

An Analysis of At-risk Rural Wisconsin High School Student Deficient
Reading Skills and the Potential of Students to
Drop Out of High School

by

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ABSTRACT

The purpose of this project was to show the relationship between the reading skills of rural at-risk high school students in the Chippewa Valley and the effect inadequate reading skills had on the students' potential to obtain a high school equivalency diploma (HSED) which prevents many students from dropping out of high school. To qualify for the Chippewa Valley Technical College HSED program, students must take a Test of Adult Basic Education (TABE) 9 Complete Battery Level D Reading Test and pass it with an 8th grade reading level. A case study was conducted to analyze the TABE test results of the 10 at-risk rural Wisconsin high school students who failed the reading test. It was found that many of the students had poor reading comprehension skills, graphic interpretation skills, and vocabulary skills based on a diagnostic analysis of each

student's reading test components. Effective research-based reading instruction and strategies were identified to address the specific areas of reading deficiencies that these students exhibited. This information will help rural high school instructors in the Chippewa Valley who work with at-risk students provide research-based reading instruction proactively before students take the TABE reading test. If students have the required reading skills to pass the initial reading test with an 8th grade reading level and qualify for CVTC's high school contract program, there is a greater chance they may obtain their HSED and less potential for them to drop out of high school.

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Chapter I: Introduction

Rural at-risk high school students in the Chippewa Valley of Wisconsin who want to obtain their high school equivalency diploma (HSED) at Chippewa Valley Technical College (CVTC) are required to pass a TABE 9 Level D Complete Battery Reading Test (hereafter, referred to as the TABE reading test) at an 8th grade reading level. If they are able to pass the initial reading test on the first attempt, there is evidence to indicate that they are less likely to drop out high school (CVTC, 2009). Helping at-risk students improve their reading skills proactively before they take the TABE reading test will provide students the reading skills they need to enter CVTC's HSED program. Students in CVTC's program have the opportunity to prepare for the required general educational development (GED) tests that are part of the HSED program. High school students who obtain an HSED have more employment opportunities, post-secondary educational opportunities, and are less of a financial burden on society.

Statement of the Problem

According to Wisconsin State Superintendent, Elizabeth Burmaster, 25% of all Wisconsin high school students in 2008 did not read at a proficient level (WI DPI, 2008). Many of these students are considered at-risk and require alternative education because they do not have the necessary reading skills to be successful in high school. High school students from the Chippewa Valley of Wisconsin who want to obtain their high school equivalency diploma (HSED) through CVTC must prove that they have an 8th grade reading level to be contracted by their high school into the CVTC program. Students demonstrate their reading skills when they take the required TABE reading test that provides a measurement of their reading level. Having an 8th grade reading level is

essential to ensuring that students have the basic reading skills necessary to successfully pass the GED tests and complete other HSED coursework.

In the fall of 2008, 20 rural students from the Chippewa Valley of Wisconsin took the TABE reading test; 50% of the students had reading comprehension levels that did not meet the required 8th grade reading level. Students who do not meet the required reading level are required to receive reading remediation at their high schools for three months before they are eligible to retake the TABE reading test and begin working on their HSED. Commonly, 50% of the students return to retest; the other 50% drop out of high school (CVTC, 2009). Therefore, at-risk rural high school students in the Chippewa Valley who do not have adequate reading skills may not qualify for CVTC's HSED program and may drop out of high school.

Purpose of the Study

The purpose of this study is to identify the inadequate reading skills of the 10 at-risk students who failed the reading test in the fall of 2008. This research will describe the relationship between students' reading ability and the relationship between the students' ability to pass the TABE reading test that subsequently results in their opportunity to receive their HSED or become potential high school dropouts.

A case study was conducted to analyze the results of the TABE reading test for each student who did not pass the test with an 8th grade reading level. Effective research-based reading remediation strategies will be described and provided to rural high school instructors who work with at-risk students to help students improve their reading skills before they take the reading test or during potential remediation periods. Using the research-based reading strategies, students will have a greater opportunity to improve the specific comprehension and vocabulary skills that are necessary to pass the TABE

reading test with at least an 8th grade reading level and be contracted with CVTC to obtain their HSED. Helping students build reading skills that will help them pass the TABE reading test and obtain an HSED at CVTC could also reduce the chance that these students will become high school dropouts. Furthermore, by obtaining their HSED, students will improve their employment potential and qualify for post-secondary education if they desire. The research will address the following questions:

1. What inadequate reading skills did the students demonstrate on the TABE reading test?
2. What reading skills do the students in this study need in order to pass the TABE reading test with an 8th grade reading level and obtain an HSED?

Definition of Terms

At-risk student - An at-risk student is a student who is not academically achieving in school based on credit deficiencies, poor attendance, discipline problems, or criminal issues.

Adult Basic Education (ABE) - This education is state funded and offers basic skills to adult learners who have below-level reading, writing, and/or math skills.

Chippewa Valley Technical College (CVTC), Eau Claire, WI. - For the purpose of this study, the abbreviation, CVTC, will be used throughout the paper.

General Educational Development (GED) - This is a national series of five tests (reading, social studies, science, math, and writing) that students must pass to obtain a GED certificate which qualifies as high school credentials. Grade equivalent (GE) - In this report, GE is used to identify students' reading ability based on an identified grade level.

High School Equivalency Diploma (HSED) - This diploma is given to students who pass a national series of five tests (reading, social studies, science, math, and writing) and also complete civics, health, and employability coursework or credentials.

National Reading Panel (NRP) - This panel was created in 1997 to research assessment of reading instruction approaches. It reviewed the effectiveness of teacher preparation in reading instruction. In 2000, the panel completed its report and submitted "The Report of the National Reading Panel: Teaching Children to Read," at a hearing before the U.S. Senate Appropriations Committee's Subcommittee on Labor, Health and Human Services, and Education.

