HIGH-STAKES TESTING OF STUDENTS WITH DISABILITIES

by

Kristi Marie Teed

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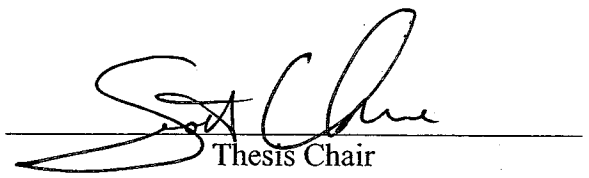

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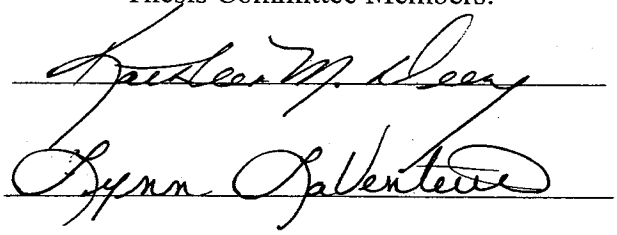

The Graduate School
University of Wisconsin-Stout,
Menomonie, WI 54751
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ABSTRACT

Teed	Kristi	T.
(Writer) (Last Name)	(First)	(Initial)

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The study consists of a literature review and empirical study on the topic of high-stakes testing and the implications of those tests on students with disabilities. The study touches on subtopics such as the premise of high-stakes testing, test validity issues, advantages and disadvantages of including students with disabilities in high-stakes exams, and teacher roles in ensuring that high-stake exams are fairly administered to students with disabilities. The purpose of this paper is to examine teacher knowledge of appropriate testing accommodations for students with disabilities. Specific emphasis was placed on testing accommodations for tests considered to be "high-stakes". Information regarding teacher knowledge and opinion of allowable testing accommodation knowledge was be obtained by randomly surveying regular and special education teachers in the state of Wisconsin. Teachers were asked to identify allowable testing accommodations that may be used for students with disabilities and then state if they

agree that the accommodation should be afforded to students. Both regular education and special education teachers were surveyed in order to determine if there is a difference in accommodation knowledge between the two groups of teachers. This is important because all teachers who works with an individual student who has a disability should understand what types of testing accommodations might make the student's test scores more valid.

Participants completed a survey in which they had to determine if 56 testing accommodations were allowable on high-stakes tests. The 56 items were all actually allowable as determined by the Office of Civil Rights. Although every item was actually allowable out of all participants there was not one item that had a 100% response rate of allowable. This would suggest that according to the data of the current study more knowledge regarding testing accommodations is warranted. There was not a significant difference between regular education and special education teachers' knowledge of testing accommodations.

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I would like to extend a grateful thank you to my parents, family and friends who have supported me throughout my educational pursuits. Thank you for your understanding and encouragement. My Great Uncle Marshall once told me that "An education is the only thing that can never be taken away from you." As a first generation college student I dedicate my specialist thesis to my parents and the elders of my family who have encouraged higher education.

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CHAPTER ONE

INTRODUCTION

The state of Wisconsin had proposed that at the beginning of the 2002-2003 academic school year, schools in Wisconsin would begin administering high school graduation exams that students are required to pass in order to receive a diploma (Wisconsin State Statute 118.30). Like many other states, Wisconsin wanted to require students to prove that they have mastered basic skills required for receipt of a high school diploma by passing a basic competency exam. Due to lack of funding this legislation was dropped, and therefore there will not be a graduation exam. However, it is important to note that the trend in several states is towards more high-stakes testing. Although Wisconsin does not yet have a graduation exam it does have other high-stakes exams in place as a result of the "No Child Left Behind", (Bush, 2001) legislation that do have serious implications for school districts and sometimes individual students. These include the Wisconsin Knowledge and Concepts Exam, taken in fourth, eight, and tenth grades. These exams dictate district performance as well as sometimes being a factor in grade promotion standards. Like most high-stakes exams, those in Wisconsin may require accommodations for students with disabilities in order to make the test a fair assessment in regards to the student's disability.

Tests such as those that determine mastery of academic standards required for graduation are known as high-stakes tests. The term high stakes implies that gains or losses can be derived from test performance (Cochran-Smith, 2000). Tests that are part of graduation requirements can be thought of as high stakes because the outcome of an individual's performance may mean the gain or loss of a high school diploma.

Much of the support for high-stakes testing is a result of a political push for accountability and measurement of standards in education. During the 1990s many states developed specific standards for skills that they wanted students to accomplish, as well as instruments to measure if these standards were being met (Barksdale-Ladd, 2000).

Much of the opposition with high-stakes testing is not the opposition of high standards, but how those standards are measured. Many experts feel that using a single test score as a decision basis is unacceptable because standardized tests can be limited in what they test and the results can be too easily misinterpreted (Miller, 2001).

One of the education populations that have the most difficulty with high-stakes tests, and that suffers the most negative consequences of these tests, are special education students (Donlevy, 2000). These students already have difficulty in mastering the basic standards of regular education and consequently also have difficulty passing high-stakes tests that are designed for regular education students.

The requirements of the 1997 revisions to the Individuals with Disabilities Education Act (IDEA) mandate that students with disabilities be included in statewide assessments. The problem with this requirement is that many students with disabilities will have difficulty passing high-stakes tests because the test will be more of a measure of their disability rather than a measure of their mastery of basic skills. IDEA's solution to making the tests valid and fair to students with disabilities is to include accommodations for testing in a child's Individualized Education Plan (IEP).

Although this is presented as an easy solution to a complex problem, the actual problem is that many of the teachers who are writing IEPs have limited knowledge of assessment and of allowable testing accommodations (Hollenbeck & Tindal, 1998). In

fact, most teacher education programs have been found to be deficient in their training requirements of assessment and measurement (Hollenbeck & Tindal, 1998). This will likely have significant impact on the validity and outcome of students' test scores if teachers are not adequately prepared to provide appropriate accommodations. In the case of a high-stakes decision, such as the award of a high-school diploma or grade promotion, an invalid test score can mean detrimental consequences for the student, such as the denial of the previously mentioned awards.

Because appropriate accommodations can have a great impact on the validity of the test score of a student with disabilities, it is crucial that teachers are knowledgeable in which accommodation is most appropriate for each situation, which accommodations are allowable, and how to implement the best accommodation. When teachers are not knowledgeable about testing accommodations, it is unlikely that appropriate accommodations will be made for students with disabilities. Therefore, test scores may be invalid, causing students with disabilities to suffer unfair consequences (Siskind, 1993). As such, it is necessary to assess what teachers know about testing accommodations in order to make sure that they have the knowledge to make decisions that will provide the student with the most appropriate opportunity to participate in state mandated tests.

