

2015

# Teachers' Perceptions on Improvement of Declining Grade 8 Language Arts Test Scores

John David McGroarty  
*Walden University*

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John David McGroarty

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2015

Abstract

Teachers' Perceptions on Improvement of Declining Grade 8 Language Arts Test Scores

by

John David McGroarty

M.Ed., University of Phoenix, 2008

BS, University of Utah, 2006

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

Walden University

November 2015

## Abstract

Once viewed as a way to establish educational placement, high-stakes testing is used to establish benchmarks for success within school systems. Within a local Utah school district, raising these benchmarks has been deliberated due to a steady decline in Grade 8 language arts scores, which has heightened concerns among local school administrators and teachers. The purpose of this phenomenological study was to examine the perceptions of teachers on how to improve declining Grade 8 language arts test scores. Based on the theoretical concepts of constructivism, 3 research questions were created to examine the underlying factors of the steady decline in Grade 8 language arts test scores, teachers' perceptions of decline in Grade 8 test scores, and current instructional practices used by teachers to prepare students for high-stakes testing. Through semi-structured interviews, data were collected from a sample of 7 language arts teachers who held an academic degree in language arts area and were a faculty member at the selected school. Comparative analysis and the open coding process were used to find themes in the data. Specific themes included the need for change, different influences, and varying instructional practices to increase test scores each academic year. An individualized instructional curriculum might help increase test scores. A 3-day, in service workshop focused on helping teachers recognize current issues with test preparation and offered methods to help improve student learning through multiple intelligence-based instruction. This study contributes to social change within local Grade 8 language arts classrooms by providing information to educators on how to increase high-stakes test scores on an annual basis and increase overall student achievement.

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## Dedication

Every adventure begins with the first step, and each step following is filled with excitement, encouragement, and wonder. I would like to dedicate this work to those individuals who helped to guide my steps along this journey.

To my children, Jessica and David, whose unconditional love for “Daddy” has always been a bright spot in my life. You both have always given me understanding when I needed “alone” time in order to write or read material. It is an honor to be your father, and you should always know that I love you both so much.

To my wife and eternal companion, Elsa, who has always been there for me through all the trials of my educational journey. Knowing that you are there to help me to achieve the goals that we have set together is comforting every day. In the 20 years of our marriage, you have always shown me how to never give up on my dreams, and how to strive for excellence in all that I do. Being by my side throughout this process has provided me with the comfort of knowing that you are there for the duration. I know that you were sent to me by our Heavenly Father. I thank Him every day for the love and experiences that we share, and I look forward to many years to come. All my love....

## Acknowledgments

To my family: my parents; my brothers and sisters, whose love and support all these years offered peace, even when times were tough going, through this entire educational journey and who gave me an example to follow, even from a young age. I would also include my extended family of Dr. Mario Aragon and Gloria Aragon, my wife's parents, who served as my second family with their love, support, and guidance.

To my friends and mentors, Mark Stevens, John Brown, and Dan Church, among others, whose listening ear gave me the opportunity to share knowledge and ideas, question discussion topics and overall dissertation research through being a listening ear. You have all shown me unconditional love and friendship through your example: for that, I was eternally grateful. Your example has taught me to never give up on a dream and to always try my best, no matter what obstacles are in the path.

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To my Walden University doctoral committee members, Dr. Albert Kocher, Dr. Timothy Lafferty, and Dr. Sydney Parent (URR), whose support and understanding, along with constant encouragement, allowed me to finish this doctoral study and begin to pursue my career as an advocate for social change and an expert in my field.

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## Section 1: The Problem

### **Introduction**

Public education has been impacted by the inception of the No Child Left Behind (NCLB, 2002) act. Under NCLB, “the public school system is required to make Annual Yearly Progress (AYP) on two separate levels: overall school achievement and individual subgroups within the school” (Porter & Soper, 2003, p. 3). The legislative mandates found within NCLB have made it necessary to focus educator attention on meeting the learning requirements of all students. The influence of NCLB has been felt across many educational institutions, especially those with low test scores that previously had not been required to increase student achievement on annual progress standards. The purpose of annual yearly progress (AYP) is to offer schools the opportunity to change ineffective school culture and practices to more sustainable practices to achieve and maintain success.

The expectations of NCLB (2002) have left education professionals with a dilemma regarding student achievement and mastery of content. School systems are struggling to achieve the required goals and objectives of NCLB, while trying to find new and innovative ways to increase student learning. Within the NCLB mandate, individualized program areas were examined because of their impact on student achievement. Specifically, schools with low achievement scores in language arts programs have been one focus of NCLB’s yearly statistical information.

At the middle schools of the local school district, students were not achieving mastery of the language arts curriculum as demonstrated on end-of-year testing.



Validations of the trending lower test scores were indicated through recent statistical information reported by the local school district (Salt Lake School District, 2012). However, at the local study site, teachers do not have the proper training to incorporate specialized instructional design methods based upon a specialized instructional design. This insight offered the necessity to investigate potential causes of the decline in Grade 8 language arts test scores and what instructional strategies were being used to not only prepare students, but potentially improve overall student test scores. Additionally, this problem also indicated a necessity to analyze current teachers' perceptions of these test scores and how further training and curriculum development within a more specialized instructional format could assist students in higher level of content mastery.

### **Definition of the Problem**

At the Grade 8 language arts classrooms setting in the local school district, students achieved only the minimal requirements for successful demonstration of academic progress in language arts as mandated by NCLB (2002). According to the United States Department of Education (USDoE, 2011) report on reading, test results from Grade 8 language arts students in Utah were slightly lower than previous years in comparison to the national average (See Figure 1).

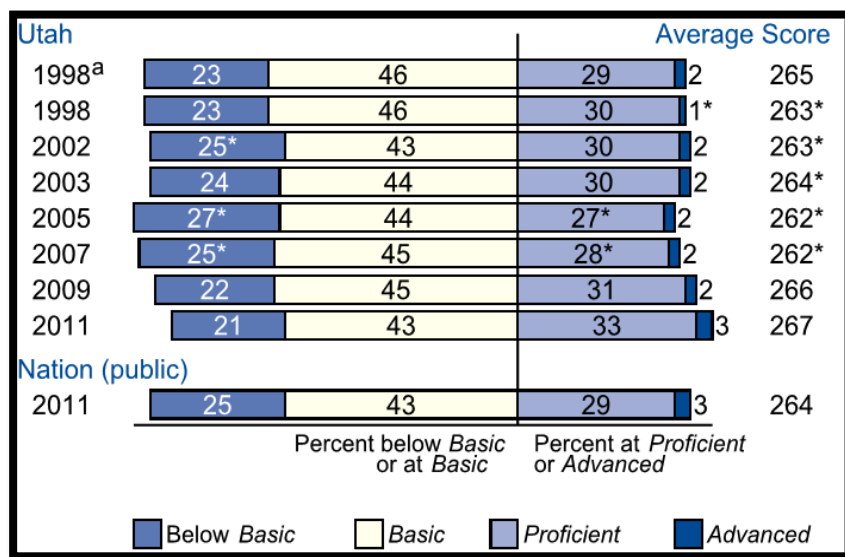
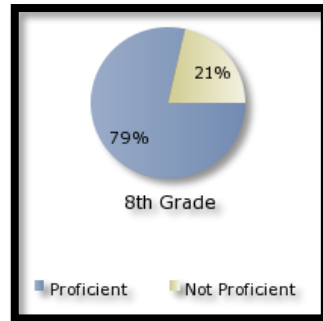


Figure 1.

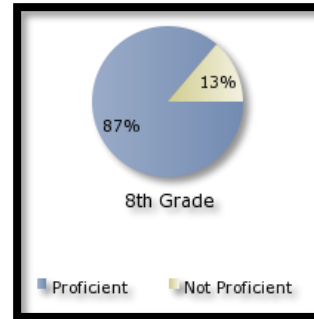
Achievement level percentages and average score results - reading Grade 8

As shown on the district writing assessments from the Utah State Office of Education, the average rate of mastery fell within the 60% to 70% range (USOE, 2011). These scores were slightly higher than previous years, but they were still well below the expected standards of achievement of around 80% (USOE, 2011). Teachers and administrative personnel were concerned that this trend would continue until measures were put in place to help redirect this negative decline in a more positive direction. In Grade 8 language arts, although the students were being taught the material, there still remained a disconnect in the teaching process that needed to be reviewed so that a change in instructional strategies could occur, resulting in increasing student learning and achievement on high-stakes tests. Recent district writing assessment (DWA) scores and overall proficiency levels are represented in Figure 2 below.

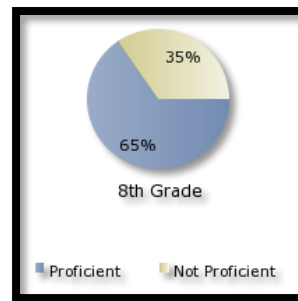
School A:



School B:



School C



*Figure 2.* District writing assessment proficiency percentages for 2011-12 from three selected Grade 8 middle schools

School A indicated around 79% mastery, while School C indicated 65% mastery on the DWAs. According to these statistics, students are not achieving mastery levels for Grade 8 language arts within high-stakes tests.

Lower test scores and overall proficiency levels have become part of a literacy campaign that many organizations and governmental structures have addressed. Adolescent literacy was a growing concern among many individuals who have the power to affect social change in society. In 2007,

Statistical ranges falling within 80% and 90% of junior high and high school students had achieved what the National Assessment of Educational Progress (NAEP) identified as “basic” writing skills appropriate to their grade level, however, only 31% at Grade 8 and 23% at Grade 12 achieved a level of proficiency. (Applebee & Langer, 2008, p. 1)

Low test scores have generated concern across many levels of education, including state and federal organizations. Creating specialized instructional methods may help students to not only understand the material, but to increase their overall mastery.

Content subject mastery cannot be achieved unless a basic literacy level is obtained. The current method of focused academic learning process is not effective when many student learners are unable to understand and master new information due to a lack of basic reading and literacy skills (Rose, 2011). Rose (2011) claimed that the chance to learn basic literacy skills already exists within the classroom setting when education professionals include curriculum in three forms: written, heard, and read. Rose stated, “Students learn the curriculum through language, and in the process they learn the language of the curriculum” (p. 2). One of the challenges that many education professionals face is that a changing world requires literacy standards to change in order to keep pace with society.

Ritter (2009) indicated that the global economy has become an expansive unit, and the educational system needs to reflect this movement. To maintain a country’s competitive edge, all learners need to be ready and willing to compete at the highest level, not only with their fellow students, but those from around the world. Ritter claimed

that many academic progressions are state-led around the common core standards, and this is a step in creating a transformation that will benefit all students.

Stated educational policies and procedures typically offer directives to schools in which literacy standards established under NCLB (2002) will focus efforts to increase overall student achievement. An objective of NCLB was to hold higher levels of accountability for school districts in the area of literacy. Additionally, NCLB created pathways for education professionals to work together across the United States and come to agreement on best practices and their application (USDOE, 2011a).

However, students are struggling to become literacy-based learners who will be successful in the 21<sup>st</sup> century and in the college environment. As indicated by Biancarosa (2011), the achievement of high-level reading instruction in elementary school does not always guarantee that a student can make a successful shift to higher demands of literacy excellence (p. 22). Many schools do not teach students a basic reasoning process and strategies for achieving comprehension across the core content areas (Lee & Spratley, 2010; Moje, 2008). Making these connections to literacy has become a focus across the United States, and policymakers must redress this lack of educational progress to increase overall literacy and high-stakes testing scores in the future.

### **Rationale**

An ongoing trend of declining language arts scores on standardized tests taken by middle school students has become a concern among local education professionals. Few schools within the local school district were meeting AYP because of students' lower test scores in language arts. For the last 3 years, an increasing decline in high-stakes testing

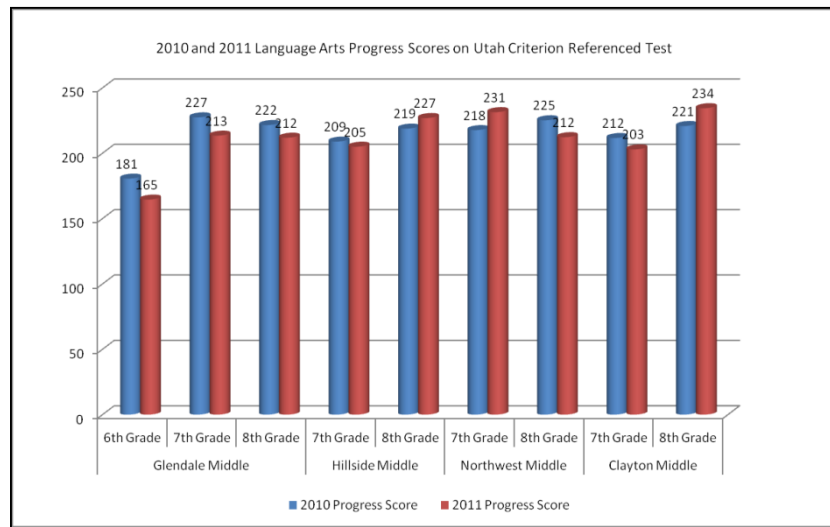
scores has become prevalent, leaving educators wondering about the leading causes to low test scores. Sellars (2011) stated that “the development of literacy and cognition within the student population is particularly important for the educational system of the 21<sup>st</sup> century” (p. 102). However, the educational system is often rooted with instructional strategies used to transfer knowledge from teacher to student. Within the language arts core subject area, the ability to successfully navigate through writing and reading assessments can become challenging for students if they do not receive the proper tools to help them. Too often, teachers lack the understanding and knowledge associated with developing a curriculum that can adequately prepare students for end-of-year testing mastery.

Many educators still teach “to the test” and ignore individual learning styles. Within the current educational structure, teachers are offered the opportunity to develop essential skills through in-service workshops and other training sessions. These professional development opportunities can lead to teachers remaining fixed in the ways in which they believe particular approaches are effective (Tohill, 2009). Uninformed or unprepared education professionals often do not transfer knowledge effectively to their students. This inability to transfer knowledge also can have adverse effects on student achievement.

### **Evidence of the Problem at the Local Level**

The USOE (2012) outlined the AYP status under the NCLB (2002) accountability requirement for the 2009-2011 school years and concluded that middle schools in the local school district showed a significant decrease in the achievement of mastery level

scores on the language arts section of the Criterion-Referenced Test (CRT, 2011) over a 2-year period. According to study results, improvements were needed to meet AYP for the coming school years without the risk of probationary action from the USOE. As shown in Figure 3, language arts scores from the CRT (2011) were significantly lower than other years.



*Figure 3.* Language arts CRT 2010-2011 scores

### **Evidence of the Problem from the Professional Literature**

Educators are faced with meeting the learning requirements of individual learners to ensure their success within the classroom. Dryden and Vos (2005) offered that, despite technological advances, there are many education professionals throughout the world who are using a basic model of classroom design, instruction, and older chalk and eraser formats. Educational success often is measured by the composite test score results on standardized tests required by state and federal organizations. These results, although useful for statistical purposes, can become detrimental to the overall success of a student

and can affect school and district benchmarks for success as established through the U.S. Department of Education. Linn (2000) indicated that the assessment systems within the school districts often lose credibility when high-stakes testing measurement is attached to them (p. 14). Linn also offered that this concern over high-stakes testing often leads to the abandonment of other areas of curriculum that require improvements. In order to increase the validity of high-stakes testing, safeguards should be put in place to prevent the exclusion of students and a single weight measurement on an individual test; a system for measuring the overall success or failure of the existing system is also warranted.

U.S. public school systems have become centered on school improvement through data-driven statistical information (Blink, 2007; McLeod, 2005; Schmoker, 1999; Supovitz & Klein, 2003). A child's basic academic skills are often tested each academic year through high-stakes testing, and conclusions are determined about what these children have mastered based on test scores (Bellinger & Di Perna, 2011). Researchers within the academic community have the ability to use these results to record improvement levels, whether they be short or long term in overall student achievement and academic performance (Bursuck & Blanks, 2010). It is necessary for students to demonstrate mastery on standardized tests, but high-stakes test scores should not be the only determining factor of student achievement. According to the NAEP (2011a), the literacy crisis was so prevalent that governmental branches on all levels felt that intervention measures were required using curriculum-based standards. The NAEP (2011b) showed that 27% of Grade 8 students were performing below basic mastery



levels. However, for the classroom teacher, these legislative mandates represent a narrowly focused agenda, which result in inadequate curriculum (Pella, 2012).

High-stakes testing scores tend to change on a yearly basis for reasons not connected to student academic mastery (Bracey, 2001; Linn & Haug, 2002).

Accountability for overall student mastery and learning is a necessary objective for the school districts, teachers, and administrative personnel. However, if schools are held liable for student academic achievement levels that are commonly reflected on the results of end-of-year testing, then teachers must be encouraged to develop their curriculum solely around those standardized tests (Pella, 2012).

### **Definitions**

*Achievement gap:* Defined as “the gap in student achievement between White, middle class students and their minority and/or low socioeconomic peers as measured on standardized testing” (Levine & Marcus, 2007, p. 117).

*Adequate yearly progress (AYP):* AYP comes from NCLB (2002), which mandates that states must develop educational standards, administer testing that is in line with these standards, and determine whether districts and schools are meeting AYP (UDoE, 2011).

*Diversity:* Diversity is having or being composed of different elements. Diversity in most educational settings is viewed as a variety of services that are open to the educational community to ensure compliance with diversified student populations, procedures, and regulations (Clark, 2011).

*Learning style:* Silver, Strong, and Perini (2000) stated that learning style is the method through which students best mastery academic content information. According to Dunn (1983), “a learning style is founded on the comprehension that individuals can be different in their own learning method through which new information is obtained and mastered” (p. 498). A learning style also includes the focus required to retain information.

*No Child Left Behind Act (NCLB).* NCLB was signed by President Bush into law in 2002. The NCLB set a performance standard for all schools and directs that must be reported to parents. NCLB also offers guidelines for annual student testing including performance-based stipulations for underachievement in schools, as well as specific requirements for highly qualified teachers (USDOE, 2011).

*School culture:* Robbins and Alvy (1995) suggested that “this inner reality reflects what organizational members care about, what they are willing to spend time doing, what and how they celebrate, and what they talk about” (p. 23). Robbins and Alvy further stated that “this inner reality reflects what organizational members care about, what they are willing to spend time doing, and what and how they celebrate and what they talk about” (p. 23).

### **Significance**

Many administration members and parents have agreed that the high-stakes testing process is damaging the educational system and the individual lives of the students (Neill, 2006a). Because testing has become a main focus within the educational field, this study was applicable because of the importance of understanding teachers’

perceptions of the effects of collaboration among teachers to prepare students for high-stakes testing using specialized instructional methodologies on middle school curriculum and instruction. This study applied to the local problem of a recent decline in high-stakes testing scores within Grade 8 language arts classrooms. Being able to standardize and simplify an educational process might become easier if all students comprehended and mastered material through a similar manner, had academic resources that offered the same opportunities for learning, and were similar in mathematics and reading (Lambert et al., 2002). The teachers' perceptions of student learning can often offer insight into current testing preparation, educational practices, and the classroom setting.

This study contributed to social change efforts by making administrative personnel, curriculum design specialists, and policy makers aware of the teachers' perceptions of how high-stakes testing affects the instructional design and curriculum development within the local school district organizations. It is essential for the administrative members of the district to understand these perceptions and the perceived effects of preparation strategies concerning high-stakes testing within language arts because teachers are expected to prepare their students for the testing process while maintaining a meaningful educational experience.

Some education professionals forget the impact that high-stakes testing can have on a student's potential. Moses and Nanna (2007) indicated that the outcomes of these tests can limit a student's future (p. 58). Within the local school district, the decline of test scores over the last 5 years could result in further consequences in other core areas.

School administrations can use the findings of this study to understand the negative effects attributed to testing each year. Raising an awareness of the teachers' perceptions of high-stakes testing on instructional strategies and teaching can lead to positive change within this key area in the school system. These positive changes will contribute to a better educational system for Grade 8 language arts students.