Test of Adult Basic Education (TABE) - This battery of tests was developed by the Wright Group/McGraw Hill company for use with adult learners in the United States to assess reading, language arts, and math skills.

Limitations of the Study

The findings of this research are based on a specific case study that included only 10 at-risk rural Wisconsin high school students from the Chippewa Valley, therefore, the findings and results cannot be generalized beyond the scope of this study.

Assumptions

This study acknowledges the following assumptions:

1. The TABE 9 Level D Complete Battery Reading Test developed by McGraw-Hill/Wright Group is a valid testing instrument that accurately measures students' reading grade levels and accurately identifies each students' inadequate reading skills.
2. Students need an 8th grade reading level to be successful in CVTC's program.

3. Students who receive proactive research-based reading instruction before they take the TABE reading test may demonstrate an 8th grade reading level on the TABE reading test.

Chapter II: Review of Literature

Reasons Students Drop Out of High School

Many factors contribute to high school students dropping out of high school. For many years, researchers focused on social and demographic reasons and ignored the fact that instructional issues may contribute to the high dropout rate. The dropout rate was attributed to economic factors, such as familial income, parental support, and the adult responsibilities teenagers often assume such as single parenting and working rather than going to school (Jerald, 2006). In addition, other factors can contribute to a student's potential for dropping out including disabilities, race-ethnicity, absenteeism, and problems with the law (Alliance, 2007).

In the past, educators did not believe that students dropped out of school because of the quality of education provided (Jerald, 2006). They believed the cause was based on personal and parental issues. However, there is a great deal of evidence to suggest that in addition to demographic factors, a student's educational history and experience also contribute to the drop out rate.

Academic and educational factors are related to students dropping out of high school. Students who did not get passing grades, did not attend class, or were older than their classmates had a much greater potential for dropping out. A study done in 1990 surveyed a group of high school dropouts who chose from 21 possible reasons why they dropped out. Fifty-one percent of students said, "I didn't like school" while 41% said, "I was failing" (Alliance, 2007). Jerald (2006) also discovered the same results with the majority of respondents from a 2002 survey indicating that students thought school was boring or that they were not learning enough.

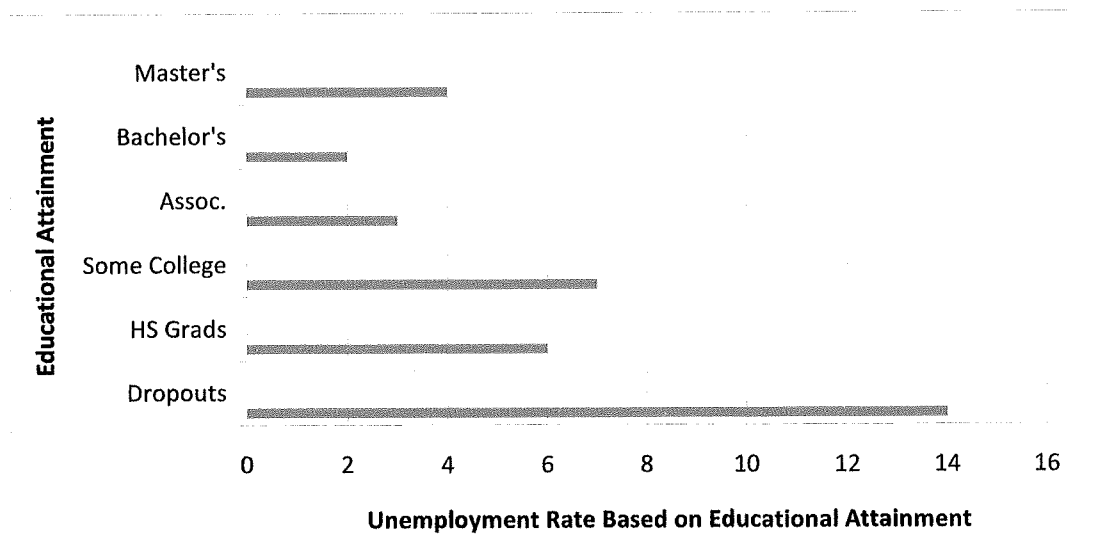
Block and Pressley (2008) contend that demographics and educational factors are both indicators of academic success. However, they believe educational factors are much more preventable. Jerald (2002) believes that one feature of at-risk students is their potential to drop out because of their failure to achieve proficient reading and math levels. According to the 2003 Alliance for Excellent Education Report, six million middle and high school students had reading levels below their grade. Five to 10% of students only read at a 2nd or 3rd grade level while a larger group only read at a 6th or 7th grade level (Wise, 2002).

As previously described, it is often difficult to determine the exact reasons students drop out of high school because there are so many contributing factors. However, if students are not academically successful and they are considered at-risk at a young age, there is reason to hope that with instructional adjustments they can receive help to achieve their academic goals (Caverly, Cusenbary, Nicholson, O'Neil, & Peterson, 2000).

Economic Effects of Dropping Out of High School

There are many effects that high school dropouts have on society as a whole. Years ago, many manufacturing and agriculture jobs were available that did not have educational requirements. Today, many of those jobs are automated or sent overseas (Wise, 2009). According to the Alliance for Excellent Education (2007), 85% of today's jobs and 90% of the "fastest growing and best-paying jobs" require education past high school. One of the greatest contributing factors to the high poverty level is the number of high school dropouts who are not qualified for employment. Figure 1 shows the correlation of the 2007 unemployment rate to educational attainment.

Figure 1. 2007 unemployment rate based on educational attainment.

