing teacher curricular and instructional strategies and adaptations for students with diverse needs. This questionnaire was also on a six-point scale (1 = never; 6 = always). A Chronbach alpha was completed for reliability of both instruments. In addition, a factor analysis was completed on both scales (Leyser& Tappendorf, 2001).

There were thirty-six elementary teachers, twelve junior high teachers, and forty-three high school teachers. Sixty-eight of the ninety-one were general educators and seventeen were special educators. In this study demographic variables, such as certification, grade level, gender, and training, were found to be related to teacher use of instructional accommodations. For attitudes toward mainstreaming, two demographic variables were found to be related: (1) gender (female teachers attained significantly higher scores) and (2) years of experience (teachers with thirteen years of experience or more scored significantly lower than teachers with less than thirteen years of experience on benefits of integration). Other findings suggest that participants did not hold favorable attitudes toward mainstreaming and that findings regarding the use of instructional strategies tended to lean toward large groups of students. Participants did not frequently use individually focused teaching accommodations, such as adapting instructional strategies, textbooks, materials, and tests to enhance the success of individual students. In addition, special educators reported using significantly more adapted teaching

strategies than general educators and high school teachers' use of differentiated strategies were less often than elementary and junior high teachers (Leyser & Tappendorf, 2001).

Schulte, Elliott, and Kratochwill (2000) noted general education classrooms include more students with disabilities as a result of inclusion efforts. In turn, more students with disabilities are participating in statewide assessments and teachers are required to make accommodations for students with special needs in their classroom. Therefore, "information about teachers' acceptability and use of assessment accommodations may help states improve their accommodation guidelines for students with disabilities" (Schulte, Elliott, & Kratochwill, 2000, p. 41).

Schulte, Elliott, and Kratochwill (2000) included the use of the Assessment Accommodations Checklist (ACC) to document testing accommodations. The ACC was researcher developed and consisted of a list of seventy-four accommodations and spaces for educators to write additional ideas. In addition, this study examined questions concerning the fairness and number of accommodations recommended for students with disabilities. Participants included twenty-six state-level educational leaders from across the United States and ninety-two educators from Wisconsin. The participants consisted of teachers ( $n = 45$ ), district level directors of special education and student assessment administrators ( $n = 49$ ), and other educational professionals ( $n = 24$ ). The packet of materials consisted of cover sheets, case vignettes, the Assessment Accommodation Checklist, and the Assessment Accommodation Checklist evaluation form. The coversheet asked for demographic information, such as current position, type of certification, years of teacher experience, gender, highest degree held, and ethnicity, and

outlined directions for completing the packet. The seventy-four items on the AAC were divided into eight categories in which teachers indicated accommodations listed in a student's IEP, accommodations teachers plan to use, and assessment accommodations used by students. In addition, teachers rated the helpfulness and fairness of accommodations used on assessments. A three-point Likert scale was used on the ACC (1 = Not fair; 2 = Unsure; and 3 = Fair). The AAC evaluation form was developed to document the participants' perceptions of the usefulness and relevance of the ACC and consisted of both a five-point Likert scale and open-ended comments (Schulte, Elliott, & Kratochwill, 2000).

This study was both experimental (2 x 2 mixed design; severity and type of task) and descriptive. The preliminary analysis consisted of a series of ANOVAs to determine the following:

the effect of participants' gender, highest degree earned, type of teaching certification held, and present job on the dependent variable of the number of recommended accommodations, the mean Helpful and Fair ratings by category on the AAC, and the mean ratings on the eight evaluation questions (Schulte, Elliott, & Kratochwill, 2000, p. 47-48).

Results from the preliminary analysis suggested that gender, highest degree earned, type of teaching certification, and type of job did not significantly influence the results of this study. In the primary analysis, five research predictions were tested. Out of the five, two were fully supported and two more were partially supported. The two fully supported were (1) fairness of assessment accommodations for both students with mild and severe

disabilities and (2) recommendation of assessment accommodations for use with performance assessment over multiple-choice tasks. The two partially supported were (1) educators perceive accommodations as more helpful and fair for performance task and (2) ACC was perceived by educators as a useful and relevant tool for encouraging teachers to provide, document, and evaluate assessment accommodations (Schulte, Elliott, & Kratochwill, 2000).

DeBettencourt (1999) examined the instructional strategies practiced by middle school general education teachers in the perspective of the number of special education courses taken and the amount of time collaborating with special educators. The participants included all core-content (i.e. math, English, science, and social studies) general educators ( $n = 56$ ) from the three middle schools (grades 6, 7, and 8) in a rural school district in the southeastern United States. A survey consisting of three sections was placed in each teacher participant's mailbox with a cover letter and self-addressed envelope. Two weeks later, a second copy of the survey was placed in each teacher participant's mailbox as a reminder the original survey had yet to be returned. The three sections of the survey were (1) general background information, (2) Bender Classroom Structure Questionnaire (BCSQ), and (3) Mainstream Attitude Survey (MAS). The background section contained seven items, such as years of teaching, degrees obtained, etc. The BCSQ contained forty items on a Likert scale that included questions concerning the use of instructional strategies in the general education classroom. The MAS measured teachers' beliefs about mainstreaming on a six-item Likert scale (DeBettencourt, 1999).

Findings indicated the increased amount of time general education teachers spent in consultation with special educators had a direct correlation on the general educator's increased use of instructional strategies. In addition, general education teachers in the DeBettencourt study who reported they had taken special education courses indicated they used different types of instructional strategies more frequently. Results of this study also indicated that general education teachers do not use research suggested strategies, such as use of advanced organizers, learning strategies, and self-talk strategies, to facilitate academic achievement for students with mild disabilities (DeBettencourt, 1999).

Scott, Vitale, and Masten (1998) reviewed literature to examine classroom teachers' perceptions and use of instructional adaptations for students with disabilities. Literature review findings revealed that while general education teachers felt positive about the effectiveness, reasonability, and feasibility of making instructional adaptations, when students with disabilities were included in their general education classrooms, these same teachers were unlikely to move away from whole-group instructional strategies to address student specific individualized accommodations. Scott, Vitale, and Masten (1998) found relevant literature identified lack of teacher training and limited school support as barriers to classroom teachers being able to accommodate the individual needs of students. Overall, Scott, Vitale, and Masten's (1998) review of literature noted an inconsistency existed between teachers' high acceptability of instructional adaptations and their actual implementation practices. "In effect, despite favorable attitudes toward inclusion, teachers report they lack the specific knowledge, skills, and continuing support to ensure its effectiveness" (Scott, Vitale, & Masten, 1998, p. 11).



## **Summary of Literature Review**

While the practices of the reading of tests, such as TerraNova, California Achievement Test, and Nelson Denny, are not commonly allowed, the review of literature classified the read aloud accommodation as one generally beneficial to students with disabilities. In reviewing relevant studies, one must note that elementary and secondary general education teachers' perceptions are in many instances mutually exclusive. Findings from studies conducted on elementary campuses may not replicate in secondary settings.

General education teachers' practices appear to be impacted by the extent to which they view accommodations as fair, effective, reasonable, and easy to use. In addition, teachers' practices in the implementation of accommodations vary by teacher training, teacher demographics, and grade levels. Research has also indicated that collaboration among general educators and special educators has a direct correlation on the use of instructional strategies in the general education classroom. The more special education courses taken by general educators the more frequently they use different types of instructional strategies to address the learning needs of their students with disabilities. Accommodations appear to be a tactic that can remove barriers and level the playing field for students with disabilities by providing tools which enable them to improve their academic performance (Elliott & Marquart, 2004). Little to no research was found that examines secondary students by subject areas (i.e. English, science, social studies, and math) in relation to accommodations and students with disabilities.

## CHAPTER III

### METHODOLOGY

As special education continues to shift from a focus on procedural compliance to a result-oriented focus, the key to success for students with mild disabilities in the general education setting, as well as on high-stakes testing, is the implementation of accommodations. All students are required by federal and state legislation to participate in high-stakes testing to measure academic growth. In Texas, students in grades 3 through 11 take state academic assessments to measure their mastery of the state academic standards. Students who are served by special education are provided the opportunity to use Texas Education Agency (TEA) approved testing accommodations on high stakes testing provided Individualized Education Plan (IEP) team accepted accommodations are used routinely by students with special needs in their classes. As students with special needs are infused into the general education setting, it is an assumption that secondary general education teachers have knowledge of accommodations and know how to measure the effectiveness of accommodations for students with mild disabilities. Therefore, the purpose of this study was to determine secondary general education teachers' (grades 9-12) perceived knowledge level of (1) testing accommodations and (2) practices relative to the effectiveness of accommodations for students with mild disabilities. This chapter presents a description of the survey instrument's development. In addition, the purpose of this chapter is to fully describe the

study's participant population, instrumentation, data collection procedures, data analysis employed in the study, and limitations of this study.

### **Participants**

The participant population for this study consisted of approximately 280 secondary general education content area teachers who teach grades nine through twelve in one non-comprehensive high school and three comprehensive high schools from one metropolitan school district in North Central Texas. The district has approximately 2,330 teachers. The teacher demographic breakdown for ethnicity in this district is as follows: African American 6.96%, Hispanic 20.74%, White 69.47%, Native American 0.56%, and Asian Pacific Islander 2.28%. The gender demographic breakdown is 77.8% female and 22.2% male. The approximate number of secondary general education teachers is 280. This number reflects only secondary general education teachers who teach content area subjects, such as math, science, social studies, and/or English.

### **Recruitment of Participants**

The researcher sent an electronic survey to general education content area secondary teachers during the fall semester of 2010. The researcher explained the significance of the study and solicited the secondary general education teachers' participation. The participants in this study were secondary general education teachers who serve grade nine through twelve in all core subject/content areas from one metropolitan school district in North Central Texas. Participation was voluntary and confidentiality was maintained. The return of the completed survey constituted the participants informed consent to act as a participant in this research.

## **Instrumentation**

As McMillan (2004) explained, “a critical step in survey research is to pilot test a draft of the letter of transmittal and survey” (p. 196). McMillan (2004) explained the pilot survey instrument is generally given to between fifteen and twenty individuals reflecting the population to be sampled. Respondents are asked to read the directions and complete the pilot survey as well as to comment on the clarity and format of the survey. The pilot study helps the researcher know the approximate length of time to complete the survey (McMillan, 2004).

The survey instrument used in this study was researcher developed. The researcher began by completing a comprehensive review of literature. Based on this review of literature, the researcher identified areas to address in the survey instrument. Once the draft survey instrument was created, it was submitted to key faculty members in the Department of Teacher Education of Texas Woman’s University for feedback and subsequently revised. Next, the survey was reviewed by a panel of experts comprised of graduate students in the Department of Teacher Education. In addition to reviewing the survey instrument, the graduate students completed the survey.

Gay, Mills, and Airasian (2009) state content validity “is the degree to which a test measures an intended content area” (p. 155). No formula or statistic exists to measure content validity. Therefore, content validity is determined by expert judgment (Gay, Mills, and Airasian, 2009). These graduate students assisted in determining the content validity of the survey. The graduate students provided useful information on whether each component of the survey represented the following: (1) overall content and

(2) clarity of statements and directions. Additional areas considered were: (a) clear and easy to follow directions, (b) clear and easily understood items, (c) indicate items that were unclear, and (d) additional items needed. The graduate students also noted the amount of time needed to complete the survey.

Based on field testing results, the survey was revised. Specifically, grammatical errors were corrected and wording was clarified. The final survey instrument received input and was reviewed by key faculty members in the Department of Teacher Education of Texas Woman's University.

Next, validity was established through a factor analysis. Gay, Mills, and Airasian (2009) state factor analysis is "a way to take a large number of variables and group them into a smaller number of clusters called factors. Factor analysis computes the correlation among all the variables and then derives factors by finding groups of variables that are correlated highly among each other but have weak correlations with other variables" (p. 206). Based on the completed factor analysis, two items were removed from the final survey.

According to Gay, Mills, and Airasian (2009), Cronbach's alpha estimates "internal consistency reliability by determining how all items on a test relate to all other test items and to the total test" (p. 161). Internal consistency exists when all other items are measuring similar things.

By measuring relevant components through a factor analysis, the interrelationships of these variables were determined. The factor analysis provided data on whether the items on the survey represented both teachers' perceived knowledge

(TPK) of accommodations and practices relative to the effectiveness of accommodations (PREA). Munro (2001) reported factor loadings greater than .30 and .40 suggest some degree of relationship. Eigenvalues reflect the variance accounted for by each component with a common cutoff at 1.0 (Portney & Watkins, 2000). Table 1 (TPK) and Table 2 (PREA) summarize the findings of the factor analysis and Cronbach's alpha coefficient for the pilot group of graduate students in the Department of Teacher Education.