### **Guiding/Research Question**

The overall guiding research question (RQ), as determined by a review of current scholarly literature of the last 5 years, concerned potential reasons why there was a steady decline in end-of-year test scores in the last several years. For this particular study, RQs addressed the reasoning behind teacher perceptions of low test scores and how new educational practices could result in higher test scores. Data collection provided insight into the ways that specialized instructional practices could positively influence student mastery on end-of-year testing. The three RQs that served as guiding points for this doctoral study were as follows:

1. What are the underlying factors for a steady decline in Grade 8 language arts test scores on end-of-year testing?
2. What current instructional practices are being used to prepare students for end-of-year testing?
3. What are teacher's current perceptions of reasoning for recent decline of Grade 8 language arts test scores?

## **Review of the Literature**

### **Literary Support**

Within any study, a review of the literature helps to establish the validity and reliability of the RQs. To conduct a review of the literature to demonstrate saturation, I examined the following topics in detail: high stakes testing, trends in high stakes testing, student achievement and academic performance, and school accountability and student progress monitoring. I found the majority of the literature in peer-reviewed academic journals and periodicals from the last 5 years. I reviewed various databases, including Academic Search Complete, ERIC, ProQuest Central, and ProQuest Dissertations & Theses. Keywords for the search of the literature included *student achievement*, *student implementation*, *language arts*, *middle school curriculum*, and *high stakes testing*. The purpose of this literature review is to facilitate a deeper understanding of the effects of high-stakes testing and the overall potential impacts on student achievement and success within the classroom and beyond.

### **Conceptual Framework**

Throughout the mid-20<sup>th</sup> century, behaviorism was considered the leading educational theory to help increase overall student learning. This theoretical concept of teaching was used as the basis for all educational knowledge (Smith, 2002). This standard of learning was not only considered the foundation for gauging student intelligence, but was a force behind the development of the school's organizational goals, as well as the development of standardized testing (Walker, 2002). Although this perception of the learning process remained a dominant factor in educators' views of student learning,

many educational psychologists, including Bruner and Piaget, continued to examine the overall learning process of student populations within the schools (Bruner, 1960; Piaget, 1972).

Piaget (1972), through individual observations, determined that most children are more susceptible to learning through their own experiences. Age and maturity were two of the guiding factors that offered support for this belief. Bruner (1960) took Piaget's theory and expanded this initial work through a cognitive approach and termed this effort constructivism. Bruner examined learning processes to determine how students gained their individual knowledge through a distinct active learning process and application of problem-solving techniques and strategies. Student engagement in learning helps to expand the level of understanding of the individual. As indicated by Bean (2000), the constructivist viewpoint of learning is the student's overall ability to create meaning. This, in turn, influences and impacts the instructional process.

Learners can control their individual learning processes and how they understand the world that surrounds them. Learners are not only affected by curriculum methodologies, but through their learning readiness. Thus, educators must make essential connections between curriculum and prior experiences to learning methods. Idea construction can be generated in two ways at the same time. These constructions can continue to enhance academic content mastery until the student has enough information to accept already proven concepts (Bean, 2000). Academic concepts can provide the framework for students to make these essential connections (Bean 2000). Bringing

together both the student and instructor makes the whole process of learning more realistic and functional for the students, increasing student success over time.

### **High-Stakes Testing**

Within the education community, core testing has been used to assess student mastery within many subject areas. The purpose of these standardized tests is to measure the current level of student knowledge within a given subject and to provide statistical information to local and national school databases (Horn, 2004). These statewide tests are used to measure the educational level of where the student should be within a given timeframe of learning (Horn, 2004). However, these high-stakes tests represent a greater level of importance than other tests and usually carry a consequence based on student performance for both the student and the school.

The accountability of schools within the scope of NCLB (2002) can positively or negatively affect the school system. Soloranzo (2008) described how NCLB uses high-stakes testing as a common measurement of student mastery and achievement. Schools are required to meet standards established for AYP with all learners and must demonstrate proficiency in mathematics and reading (Armstrong, 2006). This accountability means that individual states can impose fines on educational institutions that are not meeting established federal requirements in test score benchmarks (Hamilton, Stecher, & Klein, 2002; Peterson & West, 2003; Turner, 2009). These accountability systems have forced school administrations to redirect time and energy to increasing high-stakes testing scores (Gentiluccio & Muto, 2007). School administration members must make sure that enough time for instruction is being used for the purpose of student

learning and instruction and that high-stakes testing is being used to adequately measure specific learning strategies (Masci, 2008).

High-stakes testing impacts overall student academic achievement. Many students worry about passing any test, especially a high-stakes test. Some students only focus on these tests, while forgoing other normal activities and involvements (Crone, 2004). Although any high-stakes test score may not adequately provide a measurement of student achievement, it still remains the only test used to measure school accountability (Crone, 2004). Therefore, it becomes the responsibility of all individuals, including students, teachers, and administrative members, to help students master the material and pass the high-stakes test. End-of-year tests can affect many key educational factors, including graduation, advancement to the next grade, school financial futures, and school program organization and development.

High-stakes testing continues to affect many aspects of society. For example, the military uses high-stakes test scores to accept or reject potential candidates. Amrein and Berliner (2002) stated that “throughout early twentieth century society, standardized test scores were used to confirm the superiority or inferiority of various races, ethnic groups, and social classes” (p. 3). Decisions concerning social and political changes have been made based on test scores of a geographical area. Many families have used test scores as a determining factor as to where to raise their family.

Many state legislative bodies developed standards of accountability that were based on the achievement rates of students on required end-of-year high-stakes examinations. High performing schools are rewarded for their academic efforts, while



lower academic performing schools are given financial penalties. In order to avoid any further action against them, low-performing schools are required to improve and maintain a certain level of excellence on high-stakes testing (Amrein & Berliner, 2002).

Many states have mixed views on the overall success or failure of high-stakes testing. These viewpoints have resulted in criticism of how high-stakes testing has affected the educational system. Those states that have formal high-stakes testing measures in place often achieve lower average scores on individual measures than those schools that do not have a formalized system in place. Amrein and Berliner (2002) stated,

In Arizona, for example, officials reported that in 1999 students in poor and high-minority school districts scored lower than middle-class and wealthy students on Arizona's high-stakes high school graduation test, the AIMS (Arizona's Instrument to Measure Standards). Ninety-seven percent of African Americans, Hispanics, and Native Americans failed the math section of the AIMS, a significantly greater proportion of failures than occurred in the white community, whose students also failed the test in great numbers. (p. 11)

Research has been conducted to document and analyze performance gaps between races. Although differences in overall testing scores have lessened, there are still disparities that affect the performance rates within the Arizona school system. Hedges and Nowell found that African Americans have been underrepresented among the high test scores on standardized testing (as cited in Horn, 2004). Students classified within special language groups such as English language learners (ELLs) or students with a disability, without the

help of special accommodations, perform typically lower than their nondisabled counterparts.

### **Consequences of High-Stakes Testing**

Students who score low on high-stakes tests face negative consequences. Many schools have developed methods to circumvent this problematic area. Within many school districts, high-stakes testing scores are key to increased financial support and school recognition. However, these tactics to protect the students are not always done with the highest ethics. According to Minarechová (2012), in order for schools to achieve a higher passing level on high-stakes testing, students who are classified as lower achievers are often expelled from the school during the testing period and then returned to school once those tests are completed. By doing this, schools can artificially raise their test scores. Other students with limited language skills may be exempted from taking high-stakes tests to avoid affecting the overall school average (Minarechová, 2012). The students who are considered to be borderline on either passing or failing these tests are often allowed additional assistance within the scope of the testing methods, such as extra time allotment to help pass the test (Minarechová, 2012). These students impact both the individual school and/or district score no matter the result. Minarechová stated, “Researchers who conducted the recent National Science Foundation study interviewed teachers who openly admitted that they focused more on the borderline students than the students who would certainly have failed the test” (p. 90). Borderline students are traditionally those individuals who do not score the lowest nor highest, but have the most potential for bringing classroom statistics down.

Students may be classified according to testability. Many students get frustrated with the slower pace of the learning and teaching process, the inaccurate proportions of time spent preparing for testing days, and the ongoing repeated sessions of basic concepts already mastered (Minarechová, 2012). In this case, the overall interest of the school is on the school's achievement levels rather than focusing on the success and well-being of the students.

Support of high-stakes testing has been mixed. Many believe these tests can offer a window into the potential success of an individual student, while others maintain that the tests can negatively affect students academically. In support of high-stakes testing, Amrein and Berliner (2002) suggested the following:

1. Teachers use high-stakes testing to help determine the curriculum
2. High-stakes testing helps make teachers more accountable and motivated
3. Students work harder when taking a high-stakes test
4. Students have a higher level of motivation to do well on these tests

High-stakes testing has many benefits for education professionals; however, if not used to promote learning, these tests can have adverse effects on the educational community. If the practice of high-stakes testing does not lead to an educational goal, these tests will not be useful for community or school success.

An unintentional consequence of high-stakes testing is narrowing of curriculum simply to prepare students for the test. The limiting of the curriculum could increase student dropout rates and contribute to a higher rate of retention within a specific grade (Amrein & Berliner, 2008). Dropout rates could be affected because more students who

do not test could feel the pressure of academic success from those around them and choose to leave the educational system to avoid any future problems. These unintended negative consequences could be avoided if adequate teacher preparation and planning would take place. Trends in high-stakes testing have created an opportunity for educational professionals to refine teaching strategies and other resources to help students achieve their goals.

Current educational practices within high-stakes testing allow for schools meeting certain requirements to be rewarded for their effort. Within the United States, 22 states offer reward incentives for either increased or high-range test scores. According to Glass (2002), many schools received financial rewards based on notable levels of improved scores. Within the middle school environment, high-stakes testing is becoming a source of educational statistics rather than a method to increase academic achievement. As stated by Lipka (2004), “scores of individuals and groups of middle school students were being used as “carrots” or “sticks” for systemic issues well beyond the purview of any individual or group of early adolescents or their teachers for that matter” (p. 1). However, this focus may be taking students away from a more essential aspect of the educational process, which is improving knowledge. The middle school learning environment requires that the instructional process and educational assessments are designed to increase the levels of knowledge rather than “proving their ability” in relationship to others within their own school and classrooms (Rosesr & Lau, 2002, p. 93).

### **Trends in High-Stakes Testing**

Trends within high-stakes testing has led to many insights on how educational professionals can help students develop the necessary skills required to master the test content each academic year. According to The Nation's Report Card for Reading,

the average reading score for the nation's Grade 8 Language Arts in 2011 was 1 point higher than in 2009 and 5 points higher than in 1992...., however, this statistic represents only improvement within one of three context areas, reading for information. (as cited in Lee, Grigg, & Donahue, 2007, p. 38)

Within the state of Utah, in NAEP reading measurements, 21% of students were below basic level, 43% were at basic level, and 33% were at proficient with only 3% in the advanced level (Salt Lake School District, 2011). These statistics represent a snapshot of the problem that teachers face and the responsibility they hold for student success.

Educational success is often overshadowed by high-stakes testing pressures in many classrooms. The NAEP (2011) reported that lower performing students made greater improvements over those higher performing students in comparison to the 1992 report. The average score was 264 in 2009 and this score improved to 265 in 2011, only 1 point higher in average (NAEP, 2011). Similarly, students who were on free or reduced lunch scored approximately 14-25 points below the national average as compared to those not eligible for free or reduced lunch (NAEP, 2011). The improvement in test scores comes from the effort and dedication of teachers. Lower test scores are often judged by statistical measures at a given time in the educational year. This can be

detrimental to the whole educational system because the scores may not represent the whole picture of academic potential and actual achievement.

For writing scores, the NAEP (2011) found a difference in several categories. The NAEP found that 54% of Grade 8 students achieved the basic level, and 80% performed either within or above the basic level, indicating improvement but not significant improvement over previous years. Within the report, students who were presently not on free/reduced lunch performed better than their peers who participated in free/reduced lunch programs (NAEP, 2011). Students who attended suburban schools scored on average between 5 and 10 points higher than those students in rural areas (NAEP, 2011).

NAEP (2011) trends could also be analyzed for Utah Grade 8 students. Reading achievement scores increased since 2004 from an average of 262 to 267, which is a minor significance when examining the statistical progression of student scores (USOE, 2012). The overall percentage of students performing within proficiency range or higher increased slightly as stated in a 3-year profile comparison (USOE, 2012). Even though increases are shown, students can plateau in their learning. This roadblock can become a problematic area if not addressed.

High-stakes testing can negatively affect a school or individual student performance. Nichols and Berliner (2007) criticized the negative impacts of high-stakes testing because of the lack of significant gains in test scores over the past several years. Nichols and Berliner claimed that administrations would “falsify of school test data or force low-scoring students out of the school in their quest to avoid public humiliation” (p. 3). Professionals still cannot decide the overall effectiveness of high-stakes testing as a

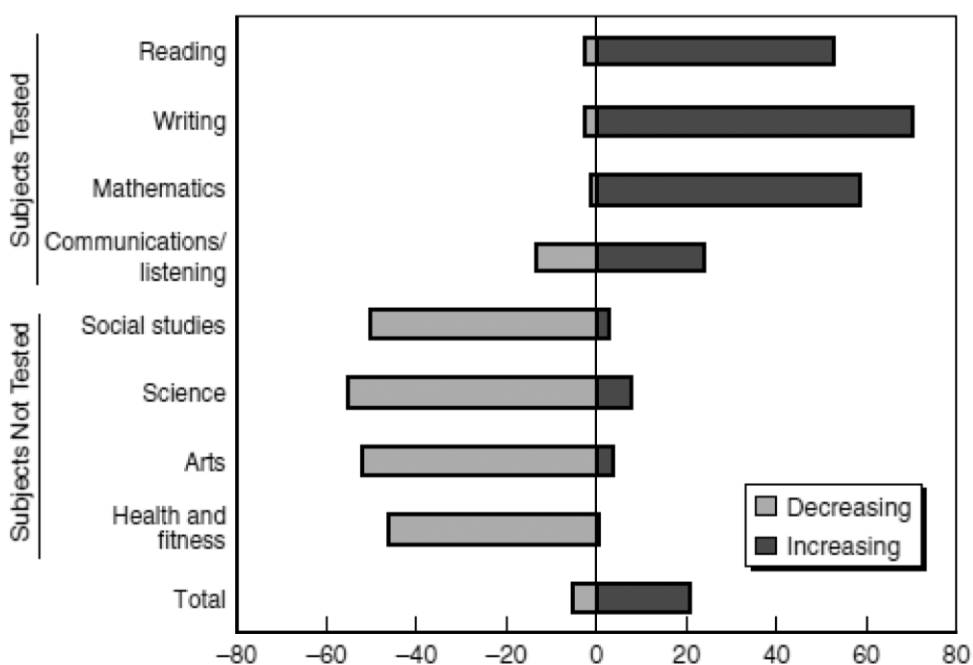
tool to determine student academic achievement. Assessment experts disagree as to the actual success or potential failure of high-stakes testing as a measurement of performance as required by NCLB (Nichols & Berliner, 2007). Within school districts, although many districts are reporting improvements on end-of-year testing, there is still only a minor significance in the results.

States are creating minimum competency requirements to determine overall accountability standards. Amrein and Berliner (2002) also indicated that after some hasty policy decisions, Florida implemented a statewide minimum competency test that students were required to pass prior to being graduated. Florida's early gains were used as an example of how standards and accountability systems could improve education. (p. 3) One drawback of this movement is that only achievement of the minimum standards results in low academic performance.

Movements in the 1980s to early 1990s have set the stage for accountability of student progress based on high-stakes testing. Several states have created alternative forms of assessment. During the early 1990s, the state of Vermont incorporated a system of measurement within the existing accountability system (Koretz, Stecher, Klein, & McCaffrey, 1994). Various assessment formats that included open-answer written essays, performance objectives in core subjects, and writing portfolios were introduced in Kentucky during this same time period (Stecher & Barron, 1999).

The focus of subject matter that would help strengthen achievement on high-stakes testing has shifted over the last decade. Teacher instruction is centered on only those core areas that affect high-stakes testing with more creative and project-based

coursework being left behind. Teachers are emphasizing test preparation rather than teaching students to become more well-rounded. Certain subject areas are prioritized over others as demonstrated in Figure 4 below. The subject areas of reading, writing, mathematics, and communication constitute more than 20% of the educational focus, while other subject areas including science, health, and fitness are focused on not as much or not at all.



*Figure 4.* Focus of teachers upon subjects. Adapted from “Consequences of Large-Scale, High Stakes Testing on School and Classroom Practice,” by B. M. Stecher, (2002), in L. S. Hamilton, B. M. Stecher, & S. P. Klein (Eds.), *Making sense of test-based accountability in education* (pp. 79-100). Copyright 2002 by the RAND Corporation.

For middle school students to have the necessary skills to be academically successful, a paradigm shift is required. Programs such as parent education programs must be designed to emphasize that teaching to the test negatively affects teacher



planning and limits teaching pedagogy (Lipka, 2004). Accomplishment of this refocus can help increase overall student learning and performance.

### **Student Achievement and Academic Performance**

Student achievement and academic performance are essential aspects of U.S. school performance measurements. Achievement goals set by school districts have served as the foundation for many school performance ratings. Performance-based approaches lead to different behaviors of learning including higher aspirations, student retention levels during the learning process, and overall student success (Elliot et al., 1999). Goals of performance avoidance are connected to less intrinsic motivation (Elliot & Harackiewicz, 1996), along with an unwillingness to look for assistance, decreasing levels of academic achievement, and the use of basic level processing (Elliot & Church, 1997). Ending the pressures associated with end-of-year testing will also raise overall student achievement levels (Nichols, Glass, & Berliner, 2005).

A significant contributor to student academic success is found within the foundational learning taught within the home. Students whose parents hold high competence perceptions of their children are more successful academically, score better on standardized tests, and stay longer in the school system than do those students whose parents do not hold these same perceptions (Phillipson, 2010). One key element that leads to student academic achievement is the visibility of the connection between home and school. This connection helps increase student achievement on testing through behavior and perceptions related to the student's educational progress.

No one factor can predict a student's potential within the boundaries of the classroom walls. Grades in the United States are not always an accurate measurement of an individual's academic ability. There are other factors that can affect student achievement. These include overall health, birth size, home and social atmospheres, teachers, parents, and school administrative personnel (Stewart, 2008). Many school teachers grade on a system that is not reflective of student learning, which results in more negative outcomes that create barriers for student motivation and achievement. Jackson and Lunenburg (2010) examined academic standards in Texas in reference to current academic ratings of "exemplary, recognized, academically acceptable, and academically unacceptable" (p. 30). Jackson and Lunenburg found that an increasing number of schools (62%) were deemed academically acceptable only. School performance indicators were significant in relationship to overall student achievement and academic performance; however, differences were discovered between the various academic standard levels. Teacher behavioral patterns, as well as individual teaching and instructional methods, made a difference in overall student achievement. Jackson and Lunenburg stated, "the learning environment in high-performing middle schools challenges all students to use their minds well and meet high academic standards. Curriculum, instruction, and assessment were aligned and provide a coherent vision for learning" (p. 39).

Student achievement requires significant review on a consistent basis to ensure progression. School administrative members must develop and maintain school cultural levels to ensure the continued fostering of individual and group learning processes.

Teachers are more likely to pursue this format of learning if the necessary support from administration is given. Senge (2011) stated, “Schools where teachers collaborate in discussing issues related to their school improvement efforts were more likely to be able to take advantage of internally and externally generated information” (p. 40).

In a standards-based education, high-stakes testing, and increased pressures surrounding student accountability, individualized attention to the school environment and the building of relationships is often neglected. Vander Ark argued (2002), “if we replace anonymity with community, sorting with support, and bureaucracy with autonomy, we can create systems of schools that truly help all students achieve” (p. 4).