Assessing teacher's current knowledge of accommodations gained from existing training and experience will determine what further training is needed to ensure that teachers have the knowledge they need to give students with disabilities the most fair and appropriate chance to complete high-stakes exams. This is especially important in the state of Wisconsin due to potential high-stakes graduation tests as well as other high-

stakes exams already in place such as the Wisconsin Knowledge and Concepts Exam, which results are considered in retention decisions at fourth and eighth grades.

Research shows that most teachers have little knowledge of what accommodations are allowable on state-mandated tests for students with disabilities and that they have inadequate training in assessment and measurement (Hollenbeck & Tindal, 1998). Current literature also shows that regular education teachers seem to have no better knowledge of assessment and test accommodations than special education teachers who may receive more exposure to test accommodations in special education teacher training programs (Siskind, 1993). Consequently, it is important to determine what knowledge Wisconsin teachers have regarding testing accommodations for students with disabilities and to determine if there is a difference in test accommodation knowledge between regular education and special education teachers.

Purpose of the Study

The purpose of this study is to describe selected issues of high-stakes testing. The study will focus on how these issues affect students with disabilities. This study will focus on the following objectives:

1. To explain the premise of high-stakes testing.
2. To identify validity issues concerning high-stakes testing
3. To identify the legal requirements and ramifications of high-stakes testing on students with disabilities.
4. To identify the advantages and disadvantages of including students with disabilities in high-stakes testing.

5. To identify teachers' roles in ensuring that students with disabilities are tested properly.
6. Assess knowledge base of educators in regards to test accommodation knowledge.
7. Make recommendations regarding what training is needed for educators in regards to testing accommodations.

Significance of the Study

The significance of this study relates to the importance of understanding the implications of high-stakes testing on students with disabilities. Given that the state of Wisconsin has adopted the practice of high-stakes testing for the purposes of grade promotion and graduation, it is essential that educators understand the effects of these tests on all students, especially those with disabilities who may need accommodations. Teachers must understand what accommodations are appropriate and allowable for students with disabilities in order to ensure that those accommodations are included in individual education plans so that those students have a fair chance of passing those tests that have high-stakes consequences.

Results from the study on teacher accommodation knowledge are significant in that it provides a glimpse at actual educator's current knowledge of testing accommodations. This information is important in order to determine if current educators require training on testing accommodations in order to ensure students with disabilities are afforded fair testing conditions on high-stakes exams.

Definitions of Terms

High-stakes educational decisions for student: A regulation, rule, practice, or other activity that does not appear to be discriminatory. A neutral practice may be found

in violation of federal law if the practice results in significant differences in the distribution of benefits or services to persons based on race, national origin, sex or disability without a substantial legitimate educational justification or there are equally or comparably effective alternative practices available that meet the institution's goals with less desperate impact (Office for Civil Rights, 2000).

Accommodation: A change in how a test is presented, in how a test is administered, or in how the test taker is allowed to respond. This term generally refers to changes that do not substantially alter what the test measures. The proper use of accommodations does not substantially change academic level or performance criteria. Appropriate accommodations are made in order to level the playing field, i.e., to provide equal opportunity to demonstrate knowledge (Office of Civil Rights, 2000).

Modification: "A change in the test (how it is given, how it is completed, or what construct is being assessed) and work across the board for all students with equal effect. Because of lack of interaction between group and change in test, the modification itself does not qualify as an accommodation" (Hollenbeck & Tindal, 1998, p. 2).

CHAPTER TWO

REVIEW OF RELEVANT LITERATURE

The review of literature discusses the current issues and concerns of high stakes testing of students with disabilities including: premise of high-stakes testing, validity issues, legal implications, advantages and disadvantages of including students with disabilities in high-stakes assessment, and teachers' roles in ensuring that students with disabilities are tested appropriately. The literature dealing with high-stakes testing is broad and includes issues of testing non-disabled students because many of the issues are relevant to all students.

Premise of High-stakes Testing

In order to understand the implications of high-stakes testing, it is first necessary to understand why high-stakes exams have become a prevalent trend. There are various reasons to explain the recent push in high-stakes testing, including international competition in education, and a means for providing motivation for students to learn (NEA Today, 1999). Other factors influencing the increase in state-mandated exams include reform for higher standards and measurement of teacher performance and accountability (Smith & Fey, 2000).

Although the practice of using tests to make high-stakes decisions such as those for graduation and grade promotion are a current trend, the notion of testing is not. Concepts of measurement have been around since Babylonian times and formalized testing was used in China since 2000 B.C. (Ittenbach, Esters, & Wainer, 1997). Individuals are subjected to many other high-stakes exams besides those for graduation

and promotion. For example, a driver's license exam or college entrance exams yield high-stakes decisions.

Government and policy makers in the United States use high-stakes tests as a measurement tool to describe the performance of the education system. President George W. Bush's "No Child Left Behind" plan proposes that every student in grades three through eight are assessed annually in math and reading (Bush, 2001). President Bush's plan explains that assessment has several purposes including: information for parents on their child's performance in school as well as information indicating how well the school is educating children. The plan also proposes that assessment results will reward those schools who make progress with additional funding, and enforce consequences in the form of less funding for schools that fail to show progress on the basis of test scores (Bush, 2001).

Validity Issues

Many opponents of high-stakes assessments oppose the president's rationale behind punishing or rewarding schools based on test scores. Those opponents claim that the problem with making judgments based on high-stakes tests lay in the questionable validity of the tests and in the misinterpretation of test scores. It has been argued that standardized tests do not assess what skills are most important, such as higher order thinking (Kohn, 2000).

The issues of validity involve what the test is measuring and how the results are being used. The National Research Council Committee on Appropriate Test Use adopted three criteria to determine if a test is appropriate. The 1999 report edited by Heubert and Hauser (1999) state these criteria as:

(1) measurement validity-whether a test is valid for a particular purpose, and whether it accurately measures the test taker's knowledge in the content area being tested;

(2) attribution of cause-whether a student's performance on a test reflects knowledge and skill based on appropriate instruction or is attributable to poor instruction or to such factors as language barriers or disabilities unrelated to the skills being tested; and

(3) effectiveness of treatment-whether test scores lead to placements and other consequences that are educationally beneficial.

The National Research Council Committee on Appropriate Test Use makes the point that if a school is using a test for a specific purpose then it should be valid for that purpose. Heubert and Hauser (1999) report that "Tests that are valid for influencing classroom practice, "leading" the curriculum, or holding schools accountable are not appropriate for making high-stakes decisions about individual student mastery unless the curriculum, teaching, and the test(s) are aligned." (p. 13).