Table 1

*Summary of Factor Analysis for TPK for Graduate Students*

Survey Item	Factor 1	Factor 2	Factor 3	Factor 4
1. Use of colored overlays	.826			
2. Markers used to make notes on colored overlays	.673			
3. Use of blank marker on test and answer document	.643			
4. Read aloud during testing	.486			
5. Read into recording device during testing and play back while working	.398			

Table Continued

Table 1, continued

Survey Item	Factor 1	Factor 2	Factor 3	Factor 4
6. Oral administration provided by test administrator	.909			
7. Use of amplification device	.951			
8. Use of scribe		.788		
9. Use of supplemental Aide		.650		
10. Use of blank graphic organizer		.835		
11. Minimize external and internal distractions			.902	
12. Individual administration			.906	
13. Testing over two days				.795
14. Frequent or extended breaks				.630
15. Visual, verbal, or tactile reminders to stay on task				.830
Cronbach's alpha	.806	.629	.756	.621

Factor 1 represented perceived level of knowledge of presentation accommodations and included seven items with factor loadings ranging from .398 to .951. The first component accounted for 52.466% of variance in the data with an initial Eigenvalue of 3.673. Factor 2 represented perceived level of knowledge of response accommodations and included three items with factor loadings of .650 to .835. The first component accounted for 57.988% of variance in the data with an initial Eigenvalue of 1.740. Factor 3 represented perceived level of knowledge of setting accommodations and originally consisted of three items with factor loadings of -.156 to .906 which resulted in the removal of an item from Factor 3. The two remaining items had factor loadings of .902 to .906 and the first component accounted for 55.312% of variance in the data with an initial Eigenvalue of 1.659. Factor 4 represented perceived level of knowledge of time and scheduling accommodations and included three items with factor loadings of .630 to .830. The first component accounted for 57.248% of variance in the data with an initial Eigenvalue of 1.717.

Following the factor analysis, internal consistency and reliability was established through Cronbach's alpha coefficient. For pilot survey participants, the reliability for survey items ranged for .621 (time and scheduling accommodations) to .806 (response accommodations).



Table 2

*Summary of Factor Analysis for PREA for Graduate Students*

Survey Item	Factor 1	Factor 2
1. Feel confident making accommodations in classroom	.852	
2. Regularly adapt content or activities to Meet the needs of students in classroom	.870	
3. Collaboration between special education and general education teacher increases likelihood of implementing accommodations		.819
4. Confer on regular basis with a special education teacher to determine best accommodations	.766	
5. Staff development received haws prepared general education teacher to determine best accommodations	.811	
6. General education teachers regularly refer to students accommodation pages to ensure implementation of IEP team decisions	.703	
7. Believe special education and general education teachers should collaboration on all lesson plans for instruction delivery		.436
Cronbach's alpha	.842	.256

Table 2 represented teachers' perceived practices relative to the effectiveness of accommodations and originally included eight items. Upon completing a factor analysis of all eight items, two components appeared evident; thus, two factors were created within perceived practices relative to the effectiveness of accommodations. Factor 1

included five items with factor loadings ranging from .703 to .870. The first component accounted for 64.428% of variance in the data with an initial Eigenvalue of 3.221. Factor 2 originally included three items with factor loadings of .436 to .819 which resulted in the removal of an item from Factor 2. The first component accounted for 44.242% of variance in the data with an initial Eigenvalue of 1.327.

Following the factor analysis, internal consistency and reliability was established through Cronbach's alpha coefficient. For pilot survey participants, the reliability for survey items were .842 (factor 1) and .256 (factor 2).

This survey was comprised of four sections: (1) the secondary general education teachers' perceived knowledge of testing accommodations; (2) the secondary general education teachers' perceived practices relative to the effectiveness of accommodations; (3) two open ended questions: (a) the secondary general education teachers' perception that accommodations "level the playing field" for students with mild disabilities and (b) the secondary general education teachers' perceived barriers to implementing accommodations for students with mild disabilities; and (4) the secondary general education teachers' demographic information. The secondary general education teachers' demographic section included: age, gender, ethnicity, total years of teaching, level of education, route to teaching certification, number of professional development hours in accommodations, estimate of total number of students with mild disabilities in classes each day and content area and grade level taught.

Section 1 of the survey instrument used a three-point Likert scale assessing the participants' perceived knowledge of testing accommodations. The secondary general

education teachers were asked to respond to fifteen questions based on their knowledge of testing accommodations for students with mild disabilities in the general education setting. The rating scale used to assess participants' perceived knowledge was as follows: allowed, not allowed, and don't know.

Section 2 of the survey instrument used a five-point Likert scale assessing participants' perceived practices relative to the effectiveness of accommodations. The second section asks secondary general education teachers to respond to seven questions based on their perceived practices relative to the effectiveness of accommodations for students with mild disabilities in the general education setting. The rating scale used to assess participants' perceived knowledge was as follows: low, somewhat low, moderate, somewhat high, and high.

The next section required the secondary general education teachers to respond to two open-ended questions: (1) do accommodations "level the playing field" and (2) what are the barriers to implementing accommodations for students with mild disabilities in the general education setting. This was used to get a better understanding of the secondary general education teachers' perception that accommodations "level the playing field" and obstacles or barriers faced in implementing accommodations for students with mild disabilities in their classrooms.

The final segment of the instrument was the demographic section and included: age, gender, ethnicity, total years of teaching, level of education, route to teaching certification, number of professional development hours in accommodations, estimate of

total number of students with mild disabilities in classes each day and content area and grade level taught.

## **Survey Methodology**

### **Research Design**

Survey methodology was chosen to provide descriptive data on general secondary education teachers' perceived level of knowledge of testing accommodations and practices relative to the effectiveness of accommodations for students with mild disabilities using a non-experimental research design. Descriptive research is designed to "document conditions, attitudes, or characteristics of individuals or groups of individuals" (Portney & Watkins, 2000, p. 265) and to "provide a clear, accurate description of individuals, events, or processes" (Gall, Gall, & Borg, 1999, p. 172). Descriptive data frequently involves the use of surveys to gather descriptive information.

As Gay, Mills, and Airasian (2009) explained, "Survey research involves collecting data to test hypotheses or to answer questions about people's opinions on some topic or issue" (p. 175). Surveys are described as an instrument to collect data about a group's beliefs, attitudes, behaviors, and demographic components. To collect survey data, a set of questions, which can be administered in a questionnaire, are either mailed, emailed, or asked in an interview by phone or in person (Gay, Mills, and Airasian, 2009). The data gathered from this study described secondary general education teachers (grades 9 – 12) who teach in one non-comprehensive high school and three comprehensive high schools from one metropolitan school district in North Central Texas.

The first two questions (perceived level of knowledge of accommodations and perceived practices relative to effectiveness of accommodations) in this study were answered by descriptive analysis meaning statistical data which included mean, median, standard deviation, and frequency for items and sums of items. In addition, correlations were considered among sums and dependent variables.

Qualitative methodology was chosen to look for themes in reference to general secondary education teachers' perception as to if accommodations "level the playing field" and perceived barriers to implementing accommodations for students with mild disabilities. As noted by Gay, Mills, and Airasian (2009), qualitative research is the "collection, analysis, and interpretation of comprehensive narrative and visual (i.e., nonnumerical) data to gain insights into a particular phenomenon of interest" (p. 7). For the purpose of this study, purposive sampling was utilized meaning "the process of selecting a sample that is believed to be representative of a given population" (Gay, Mills, & Airasian, 2009, p. 136). The last two questions (accommodations "level the playing field" and perceived barriers to implementing accommodations) were analyzed by qualitative methods. The researcher read and categorized responses to see if themes were apparent.

### **Data Collection Procedures**

Permission to conduct this study was obtained and approved by the Doctoral Advisory Committee, Institutional Review Board (IRB) for Human Research Protection of Texas Woman's University, and the Director of Planning, Evaluation, and Research of one metropolitan school district in North Central Texas. Data collection was conducted

during fall semester of 2010 through an electronic survey to content area secondary general education teachers.

Via email, the principal investigator explained the significance of the study, solicited the secondary general education teachers' participation, informed participants of voluntary participation, and confidential responses. There is no place on the survey for participants' names. In addition, potential participants were informed the estimated time for survey completion was approximately 15 minutes. The participants in this study were secondary general education teachers who serve grades nine through twelve in all subject/content areas from one metropolitan school district in North Central Texas. The return of the completed survey constituted the participants' informed consent to participate in this research. The survey will reside within PsychData to maintain confidentiality. The researcher does not directly supervise or evaluate any secondary general education teachers who may participate in this study; therefore, the likelihood of coercion is lessened.

### **Limitations**

This particular line of research was a study of convenience and conducted using only secondary general education teachers who serve students grades nine through twelve in all subject/content areas from one metropolitan school district in North Central Texas. Since cultures, climates, and attitudes in secondary schools differ from state to state and city to city, the findings may only be generalized to geographic locations where similar attitudes, climates, and cultures exist. Therefore, the sample may not represent true characteristics of the total population. Results may be affected by the number of

responses and voluntary participation. Although there are some possible limitations, this study seeks to discover findings that may significantly contribute to the research of secondary general education teachers and their perceived level of knowledge of accommodations and practices relative to the effectiveness of accommodations for students with mild disabilities.

## CHAPTER IV

### RESULTS

The purpose of this study was to determine secondary general education teachers' (grades 9-12) perceived level of knowledge of testing accommodations and practices relative to the effectiveness of accommodations for students with mild disabilities. Presented in this chapter are demographic descriptions of the survey respondents. In addition, this chapter is organized around the four research questions posed in Chapter 1. These research questions will serve as the framework for providing descriptive information of the research study findings.

#### **Demographic Description of Survey Participants**

A total of 92 secondary general education respondents participated. Out of the 92 respondents, four respondents did not complete the entire survey instrument. The remaining 88 respondents completed required fields. Out of these 88 respondents, 60 were core/content area secondary general education teachers. The respondents reported their content area positions as the following: English (21.7%), math (35.0%), history (20.0%), and science (23.3%). As for grade levels; the following were reported by respondents: ninth grade (30.0%), tenth grade (21.7%), eleventh grade (18.3%), twelfth grade (8.3%), and other (21.7%) (combination of grade levels).



Table 3

*Teachers' Ethnicity and Gender*

	N	Percent
Ethnicity		
Caucasian	47	78.3%
African American	4	6.7%
Hispanic	5	8.3%
Asian	1	1.7%
Other	3	5.0%
Gender		
Male	17	28.3%
Female	43	71.7%

The ethnicity and gender of general education core teachers are presented in Table

3. Based on the demographic description of participants, the majority of teachers who completed the survey were female Caucasians (71.7%, 78.3%).

Table 4

*Teachers' Level of Education and Route to Certification*

	N	Percent
Level of Education		
Undergraduate	13	21.7%
Undergraduate Plus Graduate Hours	17	28.3%
Master's Degree	21	35.0%
Master's Degree Plus Post Graduate Hours	6	10.0%
Doctoral Degree	3	5.0%
Route to Certification		
University Based	36	60.0%
Alternative Certification	24	40.0%

Table 4 presents respondents' level of education and their route to certification. The majority of teacher participants had undergraduate degrees (50.0%), while less the 15.0% held over a Master's degree. Most participants obtained certification through a university based program (60.0%).

Table 5

*Teachers' Age, Years of Teaching Experience, Number of Professional Development Hours, and Approximate Number of Students with Mild Disabilities*

	Age	Years of Teaching Experience	Number of Professional Development Hours in Accommodations	Approximate Number of Students with Mild Disabilities in Classes
N	59	60	44	60
Mean	40.19	11.35	13.32	8.55
Standard Deviation	11.60	9.85	12.45	8.18

*Note.* N varies according to the number of people answering the survey item.

Age, years of teaching experience, number of professional development hours in accommodations, and approximate number of students with mild disabilities in classes each day are presented in Table 5. The mean age was 40.19 with a standard deviation (SD) of 11.60. The mean years of teaching experience was a mean score 11.35 with a SD of 9.85. Moreover, the mean number of professional development hours in accommodations was 13.32 with a SD of 12.45, and the approximate number of students with mild disabilities in teachers' classes each day was a mean of 8.55 and a SD of 8.18.