Eum and Rice (2010) indicated that academic success within the scope of high-stakes testing is often influenced by perfectionism and desires to achieve high performance levels. In this study, Eum and Rice examined how a concurrent relationship exists between academic performance and test stress, goal orientation, and perfectionism. Self-criticism of academic performance indicators is a significant contributor to overall student success or failure within the classroom. Individuals with a higher level of test anxiety perform worse than their peers in reference to academic performance. Through this analysis of relationships between test anxiety, goal orientation, and perfectionism, students offered insight as to the necessity of establishing viable academic performance indicators within the school system.

### **Academic Performance Indicators**

Academic performance indicators are used to identify patterns of development in preparation for high-stakes testing and other academic measurements. These indicators

have significant value in the success or failure of student mastery of academic work. One of the key indicators in the prediction of high-stakes testing outcomes is socioeconomic status. Dika and Singh (2002) examined the connection between educational and social outcomes and discovered that “social capital is positively linked to: (1) educational achievement; (2) educational attainment; and (3) psychosocial factors that affect educational development” (p. 36).

General intelligence, as well as regulatory methods of behavior, is also a predictors of a child’s academic performance. According to ecological perspectives on an individual’s developmental process, the most closely related systems to the child can influence the relationship between childhood characteristics and academic achievement (Gut, Reimann, & Grob, 2013). According to Phillipson (2010), emotional and social support such as encouragement and development of overall child confidence contribute to student academic achievement. Gut et al. (2013) investigated the “simultaneous influences of child (general intelligence, problem behavior) and family (socioeconomic status, migration background) characteristics as well as parents’ and teachers’ perceptions of children’s competence on children’s academic performance in a 3-year longitudinal study” (p.436). Gut et al. indicated that perceptions of children’s competence assessed from the perspective of informants in two different contexts (parents and kindergarten teachers) were highly correlated. The parents and teachers, especially those who have children with behavioral issues and adversity, should be supported and trained adequately to meet the changing demands of the profession. Academic indicators can come from a

variety of sources that all influence student success/failure in the academic environment (Gut et al., 2013).

Liem, Martin, Porter, and Colmar (2012) examined academic motivation, student achievement, and the roles of individual and social-oriented achievement motives and their potential link to achievement goals. Liem et al. argued that “values and achievement motive orientations are sociocultural-rooted antecedents of achievement goals because individuals develop these basic personality factors through socialization within their sociocultural context since early childhood” (p. 1). Liem et al. noted that students’ attempts to meet parental and teacher requirements energized them to do well in their academic journey through a development of their own individual academic programs. Socially-motivated students are more likely to study in order to successfully master lesson objectives or to achieve their desired grades.

### **School Accountability**

The passage of NCLB (2002) legislation has led to an increased awareness of school accountability within the public educational system. NCLB requires that each public institution of learning review their educational progression as a complete aspect of the school population and not just individual currently targeted groups. Schools that are annually lower performing can face increasing sanctions each year that these achievement levels were not met. The NCLB expectations affect all areas of school performance, especially high-stakes testing. The original reasoning for school improvement requirements within the lower performing schools was to ensure that all

schools were meeting standards of academic performance level requirements. There are, however, still schools that struggle to meet these requirements each academic year.

Jennings (2010) examined the management of school choice and accountability and found the need to turn to performance indicators to measure school accountability. Many school administrations were basing choice and accountability practices on individual viewpoints and backgrounds. Jennings noted that studies of accountability systems “have established substantial variability in schools’ and teachers’ responses. It is possible that some schools act vigorously to shape their student populations, while others may not” (p. 228). Personal beliefs of administrative personnel can also shape overall school accountability. Jennings indicated that the presence of a structured environment and the opportunity for principals to use established networks can influence which networks are used for accountability measurements. Jennings concluded that there is a need to redesign school accountability systems that will not negatively affect school systems that have many lower performing students.

Garcia (2011) explored the issue of accountability through an analysis of accountability standards through the statistical information required by NCLB (2002). Elmore, Abelman, and Fuhrman stated,

A primary emphasis on measured student performance as the basis for school accountability, sometimes accompanied by other indicators of success; the creation of relatively complex systems of standards by which data on student performance are compared by school and locality; and the creation of systems of

rewards and penalties and intervention strategies to introduce incentives for improvement, (as cited in Garcia, 2011, p. 65)

### **Student Progress Monitoring**

Although a school-based progress monitoring system is used in many districts, there are many challenges that must be overcome to ensure the success of these programs. Among these challenges are student responses to interventions, teacher adaptability, and overall integrity within the schools. Student monitoring is an essential part of an instructional program because it allows teachers to measure achievement levels and progression in given subject areas (Bolt, Ysseldyke, & Patterson, 2010). Low-performing schools often lack the tools or policies necessary to measure student progress, thus creating a gap in student achievement and success. Improvement efforts in many low-performing schools have emphasized monitoring student progress to ensure that improvement initiatives are based upon demonstrated student needs, rather than perceptions of weaknesses in students or school programs (Orr, Berg, Shore, & Meier, 2008).

The objectives of measuring student progress are to identify students who have difficulties with reading and literacy and then to incorporate instructional programs that address students' individual needs (Forster & Souvignier, 2011). In the U.S. education system, these objectives are usually accomplished through a CRT evaluative method. These tests have value for educators and administrators because they can identify who might be struggling with basic subject knowledge. They provide information about ways to help students achieve desired academic results and they can be used as a benchmark to

identify students who require extra assistance (Forster & Souvignier, 2011). With this information, teachers can create specialized instructional methods such as Multiple Intelligences (MIs) as a foundation to achieve the desired test levels for all students. Student progress can be measured in various ways. By considering all of the factors of learning and intertwining them with state and local educational measures, a student's progress can become an aspect of his/her future success beyond the classroom walls.

Espin, Wallace, Lembke, Campbell, and Long (2010) examined student progress monitoring by exploring if there was a relationship between overall performance aptitude on the curriculum-based measures and the state high-stakes tests. These tests allow for education professionals to measure student progress within the academic classroom. As with any high-stakes testing format, questions about the honesty and integrity of these tests as an indicator of successful student progression surface. Espin et al. offered insight into the problems of student progress monitoring through data collected from reading passages to help determine indicators of performance levels on high-stakes testing. Teachers could use either method as a way to measure potential performance on these tests.

Technological advances help increase the potential for student learning. Educators can continue to foster student learning that results in higher rates of student achievement by incorporating MIs into their instructional strategies. Teachers are not only challenged by requests from district and state administrative requirements to update individual technological aptitude when it comes to classroom teaching, they must also increase students' specialized skills that previously were not required to be tested (Sellers, 2009).



### **Implications**

The local implications of this study were manifested in the examination of teacher perceptions of student achievement on end-of-year testing. Student mastery on end-of-year-testing has been slowly declining over the last several years. Therefore, a project was developed based on results of the interviews and on findings from a review of scholarly literature surrounding the problem of lower test scores. The project included the creation of 3-day professional development training sessions where I could help teachers change their perceptions of the incorporation of specialized instructional strategies, grounded within Gardner's MIs, to increase overall learning. This further helps to develop a language arts program that will offer students the opportunity to learn within the scope of their individual intelligence(s) and increase end-of-year test scores. Those individuals who would attend the in-service training sessions would include teachers, administration members, and other interested individuals who could benefit from the training. Outlines, workshops, and materials were developed to help teachers become more familiar with MIs and how they can be applicable to the classroom setting.

### **Summary**

Within the local school district, the curriculum standards leave little room for adjustment and individualized learning that allows for the adaptation of specialized programming formats. The purpose of this research was to create a model of middle school language arts curriculum design that supports an individual approach to learning. Lower test scores within high-stakes testing of Grade 8 language arts students have created the need to examine potential causes for the low test scores and to create

recommendations for the improvement of the test scores. Scholarly literature was reviewed to help support the reasoning for this study along with the establishment of potential recommendations for future improvement of high-stakes test scores. A rationale for the project study was offered with support from evidence from the local and national viewpoint.

In Section 1, I described the overall research problem area with a discussion of the rationale for the study, a review of the significance of the problem within both local and national educational settings, and required terminology needed for further understanding of the study research. I also examined current scholarly literature on high-stakes testing, school culture, and school progress monitoring. This section concluded with potential implications of this study.

In Section 2, I describe the methodology of the study. This section contains an overview of the qualitative method and justification for its use in this study. Details about the data collection process including participants and actual analysis are discussed. In Section 3, I discuss the study project that was developed based on research and data collection findings as well as current literature surrounding the problem addressed in section 1. I also showcase the doctoral study project in depth while maintaining a scholarly level of academic understanding. Section 4 includes reflections and conclusions of the project study. Future implications and research possibilities also are discussed in this section as well as recommendations for social change.

## Section 2: The Methodology

### **Introduction**

This section begins with an overview of the research design and the rationale for selecting the design and approach. Next, the roll of the researcher, setting, participant selections, and other significant material will be discussed. I also explain the procedures for selecting participants, the ethical protection of those participants, and an explanation of the research design format, as well as the data collection process, analysis, and verification procedures that help ensure consistency.

### **Qualitative Research: Design and Approach**

#### **Design**

In this qualitative study, I attempted to answer questions about trending lower test scores within Grade 8 language arts high-stakes testing through open-ended processing questions. Qualitative researchers follow several steps in the research process including selecting their topic, determining the RQs, designing the studies, collecting the data, analyzing the data, generating findings, validating the findings, and writing final reports of the findings and interpretations. Qualitative research can be influenced by the bias of researcher's backgrounds and qualifications. Klopper (2008) stated, "Qualitative researchers generally believe that they know what they do not know (i.e. knowing the type of knowledge that they expect to obtain by doing a study and then striving to obtain it)" (p.62). There is flexibility in conducting this method of research. Qualitative researchers do not use statistical information to satisfy their research questions. It is critical, then, that qualitative researchers offer a higher level of detailed information

about their data sources and analysis (Bansal & Corley, 2012). Through this methodology, qualitative researchers can help to answer questions about issues of following scholarly and validated processes. The following RQs guided this study:

1. What are the underlying factors for a steady decline in Grade 8 language arts test scores on end-of-year testing?
2. What current instructional practices are being used to prepare students for end-of-year testing?
3. What are teacher's current perceptions of reasoning for recent decline of Grade 8 language arts test scores?

The purpose of this study was to investigate and analyze/ teacher perceptions about decreasing scores within Grade 8 language arts high-stakes testing and how to incorporate teaching strategies, such as use of MIs, within the classroom curriculum to increase test scores each year. The goal was to also understand how these teacher perceptions influenced incorporation, planning, and implementation of specialized curriculum strategies such as using MIs to achieve mastery levels to prepare for high-stakes testing.

In this study, I used a phenomenological research design that incorporated interviews as the main avenue for data collection to determine why there was a steady decline in Grade 8 language arts end-of-year test scores to better prepare students for end-of-year testing. Moustakas (1994) stated, "The empirical phenomenological approach involves a return to experience in order to obtain comprehensive descriptions that provide the basis for a reflective structural analysis that portrays the essences of the experience"

(p. 13). Current test scores from the local school district and the nation served as a foundation to create the project study.

### **Justification of Research Design**

A qualitative methodology was used to investigate potential factors that could influence negative test scores and how the implementation of an instructional strategy that is specialized and tailored to individual students could help increase overall student mastery. Tohill (2009) argued that educating for the future requires more than just a method of curriculum design and implementation; it requires an on-going commitment to professional development centered on efficiency and effectiveness that accounts for both the individual and the school. This requires educators to understand how collaboration within schools can help overall student achievement.

Because I relied on personal interviews to collect data, a quantitative method was not appropriate because no numeric values were retrieved. The RQs allowed me to gather the data by recording the interview responses and looking for trends concerning the potential for increase on end-of-year test scores. Each specific design process focuses on settings and established populations to sample individuals and their behaviors.

A phenomenological study is based on human nature and experiences connected to a particular phenomenon. This type of study is used when a researcher is attempting to connect an individual or group experience with a specific instance in time that could allow for common connections to be made (Creswell, 2003). As stated by Sokolowski (2000), “phenomenology is concerned with the world of human beings where truth abides, a science directed toward manifestation and disclosure, a rigorous, explicit, self-

conscious enterprise” (p. 53). This type of research study is based on lived experiences rather than a more formal review of material. The phenomenological foundation for this study included the understanding that participants recognized a shortcoming in the test scores in relationship to overall instructional success within the classroom based on their experiences throughout the year as they pertain to student achievement and content mastery. These experiences of professional educators offered insight to the necessity of creating a research project and study.

The general qualitative traditions of research are biographical, grounded theory, ethnographic, and case studies (Creswell, 1998). A grounded theory design focuses on the creation of a theory based upon observed physical actions of participant viewpoints within the parameters of the study project (Creswell, 1998). Grounded theory did not fit this particular project design because the opportunity for new theory development was not present based on the research subject and project details. Ethnographic research centers on the cultural aspects of a society within its natural environment (Creswell, 1998). The study was a more specific aspect of the middle school language arts program rather than a broader examination. The case study allows for the development of an in-depth analysis of particular programs, events, or individuals (Creswell, 1998). This study did not fall within the case study parameters because of the lack of current cases relevant to the research study. The information was used to expand knowledge through local school district channels rather than nationally. The potential for expansion at the national level depended on the success or failure of the project.

## **Participants**

### **Criteria for Selecting Participants**

Participants (See Appendix B) were selected to be considered for involvement in the study based on the following criteria: (a) held an academic degree in language arts area and (b) a faculty member at the selected school. Each participant received and signed a consent form (see Appendix C) before any interview sessions occurred.

I conducted the study at a selected middle school within the local school district. At the time of the study, I was not teaching at the middle school, so the potential for researcher bias was minimized. Each participant had professional relationships with me, but because I did not have a position of power over the participating teachers, there were no conflicts involved with the study. Authorization to conduct the study came from the local school district.

### **Justification for the Number of Participants**

Through a purposeful sampling method, seven teachers were selected from those teachers submitting the required consent form and teacher interest information sheet. Creswell (2003) stated that purposeful sampling means that researchers intentionally select participants based on their individual experiences. When considering the sample size, Creswell offered that a larger size may make the researcher ignore details provided by the individual. In contrast, a smaller sample size allows the researcher to generalize the results of the study to an expanded audience. Choosing only seven participants allowed me to gain a detailed perspective on the total population of the school because the school had enough language arts teachers within the targeted Grade 8 level.

### **Procedures for Gaining Access to Participants**

Gaining access to the participants came from establishing a partnership with the selected middle school's Grade 8 language arts department. Invitations were sent to those teachers interested in participating in the study. In order to meet the established criteria for study participation, the following was considered for involvement in the study: (a) held an academic degree in language arts area and (b) was a faculty member at the selected school. I selected participants based upon their responses to the teacher interest survey (See Appendix D) given to each member of the language arts department of the selected schools. A random selection method was used to narrow down the number of interested faculty members to the required seven participants. A participant introduction letter (See Appendix E) was sent to each participant following the selection of the sample.

### **Establishing Researcher/Participant Relationships**

For this study, researcher/participant relationships were established based on professional interactions within the school district organization. Each participant had a vested interest in student learning and achievement. Participation within the study was on a voluntary basis as stated in the Walden consent form. Following Walden Institutional Review Board (IRB) approval (#10-12-12-0178265) for this project study, I contacted chosen participants based on a purposeful sampling method. Each participant had the opportunity to ask questions concerning specific aspects of the project or the overall project objective.



### **Ethical Protection of Participants**

The protection of study participants, including all rights and privileges, is the most important aspect of any research study conducted. Various precautions were taken to make sure that these rights were upheld. Permission to collect research data was obtained from both the local school district and Walden University's IRB. In addition, participants had the ability to ask questions pertaining to the study at any given time and have their identities remain anonymous for the qualitative survey. Those who participated in the study had the option to have their identities protected in the following manner: all interviews were transcribed with specific names and identifying information removed, and interview sessions occurred in a room specifically reserved for the session with the door closed and a **Do Not Enter** sign placed on the door. References about anything not pertaining to the study were deleted from the record, and the participants were asked to refrain from making further comments.

### **Issues of Confidentiality**

A teacher interest form was presented to interested participants by placement of a manila envelope with only the study name on the outside in their respective mailboxes at the schools. Selected participants received notification via their school or preferred e-mail address. All study information was kept confidential unless requested in writing by participants or district officials for further educational research studies. Confidentiality was also assured through the establishment of a private location where interviews took place. During the interview process, any questions about the research study

confidentiality were addressed through a review of the consent form and the establishment of trust between the participants and myself.

### **Informed Consent**

Informed consent was provided by me to those selected to be study participants. Each participant signed a consent document form that bound them in agreement to the study parameters and their willingness to participate with the option to leave the study at any given time without repercussions from local or district school officials.

### **Protection from Harm**

Protection from harm was addressed within the signed consent form and through agreements with the school and district organizations. Each participant understood that if consent to participate within the study was given, no negative actions were taken against him or her based on information provided during the study. Each participant had the option to stop participating in the study at any given time if they felt that it was necessary.

## **Data Collection**

### **Justification of Choices**

For this project study, a qualitative study was justified due to the type of data required to answer the RQs. Because a majority of the data collection was completed through personal interviews, the opportunity to elicit information through open-ended questioning allowed me to answer the RQs, thus allowing for the highest amount of information to be gathered and coded for trends, themes, and highlights.

### **Specific Plan for Interviews**

I collected data from the interviews. Each interview took place either after school hours or on another previously designated time to avoid any scheduling conflicts. Each interview was approximately a half hour in length. The semi-structured format allowed the teachers to respond with expanded answers. The interview model for these interactions was in a conversational partner format. Semi-structured interviews include questions that are open-ended with clear intent and unbiased structures (Hatch, 2002).

The seven interview questions were used to address the key points of the RQs. The interviews were arranged to fit the participants' availability during the same school day, if possible. Each interview lasted approximately a half hour in length and included seven questions based on the study RQs (see Appendix F). The purpose of the interviews was to gather information about the perceptions of teachers concerning lower test scores, what potential actions could help teachers address and assist students in learning material, and how implementation of specific instructional strategies could result in higher rates of mastery on end-of-year testing.

These interviews were audiotaped and transcribed as soon as possible to avoid any potential loss of key information. When needed, clarity and consistency of the audiotaped interview was checked if the information was unclear or if additional explanation might prove valuable. An example of the interview session is included within the study appendix section (See Appendix G).

### Plan for Data Collection Timeframe

The data collection timeframe was created to allow ample time for me to collect the required information to complete a scholarly presentation of the RQs. The timetable presented below in Table 1 served as a guiding element in project implementation, group sessions, and interview scheduling. The data collection process totaled 6 weeks. This timeframe allowed me to gather adequate data relevant to the study and compile and review the results to add to the final study project.

Table 1

#### *Project Timetable*

Time frame	Activity
Two weeks prior to study implementation	Participants were electronically mailed a teacher information sheet that introduced the project study; gather preliminary data concerning current knowledge of MIs and actual willingness to participate within the study process.
Week 1	Teachers sent back consent forms. Arrange for interviews was made with partnership school. Provide teachers with further information about study purposes and background.
Week 2	Doing interviews with teachers. Completed within this week to allow for proper data collection based on teacher availability.
Week 3	Collected all data research information and began to analyze using selected method.
Week 4	Reported findings to administration, teacher participants and school. Finalized data and completed storage method.

### **Data Collection Process**

Data collection began for this study following IRB approval. I sent out an initial interest e-mail with the consent of participation form to all participant grade level language arts teachers. Based upon the response of the consent forms, I sent an e-mail to the middle school teachers in the language arts department at the school that included (a) an invitation to be a part of the study participant group, (b) a general overview of the purpose of the study, and (c) a teacher interest form that demonstrated current knowledge of specialized instruction, such as MI, as well as overall interest in study participation.

Interviews provided further data for this study. Each interview lasted approximately a half hour in length and took place after school hours or at another previously scheduled time to avoid any scheduling conflicts. The semi-structured questions allowed the teachers to respond with expanded answers. The interview model for these interactions was in a conversational partner format. The interviews were topical, exploring the education professional's perceptions of information to discover behavioral explanations and interpretations (Rubin & Rubin, 2005). Semi-structured interviews included open-ended questioning and familiar verbiage in a clear and consistent manner that was easy to understand (Hatch, 2002).