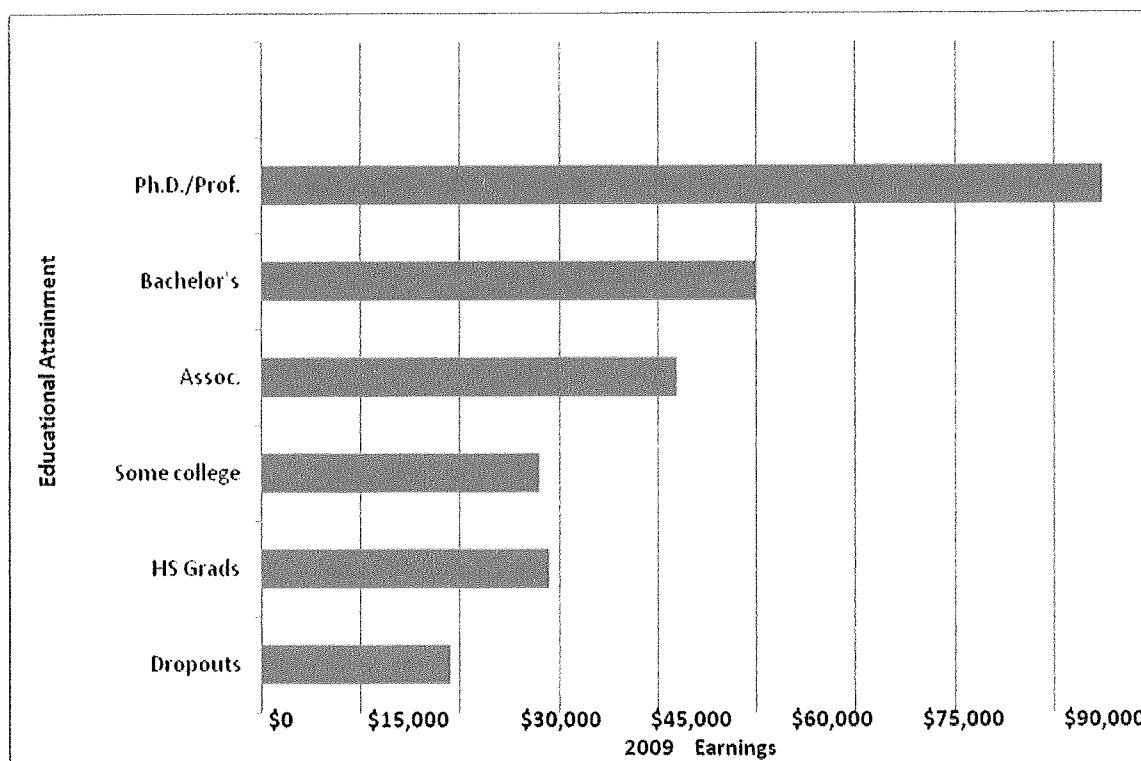


The U.S. Census (2006, 2007) reported that the unemployment rate for high school graduates versus dropouts is dramatic. Dropouts have a 14% unemployment rate compared to a 6% unemployment rate for graduates. According to The Alliance for Excellent Education (2007), the earnings potential for high school dropouts over their lifetime is also much less than a high school graduate. In the United States, dropouts cost more than \$309 billion dollars in lost wages, taxes, and production power throughout their lifetime.

Jerald (2006) asserts that the average earnings of a family headed by a high school dropout declined by nearly 1/3 between 1974 and 2006. According to Wise (2009), if all of the students in the U.S. from the class of 2000 graduated, our economy would have generated an additional \$319 billion dollars in future income. Chapman, DeBell, Lew, and Laird (2006) indicated that the average income for people ages 18 to 65 who did not graduate was approximately \$21,000 in 2006. Nationwide, high school graduates or GED recipients earned over \$31,000. Wise (2009) asserted that for every \$500 dollars that a dropout makes in 2009, a high school graduate makes approximately \$5,000. This means

that an additional \$74 billion dollars is spent in the United States when the primary breadwinner in a house is a high school graduate. Figure 2 shows the average earnings of Wisconsin residents in 2009 based on educational attainment. As indicated in the figure, a high school dropout earned approximately \$10,000 less in 2009 compared to a high school graduate (House, 2009).

Figure 2. Average 2009 earnings for WI residents by educational attainment.



In addition to lost income from lost wages and taxes, dropouts typically do not have health insurance because they do not qualify for benefits. The Alliance for Excellent Education (2007) reports that if all students in the United States from the class of 2006 graduated, the United States would have saved more than \$17 billion dollars in Medicaid costs.

According to the U.S. Department of Education National Center for Education Statistics (1998), high school dropouts are also more likely to end up in prison than high

school graduates. The report indicates that almost 82% of the prisoners in correctional facilities are high school dropouts. Wise (2009) asserts that if there were only a 5% increase in the number of high school graduates in 2009, the United States would save almost \$8 billion dollars in additional revenue that is typically spent on crime-related costs.

High School Dropout Reporting Process and Statistics

Reporting Process. In past years, many states inaccurately reported the number of students who failed their classes as dropouts because there was not a federally mandated method for calculating and reporting these statistics. States also previously reported students who received an alternative high school diploma, such as a high school equivalency diploma (HSED) or general educational development diploma (GED) as a high school graduates. Students who receive an HSED or a GED are not considered traditional high school graduates. Because of these reporting inconsistencies, the actual reported number of dropouts and graduates may be actually higher or lower depending on the state's individual methods used to construct the reports (Hoffman & Stillwell, 2008).

According to the Wisconsin Department of Education (2008), the federal government took measures to ensure that all state records and statistics on student dropout and graduate numbers were reported using accurate and consistent data. The methods to identify and report graduation and dropout information has improved because of the mandated requirements identified in the No Child Left Behind (NCLB) Act of 2001 which requires all states to comply with reporting standards in order to receive federal funding. These requirements force all states to accurately calculate and report the number of "regular" high school graduates and dropouts as part of the negligent and delinquent and dropout prevention programs.

The current process of calculating the total number of actual dropout and graduate rates from state to state is more consistent and more accurately identifies accurate graduates and dropouts (Chapman, et al., 2006). The National Center for Education Statistics (NCES) is responsible for reporting the state high school graduate statistics to the federal government. They base their information on the Average Freshman Graduation Rate as described by the NCES. This rate is based on the number of freshmen students who complete all four years of high school and receive a diploma (Kuenzi, 2007).