## **Data Analysis**

Descriptive statistics were utilized for Research Questions One and Two to examine secondary general education teachers' (grades 9-12) perceived knowledge level of testing accommodations and practices relative to the effectiveness of accommodations for students with mild disabilities. Descriptive research is designed to "document conditions, attitudes, or characteristics of individuals or groups of individuals" (Portney & Watkins, 2000, p. 265) and to "provide a clear, accurate description of individuals, events, or processes" (Gall, Gall, & Borg, 1999, p. 172). Qualitative methodology was chosen for Research Questions Three and Four to examine for themes in reference to secondary general education teachers' perceptions as to if accommodations "level the playing field" and perceived barriers to implementing accommodations for students with mild disabilities. The themes that emerged from the data were evident from the analysis of participant responses. As noted by Gay, Mills, and Airasian (2009), qualitative research is the "collection, analysis, and interpretation of comprehensive narrative and visual (i.e. nonnumerical) data to gain insight into a particular phenomenon of interest" (p. 7). Reading participant responses assisted in the analysis of phenomenological descriptions and interpretations of teachers' perceptions.

### **Analysis of Question One**

Research Question One: What is the perceived level of knowledge of testing accommodations by secondary general education teachers for students with mild disabilities?

The first section of the survey was comprised of four factors looking at secondary general education teachers' perceived knowledge (TPK) of testing accommodations. The four factors were analyzed for knowledge of (1) presentation accommodations, (2) response accommodations, (3) setting accommodations, and (4) timing and scheduling accommodations. There were a total of 15 survey items in section one: Factor 1 (7), Factor 2 (3), Factor 3 (2), and Factor 4 (3). A Likert scale was used: a score of 0 indicated no to low level of knowledge ("Not Allowed" or "Don't Know") and a score of 1 indicated a high level of knowledge ("Allowed") (See survey Appendix D).

Table 6

*Means and Standard Deviation for Section 1 of TPK*

Factors	N	Mean	SD
Factor 1 – Presentation Accommodations	60	4.25	1.61
Factor 2 – Response Accommodations	60	2.52	0.70
Factor 3 – Setting Accommodations	60	1.83	0.38
Factor 4 – Timing and Scheduling Accommodation	60	2.18	0.81

Table 6 reports the number of respondents, means, and standard deviation for each of the four factors of secondary general education teachers' knowledge of testing accommodations. Mean scores were calculated to examine the perceived level of knowledge that secondary general education teachers possess regarding testing accommodations. Specifically, testing accommodations were examined for four factors: (1) presentation accommodations, (2) response accommodations, (3) setting accommodations, and (4) timing and scheduling accommodations.

As shown in Table 6, the mean score for secondary general education teachers on their level of knowledge of the four factors were indicated. For Factor 1 – Presentation Accommodations, the mean score was 4.25, indicating respondents reported a moderate to somewhat high level of knowledge of presentation accommodations. For Factor 2 – Response Accommodations, the mean score was 2.52, indicating respondents reported a somewhat high to high level of knowledge of response accommodations. For Factor 3 – Setting Accommodations the mean score was 1.83, indicating respondents reported a high level of knowledge of setting accommodations. In regards to Factor 4 – Timing and Scheduling Accommodations, the mean score was 2.18, indicating respondents reported a somewhat high level of knowledge of timing and scheduling accommodations. Frequencies and percentages for individual items comprised in Factor 1, Factor 2, Factor 3, and Factor 4 can be found in Appendix G.

Table 7

*Frequency and Percent for Factor 1 of TPK*

Item	Frequency	Percent
0.00	1	1.7
1.00	0	0.0
2.00	8	13.3
3.00	11	18.3
4.00	12	20.0
5.00	18	30.0
6.00	2	3.3
7.00	8	13.3

Table 7 reports the frequency and percent of participants responding to each item for Factor 1 - Presentation Accommodations: 7 indicating all correct responses and 0 indicating no correct responses. Three, four, and five were answered most often (68.3%), indicating secondary general education teachers have a moderate to somewhat high level of knowledge of presentation accommodations.

Table 8

*Frequency and Percent for Factor 2 of TPK*

Item	Frequency	Percent
0.00	1	1.7
1.00	4	6.7
2.00	18	30.0
3.00	37	61.7

Similarly, Table 8 reports the frequency and percent of participants responding to each item for Factor 2 - Response Accommodations: 3 indicating all correct responses and 0 indicating no correct responses. Two and three were answered most often (91.7%), indicating secondary general education teachers have a somewhat high to high level of knowledge of response accommodations.

Table 9

*Frequency and Percent of Factor 3 for TPK*

Item	Frequency	Percent
0.00	0	0.0
1.00	10	16.7
2.00	50	83.3

Table 9 reports the frequency and percent of participants responding to each item for Factor 3 - Setting Accommodation: 2 indicating all correct responses and 0 indicating no correct responses. Two was answered most often (83.3%), indicating secondary general education teachers have a high level of knowledge of setting accommodations.

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Table 10

*Frequency and Percent of Factor 4 for TPK*

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Item	Frequency	Percent
0.00	0	0.0
1.00	15	25.0
2.00	19	31.7
3.00	26	43.3

---

Table 10 reports the frequency and percent of participants responding to each item for Factor 4 - Timing and Scheduling Accommodations: 3 indicating all correct responses and 0 indicating no correct responses. Two and three were answered most often (75.0%), indicating secondary general education teachers have a somewhat high level of knowledge of timing and scheduling accommodations.

**Analysis of Question Two**

Research Question Two: What are the perceived practices relative to the effectiveness of accommodations by secondary general education teachers for students with mild disabilities?

The second section of the survey was comprised of two factors indicating secondary general education teachers' perceived practices relative to the effectiveness of accommodations (PREA) for students with mild disabilities. The two factors were identified after analysis of data from the pilot survey. Factor 1 included statements related to topics such as: (1) feel confident making accommodations, (2) regularly adapt content or activities, and (3) regularly refer to students' accommodation pages. Factor 2



focused on collaboration between the special education teacher and general education teacher to determine the best accommodations for students with mild disabilities. There were a total of 6 survey items in section two: Factor 1 (5) and Factor 2 (1). A five-point Likert scale was used: a score of 5 indicated a high level of practices relative to the effectiveness of accommodation, a score of 4 indicated a somewhat high level of practices relative to the effectiveness of accommodations, a score of 3 indicated a moderate level of practices relative to the effectiveness of accommodations, a score of 2 indicated a somewhat low level of practices relative to the effectiveness of accommodations, and a score of 1 indicate a low level of practices relative to the effectiveness of accommodations (See survey Appendix D).

Table 11

*Means and Standard Deviation for Section 2 of PREA*

Factors	N	Mean	SD
Factor 1	60	17.48	3.85
Factor 2	60	4.55	0.62

Table 11 reports the number of respondents, mean, and standard deviation for Factor 1 and Factor 2 of secondary general education teachers' perceived practices relative to the effectiveness of accommodations. Factor 2 is based on a single item and should be interpreted with caution. One item for Factor 2 was inadvertently eliminated from the PsychData survey instrument. Mean scores were calculated to examine the

perceived practices of secondary general education teachers relative to the effectiveness of accommodations.

As shown in Table 11, the mean score for secondary general education teachers on their practices relative to the effectiveness of accommodations were indicated. For Factor 1, the mean score was 17.48, indicating a moderate level of practices relative to the effectiveness of accommodations. For Factor 2, the mean score was 4.55, indicating a high level of practices relative to the effectiveness of accommodations.

Table 12

*Frequency for Factor 1 of PREA*

Item	Frequency	Percent
8.00	1	1.7
9.00	1	1.7
10.00	1	1.7
11.00	1	1.7
12.00	2	3.3
13.00	2	3.3
14.00	2	3.3
15.00	9	15.0
16.00	8	13.3
17.00	4	6.7
18.00	3	5.0
19.00	5	8.3
20.00	7	11.7
21.00	5	8.3
22.00	3	5.0
23.00	4	6.7
24.00	0	0.0
25.00	2	3.3

Table 12 reports the frequency and percentage of participants responding to each item for Factor 1: 25.00 indicating the maximum number of points and 0.00 indicating the minimum. Out of 25 possible points, fifteen and sixteen points were answered most frequently (28.3%), indicating secondary general education teachers have a moderate level of practices relative to the effectiveness of accommodations for Factor 1.

Table 13

*Frequency for Factor 2 of PREA*

		Frequency	Percent
Valid	3.00	4	6.7
	4.00	19	31.7
	5.00	37	61.7

Similarly, Table 13 reports the frequency and percentage of participants responding to each item for Factor 2: 5.00 indicating the maximum number of points and 0.00 indicating the minimum. Out of 5 possible points, four and five points were answered most frequently (93.4), indicating secondary general education teachers have a high level of practices relative to the effectiveness of accommodations for Factor 2.

### **Analysis of Question Three**

The third section of the survey was comprised of an open ended question: Do secondary general education teachers' perceive that accommodations "level the playing field" for students with mild disabilities?

Table 14

*Frequency and Percent of Responses to Question Three*

	Frequency	Percent
Responses		
Answered	58	96.66
Not Applicable (NA)	1	1.67
No Answer	1	1.67

Table 14 presents the frequency and percent of participants who responded to Question Three. The participant response rate was extremely high for Question Three (96.66%). In the qualitative analysis of Question Three, the findings suggested seven themes related to participants' perceptions that accommodations "leveling the playing field" for students with mild disabilities. Themes included in the findings are reported from written responses of the participants. While participants have mixed perceptions involving accommodations for students with mild disabilities, overall, the participants were positive in regards to accommodations and stated they were necessary.

Table 15

*Themes for Question Three*

Research Question	Theme
Do secondary general education teachers' perceive that accommodations "level the playing field" for students with mild disabilities?	<ol style="list-style-type: none"> <li>1. Lack of Use</li> <li>2. No way</li> <li>3. Crutch</li> <li>4. Class Sizes</li> <li>5. Training</li> <li>6. Demonstrate Knowledge</li> <li>7. Uniqueness</li> </ol>

Table 15 shows each of the seven themes for Question Three. The seven themes are discussed below. For additional data analysis correlating participants' responses to accommodations "leveling the playing field" and demographic data (content area, gender, and ethnicity) see Appendix E. The researcher did not provide participants with an explanation of "level the playing field."

**Emerging themes question three.** Responding to the first theme, lack of use, participants indicated they perceived students do not use available accommodations. Secondary education teachers indicated some special education students do not take advantage of their accommodations, refuse to use accommodations, or feel embarrassed by their accommodations. A few participants' responses which supported this theme were as follows: (1) "Many of the students with accommodations do not take advantage of theirs. I can only think of one student that really seems to benefit from their accommodations because they use them effectively"; (2) "More often than not, the students who receive accommodations such as reduced assignments or oral administration at student request generally refuse the accommodation and complete the entire assignment with little to no help"; (3) "It depends on the student and how they want to work with their given accommodations"; and (4) "... others do not use them at all because they feel embarrassed by them."

Responding to the second theme, no way, participants indicated they do not perceive accommodations "level the playing field." Participants, who responded negatively toward accommodations leveling the playing field, perceived accommodations infrequently work, did not increase success on tests, and believed accommodations may

cause more harm. A few participants' responses which supported this theme were as follows: (1) "No. I feel the accommodations seldom work"; (2) "No. In general, special [education] students with accommodations are being tested at about the same level as the other students and are not passing as often as other students"; (3) "I do not perceive that accommodations "level the playing field" for students with mild disabilities;" and (4) "I do not. I believe that in some cases, it handicaps them more."

In response to the third theme, crutch, participants indicated they perceived accommodations acted as a crutch for students with mild disabilities. Some participants who perceived accommodations sometimes benefit students also noted accommodations may provide more support than the student needs – meaning participants perceived some students could sustain their academic success without the use of accommodations. A few participants' responses which supported this theme were as follows: (1) "I have had good success using some of the accommodations for those students in need. I also have some students in the accommodations allowed are now more of a crutch"; (2) I feel that some do, while some tend to take advantage of the accommodations and fail to take their learning into their own hands"; (3) "Some students use their accommodations as a crutch"; (4) "I do, however, feel that there are some students that have figured out how to work the system and abuse the modifications when they are no longer necessary or need to be adjusted"; and (5) "No, unfortunately, I find special education students to use their accommodations as a "crutch" and rely on them to help them succeed, in place of effort and preparation."