The seven interview questions were used to address the key points of the RQs and to allow the participants to share their thoughts about incorporating specialized instruction such as MIs into course delivery. Hatch (2002) suggested that an interviewing format facilitates an opportunity to examine teaching processes. The established purpose of the interviews was to collect information concerning teacher perceptions of decreasing

test scores, instructional strategies being used to prepare students, and how a specialized instructional methodology could be used to help better prepare students for success on these tests. These interviews were audiotaped and transcribed, with participant permission, as soon as possible to avoid any potential loss of key information. As needed, I checked for clarity if some portion of the audiotaped interview was unclear or if additional explanation might prove valuable.

### **Recordkeeping Procedures**

Keeping accurate records and conducting processes that are in line with IRB guidelines were essential to the success of this study. Throughout this process, I requested permission to use audio techniques during all interview sessions. I stored each documented session separately and backed up all information on computer files in the event that any participants asked to review their session data. Final transcribed data were then presented to the participants for member checks. This also helped to ensure the validity and reliability of the data.

A written journal was kept to record emerging themes and understandings for later research and review. This information was also kept in a secure location within my home office. Information in this journal was used to further clarify teacher perceptions of decreasing test scores in Grade 8 language arts.

### **Role of the Researcher**

As a 10-year veteran teacher within the local school district, I have been interested in how high-stakes testing can affect overall student academic performance and future potential. I have also been interested in specialized instructional practices based on

contemporary theories such as Gardner's MIs because I believe that all students have a specific intelligence that serves as the basis for all learning and, if discovered, can enhance students' potential for success. This study was considered backyard research because it "involves studying the researcher's own organization and immediate work setting" (Creswell, 2003, p.184). Because of professional connections with the faculty and staff of the selected educational facility, I believe that data collection, participant selection and participation, and overall success of the study were accomplished without problems. I had no position or power over the individuals that I was interviewing because of my professional connections.

### **Data Analysis**

Qualitative data analysis for this project came in the form of several parts. These included (a) reading and reviewing interview session transcripts, (b) coding processes, and (c) the use of data analysis software to help review collected data.

### **Coding Process**

I used NVivo software to analyze patterns in the qualitative data collected from the interviews. An open coding process was initially used to complete the data analysis. As the data were collected, an analysis to discover possible themes was used to complete the data collection process. The software was used for transcription purposes of the data and assigned a nominal scale for identifying coding categories that aligned with the RQs. Emerging themes helped me to identify the teachers' perceptions about why the students were not performing well in language arts, what may be missing in their teaching strategies, and the value of incorporating instruction using contemporary theories such as

MIs into course delivery to improve student achievement in the Grade 8 language arts curriculum. I reviewed the interview sessions for district approved procedural checks as well as other significant themes or project identifiers.

For purposes of this research, NVivo software was also used to analyze the responses to interviews using this coding process. The NVivo software for the qualitative data analysis process automatically took the inputted data and created nodes. A node represents a code, theme, or idea about data. This allowed the main categories to emerge from the data.

### **Quality Assurance Procedures**

Quality assurance for the study consisted of two separate processes through which information was validated. The first process was done through a debriefing with study participants prior to the interview session to clarify study project objectives, questions or concerns of the individuals, and review processes following interview sessions. The second process consisted of a member checking system to allow participants to review interview data for accuracy and clarity. This process also allowed for individuals to further understand and make connections between the project study and interview questions. These member checks took place the following 3 days after the interview sessions. Participants had these 3 days to review interview data for accuracy and offer any insight as to misquoted information or misunderstood information.

### **Discrepant Cases**

As stated by Maxwell (2004),



Identifying and analyzing discrepant data and negative cases is a key part of assessing a proposed conclusion. Instances that cannot be accounted for by a particular interpretation or explanation can point out important defects in that account, although the supposed discrepant evidence must itself be assessed for validity threats. (p.258)

The process for dealing with discrepant cases was based on a determination of the overall validity and reliability of the findings from the data collection during the project study. Within this qualitative study, when conducting face-to-face interviews, all participants were invited to speak without hesitation or recourse about their perceptions of high-stakes testing and the influences on student preparation that might be attributed to declining test scores. For this study, I reviewed the data and looked for instances of discrepant data and addressed them accordingly, providing reasoning behind the discrepant data, if any, and the relationship to the overall research project. Based on a scholarly review of the interview transcripts, the study did not contain any discrepant cases that would need to be addressed.

### **Assumptions, Limitations, Scope, and Delimitations**

In consideration of assumptions within the project study, the opportunity and permission to use the Grade 8 classrooms within the selected middle school was given, and a core group of teachers were willing to be involved with the study. Limitations of the study included lack of participants willing to be a part of the study, a lack of access to an interview location, and time constraints on teacher participation levels. Research gathered through scholarly journals and databases, recent statistical information from the

local school district, and national statistical information were also used to define the scope. The limitations of the study included the choice to not expand the selected sample size to avoid overlapping information concerning teacher perceptions of student achievement on end-of-year testing. Other limitations included only selecting language arts teachers for the study though others might be interested in participating. Delimitations of the study were addressed because the study was conducted within the following parameters: (a) only language arts Grade 8 teachers were used as participants in the study and (b) all project study events took place within a 4-week period to ensure accurate data collection before end-of-year testing.

### **Reliability and Validity of Information**

Reliability and validity were established through a series of member checks of the information gathered through the data collection process. Qualitative researchers should use at least two procedures to ensure the verification of the results (Creswell, 1998, p. 201). The use of member checking was a means of confirming the validity and reliability of the findings and interpretations of this study (Creswell, 1998, 2003; Hatch, 2002). The participants were invited to review the transcripts and judge “the accuracy and credibility of the account” (Creswell, 1998, p. 203). For the other qualitative method, I used a sampling of teacher submitted work as an indication of student progress while incorporating specialized learning instructional strategies within their classroom. This work was discussed during the interview process through which teacher perceptions of progress levels were also examined.

## Findings

Throughout the process of completing the interview portion of the project study within the local Grade 8 language arts classrooms, study participants offered a variety of insights, opinions, and perceptions surrounding the RQs. Each individual shared a unique perspective on his or her current perceptions of lower test scores, implementation of specific instructional practices such as MIs, and how that implementation could affect overall success within the classroom setting in conjunction with the potential to increase end-of-year testing scores. Because of the recent declining test scores within the Grade 8 language arts classrooms, a change was needed in the educational process. A potential solution of the problem was the creation and inception of an in-service training to help educate individuals as to how a specialized instructional method using MIs in the classroom could help increase these test scores each academic year. The teachers were aware of the problem, but due to influences of time, teaching requirements, and other state and federal educational guidelines and standards, this option was unaddressed or unavailable.

Of the seven participants selected, four were male and three were female. All of the teachers were full time, and each had experiences at different schools, met participant requirements, and had multiple differences in years of experience in the classroom. The names of the participants were changed to pseudonyms in order to protect their identities. The years of teaching experiences ranged from 2 to 20 years with an average of 10 years of teaching experience within the group.

The data of the study were obtained through the interview process of the seven study participants through which each participant offered his or her own particular insight surrounding the RQs as well as other information to help clarify his or her perceptions of the problem of low test scores. Questions asked of the participants were based on the RQs to assist with data collection of information.

### **Interviews**

The interviews took place in a private, preselected classroom designated by school administration. The interviews took place over a week time frame between May 5<sup>th</sup> and May 9<sup>th</sup>, 2014. Each interview lasted approximately 30 minutes in length. I described the interview process to each participant with a verbal response of yes being given indicating his or her understanding of the project study details and purpose of the interviews. Further verbal agreement of participation was given by each interviewee during the interviews, and each participant was assured that any information shared would be only used for study purposes and would not be shared without prior consent of the individual.

Recordings of the interview sessions were transcribed into a Microsoft Word document. To assure the accuracy and reliability of the information gathered, each participant was mailed a copy of the individual session transcript for review and accuracy check. Each participant was asked to review and comment on the transcript of his or her particular session for accuracy and completeness. Once the documents were reviewed and verified with each participant, each transcription was loaded into the NVivo software for further data analysis. Each participant was given a number to help protect individual

identities and to maintain a level of confidentiality already agreed upon by the participants prior to the study interview sessions.

### **Addressing the Research Questions**

For this research study, the RQs presented helped me to establish a baseline for further scholarly analysis. The following sections address these questions and make the necessary connections to the overall problem.

### **Factors Influencing a Decline of Test Scores**

The first RQ concerned the underlying factors influencing high-stakes testing in relation to the steady decline in Grade 8 language arts test scores on end-of-year testing. Educational factors exist within a system to influence, either positively or negatively, existing and future academic pathways. Within this study, the following questions were asked of the participants to gain an understanding of their perceptions of the factors that might contribute to the decline of Grade 8 language arts test scores. These included

1. What do you feel are any underlying factors for a decrease in Grade 8 language arts test scores over the last several years?
2. What are your perceptions of how these factors could influence success/failure on end-of-year testing results?

The first question led to similar responses among the participants. Each had a unique perspective on this topic, which allowed for various viewpoints to be discovered. When considering factors of a given situation, an individual must look at all contributions, positive and negative. Each individual's approach to the examination of the current problem within the educational system allowed for opportunity to discover new ways to

shape the success of a program of instruction, especially within the middle school environment. In the interview process, there were several underlying factors that could serve as a cause of the decline in overall test scores.

Participant 1 noted that curriculum influences from the state office of education allowed for only certain ways to approach a learning environment. Participant 1 noted that “we are held accountable to teaching our lessons to prepare students for these benchmark tests each year. This does not allow us to really dive into the more specialized instructional methods that could help students learn material better.”

Participant 6 also noted that time was another factor in the decrease of test scores. Participant 6 discussed how the national comparison of Utah is ranked along with the other states and that Utah students are being held to higher standards each year because other states are raising the bar within the educational system in relation to end-of-year test scores.

Participant 7 discussed that when NCLB came into effect, there was almost a given excuse for teachers just to prepare students for testing, but not really be concerned about the results and the effect on the national picture. In the discussion, Participant 7 also shared that because of higher levels of accountability, this focus on preparation is becoming more of a primary issue among the teachers.

Participant 2 shared thoughts on these questions and stated,

Factors that currently exist within our educational system include time limits, curriculum requirements, and changing end-of-year test methods. Recently, we

changed to a new assessment system in our district and it is still a bit difficult trying to get used to the changes without interrupting the flow of our classroom. Participant 2 also related that these changes required more focus on key areas while ignoring other aspects of language arts such as poetry and creative literature.

The second question posed to the participants involved looking at how perceptions of the factors that potentially cause the decline could ultimately influence the success or failure of end-of-year testing. Each participant was given ample time to think about his or her respective answers during the interview process. Participant 1 shared that “one of the challenging things about given factors within any academic area that determines success or failure of a student, is realistically varied, depending on the situation.” When asked the question, Participant 6 offered that within the classroom, the factors that determine overall success were dictated by what the end result or objective given was and what information was being asked.

In the interview, Participant 6 shared that one perception of declining test scores was due to a lack of consistency among the teachers. Participant 6 stated,

We try to stay on the same page and place in our curriculum, but there are times when we can get off track because one teacher might be out for a couple of days while another might be ahead of everyone else. We all have the same curriculum objectives. One deciding factor is how we teach that information and depending on how fast the students grasp the concepts, we have the ability to move on.

Participant 5 and Participant 7 shared a similar viewpoint in that most of their perceptions came from experience within the classroom. In the interview process, they both shared

that much of their classroom design came from previous years in the classroom which can negatively affect the outcome of student performance on standardized testing.

Overall, most of the participants did share their own insights on primary factors about these declining test scores and how a successful outcome could be achieved through a higher rate of mastery each academic year by taking the time to make necessary changes within the current instructional system.

### **Current Instructional Practices**

Current instructional practices within the Grade 8 language arts program have been reviewed on many levels of education. The second RQ concerned the current instructional practices being used to prepare students for the standardized testing at the end of the school year. Participants shared their individual instructional practices and programming methods to help offer insight as to what was being done, what could potentially influence the decline in test scores each year, and what might be done to improve percentages each year.

1. What specifically designed instructional programming methods are you currently using to help prepare students such as a writing program or literacy program?
2. What specific instructional practices do you feel works to better prepare students for end-of-year testing and how can current perceptions influence those instructional decisions?

From the interviews, varying practices were discovered. The first question asked focused on current instructional practices. Each participant offered a unique perspective



on these practices and what level of effectiveness he or she held on student learning.

Participant 1 used a combination of teaching strategies and instructional materials designed to help students gain knowledge of required grammar principles while incorporating literature study in the classroom. Participant 1 stated, “much of the current methods used are based on the Utah Secondary Literacy Model.”

Participant 5 also offered a similar instructional practice, although a more in-depth reading was a part of the curriculum methods. Various instructional tools were among the choice instructional materials used to incorporate daily instructional design. Participant 3 also added that “we often have to change our program due to special instruction from the state depending on the current educational focus of that school year.” Participant 3 explained to me that many times, the instructional design was planned for 1 year, and then the plan changes right before school starting just because of a new legislative focus. Participant 3 stated that “Our language arts program currently relies on instructional materials provided by our school and other language arts programs. We often find little time to add our own individual planning results into the classroom without prior approval.”

Participant 6 offered that many times she felt limited in her classroom instructional practices because of relying on materials that have been used many times before. Participant 6 stated,

Much of my instructional material comes from language arts books that have been around the school district for many years. Only during a few times of the year can I incorporate my own materials. Even our reading list is provided by the district.

Participant 2 shared insights in this area as well. Participant 2 offered that “students gotta wanna. They need to buy into taking the test. That is the start. I think a variety of instructional practices are important to help students to learn.” Other participants had a more traditional method of current instructional practices. Participant 7 shared,

I teach the concepts starting with the basics. I try to bring my students up from what they do understand to applying the concepts to real world applications. I use some task oriented situations so students can understand the application of the basic concepts to problem solving situations. I believe that the more students see and use real world situations and problem solving, the more they will be prepared for the end-of-year testing.

Within the aspects of current instructional practices, many of the participants did share their thoughts as to how students were receiving information. The second and third question centered on the perception of student mastery and comprehension in the language arts area.

During the interviews, participants shared their concerns about student understanding. Participant 5 offered that many of the students often do not show signs of comprehension until it is almost too late to help them. Participant 5 stated,

My students know my expectations every day in the classroom, but often forget to raise their hand when they cannot grasp a concept. When I do not see any questions, I assume they all understand the material. This can be detrimental to the overall progress of the curriculum because it could set things back up to several weeks at a time, depending on the lesson plans.

Participant 3 also offered that he uses different questioning techniques to get students to ask more questions: “Unfortunately, the level of understanding is not always where I need or expect it to be and that also can cause problems in the progress of learning.”

Some of the participants agreed that much of the understanding of material was not noticed until there was a major test or written assignment. For preparations of state testing material, the understanding of material is critical to ensure higher passing percentages. Participant 2 offered that she often checks for understanding at different times of the lesson. One factor that she was concerned about was that students were not grasping the material in a timely manner because of the hurried approach of high stakes testing, especially towards the end of the year.

Educational practices surrounding student mastery have been a focus of the academic system. Design of a consistent academic program curriculum within the core subject areas remains an area that needs to be addressed, as noted by several participants. When asked about instructional programming to help students prepare for the end-of-year standardized testing, a few participants shared their thoughts that limitations were in place that do not allow as much flexibility in the instructional design as they would like. Participant 4 stated, “The challenge of being able to create specialized instructional methods is not feasible because of meeting state and local academic requirements.” Each participant shared his or her own insight as to instructional practices that showcased the variety in classroom instructional methods, thus offering the following theme: teachers have varying current instructional practices.

### **Perceptions of Declining Standardized Test Scores**

During the last part of the interview process, the following questions were asked to each participant to gain perceptions, feedback, and insight on their perceptions of declining test scores and how specialized learning could help increase scores on a yearly basis. This aspect of the interview process was used to answer the RQ on the teachers' current perceptions of reasoning for recent decline of Grade 8 language arts test scores.

The following questions were used to gather adequate data:

1. What do you feel are three potential reasons for recent decline in Grade 8 language arts test scores?
2. What are your current perceptions of how introduction of specialized learning methodologies into the classroom could reverse the recent decline of Grade 8 test scores?

Each participant offered their perceptions of recent decline of standardized test scores within Grade 8 language arts. These assessments were discovered to be a main element within current instructional practices and design among many of the participants.

Participant 2 offered that

Teaching practices are flawed and people in charge are not willing to look at latest research on how the brain works. In our state innovation in education is not embraced, they only want to use methods that have been proven over years of research and application. Unfortunately that puts us behind the latest discoveries and innovations.

Participant 2 stated that too much time spent on repeat information, a lack of competency based learning, and a lack of technology in the classroom are still concerns within the educational system.

Participant 1 offered a similar insight within this question. Participant 1 claimed that students often do not feel important when taking standardized tests because everyone needs to do it. Current benchmarks are not being met because of this attitude of students. Participant 1 also shared that

Our education system is so watered down. We educate to the lowest student instead of pushing all students to be higher. When the news reports that the U.S. is low in math or science compared to students in other countries it is comparing apples to oranges. The other countries have weeded out the lower students and educate the best. They compare their best to all of our students. Not the same.

Participant 5 told me that many of the students in the class dread the end-of-year testing because of the effort needed to successfully meet state and federal levels of achievement. Participant 5 also stated that teachers could benefit from more instruction to help students prepare for end-of-year testing. The lack of preparation is often an obstacle to student achievement on end-of-year testing. Participant 6 shared a similar insight: “many students just don’t try on these tests because they know that it does not affect their overall grade in the class.” Participant 6 also stated another key perception is that parents do not feel these tests are important so they are often unwilling to teach their children that these tests are important.

Each participant was also asked how implementation of specialized learning methodologies into the classroom could increase overall test scores. Participant 1 answered that testing students' literacy aptitude at either the sixth or eighth grade was necessary: "If they aren't able to pass the test (i.e....if they can't read, can't multiply, can't write) they go another year or go to an alternative school to catch up and then move into Jr. high or high school." Participant 3 shared with me that it would be amazing to be able to group the children to where they should be according to competency and skill:

It would be life changing to allow each child to grow and reach their potential.

They should be allowed to be in the best environment for them so that they can learn and feel successful. Grouping by their ability does this.

Participant 7 talked about wanting to incorporate more specialized learning to increase test scores: "Using a more specialized approach to tailor the learning to an individual would definitely help increase overall end-of-year test scores because each student would have the ability to focus on their own strengths and learn the materials in their own way." Participant 7 concluded that an increase in test scores using this method would encourage administrative members to take notice that a change is needed from the educational system.

Participant 3 shared that

One reason is that students are not always prepared consistently from year to year.

Another reason is the Utah Core is still evolving. Teachers are still learning how to interpret the standards, and teachers are still finding resources to use to teach from to cover the standards. Also, the testing program is still piloting questions.

Participant 3 added that as the testing becomes more rigorous, the preparation the teachers have to make has to be more rigorous: “Students will eventually have backgrounds from lower grades that better prepare them for the lessons we need to teach to them to prepare them for the testing they will encounter.” This realization was a common in most of the participants with continued expression of concern about how current testing methods need to be improved.

Perceptions of an individual trait or ability can often be construed without consideration of existing conditions, talents, or knowledge. Understanding the strengths or weakness of any individual is also challenging. Participant 1 shared this information in terms of specialized learning:

I am moderately familiar with multiple intelligences because of working with my students but I have not studied it. Right now our system is not set up to focus on individual intelligences. As I start each new year or as we get a new student I try to look and see what makes each child tick and what educational method works the best for them and then incorporate activities for the whole class that will assist each child in internalizing the concepts were are learning about.

Participant 2 shared feelings about current perceptions and understanding of MIs and how much of the information gained was through a collegiate educational program. Participant 2 offered, “I learned about the variety of intelligences in my classes in college. It is useful when planning lessons and understanding students. It is necessary to try to teach curriculum using a multiple of learning strategies.”