Opponents also claim that factors influencing test scores such as teaching to the test and the numbers of disadvantaged and disabled students taking the test are not considered in the analysis of a school's scores (Kohn, 2000). Teaching to the test has become a significant part of student's classroom instruction, forcing teachers to focus on teaching discrete facts that will be asked about in state exams, and forcing them to spend less time on teaching students how to analyze and problem solve (Jones, et al., 1999).

In fact, the stakes of state-mandated exams have become so great that many teachers feel extreme pressure to have their students pass the tests. One study found that

76% of teachers participating felt their jobs were more stressful than before state-mandated tests were implemented and that the program was not improving the quality of education in their schools (Jones, et al., 1999).

Students also feel pressure from taking high-stakes exams. Jones and colleagues (1999) report that test-related stress includes worry over anticipation of testing and emotionality after the test is complete. Test anxiety is a frequent complaint of students and can result in lower test performance.

Decisions regarding grade promotion and graduation should not be based solely on one test score. In fact, many education professionals feel that students need to have more options and alternatives for meeting graduation and grade promotion requirements than passing state-mandated graduation exams (The Education & Research Network, 2000). The Eau Claire Area School District in Eau Claire, Wisconsin has done just that. Eau Claire's new graduation policy as reported in the June/July issue of the School News, states that students must still meet the 22 credit requirement regardless if they are regular education, at-risk, or special education students. The new options apply to a point system in which students must earn four points from various areas in order to graduate. This policy makes the graduation requirements more flexible and not based solely on the graduation test. Table 1 provides an explanation of point options.

Table 1.

Eau Claire Area School District Graduation Policy Point Options.

Option	Possible Points	Procedure
High School Graduation Test	1 point per area	Meet or exceed the standards for each area of the test (Mathematics, Social Studies, Reading/Language Arts, Science)
Academic Performance	1 to 3 points depending on GPA	GPA equal or greater than 3.5 = 3 points GPA of 2.0 to 3.49 = 2 points GPA of 1.0 to 1.99 = 1 point
Teacher Recommendations	Up to 4 points	Recommendation committee of a minimum of one administrator and two certified staff consider evidence such as: portfolios, projects, community service, work-based learning, and a variety of other student activities.
Individualized Education Plan (IEP)	Up to 4 points	Points awarded based on satisfactory completion of district approved IEP or at-risk program

Note. From "ECASD Graduation Policy", (2001), *The School News, 5*, p.1.

Legal Implications

One of the major concerns of high-stakes testing of students with disabilities is legal implications. Although Wisconsin State Statute 118.30 states that students may be exempted from state-mandated tests, the Individuals with Disabilities Education Act revisions of 1997 calls for the inclusion of all students with disabilities on state-wide tests and that if accommodations are needed they are to be included in the child's IEP. In addition, Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act also ensure appropriate testing accommodations be made for students with disabilities.

Case law regarding high-stakes testing has ruled that high-stakes tests are nondiscriminatory measures and are acceptable to be used when evaluating students with disabilities. The case *Brookhart v. Illinois State Board of Education* (1983) was filed on behalf of a special education student who was denied a high school diploma based on

failure of a minimum competency test, which was a component of the state's graduation requirements. The court ruled it lawful that students with disabilities be required to meet the same graduation standards as regular education students (*Brookhart v. Illinois State Board of Education*, 1983).

Important precedents of high stakes testing of students with disabilities were also derived from the Brookhart case. One of these precedents includes giving students sufficient notice of future state-mandated tests that would enable them to prepare and learn the skills measured by the test. Another important precedent was the requirement of proper accommodations in testing that would give students a fair opportunity to participate.

Advantages and Disadvantages of Including Students with Disabilities

One advantage of including students with disabilities in statewide high-stakes assessments is providing students with disabilities the same opportunities as regular education students. Before the 1997 revisions to IDEA students with disabilities did not have to participate in assessments designed for regular education students. Consequently, students with disabilities were frequently left out of these assessments in order to ensure that the school average would not be affected.

By leaving students with disabilities out of statewide testing they were missing out on experience and instruction that regular education students received. Regular education students were receiving instruction specific to test subject matter, and special education students were not included in that instruction because they were excluded from testing (Thurlow and Johnson, 2000). As a result, students with disabilities were not

being held to high standards to learn and demonstrate their knowledge like the regular education students because of testing (Thurlow and Johnson, 2000).

Children in special education already face numerous personal challenges as well as other challenges that are out of their control (e.g., supervision by uncertified staff and a lack of funding for programs to assist them in their challenges [Donlevy, 2000]). These children should be held to high expectations but without appropriate resources to meet those standards students with disabilities are at a disadvantage. Without adequate instruction these students face difficulty in meeting rising academic standards that are not proportional to the services received. Students with disabilities often face added pressure and higher rates of failure, resulting in higher dropout rates (Donlevy, 2001).

There are several implications of high stakes testing on graduation requirements in terms of the adverse effects that students with disabilities may experience from not receiving a standard high school diploma. Thurlow and Johnson (2000) list many alternate diplomas, but note that some of these options, such as a special education diploma identify and label recipients as having been in special education. It was also noted that certificates not equivalent to a high school diploma might hinder an individual from continuing with higher education and obstruct them from some employment opportunities. Table 2 lists diploma options that may affect students with disabilities.

Ethical and legal problems may arise concerning competency of educators to adequately prepare students with disabilities for the graduation exam. The Office of Special Education and Rehabilitation Services verified in a September 24, 2000 memo to state directors of special education regarding district-wide assessments that it is the responsibility and authority of the IEP team to make decisions about what modifications

are necessary for students with disabilities to participate in state-wide assessments such as those that determine promotion and retention. It is essential to understand the requirements concerning accommodations in order to ensure the student with the most valid participation in high-stakes exams.

Table 2 Advantages and Disadvantages of Different Diploma Options

Diploma options	Advantages	Disadvantages
Standard diploma or better, single criterion	Provides students opportunity for postsecondary institutions and employment. Meaning of earning a diploma is clear because there is only one set of criteria. Recognizes that students have different learning styles that may not align with typical graduation criteria. Ensures more students will get a diploma than would with a single criterion.	Does not recognize the different learning styles of students with disabilities. May result in numerous students not receiving any kind of exit document from high school. Reduces quality control on the knowledge and skills of students leaving school. Results in nonstandard sets of knowledge and skills among students, all of who have the same diploma.
Certificate options	Maintains integrity of the requirements for earning a standard diploma. Provides other exit options for students not meeting the requirements for a standard diploma.	May possibly produce students with diploma options who may not be knowledgeable enough for postsecondary schooling or employment.
Special education diploma	Recognizes that students with disabilities may be working on different standards than other students.	Identifies those students who received special education services, which may lead to stigmatization.

Note. Adapted from "High-stakes testing of students with disabilities," by M. L. Thurlow and D. R. Johnson, 2000, *Journal of Teacher Education, 51*, p. 309.