Responding to the fourth theme, class size, participants indicated they perceived class sizes as an obstacle to accommodations “leveling the playing field” for students with mild disabilities. Participants, who perceived class size was a factor to leveling the playing field, indicated it was not only difficult for students with mild disabilities to receive the individual attention needed in secondary general education teachers’ classrooms but also noted the challenge of managing the vast number of accommodations. A few participants’ statements which supported this theme were as follows: (1) “Sometimes, but I think the volume of cases for our staff makes it pretty impossible for things like inclusion assistance to happen. The inclusion teachers are frequently supposed to be in more than one classroom at one time...;” (2) “Somewhat, but really is that 34 students in class is distracting for anyone. Most sped kids need smaller classes/fewer distractions/more [individual] attention to be successful”; and (3) “I believe they “level the playing field” for many students. I do, however, find it difficult to manage such large numbers of students with varying degrees of accommodations [sic] in the same classroom.”

In response to the fifth theme, training, participants indicated they needed more training in the use of accommodations to “level the playing field.” Some participants noted they needed opportunities to increase their knowledge of strategies to supplement the use of accommodations and a greater understanding of disabilities through continuum of professional development. A few participants’ responses which supported this theme were as follows: (1) “I believe that accommodations appropriately “level the playing field” for students with mild disabilities. In order to promote equity, secondary general

education teachers must continue to receive professional development from special education representatives”; (2) “I would love to see samples of accommodated [*sic*] assignments to better prepare mine to serve our students who need them”; (3) “The teacher needs to have strategies of their own to supplement the accommodations to help the student to succeed”; and (4) “Yes, I believe that accommodations are important for students with disabilities. I try to give them whatever I can. I would like to find out more about certain learning disabilities as I have more students with the same diagnosis.”

In response to the sixth theme, demonstrate knowledge, several participants indicated that accommodations helped students to demonstrate knowledge of content despite the students’ disabilities. Participants, who perceived accommodations support students with demonstrating knowledge, overall believed accommodations allow for equal opportunity to show learning has occurred and provide equal access to curriculum for students with mild disabilities. A few participants’ responses which supported this theme were as follows: (1) “Yes, it allows them to demonstrate their knowledge retention with confidence”; (2) Yes, I perceive that accommodations level the playing field in that they are not giving a great deal of assistance pertaining to the content but simply ensuring that the exam is not significantly more difficult for students with disabilities than for students without them”; (3) “To me, the use of accommodations in the General Education classroom is directly comparable to the use of ramps within and without the school building. Physical ramps allow all physically disabled persons to have access to all locations in the building just as effectively [*sic*] designed and effectively implemented accommodations provide equal access to the General Education curriculum for all



learners within a classroom;” (4) “Accommodations seem to assist the student in the delivery of the knowledge they have obtained”; (5) “An assessment is supposed to measure a student’s skills and knowledge. Not having appropriate accommodations [*sic*] for students that need it will give inaccurate/skewed assessment results. The student’s disability may lower scores due to incompleteness, misunderstanding the question, affect, or cognitive dissonance”; (6) “Each student has strengths and weaknesses that are reflected in their individual plans. By helping students with disabilities to better overcome some of their obstacles, they have a chance at learning and demonstrating mastery of the material as they acquire it”; and (7) “I think accommodations allow students with mild disabilities to successfully demonstrate grade level knowledge, thus leveling the playing field (effectively removing the effects of the disabilities).”

In response to the final theme, uniqueness, participants indicated they perceived accommodations addressed the uniqueness of each student and provided opportunities for differentiation. A few participants’ responses which supported this theme were as follows: (1) “Accommodations do level the playing field. However, each student is so unique, discovering which accommodations work best for different students takes time”; (2) “Yes because each student is unique and we need to work with them to be able to accomplish goals”; (3) “To an extent – I think it really depends on the student’s disability. With mild disabilities, simple accommodations work well, but students with more severe disabilities need even more assistance than accommodations can provide”; (4) “Educators know that we cannot provide a one size fits all for teaching our students, especially those who have disabilities that are no fault of their own. Accommodations

have shown to be effective tools helping students receive an education and are valuable to their achievement”; and (5) “As teachers, our job is to help student [*sic*] learn to their best ability. Every student walks in the door with different ability levels so in order to help students best learn, I use different teaching methods along with accommodations for those students with mild disabilities. I really don’t view it as “leveling the playing field” because not every student is playing on the same field. I see accommodations more as a way to help students play effectively on their own particular field, whatever that may be.”

#### **Analysis of Question Four**

The fourth section of the survey was comprised of an open ended question: What do secondary general education teachers’ perceive are barriers to implementing accommodations for students with mild disabilities?

Table 16

#### *Frequency and Percent of Responses to Question Four*

	Frequency	Percent
Responses		
Answered	57	95.00
Not Applicable (NA)	1	1.67
No Answer	2	3.33

Table 16 presents the frequency and percent of participants who responded to Question Four. The participant response rate was extremely high for Question Four (95%). In the qualitative analysis of Question Four, the findings suggested six themes

related to what participants' perception were for barriers to implementing accommodations for students with mild disabilities. Themes included in the findings are reported from written responses of the participants.

Table 17

*Themes for Question Four*

Research Question	Theme
What do secondary general education teachers' perceive are barriers to implementing accommodations for students with mild disabilities?	<ol style="list-style-type: none"> <li>1. Appear Different</li> <li>2. Class Sizes</li> <li>3. Additional Support Needed</li> <li>4. Teachers' Lack Understanding</li> <li>5. Training</li> <li>6. Time</li> </ol>

Table 17 shows each of the six themes for Question Four. For additional data analysis correlating participants' responses to barriers to effectively implementing accommodations and demographic data (content area, gender, and ethnicity) see Appendix F. The six themes are discussed below.

**Emerging themes question four.** For the first theme, appear different, participants indicated they perceived students' unwillingness to use accommodations as a barrier to effectively implementing accommodations. Based on participants' responses, secondary students do not want to draw attention to themselves or stand out among their classmates. A few participants' responses which supported this theme were as follows: (1) "There are several barriers. One being that the students do not like to draw attention to themselves in a manner that is demeaning. Unfortunately, our culture looks down on

people with different abilities. Students in secondary schools are so concerned with what their peers think that they often feel stupid using what is offered to them;” (2) “Barriers to implementing accommodations are being careful not to single out individual students. Some students reject accommodations because they do not want to call attention to their situation;” (3) “More often than not, a student does not want to use accommodations. Even when provided for them, students don’t want to feel singled out and try not to use them because they know in the outside world, few things will be accommodated [*sic*] for them;” (4) “Some of the barriers include student refusal to use the accommodations. I have several students who can have notes or an open book during the tests but do not want the other students to see them use a book;” (5) “Sometimes the student can react adversely [*sic*] to being treated with special care – it makes them stand out and they do not like it;” (6) “Students who don’t want to appear different before their peers will be less likely to accept help with accommodations;” (7) “I believe accommodations should be given whenever needed. However, the down side with accommodating a student with mild disabilities is his self perception. Does he believe that his success depends on his accommodation etc;” (8) “Students sometimes do not want to use their accommodations, which also hinders implementation;” and (9) “I also think that the students are barriers because they don’t want to be singled out and given alternate assignments.”

Responding to the second theme, class sizes, participants indicated they perceived class sizes as a barrier to implementing accommodations for students with mild disabilities. Participants, who perceived class sizes was a barrier to effectively implementing accommodations, indicated that it is not only difficult to provide individual

or small group attention to students who need accommodations within the general education classroom but also noted the challenge of managing students without disabilities who require assistance. In addition, some participants indicated they felt overwhelmed by the task of assisting students who need accommodations and found large classes to be a hindrance to implementing accommodations accurately. A few participants' responses which supported this theme were as follows: (1) "Classroom size. It is hard to be focused on the needs of one when there are 30 more per class who want attention as well. An expectation that there is someone in your room to help you – while I am reading a test question to one student privately, who is watching the rest of my student [*sic*] work silently?" (2) "The number of students who need them. The large size of classes;" (3) "The number of students in an individual class as well as the number of special education students;" (4) "...barriers to implementing accommodations for students with mild disabilities are large teacher class loads ...;" (5) "I see the biggest struggle with the fact that each teacher has 120-160 students and in those students there are those who require accommodations [*sic*]. This can quickly lead to a person being overwhelmed with the task of helping the students who require accommodations [*sic*);" (6) "Large class sizes are a huge hinderance [*sic*] for being able to implement accommodations correctly;" (7) Some resources are not always immediately available while some students cannot function in a regular classroom as well. There should be more resource classes available or smaller class sizes to reach everybody equally;" and (8) "The number of students that each secondary teacher works with in the course of a day makes implementing accommodations prohibitive."

In response to the third theme, additional support needed, participants' indicated the need for greater support from special education staff and funding. Some participants noted a greater need for having time with special education staff to provide assistance to general education teachers and students alike. A few participants' responses which supported this theme were as follows: (1) "Most "accommodations" are simple things I do for all my students anyway, which can paradoxically make it even harder to implement the ones that are very different. It is much easier in those situations for students to complete testing with the special education department rather than in class;" (2) "The barriers to implementing accommodations for students with mild disabilities varies [*sic*] with the individual disabilities. Sometimes the curriculum is so fast paced that accommodations can not be implemented within the classroom (inclusion). If money is available for inclusion teachers or separate environments are available (such as content mastery rooms), then these accommodations are possible;" (3) "I have two main concerns about accommodations at the secondary level. The first barrier that I am most concerned about is the scheduling and coordination of secondary inclusion teachers across the discipline areas. I see inclusion teachers who have greater knowledge of specific disabilities than I do virtually racing from class to class to provide bits of support as they can. I realize that funding concerns lead to staffing decisions that may greatly constrict the support of Special Education professional in the General Education setting. However, I strongly urge administrations at both the district and campus level to carefully design schedules so that special education professionals may have adequate time to collaborate and plan with their General Education counterparts to provide indepth [*sic*] support, not

just quick “check up”;;” (4) “The lack of intervention from special education representatives to the regular classroom teacher serves as a barrier;” and (5) “Having inclusion teachers can help, but then again they usually only focus on one or two kids.”

The fourth barrier, teachers’ lack understanding, indicated secondary general education teachers’ have a lack of knowledge or understanding of disabilities and the impact of the disability on students’ success. A few participants’ responses which supported this theme were as follows: (1) “A “catch-all diagnosis” that seeks to marginalize the negative behavior of a given student, as if they are incapable of making choices to adhere to appropriate conduct while in the classroom;” (2) “I think those students who have mild disabilities are the most likely to have their accommodations ignored. Teachers often mistakenly believe that the students just needs [*sic*] to try harder or to listen more. Often there are so many students needing different accommodations that teachers are overwhelmed and end up doing nothing since there is so much to do;” (3) “One barrier may be failure of the teacher to recognize students who have mild disabilities or to minimize the effect these may have on student success;” (4) “Teacher understanding of the specific benefit to the student;” and (5) “Another major barrier is that most teachers do not struggle with different abilities and therefore have a difficult time putting themselves in the student’s shoes. They perceive it as a burden.”

In response to the fifth theme, training, participants indicated the need for more in-depth training, as well as, follow-up training to overcome barriers to implementing accommodations for students with mild disabilities. Some participants noted they needed opportunities to increase their knowledge of how to implement accommodations and

what accommodations look like with in a particular content area. A few participants responses which supported this theme were as follows: (1) "...our general education teachers are not given training on implementing accommodations unless it is from the school's SPED department. Often times it is ignored, not fully understood, or not through enough due to various other tasks SPED personnel are responsible for attending to;" (2) "I feel more training and ideas for accomadations [*sic*] should be shared within our subject areas;" (3) "The training of General Education teachers regarding the implementation of accommodations needs to be much more extensive, including follow-up;" (4) "Teachers are not trained properly;" (5) "Lack of examples of how to modify lessons in an appropriate way;" (6) "There is also very little to no training at my school for teaching the main stream teachers about accommodations and implementing them correctly;" (7) "Another barrier would be the lack of specific training from the special education department;" (8) "Understanding exactly what they mean/might look like;" and (9) "More training should be provided to help me understand how to meet the needs of the student."