Both of these teachers admitted that much of their knowledge came from their undergraduate work at the university level. Participant 4 shared that

Multiple intelligences were a big part of my undergraduate program because of my studies within human development and early childhood education. Gardner's theory is a major aspect of our current educational system through which students can focus on their own individual learning without feeling just part of the big picture.

Participant 4 further stated that "multiple intelligences can help shape the educational future of many students, but unfortunately, we are taught to use more basic instructional methods to accomplish state and local guidelines and directives."

Participant 3 expressed that

Not everyone learns the same way. Some learn better with multiple learning instructional methods. There are several ways to learn and teach such as concrete (hands-on), pictorial (drawing or written), and auditory (listening). There are others that are not as prominent, but just as effective.

Participant 6 also added that she does look at ways that students learn best and tries to incorporate that into her lesson plans. Some teachers were trying to incorporate a more specialized instructional method within the classroom.

Each participant shared that standardized test scores can be improved through the use of a specialized instructional method, but many offered that because of current practices, this improvement would not happen within the next several years unless



changes were made. This insight led to the following theme: instructional change is required to change perceptions of teachers concerning standardized test scores.

The current perceptions of low test scores existed due to several reasons including necessity of instructional change, knowledge of factors that influence lower test scores, and varying instructional practices. When reviewing the interview data, a subsequent underlying theme was also presented during the interview sessions which offered insight into the connection between lower test scores and a lack of specialized instruction methods such as MI-based learning within the classroom setting.

### **Themes**

Findings from this study were used to showcase the perceptions of Grade 8 language arts teachers as they related to the recent decline in end-of-year test scores within the subject area. When reviewing the data collected from the interviews, trends surfaced which exhibited not only a small knowledge of this decline, but an understanding of how MIs could help influence changes to increase those test scores each subsequent year (See Appendix H). Specific themes emerged from the interview process which indicated the need for training and development in the area of specialized instructional methods to help increase test scores each academic year. Current themes emerging from the data analysis included the following.

#### **Distinct Influences Affecting Lower Test Scores Exist Within the School System**

1. Teachers are held to higher accountability standards without the opportunity to explore new teaching methods.
2. Time constraints influence current instructional practices.

3. A results-oriented administration directs current practices surrounding test preparation.

### **Change is Required to Change Perceptions of Standardized Test Scores**

1. Teachers notice “watered-down” educational system.
2. Parents and students feel testing is nonessential.
3. Students lack effort due to noneffect on grades.

### **Teachers have Varying Current Instructional Practices**

1. Many teachers follow a predetermined educational model.
2. Consistently changing educational focus requires change in instructional methods.
3. Limited materials for use by teachers. Much is old and outdated.
4. Instructional design format is nonflexible. Teachers have standardized required formats.

Throughout the interview process, the above themes offered an opportunity to develop insight and to further clarify responses to the RQs.

The first theme, distinct influences affect current lower test scores, demonstrates that teachers are aware of the factors that can negatively affect high-stakes test scores. One of the influences discovered during the review of data was that a higher level of accountability exists. With changing educational requirements, one of the challenges is that teachers are becoming more accountable for their students’ success in the classroom. This helped address the first RQ with the notion that there are significant factors that influence declining test scores. The idea of changing educational requirements meant that

even seasoned teachers do not have the luxury of teaching their students using more individualized instructional methods.

Another key aspect is that time constraints affect the teachers' ability to teach all of the information needed to adequately prepare students for the end-of-year testing. Within core subject areas such as language arts, the opportunity to explore new topic areas, develop basic writing skills, and enhance creative writing talents are often limited to make room for basic skill level development in effort to gain better scores on the state tests. This idea of time surfaced within the interviews on several occasions and was stressed as a contributing factor to lower test scores. Time is a significant factor in lower test scores because of limiting amounts of calendar scheduling and other school-related activities, including core testing, that are often grouped together in a manner that does not allow for adequate test preparation.

Many administrations, both school-based and district level, were focusing on quantity rather than quality. Many teachers expressed concerns about this results-oriented approach. This focus does not allow many teachers to explore new things in their classroom because of the necessity of meeting the raised standards. More administrative staff members are concerned with numbers rather than anything else. Each year, district reports show test scores and other contributing factors as the success or failure of the school that indicate just how well students are learning material. In practice, this is acceptable, but the idea is actually negatively affecting student achievement due to the quickness of test preparation each year just because of state and federal requirement measurements.

The second theme that change is required to change perceptions of standardized test scores resulted from an analysis of interview questions. Throughout the interview process, many of the participants expressed concerns about change within the educational system that influenced standardized testing. Recently, the school district went to a new assessment system. Existing perceptions of standardized test scores were overshadowed by the knowledge that state and local district requirements were putting more pressure on success rather than engaged learning. Noted throughout the interviews was the consensus that state testing did not establish student achievement other than for overall statistical purposes.

Also noted during the interviews was that the educational system was becoming “watered-down.” Many of the participants felt that they were having to “dumb” down the information for more students to gain a solid comprehension of the material and be prepared for the end-of-year testing. Instructional practices were being negatively affected because many teachers were having to change their teaching methods in order to accomplish state and federal requirements for end-of-year testing. Many teachers related that within their own classrooms, a more traditional style of teaching was required because of the amount of material needed to be covered each year to prepare for testing. This limited their ability to add their own specialized instructional methods into the curriculum, thus shaping a more individual pattern to each student’s success.

Those who were parents within the group also shared their respective feelings on how, as a parent, standardized testing was not as important as other aspects of the educational system. It was noted that these test scores were typically used for statistical

purposes and not much else. Another key issue was the observation that many students do not put their whole effort into the testing simply because of a noneffect on their grade within the class.

Some of the participants could see how student test scores were lower because of the non-establishment of a grade requirement for taking the test and even getting a passing percentage on the test. Many of the participants did not have a grading perception of taking the test at all. Some did question if there should be a standard set for grading students not only on participation, but also subject mastery. Current instructional practices often did not allow for individualized instruction

The third theme that teachers have varying current instructional practices was observed throughout the interview process. Varying instructional practices existed within the classroom. This theme was discovered through an analysis of the data whereas many of the teachers did use various instructional practices to teach the same educational material. Consistency was found across all participants that basic instructional methods were used such as direct instruction, writing and paragraph development, and creative instruction, but most did not tailor the instruction towards the individual student. Rather, the majority of the participants taught to the group as a whole simply because of test preparation and skill building. Many of the participants used the appropriate learning tools that existed within the school system, but few tailored their instructional tools to individual student learners. The majority of the instructional time included using already established practices in the classroom instead of allowing for flexibility and creativity to help student success at a higher level of achievement.

Teachers' perceptions of lower test scores can also be contributed to these varying instructional practices because there is no patterned curriculum. Many teachers often created their own way to teach the curriculum based not only what they have learned, but what others have found to be successful. This can become problematic because, without a structured curriculum of instruction, many teachers can lose focus of the end goal – student success.

### **Evidence of Quality and Trustworthiness**

Shento (2004) revealed four basic criteria that all researchers within a qualitative methodology should abide by when addressing the issue of trustworthiness of their study: “Credibility, transferability, dependability, and conformability are the four criteria that ensure the trustworthiness of the study” (p. 65). To achieve credibility of any study, Shento stated that any study should be reflective of what is actually stated by the researcher. To ensure the credibility of my work, I engaged in an academic research method that paralleled methods discovered in similar work by other scholars. Before the research study project took place, I became familiar with not only the current location of the study, but faculty and administration as well to ensure that proper permissions were obtained. To also meet the requirements of credibility, I am an employee of the school district and familiar with current policies and procedures relating to academic educational research projects. Data were gathered within approved project parameters and reviewed with participants to ensure the credibility of the information.

To assist with the transferability of the information, I used rich descriptive techniques and verbatim quotes. Merriam (2009) explained that transferability refers to

the setting and participants of the study, as well as providing the reader with vivid details of the description of the findings. Detailed descriptions of the setting and findings included direct quotes and supporting literature and findings. In addition, maximum variation was used to help further enrich the study research. Merriam offered, “Maximum variation in the sample, whether it be the sites selected for a study or the participants interviewed, allows for the possibility of a greater range of application by readers or consumers of the research” (p. 227). Transferability of this information will be determined by those who read this study for their own insight and application of future research.

Dependability of the information is another aspect of quality and trustworthiness. The details of the study were written in such a manner that if others were to repeat this interview process, although different answers might be given, similar outcomes would be received. It was my goal to provide as much detail for the study as possible to ensure the potential for others to use my information as a basis for future research.

### **Conclusion**

Much of the focus within the educational system surrounds literacy and the ability of students to do well on end-of-year testing. Throughout the interview process, I explored the perceptions of Grade 8 language arts teachers on high-stakes testing. Much of the insight was gained from the sample population of teachers through collecting data using various methods including interviews and survey responses. In reference to the original problem and RQs, all participants demonstrated a variety of perceptions of lower test scores within Grade 8 and shared experiences that helped make connections of those

perceptions to the overall RQs. Each participant gave his or her own personal understanding of why lower test scores existed within the school district and what improvements needed to be made in order to raise the level of student mastery each academic year. All results of the study will be shared with academic personnel at any school wishing to receive this information along with school district administration members.

Findings of this interview process did offer insight as to the perceptions of teachers of lower test scores and the need to change to help increase overall academic scores. Understanding that much of this change needs to happen within the system and not externally is the challenge. Outcomes of this research were examined through a review of the research and interview questions and decisions of the project were made based on these findings.

Each participant also offered knowledge to me as far as designing the project to be completed over the next year including areas to focus on concerning increasing lower test scores. The participants showcased a desire for more training and development within the area of MIs and other specialized instructional strategies, thus creation of a project to help this cause was needed. For this reason, a 3-day in-service was created to educate and train teachers about MIs and how to successfully incorporate them into the classroom learning process. This project was built around Gardner's MIs, and using current educational methodologies, I will help the teachers learn about ways that MI-based instruction can be added to any curriculum program without too much effort.



The culmination of data was reported in a narrative discussion format where my findings have been reported. Several precautions were taken to ensure adherence to the ethical standards set forth by Walden University's IRB. The study included not only findings from my research, but also suggestions for future endeavors based on the research results. Upon completion of the research, the findings were disseminated among those individuals who requested this information.

School administrative teams must allow teachers to expand their current boundaries and discover a more individualized world. Many of the teachers interviewed expressed interest in this particular option, but few had the resources and time to accomplish this more individualistic approach to learning. In Section 3, I will present the project.

### Section 3: The Project

#### **Introduction**

The purpose of this study was to examine teacher perceptions on declining test scores within Grade 8 language arts. Section 3 will include a comprehensive review of the project undertaken as part of this doctoral study.

Learning is an active process and does require making connections with previously taught materials. Grade 8 language arts students face the obstacles of increased content material, higher level textbooks, and other challenges they are expected to comprehend at all levels. For most student learners, transferring information learned can only be accomplished through collaboration between student academic aptitude and learning styles. This will then have the necessary link between learning and application. Teachers must be able to connect to students who are seeking that knowledge through trusting relationships with those who impart that knowledge to them.

The proposed project will be a 3-day, 24-hour total, in-service project throughout the school year to be held at scheduled times where I will present a workshop on the basics of MI theory and ways to incorporate MI-based learning instructional strategies within the classroom setting. I will also cover the rationale for this information and how this type of student learning can potentially increase overall test scores within Grade 8 language arts. This project was based on information found from a review and analysis of the current data following the interviews with the seven participants of the study. According to study findings, the teachers had an insufficient amount of knowledge on

using specialized instructional strategies within the language arts curriculum and how learning these methods could help student learning.

Educating teachers about how to incorporate specialized learning instructional strategies is significant because there is no particular training within this instructional method area. The time needed for cross curricular strategies and the time to create new teaching techniques will be essential for any possible increase in overall test scores and student achievement levels. In relationship to the RQs, professional development could positively increase test scores and create a successful pathway of learning each academic year because education professionals would discover the benefits of specialized learning methods.

In the MI theory, Gardner (1993) established a new methodology of demonstrating levels of intelligence beyond traditional learning patterns. Armstrong (2003) linked MIs to student achievement by commenting:

Reading and writing are not simply linguistic acts; they involve all the intelligences . . . We have limited ourselves too much in the past, even in the field of multiple intelligence theory, by considering too narrow a range of intervention, and ignoring many others strategies that are available for helping children and adults acquire literacy skills. (p. 7)

Being able to successfully link MI theory (Gardner, 1993) to more effective middle school language arts instruction can offer the academic support for incorporating a more specialized instructional method, such as MIs, to help prepare students for high-stakes testing. An examination of current instructional practices leads to the development of

new methods of curriculum delivery that use children's individual strengths and serve as a foundation of future educational planning. Based upon research by Nicolini (2010), MI theory equips teachers with the necessary tools to identify abilities beyond children's actions, expressions, and creations.

Within different cultures, individuals assign meaning one way or another to accomplishing a task, but adopting Gardner's (1993) MI theory will help teachers to understand the child's complete cognitive ability. The education system needs to be equipped with the tools to help students to achieve a high level of academic success; implementation of MI principles is but one of these tools. Gardner believed in the development of the whole child. Through Gardner's efforts, strides were made to link the use of MIs to improved academic outcomes. Learners' characteristics are an element of MIs. Bowles (2008) indicated that, based upon Gardner's theory, talent and ability are synonymous. A belief that talents are the basis of the acquisition of different MIs became a focal point within the academic community.

After successfully identifying the initial eight intelligences, Gardner (1999) added naturalistic and existential intelligences, both of which added to the academic knowledge base. The belief that a natural ability impacts an individual's learning processes and the ways in which a student incorporates knowledge means that there is a need for a new level of adaptation to increase overall student achievement. Through this theoretical basis, the opportunity for increased student potential was magnified through the use of an individualistic learning approach based on scholarly research and study (Honigsfeld & Dunn, 2009).

## **Background of Multiple Intelligences**

Understanding any specialized instructional learning pattern of students can be difficult for many educators. Being able to create a successful pathway of learning can help increase overall student achievement on all levels. Individuals in the past have researched this educational topic and have discovered possible solutions to this puzzle. Gardner (1993) sought to explain individuals' cognitive abilities by offering a definition of intelligence as a "biopsychological potential to process information that can be activated in a cultural setting to solve problems or create products that are of value in a culture" (pp. 33-34). Gardner asserted that individuals possess abilities beyond basic intelligences of linguistic and logical format. This belief was based upon three foundational principles: (a) individual differences do actually exist within the boundaries of society, (b) individuals do not all have the same brain structure and function, and (c) education is considered most effective if individual learning styles are taken into consideration. These traits are commonly measured through the administration of intelligence tests. Gardner's MI theory was based upon several key principles, as noted by Armstrong (1994) and Teele (2000):

1. Every person is a special combination of all intelligences.
2. Intelligences can vary depending on the characteristics and genetics of the individual.
3. All intelligences are unique in their own way.
4. MI can be identified and characterized.

5. Everyone deserves a chance to recognize and develop the characteristics of their MIs.
6. The use of a single intelligence can enhance other intelligences.
7. The density and dispersion of personal background are essential to skill and knowledge, in all intelligences.
8. All intelligences have a capacity for extending the boundaries of the human mind.
9. Developmental theory applies to the theory of MI.

The introduction of the concept of MIs into the educational community can spark interest in increasing student achievement through the application of principles with foundational roots within cognitive abilities. Eisner (2004) believed that each of Gardner's (1993) MIs has a different developmental history based upon location in the brain. MIs are not simply based upon behavioral aspects. Recognizing specific intelligence or combinations of intelligences is essential to gain an understanding of human differences.

Within the field of education, MI theory is a new way to address issues relevant to student achievement. Understanding the application of MI theory can help to illustrate the relationship between intelligence and student achievement. Gouws (2008) noted that "the relationship of intelligences to the learning process should be a key point in any discussion about ways to promote higher academic achievement, learner success, and lifelong learning" (p. 72). This higher learning objective was supported by Gardner's (1993) belief that human beings have intelligences that extend beyond the traditional

verbal and logical skills that are measured on traditional testing instruments. MIs are not being used effectively to establish a pattern of academic success on state standardized tests within the core subject area of language arts.

### **Description and Goals**

Scholarly practice, research, and application begin with the inception of an RQ. For this doctoral study, the examination of Grade 8 language arts teachers and their perceptions of declining test scores have offered the potential for a research-based project that will be conducted at a middle school within the targeted school district. This project will help teachers understand why the decline in test scores exists and how the potential implementation of MI-based strategies within the classroom could increase overall high-stakes test scores and what can be done to help improve those perceptions.

### **Project Description**

The problem that currently exists within the Grade 8 language arts program is declining test scores. Because of this problem, it was necessary to create an in-service training in which teachers can understand and recognize their individual perceptions and comprehension of this problem, as well as to discover ways to offer their students a more individualized approach to learning. In addition, teachers in this Utah middle school are lacking current knowledge and training on specialized learning, thus creating a disconnect between student success on test scores and desired overall district benchmarks. A professional development seminar is needed to ensure enough time to cover required material and methods with an adequate level of understanding to help the process of the incorporation of MI-based instructional methods in the classroom.

This project will allow teachers an opportunity to gain new information and skills that will help potentially increase test scores through implementation of an MI-based curriculum. Project objectives will consist of teaching participants about basic MI theory while incorporating current instructional practices. Each participant will gain knowledge of Gardner's theory of MIs while working together to share knowledge and insight about teaching practices to help create future lesson plans which are geared towards test preparation. This project will be completed in a 3-day training session with each session lasting 8 hours over the next year. Each training session will have a complete agenda, materials, and process. Phase 1 will be the initial training session through which materials will be presented and information will be given. Phase 2 will be a mid-semester follow up with the participant teachers to see how implementation is progressing and if any notable changes have been discovered. Finally, Phase 3 will be an end-of-school year evaluation to judge the overall success of the implementation of MIs in the language arts classrooms.

### **Project Goals**

For this project study, the following selected project goals were based on the initial problem and foundation of the study along with knowledge gained through review of current literature:

1. Create awareness of the overall declining test scores within Grade 8 language arts classrooms.
2. Develop curriculum instructional strategies and methods for MI implementation based on data collection and analysis.



3. Be able to share knowledge gained from the project study with local personnel and others who are interested in the information and who will also be in attendance at the in-service.
4. Help teachers develop educational tools that will increase overall high-stakes testing results within the Grade 8 language arts classroom.

### **Rationale**

The rationale behind the decision to create this project came from several factors which helped to guide the project objectives, goals, and directives. Springer, Kopik, and Formella (2014) stated, “adults (parents and teachers) not only enhance children’s abilities, passions, talents and interests, but also help children develop strategies to compensate for their weaknesses and capitalize on their strengths” (p. 352). Being able to provide a quality education through the use of in-service training sessions will help teachers discover their individual knowledge of MIs. This project will also help teachers understand how learning about specialized instructional strategies will lead to a more tailored approach to end-of-year testing processes.

Creation of an in-service training program will help to foster new ideas and teaching strategies that educators can use directly in the classroom learning environment to help their students increase their knowledge potential. Continued professional development through programs like in-service trainings can offer educators the opportunity to increase their core knowledge base in a learning environment. As stated by Tohill (2011), “Teachers become more experienced through teaching; often learning and

working with new skills and strategies, fine tuning their repertoires, but equally staying fixed in the ways where they think particular approaches work” (p. 594).

A final element that offers support for the genre of the project is the opportunity for education professionals to collaborate to create a pathway of successful learning opportunities for their students. Katz and Earl (2010) stated that “collaboration encompasses much more than relationships. It is intensive interaction that engages educators in opening up their beliefs and practices to investigation and debate” (p. 30). Collaboration can become an avenue to create new ideas and teaching practices when there is a combination of personal balances of time and energy in conjunction with the development of current and future directional efforts (Borko, 2004; Hudson-Ross, 2001).