Teachers' Roles in Ensuring Appropriate Testing

Teachers must be knowledgeable about allowable accommodations because those accommodations included or left out of an IEP influence the validity of a child's test score. Table 3 provides a list of allowable accommodations. IDEA requires that when appropriate, accommodations are written in individual education plans for students with disabilities in order to provide the most valid measure of the student's abilities. It is the responsibility of the IEP team to ensure that the appropriate accommodations are included. However, most teachers who write IEPs have been found to have little knowledge of allowable testing accommodations (Siskind, 1993; Hollenbeck & Tindal, 1998).

Hollenbeck and Tindal (1998) found that of the teachers they surveyed regarding accommodations "Results showed that teachers' knowledge of allowable accommodations was limited enough to jeopardize the validity of score interpretation" (p. 180). Overall, Hollenbeck and Tindal (1998) discovered that teachers taking their survey reported actually using only 44.7% of the possible accommodations. This may be limiting student performance by not providing them all possible opportunities needed to succeed. They also found that special education teachers have no more knowledge of appropriate accommodations than regular education teachers.

In addition, an invalid score due to the application of inappropriate accommodations or the absence of accommodations may not have merit for appeal because the IEP is a legal document that courts refer to when determining if a student's due process has been violated. Research indicates that teachers' lack of knowledge regarding accommodations is so large that the validity of test scores of students with

disabilities is questionable (Hollenbeck & Tindal, 1998). This may indicate that some test scores of students with disabilities have been invalid and those students have been disadvantaged due to the implementation of improper test accommodations. It is important to note that according to Cohen (2002) anytime an accommodation is made test standardization is broken, thus test score results are invalidated. Thus, it is important that appropriate accommodations are made according to the test and the student's specific needs.

A study by Siskind, (1993) looked at teacher knowledge of allowable test modifications for students with disabilities. The study found that overall; teacher knowledge of accommodations was low. According to the study only 12 of the 60 teachers surveyed would have passed if the survey were scored as a test. The study also found that overall; there was no difference in amount of accommodation knowledge between special education and regular education teachers.

Teachers taking the Siskind study, however, were fairly knowledgeable of accommodations that involved test setting and test scheduling. Participant responses did not show high knowledge of revised test format accommodations or of revised test directions items.

Investigation of Wisconsin teacher knowledge of test accommodations is necessary in order to ensure the validity of forthcoming graduation exam scores of students with disabilities. In order to comply with IDEA requirements teachers need to be trained in how to implement appropriate accommodations that maintain test validity (Huefner, 2000).

Having an idea of current teacher knowledge will guide teacher training programs in assessment and test measurement requirements. According to an August 24, 2000 memorandum from the Office of Special Education and Rehabilitation Services most state directors of special education found the lack of test measurement training to be one of their greatest challenges regarding the implications that poor test interpretation has on students.

Knowing teachers' current level of accommodation knowledge can also guide the department of education in developing appropriate inservice training for teachers on how to write appropriate accommodations in IEPs. The state of Wisconsin recently implemented a training program that teaches teachers how to assess proper inclusion of students with disabilities in statewide testing and how to properly determine if a child requires accommodations, and which are appropriate.

Table 3

Test Accommodations for Students with Disabilities

Format	Accommodation
Presentation Format	Braille edition
	Large-print editions
	Templates to reduce visual field
	Short-segment testing booklets
	Key words highlighted in directions
	Reordering of items
	Use of spell check
	Use of word lists/dictionaries
	Translated into sign language
Administration Format	Oral reading of questions
	Use of magnifying glass
	Explanation of directions
	Audiotape directions and test items
	Repeating of directions
	Interpretation of directions
	Videotape in American Sign Language
	Interpreter signs test in front of classroom/student

Table 3 (continued)

	Signing of directions
	Amplification equipment
	Enhanced lighting
	Special acoustics
	Alone in study carrel
	Individual administration
	In small groups
	At home with appropriate supervision
	In special education classes separate room
	Off campus
	Interpreter with teacher facing student; student in front of classroom
	Adaptive furniture
	Use place marker
	Hearing aids
	Student wears noise buffers
	Administrator faces student
	Specialized table
	Auditory trainers
	Read questions aloud to self
	Colored transparency
	Assist student in tracking by placing students finger on item
	Typewriter device to screen out sounds
	Extended testing time
	More breaks
	Extended sessions over multiple days
	Altered time of day that test is administered
Response Format	Mark responses in booklet
	Use template for recording
	Point to response
	Lined paper
	Use sign language
	Use typewriter/computer/word processor
	Use Braille writer
	Oral response, use of scribe
	Alternative response methods, use of scribe
	Answers recorded on audiotape
	Administrator checks to ensure that student is placing responses in correct area
	Lined paper for large script printing
	Communication board
Other	Out-of level testing

Note. From "The Use of Tests as Part of High-Stakes Decision-Making for Students: A Resource Guide for Educators and Policy-Makers" by U.S. Department of Education Office for Civil Rights, December 2000.

CHAPTER III

METHODOLOGY

This chapter considers the implications of past research as it applies to the purpose and significance of the current study. Anticipated findings and potential limitations will be addressed.

Implications of the Current Literature for Future Research

Studies of high-stakes testing have traditionally focused on teacher and public perceptions. Few studies have focused on how high-stakes tests affect students with disabilities. In fact, Langenfeld, Thurlow, and Scott (1997) attest that there are less than 30 published studies regarding high-stakes testing, of which five focus on students with disabilities.

The review of literature has noted that, overall; teachers seem to have little knowledge of testing accommodations that are afforded to students with disabilities by IDEA '97. It has also been stated that previous studies have not found special education teachers to be significantly more knowledgeable than regular education teachers regarding testing accommodations. However, one hypothesis is that most studies regarding test accommodations for students with disabilities have been conducted previous to the 1997 revisions of IDEA, which require the participation of students with disabilities in high-stakes testing, and also allow for accommodations to be implemented. Consequently, teachers may not have been concerned with these issues since many students with disabilities were left out of high-stakes exams.

It is the intent of this paper to propose a study to expand on the previous research concerning high-stakes testing accommodations for students with disabilities. In light of the new requirements under IDEA 1997 (including inclusion of students with disabilities in high-stakes assessments, test accommodations when applicable and appropriate, and the requirement of both a regular education teacher and a special education teacher on the IEP team) current teacher knowledge needs to be considered. This consideration is also important regarding fair and appropriate participation of Wisconsin students with disabilities who will need to pass a potential high school graduation test or the current Wisconsin Knowledge and Concepts Exam administered in fourth, eighth, and tenth grades. Thus, it is the purpose of this study to determine how knowledgeable Wisconsin teachers are regarding test accommodation for students with disabilities in order to ensure students with disabilities will be appropriately tested to ensure valid test results.