The final theme for barriers to implementing accommodations was time. Participants indicated secondary education teachers were overwhelmed with numerous tasks and need time for planning to effectively implement accommodations. A few participants' responses which supported this theme were as follows: (1) "Regular [education] teachers are overwhelmed with expectations and work. In the last 20 years or so, our workload has doubled, our stress has doubled, and the micro-managing of our classrooms has doubled as well. This work load impacts our abilities to work with any



individual student, including those with mild disabilities;" (2) "In a classroom of several or more special-[education] students, it comes down to remembering which students get which accommodations. Also, if it requires the teacher to prepare several different accommodations [*sic*], then time becomes an issue;" (3) "Time is stretched so thin with the many daily tasks, such as lesson planning, paper work and tutoring that is extremely difficult to find time to implement the accommodations that are time consuming to implement;" (4) "Time is the biggest barrier. Planning for more than one class preparation makes the individualized instruction really hard to do. Teachers are stressed to their limits with emphasis on testing and school report cards, failure rates, and district initiatives. Unfortunately planning for accommodations [*sic*] is often the last thing on a teacher's to do list;" (5) "Time! We need time in the summer ... to sit down with each component of our own curriculum and physically work on the accommodation [*sic*] that is most helpful and unique ... Quality modifications require concentrated time and effort when teachers are fresh and not burned out after teaching all day;" (6) "We do not have enough time to accommodate [*sic*] perfectly for each student;" and (7) "limited instructional time (many students need more time to process new information and can quickly fall behind if before or after school tutoring is not used)."

### **Additional Data Analysis**

While descriptive statistics were utilized for Research Question One and Two and qualitative methodology for Questions Three and Four, the researcher completed additional data analysis to examine any correlations among secondary general education teachers' (grades 9-12) perceived knowledge of testing accommodation and practices

relative to the effectiveness of accommodations for students with mild disabilities and demographic data (i.e. age, years of teaching experience, and route to teaching certification). According to Gay, Mills, and Airasian (2009), correlation refers to a “quantitative measure of the degree of correspondence” (p.9). A number between -1.00 and +1.00 measures the degree of association between two variables known as a correlation coefficient. A positive value implies a positive association, and a negative value implies a negative or inverse association. The level of significance was set at less than or equal to 0.05 for determining the significance level and concluding that any observed correlations existed. The correlation coefficient measures the strength of the linear relationship (expressed as either interval or ratio scores) between two variables (Gay, Mills, and Airasian, 2009). A Pearson Correlation was utilized for this purpose.

The researcher conducted further data analysis through the use of a *t* test. A *t* test determines whether “two groups of scores are significantly different at a selected probability level” (Gay, Mills, & Airasian, 2009, p. 335). For this study, a *t* test was used to compare secondary general education teachers’ (grades 9-12) perceived knowledge of testing accommodation and practices relative to the effectiveness of accommodations for students with mild disabilities and route to teaching certification (university based and alternative certification).

Table 18

*Pearson Correlation of Factor 1, Factor 2, Factor 3, and Factor 4 for TPK and Demographic Data*

	Age	Years of Teaching Experience	Route to Teaching Certification
Factor 1			
Pearson Correlation	-.319	-.223	.043
Sig (1-tailed)	.007	.043	.373
N	59	60	60
Factor 2			
Pearson Correlation	-.335	-.105	-.020
Sig (1-tailed)	.005	.212	.441
N	59	60	60
Factor 3			
Pearson Correlation	.180	.163	-.274
Sig (1-tailed)	.086	.107	.017
N	59	60	60
Factor 4			
Pearson Correlation	-.270	-.139	-.059
Sig (1-tailed)	.019	.144	.327
N	59	60	60

Table 18 shows the relationship between teachers' perceived knowledge of accommodations for each of the four factors and demographic data (age, years of teaching experience, and route to teaching certification). While weak or little to no correlations existed for Factor 1, Presentation Accommodations, and demographic data (age (-.319), years of teaching experience (-.223), route to teaching certification (.043)), there was a significance level found among Factor 1 and age (.007) and years of teaching experience (.043) indicating the correlations found were not very likely due to chance.

Furthermore, weak or little to no correlations existed for Factor 2, Response Accommodations, and demographic data (age (-.335), years of teaching experience (-.105), route to teaching certification (-.020)). Yet, there was a significance level found among Factor 2 and age (.005) indicating the correlation found was not likely due to chance. Little to no correlation was found in relation to Factor 3, Setting Accommodations, and demographic data (age (.180), years of teaching experience (.163), route to teaching certification (-.274)). However, a significance level was found among Factor 3 and route to teaching certification (.017) indicating the correlation found was not likely due to chance. In regards to Factor 4, Timing and Scheduling Accommodation, little to no relationship existed among Factor 4 and demographic data (age (-.270), years of teaching experience (-.139), route to teaching certification (-.059)). There was a significance level found among Factor 4 and age (.019) indicating the correlation found was not likely due to chance.

Table 19

*Pearson Correlation of Factor 1 and Factor 2 for PREA and Demographic Data*

	Age	Years of Teaching Experience	Route to Teaching Certification
Factor 1			
Pearson Correlation	-.128	.142	-.050
Sig (1-tailed)	.167	.139	.352
N	59	60	60
Factor 2			
Pearson Correlation	-.147	-.087	.099
Sig (1-tailed)	.133	.254	.225
N	59	60	60

Table 19 shows the relationship between teachers' perceived practices relative to the effectiveness of accommodations for each of the two factors and demographic data (age, years of teaching experience, and route to teaching certification). Little to no correlations existed for Factor 1 and demographic data (age (-.128), years of teaching experience (-.142), route to teaching certification (-.050)). Furthermore, there were no significance levels found among Factor 1 and demographic data (age (.167), years of teaching experience (.139), route to teaching certification (.352)) indicating the correlations found were likely due to chance. In addition, little to no correlations existed for Factor 2 and demographic data (age (-.147), years of teaching experience (-.087), route to teaching certification (.099)). Moreover, there were no significance levels found among Factor 2 and demographic data (age (.133), years of teaching experience (.254), route to teaching certification (.225)) indicating the correlations found were likely due to chance. *Discussion continued on page 70.*

Table 20

*T Test of Factor 1, Factor 2, Factor 3, and Factor 4 for TPK and Route to Certification*

	N	Mean	SD
Factor 1			
University Based	36	4.19	1.65
Alternative Certification	24	4.33	1.58
Factor 2			
University Based	36	2.53	0.61
Alternative Certification	24	2.50	0.83
Factor 3			
University Based	36	1.92	0.28
Alternative Certification	24	1.71	0.46
Factor 4			
University Based	36	2.22	0.83
Alternative Certification	24	2.13	0.80

An independent *t* test was conducted to identify statistically significant differences between route to certification (university based and alternative certification) on the four factors related to secondary general education teachers' (grades 9-12) perceived knowledge of testing accommodations. Results of this analysis are displayed in Table 20. For Factor 1 TPK, the reported relationships between university based ( $M = 4.19$ ,  $SD = 1.65$ ) and alternative certification ( $M = 4.33$ ,  $SD = 1.58$ ) was not statistically different. For Factor 2 TPK, the reported relationships between university based ( $M = 2.53$ ,  $SD = 0.61$ ) and alternative certification ( $M = 2.50$ ,  $SD = 0.83$ ) was not statistically different. For Factor 3 TPK, the reported relationships between university based ( $M = 1.92$ ,  $SD = 0.28$ ) and alternative certification ( $M = 1.71$ ,  $SD = 0.46$ ) was statistically

different. For Factor 4 TPK, the reported relationships between university based ( $M = 2.22$ ,  $SD = 0.83$ ) and alternative certification ( $M = 2.13$ ,  $SD = 0.80$ ) was not statistically different. The mean for the university based group on three out of the four factors is slightly higher than the alternative certification group. This indicates the university based group on average had a greater knowledge base than the alternative certification group on knowledge of testing accommodations in relation to Factor 2, Factor 3, and Factor 4 for TPK.

Table 21

*T Test of Factor 1 and Factor 2 for PREA and Route to Certification*

	N	Mean	SD
Factor 1			
University Based	36	17.63	3.79
Alternative Certification	24	17.25	4.00
Factor 2			
University Based	36	4.50	0.61
Alternative Certification	24	4.63	0.65

An independent  $t$  test was conducted to identify statistically significant differences between route to certification (university based and alternative certification) on the two factors related to secondary general education teachers' (grades 9-12) perceived practices relative to the effectiveness of accommodations. Results of this analysis are displayed in Table 21. For Factor 1 PREA, the reported relationships between university based ( $M = 17.63$ ,  $SD = 3.79$ ) and alternative certification ( $M =$

Table 23

*Levene's Test for Equality of Variances of Factor 1 and Factor 2 for PREA and Route to Certification*

	F	Sig
Factor 1		
Equal Variances Assumed	.162	.689
Factor 2		
Equal Variances Assumed	.104	.748

Table 23 displays Levene's Test for Equality of Variances for each of the two factors related to teachers' perceived practices relative to the effectiveness of accommodations and route to certification. For Factor 1 (.689) and Factor 2 (.748), the significances were greater than .05. Therefore, the assumption can be made that the variances were approximately equal. *Discussion continued on page 75.*



Table 24

*Independent Samples Test/T-test for Equality of Means of Factor 1, Factor 2, Factor 3, and Factor 4 for TPK and Route to Certification*

		t	df	Sig (2-tailed)	Mean Diff	Std Error Diff	95% Confidence Interval Diff	
							Lower	Upper
Factor 1								
EVA		-.325	58	.373	-.14	.427	-.995	.717
EVNA		-.328	51	.372	-.14	.423	-.990	.712
Factor 2								
EVA		.149	58	.441	.03	.186	-.345	.401
EVNA		.140	39	.445	.03	.198	-.373	.429
Factor 3								
EVA		2.169	58	.017	.21	.096	.016	.401
EVNA		1.972	34	.029	.21	.106	-.006	.423
Factor 4								
EVA		.451	58	.327	.10	.216	-.334	.528
EVNA		.455	51	.326	.10	.214	-.332	.527

EVA – Equal Variance Assumed; EVNA – Equal Variance Not Assumed

T test shown in Table 24 was a result of the Levene's Test. The results of the Independent Samples T Test indicate that for Factor 1, Factor 2, and Factor 4 the variances were approximately equal (see highlighted data Factor 1, Factor 2, and Factor 3). For Factor 3, the result of the Independent Samples T Test indicates the variances were not approximately equal (see highlighted data Factor 3).

Table 25

*Independent Samples Test/T-test for Equality of Means of Factor 1 and Factor 2 for PREA and Route to Certification*

		t	df	Sig (2-tailed)	Mean Diff	Std Error Diff	95% Confidence Interval Diff	
							Lower	Upper
Factor 1								
	EVA	.381	58	.353	.39	1.02	-1.66	2.43
	EVNA	.377	48	.354	.39	1.03	-1.69	2.47
Factor 2								
	EVA	-.759	58	.226	-.13	.165	-.454	.204
	EVNA	-.750	47	.229	-.13	.167	-.460	.210

EVA – Equal Variance Assumed; EVNA – Equal Variance Not Assumed

T test shown in Table 25 was a result of the Levene's Test. The results of the Independent Samples T Test indicate that for each factor the variances were approximately equal.

### Limitations

Certain limitations must be taken into account when interpreting the findings of this study. First, this study was a study of convenience. Second, this study was conducted using only secondary general education teachers who serve students grades nine through twelve in all core/content areas from one metropolitan school district in North Central Texas. Third, since cultures, climates, and attitudes in secondary schools differ from state to state and city to city, the findings may only be generalized to geographic locations where similar attitudes, climates, and cultures exists. Fourth, the

sample population may not represent the true characteristics of the total population.

Fifth, this study was limited to the degree of validity and reliability of the survey

instrument. Sixth, this study was limited to the statistical treatment utilized to analyze

survey items. Finally, this study was limited to the respondents who completed and

submitted the survey.

## CHAPTER V

### DISCUSSION

The purpose of this study was to examine secondary general education teachers' (grades 9-12) perceived level of knowledge of testing accommodations and practices relative to the effectiveness of accommodations for students with mild disabilities. By determining teachers' levels of knowledge of testing accommodations and practices relative to the effectiveness of accommodations for students with mild disabilities, data was gathered to support teachers in improving their knowledge and practices relative to various accommodations to directly impact students' with mild disabilities academic success both within grade-level curriculum and on high-stakes achievement testing.

### Findings

#### Research Question One

*What is the perceived level of knowledge of testing accommodations by secondary general education teachers for students with mild disabilities?* Testing accommodations were examined for four factors: (1) presentation accommodations, (2) response accommodations, (3) setting accommodations, and (4) timing and scheduling accommodations. Overall, the level of knowledge ranged from moderate to high.