### **Review of the Literature**

For this literature review, four areas directly relating to the project genre and best practices will be discussed. To substantiate a scholarly review of the literature and to accomplish a level of saturation that can validate the choice of the research project, I examined the following key words in detail: *in-service training and design, professional learning communities, instructional design and development using MI theory, application of MIs, language arts, and teacher training*. I found the majority of the literature in peer-reviewed academic journals and periodicals from the last 5 years. I reviewed various databases, including *Academic Search Complete, Education Research Complete, ERIC, and ProQuest* resources. The purpose of this review is to facilitate a deeper understanding of the effects of high-stakes testing and the overall potential impacts on student achievement and success within the classroom and beyond.

## **Background Information**

Within the educational confines of classroom teaching, the opportunities for expanded training and development have created the need for in-service programs that offer teachers the option for specialized training in various key areas. The concept of specialized learning and teaching within the local school district has often been deprioritized due to local and state requirements. The idea of using specialized instructional strategies such as MIs in the classroom has only begun to become significant. Creation of a project that will help develop an in-service program will help many education professionals not only become more proficient in teaching, but also help them to make better connections with their students.

Researchers claimed that MIs, among other specialized curriculum methods, are becoming more prevalent among schools across the United States. Many researchers are examining this new trend in the educational community. As stated by Campbell and Plevyak (2008), when teachers use the MI theory (Gardner, 1993), they must examine the method through which they are currently completing assessments on their students and change the way they assess overall student learning. Many teachers are challenged with the daily rigors of the content and meeting the academic needs of each child while maintaining the standards and regulations set by their school and government organizations (Gouws, 2008). Sellars (2012) stated, “there is an urgent need for new pedagogies which respect learners as individuals, acknowledge commonalities and elaborate diversity, and allow students to develop an understanding of their relative strengths and limitations as learners” (p. 293). MI theory can be tailored to represent

three specific objectives: matching instructional strategies to individual learning methods, encouragement of learners to expand their current abilities, and incorporation and celebration of a diverse classroom of students (Özdemir, Guneyisu, & Tekkaya, 2006).

One of the benefits of using MI theory (Gardner, 1993) as the basis of instruction is that it allows teachers to help students to maximize their academic potential using their own learning styles. If lesson planning is structured around the use of MIs, students can benefit from more than just one intelligence instructional strategy, which can increase the potential for achievement of the desired results (Gouws, 2008). According to MI theory, learning is optimal when the material is presented in a way that suits the students' particular intellectual styles and when they can use that thinking to create pathways to other learning connections. Akkuzu and Akcay (2011) stated, "Multiple intelligence theory offers a new educational environment which argues individuals' interests, abilities, occult powers uncover targeted to develop each individual's different about the intelligence field that students' opportunities to learn" (p. 1,004). As related by Al Ghraibeh (2012),

Gardner's main goal is not defining intelligence but rather classifying it as each person has potential biological abilities. In addition, the difference between individuals is attributed to the kind of intelligence they possessed at their birth; including the method they use to develop it. (p. 104)

Throughout the educational process, student achievement is determined primarily upon academic standards established through a grading process. As stated by Hajhashemi & Eng (2012), "To Gardner, intelligence is "the ability to solve problems or to fashion

products are valued in one or more cultural settings” (p. 240). This concept of culture is true for many individuals within the learning process. Most students exist simply to achieve an “A” in their classes. The emphasis on end-of-year testing has become more prevalent because it translates statistically into data that are used to gain more governmental funding and develop programs. Through a simple, yet effective programming structure, the obstacle of standardized testing can be revamped to incorporate MI theory within its structure.

Shearer (2004) identified two distinguishing features in Gardner’s (1993) “deceptively simple yet profoundly different definition of intelligence” (p. 3).

Intelligence is the ability to solve existing problematic issues.

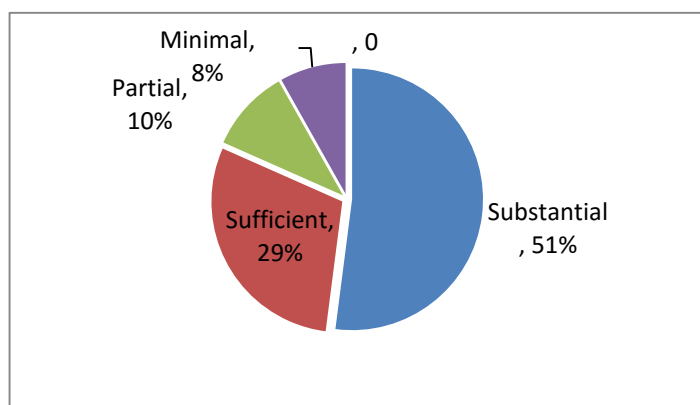
1. Intelligence can provide the method for creating new ideas, thoughts, physical objects, and other valued services.
2. Intelligence uses the materials and core values of the surrounding situation which relies on how and where cognitive ability happens. The availability of these materials dictates whether or not intelligence remains constant.

Intelligence is just one factor in determining student success/failure.

The use of MI theory to allow students to achieve high academic success encompasses the teamwork of individuals using methodologies grounded in MI theory-based instructional design. Ghazi et al. (2011) also found an “insignificant correlation between self-perceived musical intelligence and academic achievement but a very weak relationship between self-perceived bodily/kinesthetic intelligence and academic achievement” (p. 620).

I recommended using a more student-centered methodology in teaching methods to provide learners with opportunities to use and explore several MIs at once. Educators over the last 10 years were presented with the problem of their students not meeting the standardized testing assessment criteria. These examinations focused only on basic skills that were based upon either logical mathematical or linguistic intelligences and subsequently overlooked other types of intelligence (Sulaiman, Sulaiman, & Wei Hui, 2011).

These standardized tests are still considered the method to evaluate students' academic achievement, even though they fall short because they are based upon so few of the MIs. Within the local school district, educational statistics have proven that the lack of specialized programmed learning formats, such as MIs, can have an impact on achievement. The USOE indicated that a change is required to keep students progressing (see Figure 5).



*Figure 5.* Language arts percent proficient 2011- Utah CRT. Adapted from “CRT Reporting: Language Arts 2010-2011, 2011, by Utah State Office of Education Retrieved from <http://www.usoe.org>.

A connection has been made by researchers between MI and individual learning styles. MI theory facilitates the achievement of individual performance through a learner-centered environment that fosters personal responsibility and empowerment (Gibson & Govendo, 1999). Bass and Byhan also indicated that “those students taught based on MI have gained more in achievement and are reported to be more motivated compared with those who have been instructed based on traditional ways of teaching” (as cited in Soleimani, Moinnzadeh, Kassaian, & Ketabi, 2007, p. 50).

Specialized instructional strategies are often ways help students learn within a more focused individual environment. The benefit of MIs, when applied to the delivery of course content, enable teachers to make use of students’ different abilities and interests, with the results leading to an exhibition of a higher learning connection and more retention of the material (Mokhtar, Majid, & Foo, 2008; Rettig, 2005). This

opportunity can only exist through a successful identification of MIs within each individual child at the earliest moment. Szpringer, Kopik, and Formella (2014) indicated that “An extremely significant element of the connection appears to be reliable diagnosis which allows identifying and determining individual intelligence profile for each child as well as support his educational development” (p. 354). Because of this necessary part of the process, teachers need to recognize and evaluate strengths, weaknesses, and individual intelligences that need development in order for any adjustments to current teaching methods (Szpringer et al., 2014, p. 355).

The analysis of curriculum development and enhancement through MI would hold value within a student learning process. Proper guidance through the learning process will benefit students as teachers become more familiar with the aspects of MIs in the classroom. Szpringer et al. (2014) also noted that “There is a need to reinvent the way of thinking about collaborative learning and collaborative learning individualization” (p. 355). Proper organization of classroom materials will help strengthen the student’s individual ability to achieve high levels of success using MIs in the classroom, but without a teacher’s direction, this might not always happen at the desired level.

The development of an in-service training intertwined with a professional learning community will foster the educational processes and increase overall teacher preparedness. Through a specialized learning environment training program, teachers have the potential to increase knowledge and understanding, develop new and innovative teaching practices, and create a pathway to student mastery of academic material for each of their students.



## **In-Service Training and Development**

Ghani et al. (2009) revealed a partial positive collaborative union between teacher in-service training and overall organizational effectiveness. Jamil, Atta, Ali, Baloch, and Ayaz (2011) indicated that “from time to time, in-service training is also equally important for the teachers to become a competent educator” (p. 624). In-service training is important to the education professional in order for teachers to gain all of the competencies and knowledge needed to be successful within the educational community. The opportunity for in-service training within any organization can hold many benefits for not only the organization, but the participants. As stated by Kucuktepe (2011), “In-service training is acknowledged by most experts to be one of the methods to make sure that teachers acquire the knowledge and skills required by their profession through informal interactions with other teachers and acquiring direct experience” (p. 1390). According to Garuba (2004), “in-service training for teachers has two aspects. First, it must be a ‘gap-filler’ in teacher training. The second aspect of in-service training, on the other hand, involves updating teachers’ knowledge to enhance their performance and effectiveness” (p. 1391).

Specific needs and objectives for in-service training can come from several resources such as administrative direction and local district needs or requirements. According to Sinha and Sinha (2010), the training needed within the vocational education system is often noted as a discrepancy between the teachers’ current level of professional performance and the overall expected level of performance. De Ketele (1989) offered that

the opportunity for in-service training programs includes three specific kinds of training needs:

1. Overall perceived educational needs
2. Existing problems, but not understanding educational needs
3. Educational needs resulting from changes or improvements

With the first issue of perceived educational needs, an in-service program can be used to assist employees who are asking for training based on their current perceptions of problem-based areas. The second area of in-service training comes from a lack of awareness of educational problem areas. Finally, the third reason for in-service development comes from situational changes or improvements made by the educational system, administrative direction, or teacher requests. According to Secer (2010), “it is possible to change the negative attitudes of teachers, who are very important in the success of inclusive education, using regular in-service training and pre-service education programmes” (p. 45). Swinton, DeBerry, and Woodard (2010) offered that “professional learning for in-service teachers is a more modest financial investment in teacher quality than teacher credentials such as earning an advanced degree or National Board Certification, for example” (p. 395).

In-service training within the educational field has led to the improvement of many teaching skills. According to Shah, Ali, Javed, and Javed (2011), “The concept of lifelong learning, when applied to in - service teacher education, encourages teachers; to refine their competencies and responsibilities in a long term framework of professional responsibility” (p. 460). Shah et al. also indicated,

Qualitative improvement in education depends upon proper training of teachers.

The teacher cannot play any of the roles unless properly trained. To meet the expectations and aspiration of the nation, a teacher therefore, must possess creative abilities and professional skills to enable him/her to discharge his duties according to needs of society and nation. (p.461)

In-service training can only be successful if effort is put into the development and implementation of a functional program. The role of in-service programs is to allow for continued professional development within an educational setting (Shah et al., 2011). The continuity of in-service training will only be achieved through the effectiveness of those who develop the program.

The in-service model dictates the opportunity for the potential development of professional learning communities that will continue to foster the initial goals and objectives of the training while maintaining a level of professional excellence and knowledge attainment. In-service training opportunities are just one aspect of professional learning communities that hold many benefits for the educational community.

### **Professional Learning Communities**

Intertwined with the learning process that can influence student achievement through the use of MIs within the curriculum design is the development of professional learning communities. These communities have the potential to affect the success or failure of any educational program. Teacher collaboration is a considerable part of the educational process. Maloney and Konza (2011) stated,

Even when collaboration is promoted as a significant feature in a school, it often centers on operational procedures such as examining curriculum, participating in staff meetings and contributing to decisions about areas such as student welfare, discipline, homework and supervision of children. (p. 76)

Lower levels of collaboration could indicate a teachers' unwillingness to take individual risks when it comes to the sharing of knowledge to enhance learning methodologies.

Successful collaborative relationships encourage teachers to move outside of their comfort zones and beyond their own experiences in school and participate in engaging activities that enhance the positive connections to student achievement.

Although these learning teams are successful in most aspects, they still lack the professional interaction required to ensure a quality educational community interaction. Most educators who are participatory within existing learning communities and have the desire to share knowledge and methodologies that extend current educational boundaries while improving their overall practice techniques. Sigurorardóttir (2010) stated, "communities are considered a crucial concept in studies on school improvement as a way of building up schools' capacity for development and increased effectiveness" (p. 395). One consideration in the formation of learning communities lies within the internal structure. The struggles of learning community formation can affect not only the classroom, but also daily administrative functioning.

The creation of specialized professional learning communities structured with MI principles as a foundation can serve the student population by ensuring that all teachers have knowledge-based methodologies. These interactions form a base to transfer

knowledge and experience to student achievement through the use of MIs because of the equal collaboration involved within the learning community. As stated by Hargreaves (2003),

Teachers who are catalysts of the knowledge society must ... try to make their schools into learning organizations where capacities to learn and structures that support learning and respond constructively to change are widespread among adults as well as children. Schools that are good learning organizations for children must be effective learning organizations for teachers and leaders, too. (p. 29)

Dufour and Eaker (1998) claimed that, when properly implemented, the professional learning community represents a “transformation” from factory-model schools to schools that “embrace ideas and assumptions that are radically different than those that have guided schools in the past” (p. 20). MI-based professional learning communities would allow that transformation to take place, not only encouraging a higher level of collaboration, but also a stronger connection to the future of the educational system. Drawing on the intellectual resources of teachers, the creation of successful professional learning communities would enhance any educational system struggling to make AYP among other educational goals.

There is value in the overall establishment of learning communities that would promote a value of shared thinking and knowledge as well as open lines of communication (Dadds, 1998; Macpherson, Brooker, Aspland, & Cuskelly, 2004; Wood & Bennett, 2000). By further organization of these educational support teams, MI theory

can be considered at a higher scholarly level. MI should be incorporated into daily curricular activities. Similar to the thought process of Gardner's MIs, professional learning communities would allow for the intertwining of individualistic strengths, knowledge, and talents to further the educational progression.

Throughout the course of a professional career, teachers change in many ways. Teachers become more experienced and aware of the changes required to successfully connect with the students under their care. Professional learning is never-ending. The role of educators in a professional environment needs to be developed so that each participant can feel like a part of the community of learning, no matter what age or experience is brought to the group. This community of professional development can only achieve success through the intertwining of each individuals' strengths and exploration of individual weaknesses. Tohill (2011) stated, "Professional learning communities will be committed to developing and learning about up-to-date knowledge and skills; providing opportunities for self-reflection and feedback; sharing through on-site observation, demonstration and presentations; supporting a team approach to planning, mentoring and teaching" (p. 597).

Professional learning communities are developed to make improvements to the educational system. Through professional learning communities, adaptations are made to existing instructional programs that require change in order to become more effective. Being able to adapt to this changing environment is often challenging, especially when using specialized instructional methods such as MIs.

## **Adaptation to Multiple Intelligence Learning Environment**

The one-size-fits-all descriptor is no longer applicable in the education field. Because of diversities such as language and cultural differences among student learners, it is necessary to change how information is taught to adapt to this changing environment. With any change come obstacles that might prevent progress towards the common goal of students' academic success. Szpringer et al. (2014) stated that

Each intelligence enables an individual to achieve success, but establishing borders between specific types of intelligences does not seem to be an easy task. It is crucial to collect possibly accurate information on a child in order to obtain a precise picture of his abilities. (p. 354)

Changing student demographics and the ability to adapt to students' individual learning styles by incorporating MIs into the delivery of course content continue to challenge teachers. Adaptive learning can be challenging for many teachers because of the changes that are required. These changes could include new technological skills, teaching methodologies, instructional design methods, and much more. Incorporation of MIs in the classroom takes work. One key element of incorporating MI into instruction is training teachers with observatory skills to recognize MI opportunities. Nicolini (2010) discussed four reasons to adapt MIs within the educational and teaching system. First, MI theory can provide a framework for understanding a student's behavior and products. Second, the development of the range of a child's MIs requires adaptive flexibility and affordances. Third, the necessity of building a holistic vision of a child's competencies can be accomplished through the documentation of a child's specific behaviors, and

fourth, MI theory would promote a greater balance in the overall development of a child. Understanding how influential MIs can be within the educational system is essential for changing the education of learners.

For an adaptive learning system to work, several factors need to be considered, including critical choices, individual learning characteristics, and general learning styles. Making critical decisions is a foundational element of any adaptive program involving learning intelligences. By personalizing the learning environment, teachers can develop students' critical thinking based upon innate intelligence or a combination of intelligences. In addition, students need to learn how to make critical choices when self-matching educational treatments (Kelly, 2008). Individualized learning environments can be beneficial to student achievement. Student learning can occur in a variety of ways through individual processing and organization strategies. These strategies are often based on current situations and experiences of the student (Sadler-Smith & Smith, 2004).

Alternative instructional methods can be another key in the successful incorporation of principles of MI theory in the learning environment (Siegfried, Saunders, Stinar, & Zhang, 1996; Totten, Sills, Digby, & Russ, 1991). Through alternative methods, students can develop their own learning techniques using specific intelligences or combinations of intelligences that help foster the learning process not only academically, but also socially and intellectually. The true measure of success is only found within the achievement of a high level of adaptive learning as demonstrated through various testing and knowledge-based evaluations. An understanding of this



premise is essential to ensure the adaptability of curriculum to incorporate MI into the classroom. As discussed by Cronbach and Snow (1977),

Likewise with adaptively and system control, there are issues around how best to adapt the learning environments. Individual traits can be viewed as characteristics or aptitudes that promote a student's performance in one kind of environment as opposed to another. With this approach the belief is that it is better to provide treatment that matches aptitude, an approach that is formalized in aptitude-treatment interaction. (p. 40)

Using alternative instructional methods supports the development of students' strengths in ways that individual students, as well as groups, work to become a collaborative unit. Adaptive instructional methods, in conjunction with MI theory, will help teachers and students to achieve common educational goals and objectives.

Another aspect of adaptive learning to consider is online studies. MIs offer online learners the option of more individualized approaches to their studies. Creating an online environment through which students can formulate their own approaches to content mastery brings them satisfaction knowing that their own intelligences have a positive influence on their learning outcomes. Zhu (2012) discussed efforts to increase collaborative efforts of students in terms of satisfaction, knowledge development, and overall performance through an online resource. As many online communities develop, the art of collaborative learning becomes an essential aspect of student achievement.

Although this study was directed toward cultural contexts, the principles are reflected in the positive outcomes of collaboration through a professional learning

community of scholars. Zhu (2012) studied a sample of “163 Chinese students and 208 Flemish students majoring in educational sciences” (p. 129). The Chinese students were from a major university in Beijing. The overall average student age of the population was 19.3 years. The Flemish students came from an academic institution in Flanders. Their average age was 19.8 years. Zhu used *t*-tests to “analyze differences between the Chinese and the Flemish students regarding their approval or disapproval within the online learning environment. Chi-square analysis was used to compare student message types and level of knowledge construction” (p. 129). Zhu stated that it was common among both collaborative learning environments that cultural differences affected overall student achievement.

Multiple Intelligences are flexible in a learning structure. The same can be said about collaborative learning. Some cultures are more prepared for the rigors of academic study. The Chinese, in a study by Zhu (2012), were more satisfied with online collaborative learning than the Flemish students. There is significant difference between these two cultures in satisfaction of student online collaboration. These students learned that both satisfaction and performance within a collaborative online learning environment is an essential requirement in an innovative learning process (Zhu, 2012).

### **Instructional Design and Development Using Multiple Intelligence Theory**

The potential for in-service training programs are endless as long as necessity exists within the school system. The opportunity to develop higher level instructional programs using specialized training instruction can only benefit teachers and administrators within the school. Being able to design training programs that encourage

critical thought and development while maintaining a level of educational excellence is the goal of many in-service training programs, especially when discussing specialized curriculum instructional methods. With the individuality of today's student, the necessity to create a specialized curriculum becomes more evident. Pienaar, Kamper, and Niemann (2012) stated, "Intelligences cannot be considered in isolation, because there is a lot of interaction between the various kinds, and performing a simple task usually involves more than one" (p. 270). Children are used to receiving instruction based upon traditional methodologies that focus on core testing requirements rather than the skills essential for future development and growth. One potential problem that could affect this method of instruction is that NCLB (2002) expects schools and teachers to cater to every student's needs.