United States Statistics. Ideally, all children in the United States who begin formal education at five years old should complete their high school education and receive a diploma by the age of 18. However, this scenario is not realistic for many economic and academic reasons. According to the 2000 U.S. Census Bureau, almost 40 million adults did not have a high school diploma. That means that 18 % of the U.S. adult population does not have a high school diploma (Bauman & Graf, 2003).

According to Kaufman, McMillian, and Sweet (1996), the overall dropout rate across the United States has continued to decline over the past 10 years. The dropout rate between 1980 and 1990 actually decreased even though state academic standards increased. In 2007, Swanson (2007) indicated that the average graduation rate around the nation was 70 %; it was 60 % in urban areas and an alarming 35 % in cities with high-poverty levels such as Baltimore, Cleveland, Detroit, and Indianapolis.

Wisconsin Statistics. According to the Consolidated State Performance Reports (2007), the state of Wisconsin reports very high graduation rates compared to other states around the nation. In 2005, 80.5% of all students graduated from high school. In 2006, Wisconsin had an 89.3% high school graduation rate and 23% of these graduates took

advanced placement tests because they planned to continue on to post-secondary education. Many factors contribute to Wisconsin having such a successful high school completion rate. High academic standards, consistent assessments along with test accountability, qualified teachers, and communication between parents and administrators contributed to more students graduating (Consolidated State, 2002). According to the national General Educational Development office, students who do not qualify to graduate with their high school class often seek an alternative source to receive high school credentials (General Educational, 2004).

GED/HSED

Description. General educational development (GED) tests were initially developed in 1942 by the American Council on Education (ACE) to help returning World War II complete their education and get on with their lives (General Educational, 2004). A GED test “measures how well someone has mastered the skills and general knowledge that are acquired in a four-year high school education” (GEDonline, 2009, p. 1). The Wisconsin Department of Instruction State GED Office (2004) indicates that for students to receive a GED, they must pass a reading, social studies, math, science, and writing test. To receive an HSED, students must pass the five GED tests and also complete the following: a course in civics if they did not obtain three civics credits in high school, a course in health if they did not have a half credit of health in high school, and an employability course.

High school students who are still enrolled in their high school and want to obtain high school credentials through an educational facility such as a technical college are required to obtain a high school equivalency diploma (HSED). In addition, students who are under 18½ years old and whose freshman class has not graduated are also required by

the state of Wisconsin to obtain an HSED. If students officially withdraws from their high school and are at least 18 ½ years old, they would be able to obtain a GED or an HSED on their own. Adult students who dropped out of high school can also obtain either a GED or an HSED (Wisconsin Department GED, 2004).

Benefits of a GED/HSED. The Adult Education and Family Literacy Act indicates “the receipt of a secondary school diploma or its recognized equivalent is one of the core indicators of performance” (General Educational, 2004, p.55). According to Baldwin (1995), “GED credentials reflect the attainment level of literacy skills widely viewed as necessary for advancement for social and economic advancement and for exercising the rights and responsibilities of citizenship” (p.14).

According to the 2007 GED Testing Program Statistical Report, nearly 729,000 adults in the world took GED tests. There were more than 451,00 people who completed the full battery of tests and 71% passed the tests with scores equal to or above the scores earned by 40% of graduating high school seniors (GEDonline, 2009). Table 1 shows the 1994 National Adult Literacy Survey results that compare the literacy score of adults who received their GED compared to high school graduates. The scores indicate that the comprehension scores of GED recipients on prose (text, fiction, newspapers), documentary (tables, maps, job applications), and quantitative (arithmetic, balancing a checkbook, tipping) knowledge was almost the same as high school graduates (GED Fulfillment, 2009).

Table 1

1994 National Adult Literacy Survey (NALS)

	Prose	Documentary	Quantitative
GED	268	264	268
High School Diploma	270	264	270

The American Council on Education's Center for Adult Learning and Educational Credentials indicated that people who receive their GED have surpassed the performance of 40% of high school graduates (GED Fulfillment, 2009). Broad (2007) believes that when students successfully receive a GED or an HSED they have opportunities to receive post-secondary education, obtain better-paying jobs, and have more personal satisfaction. In addition, many future jobs in the U.S. will require postsecondary education. Broad (2007) believes it is essential that all high school students are able to receive post-secondary education if they desire. Alsalam, Bosel, and Smith (1998) indicate that postsecondary institutions typically accept a GED certification for entrance into educational programs. However, some institutions may require students to submit SAT or ACT scores that meet entrance requirements. In addition, students who have GED certification also have an opportunity to obtain federal financial aid, such as Pell Grants and Guaranteed Student Loans for post-secondary education.

CVTC HSED Reading Requirements. Davidson and Strucker (2003) believe that students who cannot meet their high school graduation requirements often have inadequate literacy skills. They state, "Many students below the GED level have reading skills similar to children who have reading problems" (p. 1). According to Chippewa

Valley Technical College (2009), rural high school students in Wisconsin who want to be contracted through their high school to attend the Chippewa Valley Technical College HSED program must obtain an 8th grade reading level on the TABE reading test to qualify for the HSED program. In addition, students must have adequate reading skills in order to pass the GED tests (NetNews, 2006). Baldwin (1995) asserts that “Passing the GED tests is a strong predictor of at least moderate levels of literacy proficiency. The greater a person’s literacy skills, the greater the chance of them passing the core of GED tests” (p.15).

CVTC HSED Program Requirements. Almost half of the high school students who attempt to enroll in CVTC’s HSED contract program fail to obtain the required 8th grade reading level on the initial TABE reading test (CVTC, 2009). In order to pass GED tests, a person must have at least a 9th grade reading level (General Educational, 2004). According to the National Reporting Panel (NRP), a person must read at level four in order to pass the GED testing series; this level equates to a 6 to 8.9 reading grade level. The GED tests are written at a 9th grade reading level (Kamil, et al., 2008).