Secondary general education teachers identified their highest level of knowledge of testing accommodations as setting accommodations. Setting accommodations were comprised of minimizing external and/or internal distractions and individual

administration. This finding agrees with those of Schulte, Elliott, and Kratochwill (2001) who reported students who were given a variety of testing accommodations, such as sitting in a quiet area away from peers, showed a positive effect on students with disabilities' performance that approached statistically significant.

Next, secondary general education teachers reported a somewhat high to high level of knowledge about both response and timing and scheduling accommodations. Response accommodations were comprised of use of scribe, supplemental aid, and blank graphic organizer. Timing and scheduling accommodations included testing over two days, frequent or extended breaks, and visual, verbal, or tactile reminders to stay on task. The findings related to extended time were mixed. Elliott and Marquart (2004) examined the effects of an extended time testing accommodation on the performance of eighth graders. Their findings indicated little evidence supporting the use of extended time as an accommodation for student with or without disabilities. However, these findings are contradictory to the findings of Ofiesh (1997) and Schulte, Elliott, and Kratochwill (2001) who reported extended time as an accommodation has shown to have a differential boost to the performance students with disabilities.

The least amount of knowledge reported in relation to testing accommodations was presentation accommodations. Secondary general education teachers indicated a moderate to somewhat high level of knowledge in this area. Presentation accommodations included the use of items such as colored overlay, blank place marker, read aloud, oral administration, and amplification device. Findings of Bolt and Thurlow (2007), Kosciolik and Ysseldyke (2000), and Elbaum (2007) in regards to a types of

presentation accommodations, read aloud and oral administrations, were mixed. The findings of Bolt and Thurlow (2007) examined the effects of read-aloud accommodations for fourth and eighth grade students in both math and reading. The findings differed for fourth and eighth graders. Results of the fourth-grade analysis indicated the read-aloud accommodation assisted students with reading disabilities to access math content. However, findings indicated a negative effect for eighth graders, who actually performed lower when receiving read-aloud accommodations. The findings of Kosciulek and Ysseldyke (2000) examined the appropriateness of providing testing accommodations to students with disabilities (learning disabilities, emotional/behavioral disorders, and speech and language impairment) on norm-referenced, standardized high-stakes tests with a focus on reading accommodations. Kosciulek and Ysseldyke (2000) found the effects of the read-aloud accommodation were greater for students with disabilities, noted as close to statistically significant. The findings of Elbaum (2007) examined the effects of an oral testing accommodation on the performance of students with and without learning disabilities on a mathematics test. Results revealed that elementary students with learning disabilities yielded greater gains when provided oral administration. For secondary students, the converse was true. While research supports the use of presentation accommodations, such as read-aloud and oral administration, for younger students, research was extremely limited in reference to secondary students in grades nine through twelve. Relevant literature did not reveal research studies or articles to support read-aloud or oral administration for high school students.

The results indicated secondary general education teachers had a moderate to high level of knowledge of testing accommodations with the highest level of knowledge for setting accommodations. Research findings did not address secondary general education teachers' knowledge of the four factors related to testing accommodations examined in this study.

### **Research Question Two**

*What are the perceived practices relative to the effectiveness of accommodations by secondary general education teachers for students with mild disabilities?* Perceived practices relative to the effectiveness of accommodations by secondary general education teachers for students with mild disabilities examined in this study were related to two factors (Factor 1 – F1; Factor 2 – F2). The two factors included topics such as feel confident making accommodations (F1), regularly adapt content or activities (F1), regularly refer to students' accommodation pages (F1), staff development assisted in effective implementation of accommodations (F1), and collaboration between special education teacher and general education teacher to determine the best accommodations for students with mild disabilities (F2).

Secondary general education teachers identified their highest level of perceived practices of effective implementation of accommodations for students with mild disabilities as Factor 2, which related to collaboration between special education teacher and general education teacher to determine the best accommodations for students with mild disabilities. The respondents (93.7%) selected four and five points out of five possible points. As noted in Chapter 4, this information should be interpreted with

caution given it is based on a single survey item. DeBettencourt (1999) examined the instructional strategies practiced by middle school general education teachers from the perspective of the number of special education courses taken and the amount of time collaborating with special educators. Findings indicated the increased amount of time general education teachers spent in consultation with special educators had a direct relationship on the general educator's increased use of instructional strategies.

In addition, participants in this study reported a moderate level of practices relative to the effectiveness of accommodations for Factor 1. The findings related to practices relative to the effectiveness of accommodations were similar in nature. Moltó (2003) explored general education teachers' perceptions of instructional adaptations/accommodations. Results indicated a moderate teacher acceptance of instructional accommodations. Lesser and Tappendorf (2001) noted general education teachers do not frequently implement differentiated instructional strategies necessary to accommodate students with disabilities. Part of their findings suggested participants tend to lean toward large groups of students versus individual students regarding the use of instructional strategies. Participants did not frequently use individually focused teaching accommodations, such as adapting instructional strategies, textbooks, materials, and tests. High school teachers' use of differentiated strategies occurred less often than elementary and junior high teachers.

Overall, the results of Question Two indicated secondary general education teachers have a moderate (Factor 1) to high (Factor 2) level of perceived practices



relative to effectiveness of accommodations for students with mild disabilities. Research findings do not specifically address secondary general education teachers (grades 9-12).

### **Research Question Three**

*Do secondary general education teachers' perceive that accommodations "level the playing field" for students with mild disabilities?* Participants' perceptions as to accommodations leveling the playing field for students with mild disabilities suggested the following themes based on participants' responses to this open-ended question. The most frequently noted themes were "uniqueness" (24.5%) and "demonstrate knowledge" (22.4%). The basis for these observations was participant indications that accommodations addressed the individuality of each student, provided opportunities for differentiation, and provided equal access to grade-level curriculum while allowing for equal opportunity to demonstrate knowledge. The findings of McLeskey and Waldron (2002) indicated elementary students with mild disabilities could best be served through modified curriculum and modified instructional techniques. While research findings did not address secondary education, this finding does support the current study in relation to providing opportunities for differentiation so students may demonstrate knowledge of grade-level curriculum. Leyser and Tappendorf (2001) noted general education teachers do not frequently implement differentiated instructional strategies necessary to accommodate students with special needs.

A portion of this group of secondary general education teachers did not perceive (18.4%) that accommodations "level the playing field" for high school students with disabilities and that these students use accommodations as a crutch (12.2%). The premise

of “leveling the playing field” has been advocated by the Texas Education Agency (2010-11 Accommodations Manual, 2010). Participants stated that accommodations did not increase success on tests and may, in fact, have caused harm. In addition, study participants stated that some students tend to take advantage of accommodations and fail to take learning into their own hands. The findings of this section of this research do not confirm the generally held perceptions that accommodations are necessary to be successful in the general education curriculum (Lang, Elliott, Bolt, & Kratochwill, 2008; Schulte, Elliott, & Kratochwill, 2001; Kosciulek & Ysseldyke, 2000; Ofiesh, 1997).

Another theme indicated that participants perceived accommodations were necessary for students with disabilities to perform successfully within secondary grade-level curriculum. However, participants indicated that students with disabilities did not take advantage of available accommodations (8.2%). The basis for this observation was that participants indicated students were concerned with bringing attention to themselves and making themselves appear different than classmates. The findings of Moltó (2003) indicated a moderate level of teacher acceptance of instructional accommodations. Sixty-two percent of participants considered instructional accommodations as feasible and 51% considered them to be effective. Thus, supporting participants in this study who perceived accommodations were necessary for students with disabilities to perform successfully within secondary grade-level curriculum. The participants suggested accommodations were only successful when students made use of them.

Finally, participants (6.1%) stated that large class size was an obstacle to successful accommodations for students with disabilities. Smaller class size and better

use of special education support were necessary. Tied closely to this was the perceived need for more training or professional development (8.2%) to help teachers better understand the learning needs of these learners, how to better use the special education support, and how to determine which accommodations may be successful in their classroom.

#### **Research Question Four**

*What do secondary general education teachers' perceive are barriers to implementing accommodations for students with mild disabilities?* While research findings did not specifically address barriers to implementing accommodations in the general education classroom, participants perceived there were barriers to the implementation of accommodations for students with mild disabilities. The following themes were suggested based on participants' responses to this open-ended question. The reader should note common themes existed among Question Three and Question Four.

The participants (95%) indicated specific barriers presently exist to implementing accommodations at the high school level in the general education curriculum. The most frequently noted themes were class size (21.5%) and training or professional development (21.5%), indicating both as major barriers to implementing accommodations. Classes with larger enrollment lower the teacher's ability and likelihood of individualizing lessons and accommodations. This barrier should be of great concern to general and special education teachers. It appears that class size does not permit the delivery of individualized special education intervention as required by IDEIA (2004) (U. S. Department of Education, 2004). Scott, Vitale, and Masten (1998)

examined existing literature and found relevant literature identified lack of teacher training and limited school support as barriers impeding classroom teachers' abilities to accommodate students.

In general, participants perceived lack of special education support (16.9%) as a barrier, noting the type of support provided by the special education program was impacted by funding (availability of staff, separate classrooms, etc.). These study participants suggested or advocated that specific services provided by special education department needed to be individualized to the student's needs rather than generalized (e.g. as needed by the student instead of one accommodation fits all). Based on review of existing literature examined by Overall, Scott, Vitale, and Masten (1998), inconsistency existed between teachers' high acceptability of instructional adaptations and their actual implementation practices.

Finally, participants stated both time (15.4%) and students' fear of appearing different (15.4%) were obstacles to overcoming barriers to implementing accommodations for students with disabilities. Findings of DeBettencourt (1999) examined the instructional strategies practiced by middle school general education teachers in the perspective of the number of special education courses taken. Findings reported the more special education courses taken by general education teachers increased the use of different types of instructional accommodations; thus, supporting the need for additional time to plan and additional training to increase the knowledge of general education teachers in different types of instructional accommodations. Tied closely to this theme was the general secondary general education teachers' lack of

understanding (9.3%) for students served by special education. However, this theme was not found in relevant literature for high school students.

### **Conclusions**

Secondary general education teachers' knowledge of testing accommodations and practices relative to the effectiveness of accommodations for students with disabilities is important, in part, because both could directly impact students' academic success within grade-level curriculum and on high-stakes achievement testing. If teachers do not have the knowledge base or effective practices in relation to accommodations, then neither one is likely to be implemented or acted upon. This concern has become progressively more important with the stringent demands of increased accountability for students with disabilities' outcomes by both IDEIA (2004) and NCLB. The review of literature in this study, as well as other research, supports this assertion. In this study, secondary general education teachers (grades 9-12) rated their knowledge of four categories of testing accommodations allowed for students with disabilities in one southwestern state and their practices relative to the effectiveness of accommodations. In addition, this study investigated secondary general education teachers' perceptions about accommodations "leveling the playing field" and perceived barriers to implementing accommodations for students with mild disabilities. Based on this study's findings, the following conclusions were drawn:

1. Secondary general education teachers (grades 9-12) have the highest level of knowledge for setting accommodations out of the four testing accommodations categories allowed for students with disabilities (mean score of 1.83 out of a

possible mean score of 2). The two areas rated were minimizing external and/or internal distractions (96.7% chose allowed) and individual administration (86.7% chose allowed).

2. Secondary general education teachers identified their highest level of perceived practices of effective implementation of accommodations for students with mild disabilities as collaboration between special education teacher and general education teacher (mean score of 4.55 out of a possible mean score of 5).
3. Secondary general education teachers perceived that accommodations “level the playing field” for students with mild disabilities (81.6%). The most frequently noted theme based on participants’ responses was “uniqueness” (24.5%), meaning accommodations address the uniqueness of each student and provide opportunities for differentiation to level the field.
4. Secondary general education teachers’ (95%) indicated specific barriers presently exist to implementing accommodations at the high school level for students with mild disabilities. The most frequently noted themes were class size (21.5%) and training or professional development (21.5%).

### **Recommendations for Future Research**

Based upon the findings of this study, the following recommendations are offered for consideration for future research:

1. Teach accommodations specific to the content area. For example, math has a different need than English which is different than science or social studies.

2. Provide more special education training. Conduct training focused specifically on the needs of high school general education teachers.
3. Conduct research regarding supports secondary general education teachers' view as effective in the implementation of accommodations for students with disabilities.
4. Research teachers' perceptions of accommodations "leveling the playing field" from a variety of other lenses (e.g. special education teachers, fine arts, Career Technology Education teachers, etc.) involved in the education of students with disabilities.
5. Research teachers' perception of barriers to implementing accommodations for students with mild disabilities from a variety of other lenses (e.g. special education teachers, fine arts, Career Technology Education teachers, etc.) involved in the education of students with disabilities.
6. Conduct research regarding teachers' perceptions of barriers to implementing accommodation to include students with moderate disabilities.
7. Conduct research focused on teachers' frequency of supporting students through routine use of testing accommodations.