Current Study

Participants.

The participants in this study included regular and special education teachers in the state of Wisconsin. Regular and special education teachers from all grade levels including elementary, junior high, and high school were asked to participate. Participants were randomly selected from the Wisconsin Department of Public Instruction Library and Statistical Information Center's 2001-2002 school year database list of licensed teachers.

A mass mailing of 150 regular education and 150 special education teachers randomly selected from the 2001-2002 database were initially mailed letters asking them to participate in the survey. The initial sampling resulted in 27 responses out of 300

surveyed. A follow-up of mailing of another random sampling (excluding the original 300 randomly selected teachers) of 150 regular education teachers and 150 special education teachers was done due to initial low response rate. A total of 40 responses out of 600 surveyed were collected, for a total response rate of 6.7%.Table 4 shows the demographic information of those who participated in the study.

Table 4

Participant Demographics

Gender	Frequency	Percentage
Female	29	72.5
Male	11	27.5
Type of Teacher		
Regular Education	17	42.5
Special Education	23	57.5
Grade Level		
Elementary	18	45.0
High School	16	40.0
Middle School	6	15.0
Years Experience		
1-3	2	5.0
4-10	16	40
10-20	9	22.5
20+	13	32.5
Highest Degree		
Bachelors	22	55.0
Master's	17	42.5
Ph.D.	1	2.5
Population of District		
Rural	22	55.0
Intermediate	10	25.0
Urban	8	20.0

Instrumentation.

The instrumentation used in this study was in the form of a survey. The instrument was similar to the teacher testing accommodation knowledge survey included in a study by Siskind (1993). Appendix A provides a list of survey items used by

Siskind. The current survey measured teachers' accommodation knowledge by listing various testing accommodations and having respondents mark if each accommodation listed is allowable/disallowed for students with disabilities while taking Wisconsin state-mandated tests. All 56 possible accommodations listed were allowable high-stakes testing accommodations as determined by the Office of Civil Rights. For each accommodation listed participants also had the opportunity to indicate if in their personal opinion they felt the accommodation should be an allowable or not allowable accommodation.

The instrument also asked demographic information such as gender (male or female), type of teacher (regular education or special education), grade level (elementary, middle school, or high school), number of years of teaching experience, highest degree held, and population of school district community (urban, intermediate, or rural). Additionally, teachers were asked if they have had any previous training in testing accommodations and if they have any students with disabilities in their classes. The instrument used is included in Appendix B.

Teachers were mailed a cover letter indicating that they had been randomly selected via the Wisconsin Department of Public Instruction's licensed teacher database to be invited to participate in the survey. Appendix C contains a copy of the letter. Participants were instructed through the letter to access the survey on-line at http://www.uwstout.edu/survey/teedk/teed_survey.htm. Participants were assigned a username and password that enabled them to gain access to the survey. Survey questions were answered by simply clicking on the desired response for each eight demographic questions and for the 56 listed accommodations. Participants did not have to type out any

responses. It was estimated that it would take participants approximately five minutes to complete the on-line survey. The survey was available on-line for participants to access from January until June 2002.

Data Collection Procedures.

A total group of 300 randomly selected participants were first mailed letters inviting them to participate in the on-line survey on January 28, 2002. The group was composed of 150 regular education teachers and 150 special education teachers. The initial mailing generated only 27 responses submitted between February 11, 2002 and February 27, 2002. No further responses were submitted after February 27, 2002.

On April 19, 2002 300 more potential survey participants were mailed letters inviting them to participate in the study. Again 150 regular education and 150 special education teachers were surveyed for a total of 300 more potential participants. The on-line survey was closed on June 1, 2002. Total number of respondents was 40 teachers. Of these 40 teachers who responded 17 or 42.5% were regular education teachers and 23 or 57.5% were special education teachers. Table 4 summarizes participants' demographic information.

Of those who participated in the survey, 45% taught at the elementary level, 40% taught at the high school level, and 15% taught at the middle school level. Most of the participants had at least four years of teaching experience (40%). 32.5% of the participants had 20 or more years of experience, and 22.5% had 10-20 years of experience. Only 5% of participants were new teachers having between one to three years experience. Based on years of teaching experience, it can be assumed that most of the sample has adequate experience as a teacher.

Participants were also asked to indicate the highest degree that each held. 22 of the 40 total participants indicated that a bachelor's degree was their highest degree. Of the 40 participants 17 held master's degrees and one had a Ph.D.

Most of the survey participants (55%) claimed that they taught in a district that was considered rural in population (Total population of 9,999 or less). Participants working in an intermediate sized school district community (10, 000 to 49, 000) accounted for 25% of the sample. Only 8% of those surveyed work in a school district considered to have an urban population (50,000 or more).

When asked if the survey participant had any previous training in testing accommodations 65% indicated that they indeed did have some training. When asked if the participants had students with disabilities in his or her classroom 38 of the 40 participants indicated that they did.

Data Analysis.

The data collection survey was accessible on the Internet. Participants marked their selected items and then submitted their responses on-line. University of Wisconsin-Stout Webmaster automated the data and created a data file. This automated data file of raw data was converted to SPSS Version 10 to tabulate frequencies and cross tabulation of results by demographic variables. Participants' responses to each of the items were totaled and scored. Descriptive statistics indicating percentage of teachers correctly identifying if each item is an allowable accommodation or not were indicated. In addition, a comparison between the overall scores of special education teachers and regular education teachers were compared to determine if there is a significant difference between the test accommodation knowledge of the two groups through completing t-tests

for independent samples. A comparison of the two group's performances will be made using t-tests to determine if there is significant difference between the performance of regular and special education teachers.

CHAPTER FOUR

RESULTS

Overview of Research Plan and Methodology

It is the intent of the current study to improve upon past research of the use of test accommodations for students with disabilities. Past research has looked at teacher knowledge of accommodations, specifically knowledge of what are allowable accommodations. The current study investigated teacher knowledge of allowable accommodations by using a revised version of the Siskind (1993) survey. It was anticipated that revisions to the survey would elicit information regarding teachers' past training in test accommodations as well as their current accommodation knowledge. Based on previous research, it is anticipated that special education teachers would be most knowledgeable of allowable test accommodations.

Results

Based on the fact that all 56 survey items were indeed allowable accommodations according to the Office of Civil Rights the results of the survey could have yielded all participants answering that all 56 accommodations were allowable. In some instances not all 40 respondents answered each item. In many other instances at least one respondent indicated that a particular item is not allowable. Three items did not receive any participants answering that the accommodation is not allowable. Those accommodations included: Braille edition, hearing aids, administrator faces student. Table 5 shows the item by item analysis of how many respondents answered if the item was allowable or not allowable, as well as their opinion if it should be allowed.