Teachers are feeling pressure from administration to teach to high-stakes test preparation and lack the time to develop lesson plans that allow students to excel in the classroom (Campbell & Pleyvak, 2008). Manning, Stanford, and Reeves (2010) acknowledged, "With the advent of NCLB, increased pressure has been placed on educators to identify and remediate students who do not demonstrate mastery of curriculum standards; however, little attention has been given to advanced learners" (p. 145). One challenge for education professionals is to design curricula that not only challenges the students, but also satisfies the requirements of local and state education agencies. The actual level of student mastery of information is one of the most significant factors that demonstrate overall achievement within the actual learning classroom environment. In order for this to happen, each individual's characteristics, strengths, and

weaknesses must be considered (Kemp, Morrison, & Ross, 1998). Pienaar et al. (2012) concluded that learners responded well to MI implementation, and they indicated that enjoyment of classes was at a higher level than when more traditional educational methods were used. However, many teachers mostly rely on their dominant intelligence(s) when instructing their students.

Gardner's (1993) MI theory can be adopted by schools as a foundation of curriculum development. Using MIs in content delivery helps students to develop their strengths and use those strengths to become life-long learners (Campbell & Pleyvak, 2008). Quality educational programming helps students and teachers achieve their goals respectively. Educators who develop programs that fit students' MIs will centralize the learning process and instill the values of self-worth, responsibility, and understanding that students will use in the future. The optimization of the learning process is a skill that teachers can develop through the use of MI. Student learning potential would increase because of the application of information that suits their particular MIs. Moellem (2007) emphasized that a student's individual differences are important to the process of learning and instruction. Instructional methods must be tailored to meet these individual differences.

Dick, Carey, and Carey (2005) suggested that the most crucial element of the instructional design process and overall goal is the description of what learners can achieve. That description is not fully understood without an indication of (a) the learner as an individual, (b) the content area where skills will be applied, and (c) the learning tools that are present for their use in the classroom setting. Through the process of

curriculum development and design, teachers can develop instructional strategies while meeting state-mandated core testing objectives. The goal of every learning environment is to produce successful students whose application of knowledge will create patterns of success and achievement. Achievement of a successful curriculum design will not only ensure that connections to learning are made, but that the application of knowledge attained will continue through the learning process. Modirksamene and Azhiri (2012) offered that

In order for the theory of MI to be potently implemented, all constituencies in the schools, EFL institutes, and other educational environments should be in pursuit of understanding and embracing this model. In a deeper sense, it means that not only the teachers, administrators, curriculum developers, and EFL practitioners but also students, parents themselves need some basic knowledge of MI theory for the implication to be as illuminating as possible. (p. 1,020)

Creating an MI lesson plan can be challenging, even for the experienced teaching professional. Armstrong and Thomas (2003) claimed that “MI theory represents a model of instruction that has no distinct rules other than the demands imposed by the cognitive components of the intelligences themselves and the specific needs of the domain in which they are teaching” (p. 64). One of the best ways to approach creating an instructional design program and developing new instructional strategies is by using MIs to build daily, weekly, and yearly themes using MI-based foundations. Armstrong and Thomas suggested seven steps to accomplish this task:

1. Focus on a specific objective or topic

2. Ask key MI questions
3. Consider the possibilities
4. Brainstorm
5. Select appropriate activities
6. Set up a sequential plan
7. Implement the plan (p.66-67)

The ideal thematic instructional design offers educators a method to incorporate more real-world experiences into the curriculum while achieving educational goals and objectives. This allows students to focus on more practical ways to use their individual intelligence(s) in their educational journey.

For younger students, this idea can be used in more age-appropriate learning through the development of MI-based activity centers. Well-designed centers can engage students within their own intelligence(s) in various ways to accomplish many educational goals of learning. Permanent open-ended activity centers can provide students with a year-long experience that can be tailored to each intelligence. For those individuals who desire a more frequented change, temporary topic-specific activity centers allow for design around a theme or subject. The educational pathway built upon MI foundations can be a guiding force for students. Extending the borders of instructional design allows for those connections to be made with the community and beyond. MI schools of the future could have the capability to incorporate meaningful experiences connecting the school with the community as a foundational element. As stated by Armstrong and Thomas (2009), “perhaps MI schools of the future will look less like schools and more

like the real world, with traditional school buildings serving as temporary conduits through which students move on their way to meaningful experiences in the community” (p. 128).

Ultimately, a changing society will dictate the direction needed to accomplish current and future educational goals and instructional design methods created to meet them. As stated by Szpringer et al. (2014),

Every child is unique and has the right to full mental, physical, motor, emotional and social development. It is therefore vital that the adults (parents and teachers) not only enhance children’s abilities, passions, talents and interests, but also help children develop strategies to compensate for their weaknesses and capitalize on their strengths. (p. 352)

Through a successful instructional designed program of learning, this ideal can come to light. Lunenberg and Lunenberg (2014) offered four strategies for the application of MIs in the classroom:

These include (a) collaboration with other teachers, (b) providing students with various presentation options, (c) incorporation of MIs in cooperative learning groups, and (d) involve education stakeholders and guest speakers. Being able to take advantage of these strategies, teachers can more effectively meet the changing needs of society’s student population. (p. 8)

### **Application of Multiple Intelligences to Language Arts Instructional Design**

Within this project study, the focus was on instructional design development using MIs as the foundational element. Application of MIs in any training environment

can become a challenge for not only the presenter, but for participants as well. Being able to create a successful in-service program takes time and effort, along with creativity. Using MIs as the foundation for the training will help education professionals to understand the bigger picture of this specialized instructional strategy.

Szpringer et al. (2014) indicated that “Intelligence plays an important role in every human life. It helps an individual to adapt to the environment and facilitates taking opportunities offered by this environment” (p. 350). Individual attention helps this adaptation to take place at a level in which the student has the ability to discover new ways of learning. The application of MIs allows students the opportunity to use their own individual talents and abilities to meet state and local curriculum requirements. When designing curriculum, teachers who incorporate MIs into their instructional strategies allow students to use different abilities and strengths. As stated by Pienaar et al. (2012), “Teachers should thus take into consideration that learners’ intelligences differ from theirs and that intelligences also vary amongst learners” (p. 283). Pienaar et al. claimed, “Teaching should aim to accommodate and build on all the different Intelligences. It is important that teachers take individual differences among children seriously if they want all learners to learn, understand and perform to their best potential” (p. 283).

Within the language arts curriculum, the development reading and writing skills can be enhanced through the use of MIs. Reading competency, or lack thereof, is fundamental in determining educational success or failure. Reading is a cognitive ability that includes the processing of information that requires mental activities to remember information (Koda & Zehler, 2008). The development of cognitive abilities in students



can be increased through the application of MI principles. Hajhashemi and Eng (2012) stated that “as a teacher what we know and what we do in the classroom should have significant influence on the thoughts, achievement, and behaviors of the students” (p. 242). Additionally, they offered “teachers must help students use their combination of intelligences to teach whatever it is they want to learn, as well as what the teacher and society believe they have to learn” (Hajhashemi & Eng, 2012, p. 242). “Cognitive abilities are the characteristics that influence reading comprehension. Because the performance of readers with normal cognitive abilities varies slightly, some researchers have related reading to thinking” (Hajhashemi & Eng, 2012, p. 241).

Within the writing aspect of language arts, MIs hold significant value as well. Lunenburg et al. (2014) indicated that “writing is a creative expression of real or imagined sensory experiences. A sensorimotor and cognitive process, writing serves all of Howard Gardner’s multiple intelligences, not just linguistic intelligence” (p. 7). For many students, writing can be challenging. Using MIs will help the students to organize thought, structure, and content on many levels. Soleimani et al. (2004) found that

Multiple intelligence-based classrooms increase student’s educational progress in learning English and have positive effects on the attitude toward learning languages in students. To clarify this finding, one can say that in multiple intelligence-based teaching, learners learn because of their abilities and they are allowed to learn the way they have been taught themselves, learning would be pleasant to them. (p. 50)

Policymakers and teachers have realized that middle and high school students sometimes lack a solid foundation in basic literacy skills (Epelbaum, 2007). Assessing students who are struggling can be problematic if no specialized program is available to help them. Implementing MIs in the language arts curriculum might help teachers and administrators to ease the burden of continued lower achievement on standardized testing and evaluations.

Assessment methods using MIs as a foundation can become complicated for many teachers (Lunenburg et al. 2011). Lunenburg and Lunenburg (2014) stressed several ways to address this issue. First, the development of assessments that do not favor one particular intelligence over another is essential to student success. Being able to provide students with examples of expectations will help them in the overall learning process. One key element stated by Lunenburg and Lunenburg is that flexibility and feedback opportunities are a valued aspect of the process. Another assessment tool that is used within the MI structure is checklists. Checklists allow students to review their own work for completeness based on the teacher's requirements. Using these checklists can also help with peer evaluation. For those students who strive for organization and detail, a list of target dates will be of great worth. Lunenburg and Lunenburg (2014) claimed that "for students who lack strong interpersonal intelligence, it can be helpful to show them how to "backward map" their schedule from the due date" (p. 10).

Language arts skills require a high level of critical analysis. Currently missing from many classrooms is the stimulation and engagement necessary to arouse student interest and foster comprehension. Owolabi and Okebukola (2009) explored the effects of

appropriate teaching skills (i.e., study groups and MIs) on students' levels of reading skills. Through a factorial design using three variables, 90 science students from three classrooms participated in the study. The sample was broken down into three separate groups: One group used a study group method, one group used MIs as the foundational element, and one group was taught through the more conventional method of the teacher talking and the students listening. Owolabi and Okebukola determined that the students not only could understand the demands of science-related questions, but they also could express themselves in clear, concise language using attained language arts skills because of taking the language arts class. Owolabi and Okebukola found that the formation of study groups intertwined with MIs can offer students more success in the development of their reading and comprehension skills. The incorporation of MIs into daily curriculum instruction assists students in their quest for knowledge with more student-student interactions and fewer teacher-student listening models.

As stated by Lunenburg and Lunenberg (2014), teachers of writing can extend the boundaries of traditional learning methods using a linguistic method. This can be accomplished by the incorporation of oral activities, the connection of literature and writing, playing simple games such as Scrabble, and exploration and use of digital resources. Lunenburg and Lunenberg suggested the establishment of a reading/writing center that helps indicate that "learning centers help students understanding of subject matter and nurture multiple intelligences" (Lunenburg & Lunenberg, 2014, p. 12). These learning centers are beneficial because of their ability to tailor instruction to class size, student interest levels, and grade levels. Most traditional learning centers can be found

within lower grades. Nevertheless, this technique can be found in high schools (Springer, 2010).

## **Implementations**

### **Needed Resources and Existing Supports**

Project resources for the development of in-service training include the materials needed for training purposes and research and scholarly-based information within the last 5 years. Additionally, the supports for project development came from the scholarly works of Gardner (1993) and others whose research on MIs provided a foundation for the project creation. Other potential resources could include community members and other interested parties who express a desire to learn more about the subject area and implement those ideas into other fields of study including business and technology.

### **Existing Supports**

Existing supports for this project will come from administrative personnel, faculty, and staff of the middle schools. Support will come in the form of making appropriate schedule allowances for teachers to attend training sessions and credit for continuing education for all participants.

### **Potential Barriers**

Potential barriers to project implementation could come from teacher resistance to changing currently embedded instructional patterns to incorporate MIs into the classroom, time constraints on district scheduling availability, and overall interest in attending the workshop. Many of the teachers take professional development days to catch up on the existing backlog of assignments; thus, the planning and preparation for

attending a multi-hour seminar on MIs and teaching them in the classroom could be not as important for many because of their schedules and obligations. Another potential barrier could be cost. The opportunity to attend such training could be limited due to budgetary constraints on building scheduling and staffing salaries for three 8-hour sessions. Overall, the largest possible obstacle to the completion of this project could be the participants themselves. In the past, district attendance at workshops was minimal unless mandatory attendance was required.

### **Potential Solutions**

In-service training opportunities can offer teachers a way to share information and knowledge to improve educational methods and teaching tools. Overcoming scheduling issues can also help create opportunities for in-service training classes. Within the school timetables, many educators have little time outside of the daily requirements of their teaching responsibilities to attend training and develop unless required and scheduled previously. By ensuring all interested participants have the opportunity to attend, careful planning and scheduling becomes critical in the overall success of the training.

### **Project Implementation and Timetable**

This project will help teachers learn about MIs and the role they have within a specialized instructional learning system, as well as how these strategies could help students achieve higher end-of-year test scores. Project implementation will take place following meeting with school administration to review the process, scheduling the workshops, and initial presentation to administrative personnel to gain buy-in for the project.

To ensure the success of this project, approximately 24 hours of total training time over a period of three sessions will be required to meet minimum project timeframes, although additional time can be offered if the need arises for more information to be given. This will allow for the adequate training of all participants, as well as an opportunity for them to develop new teaching instructional methods. Participants will be given ample materials to help create new and innovative teaching materials that can be transferred to their own individual classrooms. For this project, the following timetable in Table 2 will be used:

Table 2

*Timeframe of Workshop*

<b>Timeframe</b>	<b>Location</b>	<b>Project Aspect</b>
<b>Two weeks before the school begins in the Fall of 2016</b>	Home	Complete all presentation in-service materials
<b>At the beginning of the school year</b>	Participant School	Hold In-service Training Session Hours will be 8am – 5pm
<b>January 2017</b>	Participant School	Follow up with participants for feedback and review of in-service training. Hours will be 8am – 5pm.
<b>June 2017</b>	Home/Participant School	Final training session with participants to review previous training sessions and explore future opportunities for MI implementation.  Hours will be 8am – 5 pm.  Following this session, a report to administration will be made that includes all training materials and feedback summary from the participants.

**Roles and Responsibilities of Student and Others**

As the primary planner and research study leader, I assume responsibility for the overall design, logistical planning, communication, project review, and documentation of all participants and administration requesting copies of presentation materials. The responsibility of the school administration is to provide a location adequate to study

requirements for the in-service training. The responsibilities of the participants are to show a willingness to be open in discussion during the training and to follow the session to receive adequate feedback from comments or questions. Additional responsibilities would include a collaborative effort between the participants and me to review materials.

### **Project Evaluation**

The project evaluation will take place in several parts beginning with a summative feedback session with all of the participants. Items that will be evaluated will include the overall experience of participating in the project, the overall project design and outcomes, the materials presented, and the potential success for the future. In addition, participants will be asked to complete a posttraining survey (See Appendix K).

### **Evaluation Type Description**

For this project, the evaluation will consist of a summative evaluation (See Appendix J) using a predetermined set of questions. Each participant will have the opportunity to fill out this survey. Question 5 on the survey will be evaluated on a scale system of 1 to 3, with 1 being *least influential in their future curriculum planning*, 2 being *somewhat influential in their curriculum planning*, and 3 being *highly influential in their curriculum planning*. All other questions will be short response format answers.

### **Justification of Evaluation Type**

Project evaluations will be completed upon finishing the in-service trainings. A summative evaluation will be used to evaluate the overall project. The design of this project allowed for a summative evaluation to accurately measure participant knowledge following the project training sessions. Because summative evaluations are also given at



the conclusion of an instructional period, they can be used to determine learning progress and the overall knowledge attainment.

### **Overall Goals of the Project**

The overall goals of the project were designed based on project objectives. These included the following:

1. Create awareness of the overall declining test scores within Grade 8 language arts classrooms
2. Develop instructional design goals for MI implementation based on data collection and analysis
3. Be able to share knowledge gained from project study with local and state administrative personnel
4. Help teachers develop educational tools that will increase overall high-stakes testing results within the Grade 8 language arts classroom

End-of-year review of the scores within the language arts department will also be completed.

### **Overall Evaluation Goals**

Evaluating the overall project will allow for the determination of two distinct goals to help further the study. These are

1. Evaluative methods will allow the ability to discover further trends within the project parameters and help create future potential academic efforts surrounding implementation of MIs in the classroom

2. A summative evaluation method will offer me a better understanding of how the in-service project will help create the necessity for higher level of training in the future.

Goal 1 allows for the opportunity to develop a pattern of evaluation for further study and research based on initial findings. One of the main objectives of this project was to design a program for the implementation of MIs in the classroom to help education professionals develop more individualized instructional methods that will increase test scores over time. By creating an awareness of the problem that exists in the classroom setting, administrative members can also take this opportunity to create specialized instructional training for their staff and faculty.

Goal 2 offers the ability to develop higher level in-service training programs for staff, faculty, and administration members within school systems that will encourage creative instructional methods to be implemented to help student success. This evaluation will help determine areas of weaknesses and strengths that offer ways to improve current in-service programs based on the subject matter and tailor them to more individualized application. The ability to create a program that is geared to individual understanding and knowledge, working with current programs, and development of methods to increase teacher effectiveness in the classroom will benefit many areas of the educational system. The evaluation will help identify areas for improvement to further solidify the benefits of the training sessions.

**Key Stakeholders**

Key stakeholders during the evaluation will include administrative members of the school and district, parents and other community representatives involved within the educational processes, and the participants themselves. Administrative members will have the necessary resources to approve changes in curriculum structure to implement a specialized option for teachers using MI theory as a foundation. Parents are also crucial to the success of the training because the home-school connection is essential for student success and a higher level of overall academic achievement. Community resources can help supplement training and development through the sponsorship of unique educational programs surrounding individualized instructional methods in the classroom.

**Next Steps**

A key element to any project study is the follow up and future application of results. This project study in-service training has the potential to increase teacher knowledge of MI-based instructional teaching methods and implementation in classroom situations to help students achieve a higher measurement of achievement on end-of-year testing. Following the in-service training, all participants will be sent an e-mail with a short survey (See Appendix K) which will allow me to gauge their understanding of the training and what areas are still needed to help them to incorporate MIs in the classroom. Additionally, I will meet with school administration to discuss further training within this subject area that will focus on more individualized approaches to MI theory and application. By accomplishing this task, I will be able to become a subject matter expert in MI-based educational instruction.

## **Implications Including Social Change**

### **Local Community**

The community for the project included several schools at all levels, a school board, community members, parents, and students. This study has the possibility to be significant to students within the district to help them achieve individual and collective academic goals. These goals include creating a specialized learning method standard for all levels of education, being able to instill a new mindset in the administrative thought processes on how MIs could influence successful academic achievement, and how teachers could create their own learning program that is tailored to the individual rather than the collective group.

Additionally, this project study will help administrative members connect better with teachers to help design curriculum that will allow students the opportunity to showcase academic talents on high-stakes testing each year. This connection will help tie together the learning process which would allow for administrative members to share knowledge and understanding alongside teachers to create a whole learning approach to student achievement.

Students will also benefit from understanding the perceptions of teachers because of the connections that will be made within the classroom. Students will know the level of knowledge and willingness of their teacher to help them fully understand their own individual intelligence(s), and more importantly, the intelligence(s) of their teacher, thus making a vital connection to increase overall academic learning. Administrative members will realize that teachers and students will be demonstrating an increased level of learning

which will result in higher percentage rates of academic success on high-stakes testing as well as a higher level of engagement by students within the classroom environment.

### **Far-Reaching**

The outcome of this project study can go beyond the borders of the local school district. These new perceptions can serve as a foundation for creating an innovative learning system that can be introduced across the United States. In addition, teachers have the ability to share their best practices throughout the country and the world in various ways including online avenues, academic and professional conventions, and scholarly publications. Achievement of social change will continue to grow beyond the borders of the school district and expand across the nation as more schools have the opportunity to implement MIs in the classroom.

### **Conclusion**

This project study was developed to help increase an awareness of teachers' perceptions of MIs in the classroom and how the implementation of basic MI principles could help increase overall success on high-stakes testing each academic year. Understanding of these perceptions individually may help teachers to make those important connections with students in the classroom. Using the feedback from the interview sessions, I was able to begin work on furthering this knowledge across other academic circles including higher education and charter school systems. Following the study, teachers, administrative staff, and other interested parties will take part in a professional development session to learn how essential implementation of MIs within

the classroom can help increase overall student achievement on high-stakes testing and in other academic areas.