TABE 9 Level D Complete Battery Reading Test. According to the McGraw-Hill/Wright Group (2006), the TABE reading assessment tests students’ skills in vocabulary and reading comprehension. Students are tested on their ability to demonstrate the following skills:

- Constructing meaning – Students must be able to identify the main idea, recognize and identify character traits, compare and contrast information, draw conclusions, recognize cause and effect, summarize and paraphrase, and use supporting evidence.

- Interpreting graphic information – Students must be able to read maps, use graphs, use indexes, use reference sources, complete forms, and understand classified ads.
- Understanding words in context – Students must be able to understand words with multiple meanings, and recognize and use synonyms, antonyms, and context clues.
- Recalling information – Students must be able to understand idioms and acronyms, identify and recognize details, identify and recognize sequences, and identify and understanding stated concepts by using other information in the text to understand the ideas not specifically stated.
- Evaluating and extending meaning – Students must be able to predict outcomes, recognize fact and opinion, recognize the author’s purpose, point of view and intention, make generalizations, identify a writer’s unique writing style, identify the writing genre (fiction, nonfiction, poetry, or drama), and use critical reading skills (prior knowledge applied to information in text).

If students are proactively taught these specific reading skills, they will have a greater chance of qualifying for CVTC’s high school program, obtaining higher-level employment, and have the credentials to continue on to post-secondary education if they desire.

Chapter III: Methodology

The purpose of this study was to identify and analyze the specific reading skills that prevented rural at-risk high school students in the Chippewa Valley of Wisconsin from passing the TABE 9 Level D Reading Test with the required 8th grade reading level. Passing the test at that level will qualify them for CVTC's high school equivalency program. More specifically, this study will identify the reading deficiencies of the 10 students in the study.

Research Design

This descriptive case study is based on the results of a reading assessment test. This test was used to determine students' reading grade levels and identify specific reading deficiencies.

Population/Sample

In the fall of 2008, 20 rural at-risk Wisconsin high school students from the Chippewa Valley took a reading test at CVTC to measure their reading grade level to determine their eligibility to participate in a high school equivalency program. These students did not have enough credits to graduate with their high school class and therefore chose to apply to CVTC's program. This case study is based on 10 of the students who did not pass the reading test with the required 8th grade reading level.

Instrumentation

The TABE 9 Complete Battery Level D Reading Test developed by McGraw-Hill/Wright Group was the instrument used to assess each student's reading grade equivalent (GE) and identify specific inadequate reading skills. The test is comprised of 50 multiple-choice questions. Ten students did not qualify for CVTC's high school equivalency diploma program because their test scores did not meet the required 8th grade

reading level. Each reading GE score was identified based on the number of incorrect answers they provided on a TABE reading test. The test is meant to measure students' reading GE between 6.6 and an 8.9 grade level; however, the test can measure GE's above and below this standard, from a 3.6 through a 12.9 GLE (Tests of, 2008). The Comprehensive TABE 9 Complete Battery Level D Reading Norms Table in the Appendix lists the possible reading GE's that students can receive based on the number of correct answers provided on the test (McGraw-Hill, 2006).

Data Collection Procedure

Reading score results and diagnostic reading skill information was collected in the fall of 2008 for the 10 rural Wisconsin high school students from the Chippewa Valley. These 10 students did not pass the TABE reading test with an 8th grade reading level. The information was provided by a CVTC instructional assistant who ensured that there were no personal identifiers that could be linked to a student.

Data Analysis

Data analysis for this study entailed identifying the reading GE for each of the 10 students in the case study. Each student's reading GE was determined by counting the number of incorrect answers provided on the 50-question multiple choice TABE reading test. Using the number of incorrect answers for each student, a reading GE was determined using the Comprehensive TABE 9 Complete Battery Level D Reading Norms Table that is provided in the Appendix. Individual deficient reading skills were analyzed and evaluated using the diagnostic chart on the bottom of each student's TABE test scorzee form.

The percentage of students who were deficient in specific reading skills was calculated by first adding up the total number of correct answers for each student in a

specific reading skill category and dividing that number by the total number of possible correct answers for that reading skill category. Students who scored below 60% in each reading skill area were considered deficient in that reading skill. Then, the number of all students who were deficient in a specific reading skill area were counted and the percentage was calculated by dividing the total number of students with deficient reading skills by 10 (the total number of students in the study).

Chapter IV: Results

The results from the identified reading GE's for some of the students who read well below an 8th grade level were very surprising considering the majority of these students should have been seniors in high school. However, based on the diagnostic analysis of each student's reading skills identified on the scorzee test form, the reading GE's were justified; the 10 students did not pass the TABE reading test because they were deficient in reading skills. The major deficiencies noted were in vocabulary, interpreting graphic information, and inferential comprehension. These skills are required for students to pass the TABE reading test successfully .

GE Analysis

Reading grade equivalents (GE's) for each of the 10 at-risk students who did not meet an 8th grade reading level when they took the initial TABE reading test are listed in Table 2 using an alphabetic letter to anonymously identify each student. Student's reading GE's were determined by the total number of incorrect answers out of the 50 questions on the reading test. The first of the two numbers listed under "Reading Level" is the student's reading GE level; the second number listed is the months at that grade level. For example, a 5.4 GE would mean the student has a 5th grade, 4th month reading ability (McGraw-Hill, 2006).