Table 5

Test Accommodation Survey Item Response Frequencies

Accommodation	Allowable		Opinion	
	Yes	No	Yes	No
Presentation Format Accommodations				
1. Braille edition	38	0	38	0
2. Templates to reduce visual field	36	3	36	2
3. Short-segment testing booklets	29	10	36	2
4. Key words highlighted in directions	28	11	36	4
5. Reordering of items	17	21	26	13
6. Use of spell checker	18	21	27	13
7. Use of word lists/dictionaries	19	20	27	13
8. Translated into sign language	37	1	37	1
Administration Format Accommodations				
9. Oral reading of questions	37	2	36	3
10. Use of magnifying glass	37	1	37	1
11. Explanation of directions	30	9	35	4
12. Audiotape directions or test items	32	6	34	4
13. Repeating of directions	36	3	38	2
14. Interpretation of directions	28	11	32	7
15. Videotape in American Sign Language	30	7	35	2
16. Interpreter signs test in front of classroom/student	30	7	33	4
17. Signing of directions	37	1	37	1
18. Amplification equipment	37	1	39	0
19. Enhanced lighting	35	3	36	2
20. Special acoustics	31	6	32	6
21. Alone in study carrel	35	4	38	1
22. Individual Administration	35	4	35	3
23. In small groups	34	5	35	4
24. At home with appropriate supervision	8	28	10	26
25. In special education classes separate room	38	1	38	0
26. Off campus	9	28	11	25
27. Interpreter with teacher facing student; student in front of classroom	29	7	30	7
28. Adaptive furniture	36	3	37	2
29. Use place marker	35	4	37	1
30. Hearing aids	39	0	39	0
31. Student wears noise buffers	35	2	35	2
32. Administrator faces student	39	0	39	0
33. Specialized table	37	1	35	2

Table 5 (continued)

34. Auditory trainers	31	5	32	3
35. Read questions aloud to self	32	7	36	2
36. Colored transparency	31	7	32	5
37. Assist student in tracking by placing student's finger on item	30	8	32	6
38. Typewriter device to screen out sounds	26	10	28	9
39. Extended testing time	34	5	34	6
40. More breaks	33	6	35	4
41. Extended sessions over multiple days	30	9	34	5
42. Altered time of day that test is administered	32	6	35	3
Response Format Accommodations				
43. Mark responses in booklet	35	4	37	2
44. Use template for recording	29	8	32	5
45. Point to response	31	8	34	5
46. Lined paper	32	6	37	1
47. Use sign language	36	2	36	2
48. Use typewriter/computer/word processor	29	9	36	2
49. Use Braille writer	36	2	37	1
50. Oral response, use of scribe	30	7	34	4
51. Alternative response methods, use of scribe	27	10	31	7
52. Answers recorded on audiotape	28	9	34	4
53. Lined paper for large script printing	33	5	36	1
54. Communication Board	32	5	35	3
55. Administrator checks to ensure that student is placing responses in correct area	31	7	36	3
Other Accommodations				
56. Out of level testing	21	17	28	10

Of particular interest are the items that yielded more than 25% of respondents answering that the accommodation was not an allowable high-stakes testing accommodation. Table 6 compares special education teachers versus regular education teachers' response rates for the items considered to have significant percentage of no responses. These items included number three: short-segment testing booklets: 25% not allowable. In regards to respondent's opinion if this accommodation should be allowable 90% indicated that they felt it should be an allowable accommodation. Item four (Key words highlighted in directions) had a response rate of 27.5% indicating that it was not an

allowable accommodation Although 90% of the respondents felt that it should be allowable. 52.5% of participants answered that item five, reordering of items, was not an allowable accommodation, but respondent opinion indicated that 65.0% thought it should be allowable. Item six, use of spell checker, yielded a response rate of 23.5% answering not allowable. 67.5% of respondents felt it should be allowable. Use of word lists/dictionaries (item seven) received a 50.0% response rate of not allowed Although only 67.5% held the opinion that it should be allowed. Item 14, interpretation of directions also received a significant number of not allowable responses (27.5%), however, 80% of respondents felt it should be allowable. Item 24, taking the test at home with appropriate supervision received a 70% response rate for not allowable, and only 25% of respondents thought it should be an allowable accommodation. Taking the test off-campus (item 26) yielded 70% of respondents believing that item to not be allowable. Only 27.5% believed it should be allowable. Item 51, alternative response method, use of scribe, received a not allowable response rate of 25%. 77.5% felt it should be allowable. Item 56, out of level testing received a not allowed response rate of 42.5%, while 70% of respondents felt it should be an allowable accommodation.

Of those items that yielded a response rate of not allowable there was not a significant difference between the number of special education and regular education teacher responses. Table 6 shows the breakdown between regular education and special education teacher responses for items with at least 25% not allowable responses. There was not a significant difference between regular education teachers and special education teachers in regard to responding that an accommodation was not allowable. Although there was not a significant difference between regular and special education teachers, the

special education teachers said that items were not allowable more than the regular education teachers did.

Table 6

Special Education versus Regular Education Responses

Item	Accommodation	Spec. Ed. (No)	Reg. Ed (No)
3	Short-segment testing booklets	5	5
4	Key words highlighted in directions	4	7
5	Reordering of items	12	9
6	Use of spell checker	12	9
7	Use of word lists/dictionaries	11	9
14	Interpretation of directions	5	6
24	At home with appropriate supervision	17	11
26	Off campus	16	12
51	Alternative response methods/scribe	7	3
56	Out of level testing	11	6

CHAPTER FIVE

SUMMARY AND DISCUSSION

Summary of the Study

Three-hundred regular education and 300 special education teachers (600 total) holding current Wisconsin teaching licenses were sent surveys regarding their knowledge of high-stakes testing accommodations. Out of those surveyed, 40 teachers responded, and among those 40 teachers, 17 identified themselves as regular education teachers and 23 identified as special education teachers. The surveys were available on the internet for participants to fill out. Survey items included demographic information as well as 56 high-stakes testing accommodations. Participants were asked if each accommodation was allowable in a high-stakes testing situation as well as their personal opinion regarding if they felt it should be allowable.

Discussion of Findings

All of the accommodations on the survey were deemed allowable by the Office of Civil Rights. However, participants did not answer that every single accommodation was allowable. The study also looked at the difference between regular educators and special educators' knowledge of testing accommodations. Although it would seem that special educators would have more knowledge of testing accommodations the survey results suggested that there was no significant difference between regular and special educator's knowledge of testing accommodations, and therefore if this data was reflective of the

general population of teachers then further training in testing accommodations would be warranted.