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APPENDIX A  
IRB APPROVAL FORM



**Institutional Review Board**

Office of Research and Sponsored Programs  
P.O. Box 425619, Denton, TX 76204-5619  
940-898-3378 Fax 940-898-3416  
e-mail: IRB@twu.edu

November 30, 2010

Ms. Julie E. Davis

Dear Ms. Davis:

Re: *Secondary Education Teachers' Perceptions Related to Their Knowledge and Effectiveness of Accommodations for Students with Mild Disabilities (Protocol #: 16327)*

The above referenced study has been reviewed by the TWU Institutional Review Board (IRB) and was determined to be exempt from further review.

If applicable, agency approval letters must be submitted to the IRB upon receipt PRIOR to any data collection at that agency. Because a signed consent form is not required for exempt studies, the filing of signatures of participants with the TWU IRB is not necessary.

Any modifications to this study must be submitted for review to the IRB using the Modification Request Form. Additionally, the IRB must be notified immediately of any unanticipated incidents. If you have any questions, please contact the TWU IRB.

Sincerely,

Dr. Kathy DeOrnellas, Chair  
Institutional Review Board - Denton

cc. Dr. Jane Pemberton, Department of Teacher Education  
Dr. Lloyd Kinnison, Department of Teacher Education  
Graduate School

## APPENDIX B

### EMAIL INVITATIONS AND FOLLOW UP TO PARTICIPATE IN STUDY

**Julie Davis (Mac VP)**

**From:** Julie Davis [juliephdtwu@yahoo.com]  
**Sent:** Monday, January 10, 2011 10:07 PM  
**To:** MAC ENGLISH-LA TEACHERS; MAC MATH TEACHERS; MAC SCIENCE TEACHERS; MAC SOC  
STU TEACHERS; IHS ENG; IHS Math; IHS SCIENCE; IHS Social Studies; Nimitz English Teachers;  
Nimitz Math Teachers; Nimitz Science Teachers; Nimitz Social Studies Teachers; Academy All  
**Subject:** Dissertation Study for Doctoral Candidate

Dear Fellow Educators:

My name is Julie Davis, and as a doctoral student at Texas Woman's University, I am completing my dissertation. It is titled "Secondary Education Teachers' Perceptions Related to Their Knowledge and Effectiveness of Accommodations for Students with Mild Disabilities."

The purpose of this study is to determine secondary general education teachers' perceived level of knowledge of accommodations and practices relative to the effectiveness of accommodations for students with mild disabilities. This study is being completed for my dissertation in order to complete my Doctor of Philosophy degree at Texas Woman's University (TWU).

The result of this research could lead to implications for greater use of accommodations in classrooms for students with mild disabilities by general education teachers. I am requesting your participation in the study. This study has been approved by the Director of Planning, Evaluation, and Research for Irving ISD and the TWU Institutional Review Board (IRB). The IRB may be contacted at [IRB@twu.edu](mailto:IRB@twu.edu). Your participation is voluntary and the information will be collected anonymously. All responses are confidential. The estimated time for completion of the survey is approximately 15 minutes.

Thank you in advance for participating in this study to address this relevant issue. Since the survey is being collected from a sample of teachers, the return of all surveys is important. Please complete the survey in the next 7 days. Your responses are crucial to the outcome of this study. Please click on the link below to the PsychData website to begin the survey.

<https://www.psychdata.com/s.asp?SID=132504>

Sincerely,

Julie Davis

2/10/2011



**Julie Davis (Mac VP)**

**From:** Julie Davis (Mac VP)  
**Sent:** Monday, January 17, 2011 7:47 PM  
**To:** MAC MATH TEACHERS; MAC SOC STU TEACHERS; MAC SCIENCE TEACHERS; MAC ENGLISH-LA TEACHERS; Nimitz English Teachers; Nimitz Math Teachers; Nimitz Social Studies Teachers; Nimitz Science Teachers; IHS ENG; IHS Math; IHS SCIENCE; IHS Social Studies; Academy All  
**Subject:** Doctoral Candidate - Dissertation Study

Dear Fellow Educators:

Please allow me to introduce myself again. My name is Julie Davis, and as a doctoral student at Texas Woman's University, I am completing my dissertation. You each received my survey last week. I am making one final attempt in asking for your voluntary participation in my dissertation study. All information is being collected anonymously, and all responses are confidential. The time for completion of the survey is approximately 15 minutes.

The purpose of this study is to determine secondary general education teachers' perceived level of knowledge of accommodations and practices relative to the effectiveness of accommodations for students with mild disabilities. The result of this research could lead to implications for greater use of accommodations in classrooms for students with mild disabilities by general education teachers.

I am requesting your participation in the study. This study has been approved by the Director of Planning, Evaluation, and Research for Irving ISD and the TWU Institutional Review Board (IRB). The IRB may be contacted at [IRB@twu.edu](mailto:IRB@twu.edu).

Thank you in advance for participating in this study to address this relevant issue. Since the survey is being collected from a sample of teachers, the return of all surveys is important. Please complete the survey within the next 4 days. Your responses are crucial to the outcome of this study. Please click on the link below to the PsychData website to begin the survey.

<https://www.psychdata.com/s.asp?SID=132504>

Sincerely,

Julie Davis

2/10/2011

APPENDIX C  
POLIT STUDY SURVEY

***THE RETURN OF YOUR COMPLETED QUESTIONNAIRE CONSTITUTES YOUR INFORMED CONSENT TO ACT AS A PARTICIPANT IN THIS RESEARCH.***

***SECONDARY GENERAL EDUCATION TEACHERS' PERCEPTIONS RELATED TO THEIR KNOWLEDGE AND EFFECTIVENESS OF ACCOMMODATIONS FOR STUDENTS WITH MILD DISABILITIES***

This survey focuses on secondary general education teachers' perceived level of knowledge of accommodations and practices relative to the effectiveness of accommodations for students with mild disabilities in grades 9 – 12. The approximate time to complete this survey is 15 minutes.

Accommodations are defined by the Texas Education Agency as "changes to materials or procedures that provide equitable access to grade-level curriculum during instruction and testing. These changes do not substantially alter the content or performance criteria of assignments or assessments" (2010-2011 Accommodations Manual, p. 13)

Testing accommodations are defined by Lang, Elloitt, Bolt, and Kratochwill (2008) as "...changes made to the administration of standardized tests to provide students with disabilities the opportunity to demonstrate their knowledge and understanding of constructs measured by the test without the interference of their disability" (p. 108).

Campus: _____		Grade Level(s) Assignment: _____	
Content Area(s): _____		General Education: _____ Special Education: _____	
Additional Campus Responsibilities: _____			
Gender: ____ Male ____ Female		Ethnicity: ____ Caucasian ____ African American ____ Other: _____	
Age: _____			
Level of Education: ____ Undergraduate ____ Undergraduate plus graduate hours ____ Master's degree ____ Master's plus post graduate hours ____ Doctoral degree		Route to teaching certification: ____ University Based ____ Alternate Certification	
Years of teaching experience: _____			
Number of professional development hours in accommodations: _____			
Approximate number of students with mild disabilities in classes each day: _____			

***Responses are confidential. There is no place on the survey for participants' names. Participation is voluntary and participants can withdraw participation at any time. There is a potential risk of loss of confidentiality in all email, downloading and internet transactions.***

**SECONDARY GENERAL EDUCATION TEACHERS' PERCEPTIONS RELATED TO THEIR KNOWLEDGE  
AND EFFECTIVENESS OF ACCOMMODATIONS FOR STUDENTS WITH MILD DISABILITIES**

Please complete items 1-22 by checking the box that describes your level of knowledge for each item. Items 1-15 have three choices while items 16-22 have five choices. At the end of the survey, there are two open ended question for you to respond.

Statement	Allowed	Not Allowed	Don't Know
<b>Section I.</b> Secondary general education teachers' perceived level of knowledge of testing accommodations on the Texas Assessment of Knowledge and Skills (TAKS). Questions 1- 15; three answer choices.			
<b>PRESENTATION ACCOMMODATIONS</b> allow students to access information in alternate formats other than regular print.			
1. A student may use colored overlays.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Markers may be used to make notes on the colored overlay.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. A student may use a blank place marker on the test and answer document.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. A student may read aloud during testing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. A student may read into a recording device during testing and play it back while working.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. A test administrator may provide an oral administration for mathematics, science, and social studies and may include different levels of reading support for each student.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. A student may use an amplification device if the student is identified as having a hearing impairment and/or has a disability that affects the student's ability to focus or concentrate in large-group situations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>RESPONSE ACCOMMODATIONS</b> allow students to complete activities, assignments, and assessments using methods other than paper-and-pencil or machine scorable responses.			
8. The use of a scribe is allowable for a student who may have a temporary or permanent disabling condition that interferes with or limits the ability to make notes, do computations, or record responses on a scorable document.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. If a student's disability affects memory retrieval, a supplemental aid may be allowed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. A student who has a processing problem may benefit from blank graphic organizers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Statement	Allowed	Not Allowed	Don't Know
<b>SETTING ACCOMMODATIONS</b> change the location in which a test or assignment is given or the conditions of the assessment setting.			
11. A student may need an accommodation that minimizes external and/or internal distractions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. A student may receive an individual administration.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>TIME AND SCHEDULING ACCOMMODATIONS</b> increase the standard length of time to complete an assignment or assessment or possibly change the way the time is organized.			
13. Testing over two days is allowable for students who have unique situations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. A student who cannot concentrate continuously for an extended period or who becomes frustrated or stressed easily may need frequent or extended breaks.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. A student who loses focus easily may need general visual, verbal, or tactile reminders to stay on task.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Statement	Low	Somewhat Low	Moderate	Somewhat High	High
<b>Section II:</b> <b>Secondary general education teachers' perceived practices relative to the effectiveness of accommodations.</b> <b>Questions 16-22; 5 answer choices</b>					
16. I feel confident making accommodations for students with disabilities in my classroom.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. I regularly adapt content or activities to meet the needs of students with disabilities in my classroom.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. I believe collaboration between the special education teacher and me increases the likelihood of implementing accommodations for students with disabilities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. I confer on a regular basis with a special education teacher to determine the best accommodations for students with disabilities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. The staff development I have received has prepared me in the effective implementation of accommodations for students with disabilities in my classroom.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. I regularly refer to students with disabilities accommodation pages to ensure implementation of ARD committee decisions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Statement	Low	Somewhat Low	Moderate	Somewhat High	High
22. I believe the special education teacher and I should collaborate on all lesson plans for instruction delivered in my classroom.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Open Ended Questions	Explanation
Section III:	
As a secondary education teacher, do you perceive that accommodations "level the playing field" for students with mild disabilities? Please explain.	
As a secondary education teacher, what do you see are the barriers to implementing accommodations for students with mild disabilities?	

APPENDIX D  
SURVEY

## SECONDARY GENERAL EDUCATION TEACHERS' PERCEPTIONS RELATED TO THEIR KNOWLEDGE AND EFFECTIVENESS OF ACCOMMODATIONS FOR STUDENTS WITH MILD DISABILITIES

THE RETURN OF YOUR COMPLETED QUESTIONNAIRE CONSTITUTES YOUR INFORMED CONSENT TO ACT AS A PARTICIPANT IN THIS RESEARCH.

Responses are confidential. There is no place on the survey for participants' names. Participation is voluntary and participants can withdraw participation at any time. There is a potential risk of loss of confidentiality in all email, downloading and internet transactions.

This survey focuses on secondary general education teachers' perceived level of knowledge of testing accommodations and practices relative to the effectiveness of accommodations for students with mild disabilities in grades 9 - 12. The approximate time to complete this survey is 15 minutes.

Accommodations are defined by the Texas Education Agency as "changes to materials or procedures that provide equitable access to grade-level curriculum during instruction and testing. These changes do not substantially alter the content or performance criteria of assignments or assessments" (2010-2011 Accommodations Manual, p. 13).

Testing accommodations are defined by Lang, Elliott, Bolt, and Kratochwill (2006) as "changes made to the administration of standardized tests to provide students with disabilities the opportunity to demonstrate their knowledge and understanding of constructs measured by the test without the interference of their disability" (p. 108).