Table 2

At-Risk Student Reading GE's

Student	# of Incorrect Answers	GE
A	22	5.2
B	19	5.8
C	15	6.8
D	18	6.0
E	13	7.7
F	13	7.7
G	16	6.4
H	21	5.4
I	20	5.6
J	28	4.0

Reading Skill Analysis

Students' individual reading scores for each of the reading skill areas are reported in Table 3. The first number listed in each column in the table is the number of correct answers the student provided; the second number listed is the total number of questions possible in that reading skill area. Each student's diagnostic analysis was broken down into five reading skill categories. The categories consisted of each student's ability to construct meaning, evaluate/extend meaning, interpret graphic information, recall information, and understand words in context (McGraw-Hill, 2006). Using the standard passing rate from the Academic Services department at CVTC, an acceptable score for each reading skill category was determined to be 60% or above in each reading diagnostic category. This number was based on the total number of possible questions in the reading skill category. Based on the diagnostic analysis of each student's reading skills, it was evident that students did not possess adequate reading skills, graphic interpretation skills, or the vocabulary skills necessary to pass the TABE reading test.

Table 3

At-Risk Student TABE 9 Complete Battery Reading Skill Analysis

Student	Construct Meaning	Evaluate/ Extend Meaning	Interpret Graphic Info.	Recall	Words in Context
A	8/17	8/12	2/4	10/13	1/4
B	10/17	7/12	2/4	11/13	1/4
C	13/17	6/12	4/4	12/13	0/4
D	11/17	5/12	3/4	11/13	2/4
E	12/17	10/12	3/4	11/13	1/4
F	12/17	10/12	2/4	11/13	3/4
G	10/17	9/12	3/4	10/13	2/4
H	10/17	7/12	2/4	10/13	0/4
I	8/17	8/12	2/4	11/13	1/4
J	7/17	6/12	2/4	7/13	0/4

The following list describes statistical results for the students as a group for each reading skill area evaluated on the TABE reading test using a 60% passing rate for each area.

- Construct Meaning - three of the ten students, or 30% had inadequate reading skills to construct meaning from the reading; furthermore, three students just met the 60% passing rate
- Evaluate and Extend Meaning - three of the ten students, or 30% of students had inadequate reading skills to evaluate and extend meaning from the readings in the test; furthermore, two other students just met the 60% passing rate
- Interpret Graphic Information - six of the ten students, or 60 % had inadequate skills to interpret graphic information
- Recall - only one of the ten students, or 10% had inadequate recall of information
- Vocabulary - nine out of the ten students, or 90% had inadequate vocabulary skills and were unable to understand words in context

Because a large number of students did not have strong comprehension skills, they did not have the reading skills to enable them to construct meaning or evaluate and extend meaning. In addition, more than half of the students did not have the reading skills to effectively read maps, graphs, or interpret information in an index or on a form. Most importantly, an alarming 90% of students had inadequate vocabulary skills and were unable to identify words in context. Because students had poor vocabulary skills, they were unable to recognize the meaning of words and could not use context clues to help them understand unfamiliar vocabulary words (McGraw-Hill, 2006).

Chapter V: Discussion

Limitations

The findings are based on a specific case study that included 10 at-risk rural Wisconsin high school students from the Chippewa Valley; therefore, the findings and results cannot be generalized beyond the scope of this study.

Conclusions

It is evident from the results that inadequate reading skills contributed to each student's inability to read at an 8th grade level. Because many of these students did not have effective reading comprehension skills, the ability to interpret graphic information, or the vocabulary skills to qualify for CVTC's program, many of them were unable to obtain their HSED and 50% dropped out of high school. Therefore, instructors who work with at-risk students proactively before they take the TABE reading test to help them improve their reading skills will provide the following benefits:

- Provide students the necessary research-based reading skills to help them pass the initial TABE reading test and be contracted to obtain their HSED at CVTC
- Help students build confidence in their reading skills so they are able to successfully pass the GED tests
- Enable students to receive their HSED in a timely manner and not have to receive three months of remediation
- Enable students to receive their HSED and qualify for higher paying employment or obtain post-secondary education
- Provide motivation by helping students build reading skills so they have the desire to read more in the future

In addition, if at-risk students have the required reading skills necessary to pass the TABE reading test with an 8th grade reading level and receive their HSED, the students' high school, parents/guardians, and CVTC will benefit in the following ways:

- High schools will be able to include at-risk students who obtain their HSED in Student Performance Reports that are submitted to the National Center for Education Statistics for funding purposes. They will also be able to count them for state funding purposes (Wisconsin, 2009)
- Parents of the at-risk students will feel a sense of pride when their child receives an HSED rather than dropping out of high school
- CVTC will experience an increase in the HSED high school student enrollment and completion rates

Recommendations

In an effort to improve the dropout rate for rural high school students in the Chippewa Valley and help students qualify for CVTC's program, teachers must use proactive research-based reading instruction to help students improve comprehension reading skills, graphic interpretation skills, and the vocabulary skills necessary to pass the TABE reading test. By providing explicit reading strategy instruction before students attempt to take the TABE reading test, students will have a greater opportunity to improve their reading skills and achieve the required 8th grade reading level on the TABE reading test and obtain their HSED.

Reading Strategies

Many high school students do not have reading competence because they do not have adequate reading strategies and therefore, they avoid reading all together. Because at-risk high school students have a history of poor reading skills in the elementary grades,

they academically fall farther and farther behind their classmates and never catch up (O'Brien, et al., 1997). The No Child Left Behind Act indicates that all public schools must provide scientific research-based reading instructional methods to be eligible for state aid (NCLB, 2008).

The National Reading Panel (2000) indicated that research-based reading instruction includes phonemic awareness, phonics, fluency, vocabulary, and text comprehension based on more than 100,000 studies. The results of the studies indicated that instruction in these five areas was essential for students to build effective reading skills.

There was a great deal of evidence in this case study that indicated that a large number of students had inadequate vocabulary skills, graphic interpretation skills, and reading comprehension skills on the TABE test. Therefore, the following information describes reading remediation strategies that instructors can use to help students improve these deficient reading skill areas before they take the TABE test. In addition, even though the TABE reading test did not measure students' ability to decode words, information on decoding skills will be provided because decoding skills are essential for students to develop fluency which contributes to effective reading comprehension.