Implications and Recommendations for Future Research

There are five potential limitations to the proposed study. First, due to the participant pool being relatively small and limited to Wisconsin teachers the results of the study could not be generalized to teachers outside of Wisconsin. However, the proposed study is specifically looking at Wisconsin teacher knowledge for the purpose of determining how much accommodation knowledge training teachers need in order to make appropriate decisions regarding high-stakes testing in Wisconsin. The number of individuals who responded only totaled 40, thus the results may not be considered significant considering the number of participants originally surveyed (600).

Second, the instrument that was used to measure teacher knowledge of accommodations was a replicated survey from a previous study. This instrument is non-standardized, so conclusions drawn from the results of the survey need to be interpreted with caution. Also, the survey listed 56 accommodations that are allowable according to the Office of Civil Rights. Both regular and special education teachers may not be familiar with this list, and even those who claim they have prior training in testing accommodations may have been given information other than that of the Office of Civil Rights. Knowing what kind of accommodation training and when this training was received may have been informative in understanding teacher's previous knowledge of allowable testing accommodations. Also, depending on district practices some teachers' beliefs about whether specific items on the current survey were allowable or not may

have been biased by past trainings, lack of knowledge, or personal opinion regarding testing accommodations.

Third, due to the nature of how the survey was administered it was not possible to control for participants seeking additional knowledge than their previous knowledge in order to better answer the survey items. Since participants were able to access the survey at their convenience and in privacy it is unknown if participants sought out additional information in order to answer the survey questions.

Fourth, there may be inherent bias in gathering information through the use of a survey. Research has shown that those individuals who respond to surveys have a vested interest in the subject matter and are typically more compliant and motivated to participate. It is possible that the survey results may be skewed based on the fact that the survey is voluntary. Although the number of regular education teachers and special education teachers was relatively equal there were six more special education teachers who responded than regular education teachers. However, due to the small response sample it is unknown if the difference is significant. However, special education teachers may have more of an interest in a survey on testing accommodations due to the fact that they are usually the teachers who have the most influence on what testing accommodations will be provided for students with disabilities.

Fifth, the on-line format of the survey may have affected the response rate to the survey. On-line surveys are still a very new method of collecting data. Many factors in regard to the instrument format may have affected the response rate. First of all, being that the survey was not immediately available to participants in the form of a paper copy may have affected the response rate. Also, if those teachers surveyed did not have

adequate access to a computer and the Internet, they may have been less likely to respond. Although the survey was intended to only take five minutes to complete, this was not indicated in the invitation letter. When some participants realized that there were 56 accommodation items to respond to they may have looked at this as a lengthy commitment. Also, there was no incentive to the respondent except that they would be providing valuable data to the research of testing accommodations. If the participant did not feel this area to be worthwhile he or she may not have been concerned with providing their responses.

If this study were to be replicated it might be more productive to follow a paper format. Although the internet format was innovative in that it was efficient having all data compiled through a computer and reduced the amount of paper generated the response rate was very poor. This survey may have had a better response if participants could have had access to the survey in paper format. Participants may have felt more obligated to respond if the survey was directly mailed to them.

Timing of the survey may also have an effect on response rates. The Wisconsin Knowledge and Concepts Exam are now administered in the fall of the year. It may be better to administer a survey on testing accommodations when the topic is pertinent; either right before the Wisconsin Knowledge and Concepts Exam is given or directly after. This awareness of the test may ignite greater interest in accommodations.

Although there are several limitations to this study in regards to low response rate the results suggest that the respondents of this study may lack knowledge of many potential high-stakes testing accommodations. If this sample reflects Wisconsin teachers than there is the potential that students may be denied possible accommodations for high-

stakes tests. It is essential that teachers are aware of all possible accommodations since tests are becoming more common in our school systems, especially in high-stakes decisions such as graduation, retention, and post-secondary admissions.

Although Wisconsin does not have a graduation exam that students must pass to receive a high school diploma students with disabilities are confronted with other high-stakes testing situations such as post-secondary admissions exams as well as the Wisconsin Knowledge and Concepts Exam (WKCE) taken in fourth, eighth, and tenth grades. In fourth and eighth grades results from the WKCE are reviewed when a student is being considered for retention. Therefore, the use of appropriate accommodations is essential for students with disabilities.

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APPENDIX A

SISKIND (1993) SURVEY ITEMS

Test Setting
Individual Testing
Small Group Testing
Separate Location
Testing at Home
Special Administrator
Special Lighting
Special Furniture
Special Acoustics
Test Scheduling
Extended Time
Abbreviated Sessions
Testing at Best Time
Revised Test Directions
Read Directions Aloud
Repeat Directions
Clarify Directions
Additional Examples
Sign Directions
Separate Directions

Appendix A (continued)

Highlight Verbs

Revised Test Format
Braille
Large Print
Increased Space
Reduced # Items per Page
Enlarged Answer Bubbles
One Line Sentence
Vertical Choices
Loose Leaf
Video Cassette
Audio Cassette
Omit Questions
Cues (Stop Sign, Arrow)
Mask Test Material
Clarify Items
Test in Sign Language
Read Items Orally

Appendix A (continued)

Revised Answer Mode
Record Answers Booklet
Machine Answers
Dictate Answers
Enlarged Answer Sheet
Mechanical and Non-Mechanical Aids
Magnification
Amplification
Electronic Readers
Optical/Tactile
Place Markers
Braillewriter
Calculators
Abacus
Arithmetic Tables
Typewriter
Word Processor
Large Grip Pencil
Noise Buffers

Note. From "Teachers' Knowledge About Test Modifications for Students with Disabilities" by T. G. Siskind, 1993, Diagnostique, 18, p. 150-151.

APPENDIX B

TEST ACCOMMODATION SURVEY

Directions:
Please mark the appropriate answer to the following demographic information:

1. Gender: **Male** **Female**

2. Type of Teacher: Regular Education Special Education

3. Grade Level You Teach: **Elementary School** **Middle School** **High School**

4. Number of Years Teaching Experience: **1 to 3** **4 to 10** **10 to 20** **20 or More**

5. Highest Degree Held: **Bachelors** **Masters** **Education Specialist** **Ph.D**

6. Population of School District Community: **Urban (50, 000 +)** **Intermediate (10,000 to 49,999)** **Rural (9,999 or less)**

7. Have you had any previous training in test accommodations? **Yes** **No**

8. Do you have students with disabilities in your classroom? **Yes** **No**

Directions:
Please read each item and then mark if the item is an allowable high-stakes testing accommodation. Then please indicate if in your opinion you believe each accommodation should be allowable by marking yes or no.