Please complete items 1 - 22 by selecting the box that describes your level of knowledge for each item. Items 1-15 have three choices while items 16-22 have five choices. At the end of the survey, there are two open ended questions for you to respond.

### Section I

Secondary general education teachers' perceived level of knowledge of testing accommodations on the Texas Assessment of Knowledge and Skills (TAKS)

Questions 1 - 7, three answer choices

**PRESENTATION ACCOMMODATIONS** allow students to access information in alternate formats other than regular print.

	Allowed	Not Allowed	Don't Know
*1) A student may use colored overlays.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*2) Markers may be used to make notes on the colored overlay.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*3) A student may use a blank place marker on the test and answer document.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*4) A student may read aloud during testing.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*5) A student may read into a recording device during testing and play it back while working.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*6) A test administrator may provide an oral administration for mathematics, science, and social studies and may include different levels of reading support for each student.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*7) A student may use an amplification device if the student is identified as having a hearing impairment and/or has a disability that affects the student's ability to focus or concentrate in large-group situations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Page Break



Section I Continued.

Questions 8 - 10; three answer choices

**RESPONSE ACCOMMODATIONS** allow students to complete activities, assignments, and assessments using methods other than paper-and-pencil or machine-scorable responses

	Allowed	Not Allowed	Don't Know
*8) The use of a scribe is allowable for a student who may have a temporary or permanent disabling condition that interferes with or limits the ability to make notes, do computations, or record responses on a scorable document.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*9) If a student's disability affects memory retrieval, a supplemental aid may be allowed.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*10) A student who has a processing problem may benefit from blank graphic organizers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Page Break

Section I Continued

Questions 11 - 12; three answer choices

**SETTING ACCOMMODATIONS** change the location in which a test or assignment is given or the conditions of the assessment setting

	Allowed	Not Allowed	Don't Know
*11) A student may need an accommodation that minimizes external and/or internal distractions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*12) A student may receive an individual administration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Page Break

Section I Continued

Questions 13 - 15; three answer choices

**TIME AND SCHEDULING ACCOMMODATIONS** increase the standard length of time to complete an assignment or assessment or possibly change the way the time is organized

	Allowed	Not Allowed	Don't Know
*13) Testing over two days is allowed for students who have unique situations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*14) A student who cannot concentrate continuously for an extended period or who becomes frustrated or stressed easily may need frequent or extended breaks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*15) A student who loses focus easily may need general visual, verbal, or tactile reminders to stay on task.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Page Break

Section II

Secondary general education teachers' perceived practices relative to the effectiveness of accommodations.

Questions 16 - 22 : 5 answer choices

	Low	Somewhat Low	Moderate	Somewhat High	High
*16) I feel confident making accommodations for students with disabilities in my classroom.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*17) I regularly adapt content or activities to meet the needs of students with disabilities in my classroom.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*18) I believe collaboration between the special education teacher and me increases the likelihood of implementing accommodations for students with disabilities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*19) I confer on a regular basis with a special education teacher to determine the best accommodations for students with disabilities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*20) The staff development I have received has prepared me in the effective implementation of accommodations for students with disabilities in my classroom.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*21) I regularly refer to students with disabilities accommodation pages to ensure implementation of ARD committee decisions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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\*22)

As a secondary education teacher, do you perceive that accommodations "level the playing field" for students with mild disabilities? Please explain.

(1000 characters remaining)

\*23)

As a secondary education teacher, what do you see as the barriers to implementing accommodations for students with mild disabilities?

(1000 characters remaining)

Page Break

\*24)

Campus Name

\*25)

Content Area

--Select--

- English
- Math
- History
- Science
- Other (please specify)

Other

\*26)

Grade Level(s) Assignment

--Select--

- 9th
- 10th
- 11th
- 12th
- Other (please specify)

Other

\*27) Teaching Assignment

--Select--  
- General Education  
- Special Education

\*28) Additional Campus Responsibilities

\*29)

Gender

--Select--  
- Male  
- Female

\*30)

Ethnicity

--Select--  
- Caucasian  
- African American  
- Hispanic  
- Asian  
- Other (please specify)

Other

\*31)

Age

\*32)

Level of Education

--Select--  
- Undergraduate  
- Undergraduate plus graduate hours  
- Master's degree  
- Master's plus post graduate hours  
- Doctoral degree

\*33)

Route to teaching certification

--Select--  
- University Based  
- Alternative Certification

\*34)

Years of teaching experience:

\*35)

Number of professional development hours in accommodations:

\*36)

Approximate number of students with mild disabilities in classes each day

Page Break

SECONDARY GENERAL EDUCATION TEACHERS' PERCEPTIONS  
RELATED TO THEIR KNOWLEDGE AND EFFECTIVENESS OF  
ACCOMMODATIONS FOR STUDENTS WITH MILD DISABILITIES

Thank you!

For maximum confidentiality, please close this window.

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<https://www.psychdata.com/auto/surveyprint.asp?UID=82066&SID=132504>

11/28/2010

## APPENDIX E

### PERCENTS ON CATEGORIES FOR ACCOMMODATIONS LEVELING THE PLAYING FIELD BY CONTENT AREA, GENDER, AND ETHNICITY

*Percents on Categories for Accommodations Leveling the Playing Field by Content Area*

	English	Math	Science	History
Uniqueness	33.3	11.1	27.3	27.2
Demonstrate Knowledge	16.7	38.9	18.2	18.2
No Way	16.7	16.6	36.3	9.1
Class Size	8.3	5.6	0.0	9.1
Training	16.7	11.1	9.1	0.0
Lack of Use	0.0	11.1	0.0	18.2
Crutch	8.3	5.6	9.1	18.2
	100.0%	100.0%	100.0%	100.0%

*Percents on Categories for Accommodations Leveling the Playing Field by Gender*

	Male	Female
Uniqueness	20.0	24.4
Demonstrate Knowledge	20.0	27.0
No Way	33.3	13.5
Class Size	6.7	5.4
Training	0.0	13.5
Lack of Use	6.7	8.1
Crutch	13.3	8.1
	100.0%	100.0%

*Percents on Categories for Accommodations Leveling the Playing Field by Ethnicity*

	Caucasian	African American	Hispanic	Asian	Other
Uniqueness	29.2	0.0	0.0	0.0	0.0
Demonstrate Knowledge	21.9	0.0	60.0	0.0	50.0
No Way	17.1	33.3	20.0	100.0	0.0
Class Size	7.3	0.0	0.0	0.0	0.0
Training	4.9	33.3	20.0	0.0	50.0
Lack of Use	9.8	0.0	0.0	0.0	0.0
Crutch	9.8	33.3	0.0	0.0	0.0
	100.0%	100.0%	100.0%	100.0%	100.0%

## APPENDIX F

### PERCENTS ON CATEGORIES FOR BARRIERS TO IMPLEMENTING ACCOMMODATIONS BY CONTENT AREA, GENDER, AND ETHNICITY

*Percents on Categories for Barriers to Implementing Accommodations by Content Area*

	English	Math	Science	History
Appear Different	21.4	27.8	8.3	33.3
Class Size	28.6	27.8	16.8	27.8
Additional Support	7.2	11.1	8.3	16.7
Lack of Understanding	21.4	11.1	8.3	0.0
Training	21.4	11.1	8.3	22.2
Time	0.0	11.1	50.0	0.0
	100.0%	100.0%	100.0%	100.0%

*Percents on Categories for Barriers to Implementing Accommodations by Gender*

	Male	Female
Appear Different	19.0	26.8
Class Size	28.6	24.4
Additional Support	4.8	14.6
Lack of Understanding	9.6	9.8
Training	19.0	14.6
Time	19.0	9.8
	100.0%	100.0%

*Percents on Categories for Barriers to Implementing Accommodations by Ethnicity*

	Caucasian	African American	Hispanic	Asian	Other
Appear Different	26.5	25.0	0.0	0.0	33.3
Class Size	26.5	50.0	0.0	33.3	0.0
Additional Support	14.3	0.0	0.0	0.0	0.0
Lack of Understanding	8.2	25.0	0.0	33.3	0.0
Training	18.4	0.0	33.3	0.0	66.7
Time	6.1	0.0	66.7	33.3	0.0
	100.0%	100.0%	100.0%	100.0%	100.0%



APPENDIX G

FREQUENCIES AND PERCENTS ON INDIVIDUAL ITEMS COMPRISED IN  
FACTOR 1, FACTOR 2, FACTOR 3, AND FACTOR 4 FOR TPK

---

*Frequencies and Percents for Individual Items in Factor 1 for TPK: A Student May Use Colored Overlays*

---

	Frequency	Percent
Don't Know/Not Allowed	25	41.7
Allowed	35	58.3

---

---

*Frequencies and Percents for Individual Items in Factor 1 for TPK: Markers May Be Used to Make Notes on the Colored Overlay*

---

	Frequency	Percent
Don't Know/Not Allowed	40	66.7
Allowed	20	33.3

---

---

*Frequencies and Percents for Individual Items in Factor 1 for TPK: A Student May Use a Blank Place Marker on the Test and Answer Document*

---

	Frequency	Percent
Don't Know/Not Allowed	19	31.7
Allowed	41	68.3

---

---

*Frequencies and Percents for Individual Items in Factor 1 for TPK: A Student May Read Aloud During Testing*

---

	Frequency	Percent
Don't Know/Not Allowed	24	40.0
Allowed	36	60.0

---

---

*Frequencies and Percents for Individual Items in Factor 1 for TPK: A Student May Read Into a Recording Device during Testing and Play It Back While Working*

---

	Frequency	Percent
Don't Know/Not Allowed	44	73.3
Allowed	16	26.7

---

---

*Frequencies and Percents for Individual Items in Factor 1 for TPK: A Test Administrator May Provide an Oral Administration for Mathematics, Science, and Social Studies and May Include Different Levels of Reading Support for Each Student*

---

	Frequency	Percent
Don't Know/Not Allowed	6	10.0
Allowed	54	90.0

---

---

*Frequencies and Percents for Individual Items in Factor 1 for TPK: A Student May Use an Amplification Device if the Student is Identified as having a Hearing Impairment and/or has a Disability that Affects the Student's Ability to Focus or Concentrate in Large-Group Situations*

---

	Frequency	Percent
Don't Know/Not Allowed	7	11.7
Allowed	53	88.3

---

---

*Frequencies and Percents for Individual Items in Factor 2 for TPK: The Use of a Scribe is Allowable for a Student Who May Have a Temporary or Permanent Disabling Condition that Interferes with or Limits the Ability to Make Notes, Do Computations, or Record Responses on a Scorable Document*

---

	Frequency	Percent
Don't Know/Not Allowed	4	6.7
Allowed	56	93.3

---



---

*Frequencies and Percents for Individual Items in Factor 2 for TPK: If a Student's Disability Affects Memory Retrieval, a Supplemental Aid May be Allowed*

---

	Frequency	Percent
Don't Know/Not Allowed	14	23.3
Allowed	46	76.7

---



---

*Frequencies and Percents for Individual Items in Factor 2 for TPK: A Student Who Has a Processing Problem May Benefit from Blank Graphic Organizers*

---

	Frequency	Percent
Don't Know/Not Allowed	11	18.3
Allowed	49	81.7

---



---

*Frequencies and Percents for Individual Items in Factor 3 for TPK: A Student May Need an Accommodation that Minimizes External and/or Internal Distractions*

---

	Frequency	Percent
Don't Know/Not Allowed	2	3.3
Allowed	58	96.7

---

---

*Frequencies and Percents for Individual Items in Factor 3 for TPK: A Student May Receive an Individual Administration*

---

	Frequency	Percent
Don't Know/Not Allowed	8	13.3
Allowed	52	86.7

---

*Frequencies and Percents for Individual Items in Factor 4 for TPK: Testing Over Two Days is Allowed for Students Who Have Unique Situations*

---

	Frequency	Percent
Don't Know/Not Allowed	29	48.3
Allowed	31	51.7

---

*Frequencies and Percents for Individual Items in Factor 4 for TPK: A Student Who Cannot Concentrate Continuously for an Extended Period or Who Becomes Frustrated or Stressed Easily May Need Frequent or Extended Breaks*

---

	Frequency	Percent
Don't Know/Not Allowed	6	10.0
Allowed	54	90.0

---

*Frequencies and Percents for Individual Items in Factor 4 for TPK: A Student Who Loses Focus Easily May Need General Visual, Verbal, or Tactile Reminders to Stay on Task*

---

	Frequency	Percent
Don't Know/Not Allowed	14	23.3
Allowed	46	76.7

---