Vocabulary Skills. Building vocabulary skills is essential to improving reading skills and teachers should provide explicit vocabulary instruction to help students learn new words that will enable them to construct meaning from text. One strategy to use before introducing new words is to establish prior knowledge. For example, "What do you know about _____?" Kamil, et al. (2008). According to the International Reading Association (2008), students must understand vocabulary words in order to build background knowledge that is essential to understand the words in a content area. For

example, to activate prior knowledge, instructors could ask students what they know about vocabulary words in the text. They could have students demonstrate their knowledge of the words by using them in a sentence or ask students to provide examples of other uses of the vocabulary words. In addition, students must be taught how to use contextual clues to understand vocabulary words. For example, students need to look at the words around the unknown word such as synonyms, antonyms, and definitions of other words to associate meaning to unknown vocabulary words. Students also need to use typographic clues such as glossaries, footnotes, pictures, graphs, and charts to help define unfamiliar vocabulary words.

Teachers must also provide direct vocabulary instruction. They should ask students to look up words in a dictionary, match words to their meanings, memorize word definitions, and use graphic maps that show the correlation of words and their meanings. In addition, teachers should repeatedly expose students to new vocabulary words in relevant text such as newspapers and text that is applicable to their lives. They should also “pre-teach” vocabulary words from instructional texts. Students need to learn strategies to break down words, use context clues to help define words, and use a dictionary to look up unfamiliar words (Kamil, et al. 2008).

Interpreting Graphic Information. The McGraw-Hill/Wright Group (2006) indicates that students must be able to identify and compare specific information on bar, line, and chart graphs. It is important for students to understand the relationship between the text information and the information in a graph or on a chart. It is also essential that students have the vocabulary skills needed to understand the terms used in both the text and on graphs in order to accurately answer questions on the TABE test. In addition, students must also be able to read street maps, understand how to use map keys, and recognize

map symbols based on the legends at the bottom of a map. According to Adler (2001) teaching students to use graphic and semantic organizers (maps, webs, graphs, charts, clusters) will help them understand the relationship between ideas in text and on a diagram. Helping students to use visual learning tools will help them learn to use the critical thinking skills needed to accurately interpret graphic information.

Comprehension Skills. Caverly, et al. (2000) reports that teachers need to provide direct and explicit instruction to teach students reading comprehension skills. These strategies include, summarizing, asking and answering pertinent questions related to the text, paraphrasing, and finding the main idea. Kamil, et al. (2008) asserted that building inferencing skills that helps students use prior knowledge to identify unstated relationships in text helps them to use critical thinking skills and improve reading comprehension; teachers should use “think alouds” to help model this deeper processing skill of drawing conclusions based on relationships and background knowledge

Research has proven that explicit reading instruction improves students’ reading comprehension and motivation by building background knowledge (NetNews, 2006). In addition, the National Reading Panel (2000) believes that the following multiple-strategy instruction improves reading comprehension better than single-strategy instruction:

- Summarizing main ideas in paragraphs and throughout text
- Paraphrase what was read
- Draw inferences based on information in text and using prior knowledge
- Answer questions at different point in the text to identify comprehension
- Use graphic organizers to help identify important information

Using these multiple instructional strategies will effectively help students build their comprehension skills.

Another method to help students build reading comprehension skills is to allow the students to engage in discussions about the meaning and interpretation of what they read. This strategy will help students build a deeper understanding of an author's meaning and enable them to challenge the author's ideas (Kamil, et al. 2008). Caverly, et al. (2000) reports that this metacognitive process of evaluating text allows students to make predictions about the meaning of the text. The more experience students have with "self-regulating" comprehension of text, the better their comprehension skills.

Decoding Skills. Penny (2002) reports that many at-risk high school students lack proper decoding skills. They do not have a complete understanding of letter patterns and proper pronunciation. Students must be able to identify words quickly and effortlessly in order to build fluency. By high school, even poor readers have word banks that they recognize. However, these students often do not have the decoding skills to read unfamiliar or irregular words. Penny also asserts that many children and adults have inadequate reading skills because they are unable to decode words. She believes that in order students to be able to read they must be able to understand how letter patterns turn into word patterns. When used with prior knowledge, this enables the student to develop reading skills.

Penny (2002) described an experimental technique, The Glass Analysis technique, that was used to help high school students with reading problems develop decoding skills. This technique is based on research indicating that most students with reading deficiencies have no phonemic awareness. Penny indicted that those students do not have the ability to sound out words into phonemes. In addition, she believes that because these students cannot understand individual phonemes, they are unable to associate letters to the phonemes.

When students have proper decoding skills, they can work on fluency skills. In addition, when students lack fluency and read excessively slow, this results in limited comprehension that also contributes to a lack of desire and motivation to read. Explicit instruction for word recognition has been proven an effective method of instruction for readers who read below grade level. Explicit instruction involves a teacher explaining the skill being taught, modeling the skill, describing the importance of learning the skill, and providing demonstrations of when to use the skill (Caverly, et al. (2000). In addition, teachers need to model fluent reading and repeated readings where students can practice their newly learned skills. The National Institute for Literacy (2007) suggests that teachers should use researched-based “guided repeated oral reading” techniques to help students improve reading fluency. It is important to build fluency skills because accurate and efficient word pronunciation enables readers to focus on the meaning of text rather than on decoding each word.

Reading Instruction and Motivational Factors

There is a consensus among researchers that traditional reading “remedies” for reading remediation instruction are not sufficient to help at-risk students. They believe reading instruction should be a meditational process. This method of instruction is based on Vygotskian theory of recursive zones of proximal development (ZPD). This is the difference between what a student can learn on his or her own vs. with the help of a teacher. Scaffolding instruction is a type of ZPD instruction guides student learning to help them improve their reading skills and then the student gradually begins to use the newly learned skills alone (Caverly, et al, 2000).