Accommodation	Allowable / Not Allowable	Opinion
Presentation Format Accommodations		
Braille edition	**Allowable Not Allowable**	**Yes No**
Templates to reduce visual field	**Allowable Not Allowable**	**Yes No**
Short-segment testing booklets	**Allowable Not Allowable**	**Yes No**
Key words highlighted in directions	**Allowable Not Allowable**	**Yes No**
Reordering of items	**Allowable Not Allowable**	**Yes No**
Use of spell checker	**Allowable Not Allowable**	**Yes No**
Use of word lists/dictionaries	**Allowable Not Allowable**	**Yes No**
Translated into sign language	**Allowable Not Allowable**	**Yes No**
Administration Format Accommodations		
Oral reading of questions	**Allowable Not Allowable**	**Yes No**
Use of magnifying glass	**Allowable Not Allowable**	**Yes No**
Explanation of directions	**Allowable Not Allowable**	**Yes No**
Audiotape directions or test items	**Allowable Not Allowable**	**Yes No**
Repeating of directions	**Allowable Not Allowable**	**Yes No**
Interpretation of directions	**Allowable Not Allowable**	**Yes No**
Videotape in American Sign Language	**Allowable Not Allowable**	**Yes No**
Interpreter signs test in front of classroom/student	**Allowable Not Allowable**	**Yes No**
Signing of directions	**Allowable Not Allowable**	**Yes No**
Amplification equipment	**Allowable Not Allowable**	**Yes No**
Enhanced lighting	**Allowable Not Allowable**	**Yes No**
Special acoustics	**Allowable Not Allowable**	**Yes No**

Appendix B (continued)

Alone in study carrel	**Allowable**	**Not Allowable**	**Yes No**
Individual Administration	**Allowable**	**Not Allowable**	**Yes No**
In small groups	**Allowable**	**Not Allowable**	**Yes No**
At home with appropriate supervision	**Allowable**	**Not Allowable**	**Yes No**
In special education classes separate room	**Allowable**	**Not Allowable**	**Yes No**
Off campus	**Allowable**	**Not Allowable**	**Yes No**
Interpreter with teacher facing student; student in front of classroom	**Allowable**	**Not Allowable**	**Yes No**
Adaptive furniture	**Allowable**	**Not Allowable**	**Yes No**
Use place marker	**Allowable**	**Not Allowable**	**Yes No**
Hearing aids	**Allowable**	**Not Allowable**	**Yes No**
Student wears noise buffers	**Allowable**	**Not Allowable**	**Yes No**
Administrator faces student	**Allowable**	**Not Allowable**	**Yes No**
Specialized table	**Allowable**	**Not Allowable**	**Yes No**
Auditory trainers	**Allowable**	**Not Allowable**	**Yes No**
Read questions aloud to self	**Allowable**	**Not Allowable**	**Yes No**
Colored transparency	**Allowable**	**Not Allowable**	**Yes No**
Assist student in tracking by placing student's finger on item	**Allowable**	**Not Allowable**	**Yes No**
Typewriter device to screen out sounds	**Allowable**	**Not Allowable**	**Yes No**
Extended testing time	**Allowable**	**Not Allowable**	**Yes No**
More breaks	**Allowable**	**Not Allowable**	**Yes No**
Extended sessions over multiple days	**Allowable**	**Not Allowable**	**Yes No**
Altered time of day that test is administered	**Allowable**	**Not Allowable**	**Yes No**

Response Format Accommodations

Mark responses in booklet	**Allowable**	**Not Allowable**	**Yes No**
44. Use template for recording	**Allowable**	**Not Allowable**	**Yes No**
45. Point to response	**Allowable**	**Not Allowable**	**Yes No**
46. Lined paper	**Allowable**	**Not Allowable**	**Yes No**
47. Use sign language	**Allowable**	**Not Allowable**	**Yes No**
48. Use typewriter/computer/word processor	**Allowable**	**Not Allowable**	**Yes No**
49. Use Braille writer	**Allowable**	**Not Allowable**	**Yes No**
50. Oral response, use of scribe	**Allowable**	**Not Allowable**	**Yes No**
51. Alternative response methods, use of scribe	**Allowable**	**Not Allowable**	**Yes No**
52. Answers recorded on audiotape	**Allowable**	**Not Allowable**	**Yes No**
53. Lined paper for large script printing	**Allowable**	**Not Allowable**	**Yes No**
54. Communication Board	**Allowable**	**Not Allowable**	**Yes No**
55. Administrator checks to ensure that student is placing responses in correct area	**Allowable**	**Not Allowable**	**Yes No**

Other Accommodations

56. Out of level testing	**Allowable**	**Not Allowable**	**Yes No**

APPENDIX C
PARTICIPANT LETTER

April 16, 2002

Dear Potential Survey Participant:

You have been randomly selected via a listing of the State of Wisconsin Department of Public Instruction teacher listing service to participate in an educational study. This study is being conducted as part of my graduate research in the School Psychology program at the University of Wisconsin-Stout.

With rising concern of accountability of both students and teachers in education also comes the movement of implementing more high-stakes testing procedures. This study specifically examines teacher knowledge and opinion of allowable testing accommodations in high-stakes tests. The aim of this study is to determine if teachers know what specific accommodations can be permitted to students with disabilities who take high-stakes exams.

I invite you to participate in this survey that may supply the field of education with valuable data regarding testing accommodations. If you would like to participate, the survey is available on-line at **http://www.uwstout.edu/survey/teedk/teed_survey.htm**. The procedure for participating requires you to go to the website, answer the questions, and submit your responses all at the click of a button. To begin, you will need to enter a username and password. Your username is **survey** and your password is **1954**. Your responses will be completely anonymous. While this method of surveying participants is new, it is also hopefully a chance to utilize technology and make the process more efficient.

Thank you for your time and consideration in this important survey.
Sincerely,

Kristi Teed, Primary Researcher
School Psychology Student
409 EHS
University of Wisconsin-Stout
Menomonie, WI 54751
(715) 235-1954
teedkr@post.uwstout.edu

Dr. Scott Orme, Research Advisor
Department of Education, Sch. Counseling, and Sch. Psych
411 EHS
University of Wisconsin-Stout
Menomonie, WI 54751
(715) 232-2204
ormes@uwstout.edu

I understand that by submitting this Internet questionnaire I am giving my informed consent as a participating volunteer in this study. I understand the basic nature of the study and agree that any potential risks are exceedingly small. I also understand the potential benefits that might be realized from the successful completion of this study. I am aware that the information is being sought in a specific manner so that no identifiers are needed and so that confidentiality is guaranteed. I realize that I have the right to refuse to participate and that my right to withdraw from participation at any time during the study will be respected with no coercion or prejudice.

NOTE: Questions or concerns about participation in the research or subsequent complaints should be addressed first to the primary researcher or research advisor and second to Susan Foxwell, Human Protections Administrator, UW-Stout Institutional Review Board for the Protection of Human Subjects in Research, 11 HH, UW-Stout, Menomonie, WI 54751, phone (715) 232-2477.