Caverly, et al, (2000) believe there are four factors that contribute to at-risk students improving reading comprehension skills: motivation, ability to decode, ability to

comprehend language, and ability to read text and answer questions about the content. However, according to Kamil, et al. (2008), “motivation and reading engagement are widely recognized as important moderations for learning, but there is limited scientific evidence that links these factors directly to student achievement in reading” (p. 6).

O’Brien, et al (1997), asserted that students are more likely to improve reading proficiency if they are reading for a purpose and not just for pleasure. Ensuring students are engaged is essential because students will be more motivated to read to fulfill personal goals. The National Institute for Literacy (2007), reports that 18 % of students preparing for the GED test indicated they read for pleasure less than one hour a week, and 38 % read between one and three hours a week. Half of this group is not reading very much or they are reading material that is not challenging which will not help them build vocabulary skills.

Literacy experiences should be relevant to students’ interests, everyday life, and current events (Kamil, et al, 2008). One approach to motivating struggling readers is the use of extrinsic rewards for reading such as prizes. However, research has shown that intrinsic motivation such as verbal praise and positive feedback are more often associated with students being affectively motivated to read more than receiving rewards (Caverly, et al., 2000).

Online Reading Skills Resource

Instructors working with at-risk high school students could use the “All About Adolescent Literacy” website at <http://www.adlit.org>. This website has a multitude of information provided by very credible sources such as the Department of Education and the National Institute for Literacy and provides instructors explicit teaching strategies to help students improve all of the reading skills previously described. Teachers have access

to a multitude of information about teaching reading strategies that will help students improve fluency, vocabulary, and comprehension skills, and evaluation and interpretation skills.

Dissemination Plan

The information gathered from this case study and the analysis of the research-based reading strategies and methods will be shared with various rural high school instructors in the Chippewa Valley who work with at-risk students who attempt to obtain their HSED at CVTC. This information will be distributed at the beginning of the 2009 school year.

The information from this research will also be shared with CVTC Academic Services (AS) instructors responsible for helping adults prepare for GED tests. The research-based reading strategies described in this research can benefit these students by helping them improve their reading skills, pass the GED tests, and possibly use these skills when completing post-secondary education courses.

Evaluation Plan

The success of the described research-based reading instruction strategies and methods provided by high school reading specialist/instructors will be measured in several ways. First, in the fall of 2009, the percentage of students who successfully pass the initial TABE reading assessment who received research-based reading remediation instruction will be compared to students who do not receive the research-based reading instruction before taking the initial assessment. Second, the effectiveness of the described reading instruction using the research-based strategies and methods will be based on the number of students who failed the initial TABE reading assessment but passed the retest receiving three-months of reading remediation. Finally, all CVTC adult basic education

instructors who incorporate the research-based reading instruction into their curriculums will meet at the end of the fall semester of 2009 to evaluate and discuss the effectiveness of the strategies and methods described in the research.

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Appendix

Comprehensive TABE 9 Complete Battery Level D Reading Norms Table

TABLE—Form 9 Complete Battery Level D

TABE 9 COMPLETE BATTERY LEVEL D
Table 20 Reading

				Reference Group					
				ABE—All			ABE—Juvenile		
NC	SS	SEM	GE	P	NCE	S	P	NCE	S
50	778	129	12.9+	99	99	9	99	99	9
49	747	102	12.9+	99	99	9	99	99	9
48	678	52	12.9+	98	94	9	99	98	9
47	647	35	12.9+	96	87	9	97	90	9
46	628	28	12.9+	93	82	8	95	84	8
45	614	24	12.9+	91	78	8	92	80	8
44	603	22	11.3	88	75	7	89	76	7
43	593	21	10.8	85	72	7	86	73	7
42	584	20	10.3	81	69	7	83	70	7
41	576	19	9.4	78	66	7	80	67	7
40	568	19	9.0	75	64	6	76	65	6
39	561	19	8.6	72	62	6	73	63	6
38	554	18	8.1	68	60	6	69	60	6
37	548	18	7.7	65	58	6	66	59	6
36	541	18	7.4	62	56	6	62	56	6
35	535	17	6.8	59	55	5	59	55	5
34	530	17	6.4	56	53	5	56	53	5
33	524	17	6.2	53	51	5	53	52	5
32	519	17	6.0	50	50	5	50	50	5
31	513	17	5.8	47	48	5	47	48	5
30	508	17	5.6	45	47	5	44	47	5
29	502	17	5.4	42	46	5	42	45	5
28	497	18	5.2	39	44	4	39	44	4
27	492	18	5.1	37	43	4	37	43	4
26	486	18	4.9	35	42	4	34	42	4
25	481	19	4.7	33	41	4	32	40	4
24	475	19	4.5	31	39	4	30	39	4
23	469	20	4.4	29	38	4	28	38	4
22	463	21	4.0	27	37	4	26	37	4
21	456	22	3.8	25	35	4	24	35	4
20	450	23	3.6	23	34	4	23	34	4
19	442	25	3.3	21	33	3	21	33	3
18	434	27	3.2	19	31	3	19	31	3
17	426	30	2.9	17	30	3	17	30	3
16	416	34	2.6	15	28	3	15	28	3
15	404	40	2.4	13	26	3	13	26	3
14	390	50	2.2	11	24	3	11	24	3
13	371	68	2.0	9	22	2	8	21	2
12	343	96	1.7	7	18	2	6	17	2
11	285	154	0.7	3	10	1	2	9	1
10	285	154	0.7	3	10	1	2	9	1
9	285	154	0.7	3	10	1	2	9	1
8	285	154	0.7	3	10	1	2	9	1
7	285	154	0.7	3	10	1	2	9	1
6	285	154	0.7	3	10	1	2	9	1
5	285	154	0.7	3	10	1	2	9	1
4	285	154	0.7	3	10	1	2	9	1
3	285	154	0.7	3	10	1	2	9	1
2	285	154	0.7	3	10	1	2	9	1
1	285	154	0.7	3	10	1	2	9	1
0	285	154	0.7	3	10	1	2	9	1