This project began through a personal interest in MIs and how they could positively influence the learning process of youth across U.S. classrooms. Through implementation of specialized instructional methods and data analysis, further insight on the importance of MIs became evident. Overall, this project helped me to understand how the school district could use MIs as one tool for learning and development of student content mastery methods.

In Section 4, I will present my reflections and conclusions.

## Section 4: Reflections and Conclusions

### **Introduction**

The ability to offer valid and accurate reflections and conclusions within any academic effort can often come with struggle, conflict, and doubt. Throughout this doctoral study, I have faced all of these challenges at various times during the entire process. Being able to reflect back on this process offered me insight into my own academic progression. Going through late night writing sessions, reviewing many volumes of academic literature, and waiting for approval from IRB are just a few of the many obstacles over the last several years I encountered in writing this doctoral study.

Section 4 will include my reflections of this study. In addition, I will examine my individual role as scholar, practitioner, and creator. Finally, the areas of future implications, applications, and directions will be addressed.

### **Project Strengths**

For many years, education professionals have had to sit through in-service workshops where the presenter degraded them professionally or bombarded them with new information often resulting in few connections that transferred to the classroom environment. The results of these workshops could be detrimental to the teacher's own career. By creating workshops that are informative and applicable to current and future teaching efforts, relationships can be made to strengthen existing practices and set pathways for future opportunities.

One-time workshops are ineffective. Subjects are typically chosen by people other than those requiring the in-service knowledge and, many times, the support for follow-up

implementation is nonexistent (Tohill, 2009). In-service training is often flawed because it lacks input by those who are actually receiving the training and requires certain aspects to be included to meet overall objectives. This project was developed with these concerns in mind. The decision to expand the project to a multiday training was not only developed to meet criteria, but also to allow the continuity of learning to be implemented over time with the ability of the participants to review and reflect on the process and results.

In looking back at this process, the strengths of this project study were numerous and were affected by many different circles of educational study. The overall key message that was sent to administrative members of the local school district was the necessity to examine current practices and to be flexible in incorporating more specialized instructional strategies to help increase high-stakes test scores. Each project strength discovered through this effort resulted from many hours of review, understanding, and comprehension of materials presented and insights gained.

A strength of the project is the opportunity for teachers to acknowledge the potential for success within their own personal and professional life, as well as the lives of their students each day. This ideal is further strengthened by the project because of the expansion of current educational boundaries that limit student learning and limit teachers from uncapping a student's full potential. In comparison to the importance of getting along with others, Moran (2006) found that "multiple intelligences in the classroom helps to develop collaboration across students... students with compatible profiles can work together to solidify and build on strengths" (p. 24).



This project brought awareness to a growing issue that teachers are not fully prepared to incorporate a more individualistic approach in their classrooms and offered a viable avenue of change as to how specialized instructional learning methods within Grade 8 language arts classrooms can have a positive influence on the overall achievement of an individual. Each aspect of this project holds a special place of importance that challenges current academic process and creates endless possibilities.

Being able to diagnose an educational problem can come with many benefits. According to Kelly (2006), adaptive educational systems that support individual traits can be classified according to how they diagnose learning traits and by the way in which they adapt to the environment (p. 312). When diagnosing traits, some systems use self-report measures where the students complete specially designed psychological tests (Papanikolaou et al., 2003). Specialized learning environments will help increase overall student achievement and bring about change within the academic community. Teacher and administrative awareness of MIs and other instructional strategies will lead to the development of more in-depth academic preparation tailored to individual learning methods and aptitudes.

Creation of a professional development training session will also strengthen the academic community. One outcome of learning about specialized instructional methods will be the availability of new training materials to help teachers create a learning environment where students can flourish within their own individual intelligence(s), thus offering them the opportunity to retain academic knowledge at a higher comprehension rate. This mastery of information will better prepare students for end-of-year testing and

allow for higher pass percentages each year. Another strength of the project will be in developing a collaborative unit of teachers who share knowledge and ideas that can be used and further enhanced each year. This academic partnership will offer teachers the ability to share ideas, offer feedback and constructive criticism, and create pathways for student learning.

In this project, more individuals become involved within a child's education. By offering a more individualized approach to learning, parents and others can help with the curriculum development process through input and suggestions made in collaborative sessions involving all aspects of the child's learning. This connection is valuable in the future of the learning process by making essential connections between school and community. Being able to work together with all of the members of a school organization will help students to further their educational experience. Using MIs will help students, teachers, community members, and others to discover the academic potential of youth.

This project will help create a higher level of training knowledge of MIs within the classroom and how the application of Gardner's theory can develop a stronger curriculum of learning for teachers to implement. This new effort will expand current thought of how children learn, which could help teachers increase student comprehension and make those essential foundations fully develop for future opportunities.

### **Limitations of the Project**

Most academic efforts produce potential limitations. The examination of my project's limitations offered me the opportunity to explore new suggestions for improvement without taking away from the overall project goals and objectives. One

project limitation could be the potential unavailability of participants due to unforeseen circumstances. Within the school district, schedule conflicts and other time constraints are possible and could negatively affect participation. An essential aspect of the project implementation would be to make sure that all participants have enough notice of the sessions to allow for time adjustments or schedule changes. A second limitation of the project implementation is that the technology is not readily available or working on the day of the training sessions. When preparing for project implementation, all technology will have a thorough examination to ensure functionality of the equipment.

### **Project Limitations**

An in-service training can be one of the most effective methods for getting information to a large group within a chosen time frame. However, there still remain potential limitations for this type of training format. As stated by Kucuktepe (2011), “for an effective in-service training, teachers’ education needs must be determined accurately. Otherwise, the sources and energy invested in the in-service training programs would be wasted” (p.1391). Additionally, as offered by Leu and Ginsburg (2013),

school heads, school supervisors, and other local education authorities can be a barrier to reform and quality improvement at the school level if they feel threatened by teachers’ new knowledge and are not included in the in-service professional development programs in which teachers are participating. (p.17)

Project limitations can hinder progress within any scholarly effort. A project limitation could be the inability to expand the training to other districts due to restrictions placed by the school or district administrative directives. Another possible limitation of

the project is being able to schedule the training within the required timeframes. School schedules are always changing and, in order to remain flexible, I would need to review all proposed training dates with the school and district calendars to check for possible conflicts. Another project limitation is the ability to affect change within the school system based on current policies and procedures. Many of the changes, especially curriculum changes, require review by several individuals before being considered.

This project calls for a change in curriculum development and teaching that would require extra effort and time. A third limitation of the project is the ability to share the results of the study with other districts. Many districts have requirements set in place as to where additions or new information can come from. This limitation could extend to other academic settings as well because of the adaptability to the specific educational program already in place and if that entity is willing to change their current practices. These limitations offer the opportunity of in-service training to be examined to ensure the success of the learning presented and the mastery of content to help teachers further their educational progress not only within their specific classroom, but outside the classroom as well.

### **Alternative Approaches**

Within any academic change movement, there are instances when initial ideas to solve a problem do not work due to one reason or another. Alternative approaches to solving this problem need to be addressed to offer more than one approach. The first alternative approach is to change current testing methods to a system of better preparation for students. One of the challenges of this approach is getting school district approval of

the implementation of different testing methods. Changing testing methods would potentially offer students a different way to showcase their academic aptitude.

Another alternative approach to solving the problem of the lack of specialized learning methods would be to offer education professionals more in-depth training in curriculum development to help better prepare students for end-of-year high-stakes testing. This could include learning opportunities on individualized instructional programming, creating learning processes, or working in a specialized learning environment. This training could help teachers discover new ways to help their students learn the required information that would better prepare them not only for testing, but all areas of academic study.

### **Scholarship**

Academic professionals are often called upon to expound on academic insight and research that will offer other individuals an opportunity to learn and understand future possibilities and potential. As a doctoral student, the undertaking of this process has challenged my intellectual abilities and created a pathway of knowledge attainment to help with further educational endeavors. Going through this process has helped me to develop research skills at the highest level while maintaining a sense of honesty and integrity. A scholarly effort takes time to develop a knowledge base that will allow an individual to explore new ideas and thoughts.

I have also learned that successful scholarship takes dedication. Spending long nights writing is a part of this academic journey and has helped me understand the dedication and effort required of an academic professional at this level. Attainment of any

educational degree takes a high level of scholarship because of the demands of the professional world. I also learned throughout this project that, with any academic effort, patience is required. Receiving feedback from my chair and committee members has helped me learn how to refine my writing at the highest level to ensure that I have the skills to eventually publish the findings of this study or to create a new study based on the findings.

### **Project Development and Evaluation**

The doctoral study project was selected based on a review of literature along with addressing a problem area within my local school district. The development of this plan has not only given me the chance to give teachers the opportunity to understand their own individual perceptions of MIs and application to student preparation for high-stakes testing, but also my own professional growth as a scholar-practitioner. The development of the project was a process that took many months to formulate using scholarly-based research as an academic foundation. Development of this project was challenging in many aspects. Spending the time to complete long reading sessions, being able to set aside enough time to write without distraction while tending to work and family issues, and setting goals and objectives along the way were an integral part of the project development.

The evaluation of the project will come in the form of feedback from the participants through a predetermined format. An evaluation of the project will come in a summative evaluation presented to participants following the in-service training seminar. Each participant will have the opportunity to share knowledge, insight, and ideas that will

help continue their learning process of the incorporation of specialized instructional methods such as MIs in the classroom. The evaluations will be reviewed, and continued professional development will be recommended based on the findings from the surveys and other commentary from those in the training class. Current test scores will be evaluated and used in comparison to future results to determine an increase or decrease of the mastery rate of students based on MI implementation.

What I have learned about the evaluation process is that there is always change, expected or not. Getting positive and negative feedback, as well as an individual analysis of the process, has helped strengthen my abilities as a researcher and scholarly individual. The evaluative process was also something that tested my patience because I am the type of individual who looks for the immediate result rather than delayed results.

Any academic project offers an opportunity to learn new insights, develop new theories, and create new information to be shared within and outside of the academic community. From completing this project development, I learned that I could create a professional development seminar using the skills and knowledge already attained throughout this journey. Being able to create a project of this magnitude helped me to further develop my knowledge of connecting academic research and study with practical application.

One of the challenges that I was able to overcome is the fear of not providing a strong enough foundation for offering my knowledge of MIs. I believe that my confidence has been strengthened knowing that I have the capability of developing such a

training project without forgoing my own individual values, both personally and professionally.

### **Leadership and Change**

Completion of this doctoral study has offered me many opportunities to increase my leadership skills. Taking on the role of director of curriculum has offered me another leadership opportunity to showcase my knowledge and information gained throughout this process. One initial challenge was approaching the school district for permission to complete the study. Initially, electronic communications were sent back and forth without much interest. Being able to get up the proverbial “nerve” to approach the district assistant superintendent to receive permission to conduct this study was even more challenging because she had worked closely in the past with my children. This opportunity allowed me the chance to approach my district leadership with an idea of social change while influencing the current educational system in a positive manner.

The process of change began with the original project idea. Upon reading many articles and using my own educational experiences, the desired result was to use Gardner’s theory in some manner to create social change. Taking this basic knowledge of MIs learned though my undergraduate career, I was able to further develop my own personal study through an in-depth literature review. During the literature review, I further developed my reading skills, expanding current techniques and reading for substance rather than just an overview of the topic. I was then able to successfully apply this new process to my doctoral study project.



Becoming a strong leader occurs from learning everything along the way needed to succeed. As stated by Claudet (2011), change agent leaders exude a natural knack for motivating people to set high ideals and to strive to achieve those ideals. These leaders possess a robust, personal drive for perfection and a passion for "over the top" fulfilling experiences based on a learned respect for their profession or area of activity (Claudet, 2011, p. 84). This study has given me the opportunity to become an agent of social change by using my knowledge in a meaningful, productive manner. Change agents do not sit and watch time pass by them. They act upon their own ideals, thoughts, and insights, providing an avenue for others to follow. During this project study, that responsibility has fallen on my shoulders in various ways. Being an example to my colleagues to establish a relationship between my project study and current educational practices was essential to project success.

Sacrificing the time required to complete the study and to create that pathway to social change was worth the time and effort. Understanding my limitations and pushing those boundaries helped me to further develop my efforts of social change. Becoming an example for others to follow demonstrated that passion for change that Walden University helps all of its learners develop.

### **Analysis of Self as Scholar**

Completing this project helped me grow as a scholar in many aspects. For many years, I was content with my progression through life until my father-in-law asked me a simple question about time. That question began the journey that I am currently undertaking. Over the years, I began to question my level of understanding within the

context of my classroom experiences. It was during this time when I realized how important furthering my education became to my overall success in the classroom. Walden University has offered me those experiences to help continue that progression and realize my dream of achieving a doctoral degree, which until about 10 years ago, was thought to be impossible.

As a scholar-practitioner, I have learned to use current literature more in my educational experiences. Taking the approach of a subject matter expert in my field, I have created an opportunity for the growth and development of higher-level learning and study skills that I can pass on to the next generation. My overall knowledge base has increased through the reading of literature appropriate to my level of study, working with my colleagues at Walden University to share experiences and goals and working with my chair and committee members throughout this process. These experiences have developed my passion for learning and a quest for further knowledge through continued review of scholarly literature and curriculum.

I also learned that I have a high capacity for the retention of information. Reading journal articles for not only comprehension, but incorporation, has provided an experience of self-discovery through which transference of knowledge to practical application is possible. As stated by Claudet (2011), “change agent leaders who are convergent thinkers can marshal their own knowledge and life experiences as stepping off points to imagine programs and initiatives that can benefit others” (p. 83). I believe that I have the potential to create new programs for others to incorporate in their own educational experiences.

One of the main aspects of life that I believe helped shape my desire for scholarly efforts was knowing that my accomplishments will serve as an example to my children. Being able to do well in my coursework has demonstrated to them that anything is possible as long as an effort is made. This chance to serve in that capacity is probably the greatest benefit of my social change effort.

### **Analysis of Self as Practitioner**

Like many professional occupations, being a scholar means continued study and review of current literature, practices, and changes that affect not only local environments, but global areas as well. A successful practitioner is always learning. Any potential resistance to change in this technological-based world can be detrimental to the progress of students. As an educator, it is my responsibility to always stay current with trends and transitions. Walden University has provided me the opportunity to become an agent of change through scholarly-based research and review. The information gathered from this doctoral study will be shared with my colleagues and other professionals to continue the learning process. Conducting this study has allowed me to further that knowledge transference into a variety of academic environments.

Practitioner research allows the teacher researcher to make a positive influence within the classroom setting; it enables him or her to provide appropriate and relevant information about the actual educational process in the classroom. By engaging in a practice of reflective nature, the researcher improves the lives of his or her student population through efforts to create pathways to more effective teaching methods (Ritchie, 2009). This defines the purpose of a successful practitioner at Walden

University. The undertaking of the role of practitioner takes much effort and time.

Walden University has allowed me the chance to discover how this role applies to my personal and professional responsibilities.

The old adage of practice makes perfect is true in the educational field. By taking this to heart, I have been able to share my experiences in application through my role as a curriculum director. As a doctoral student, I have taken this charge into my classroom and beyond, creating the necessary foundation for further incorporation of knowledge gained from this study and review of literature. Through this effort, my role as a practitioner can continue to expand outward, exhibiting a social change in the world around me.

### **Analysis of Self as Project Developer**

Professional development within the area of educational leadership and change has become a priority over the last several years. Education professionals are being asked to implement the newest technologies and curriculum elements within an already existing structure. As an educator, I believe it is my responsibility to stay abreast of these changes and be flexible enough to examine the benefits and disadvantages of each aspect as it pertains to my current and future teaching responsibilities. As a project developer, I have taken prior knowledge from a former employer and tailored it to my current situation. Using some instructional design knowledge, I was able to create a survey that would gain the best potential results for my doctoral study questions. Throughout the process, I used feedback from others to help refine my project details and purpose while maintaining a high level of academic work.

Being a successful project developer meant hours of effort, struggle, and dedication to completing required tasks on schedule. I have learned to polish my time management skills while maintaining a full slate of activities including working full time and raising my children. I learned how to support my writing through literature review and reflection, two critical skills within the doctoral process. I have also become more aware of my educational surroundings and the necessity for research projects that focus on problematic areas.

Overall, as a project developer, I was able to discover how to best use my time, talents, and knowledge to complete this study project. Taking into consideration the future applications, investigating the past, and application to present situations, my ability to manage a project was elevated to a higher scholarly level which will be represented through this project study information. Being able to capture the ideas for this project in a manner that was both academically sound and applicable to current educational requirements was a challenge.

I took into consideration several elements learned from my graduate degree in curriculum and instruction. First, finding an idea and then planning how to present the information required reading several textbooks and journal articles. Contacting the administration of the school, beginning initial scheduling of the training seminar, and designing a plan for contacting interested individuals was difficult and time constraining. This aspect of the project helped me to focus on time essential elements rather than content.

### **The Project's Potential Impact on Social Change**

Within today's educational environment, change is constant. As an education professional, change can happen at any given time. Over the course of my educational experiences, I would begin a process one way only to have it replaced or improved upon the following year. As a teacher, perceptions of these changes can often bring struggle, concern, or even resentment. This doctoral study project offers a significant impact on social change within all current levels of professional education.

At the local level, social change is being addressed through several efforts to create a more functional classroom without much effort. The effects of this project at the local level will offer teachers a method to perform a self-evaluation of their current teaching strategies and measure how effective adapting to a more MI-based program can benefit students in both short and long term timeframe. The project's key focus was perceptions of improvement on end-of-year test scores within one chosen grade and subject level. Throughout this study, other applications to help answer this question were uncovered. Social change will continue at the local level through adaptation of materials created or discovered through an analysis of these perceptions. This study will also help teachers understand how MIs can benefit all students at various grade levels to accomplish a higher success rate on high-stakes testing.

This effort may also help the United States to improve academically in comparison with the rest of the world. The literature used for this project demonstrated a significant need for specialized instructional curriculum such as MI-based applications to be considered throughout the United States. Global application of this project study may

come from initial review of project results and the willingness to share ideas and thoughts with other education professionals around the world.

### **Implications, Applications, and Directions for Future Research**

Throughout this project study, the focus remained on a research-based project that offered insight on MI-based instruction from a teacher's point of view. I learned from this project that the educational system is limited due to inflexibility to change, but small movements across the country are beginning to help change that mindset.

Many teachers I have spoken with have some idea of MIs, but few have the knowledge of practical application within the classroom. Technology has been used to help reverse this way of thinking to increase the creation of specialized schools based on MIs. Already within the country and around the world, these schools are being built. In the Philippines, the Multiple Intelligence International School uses Gardner's theory of MIs as the foundation for the educational program. Their mission demonstrates the true nature of an MI school and how this type of focus can offer students the opportunity to achieve their academic goals.

Providing a resource for teachers to not only discover their individual perceptions of MIs, but also how to implement them within daily instruction would help alleviate any concern about change and showcase the learning process creating an opportunity for success. Applications of the project study could also help administrative members refocus their academic program, thus leading to higher student achievement on high-stakes testing and other benchmark educational measurements. I believe that students will benefit from this project the most because of the successful connections with teachers

using individualized instructional programming tailored to their own learning intelligence(s).

Future research based on the project study can only help increase an awareness of the importance of using specialized instructional methods within a classroom to allow for a more individualized focus on student mastery and achievement. Potential research questions could be expanded to include the following:

1. At what level would the implementation of MIs within the classroom be less effective?
2. Would the implementation of MIs have the ability of application at the collegiate level?

Research designs for future projects could include a longitudinal design to follow these students over the course of several years to see how the implementation of MIs within the classroom affected long-term learning processes. Another possible application of this information would include publications in academic journals to allow others to develop their own research questions and new studies.

Creating the opportunity for others to duplicate the project was another key element within this process. Developing a successful project that others have the ability to not only recreate, but to add additional information to and build a stronger project portfolio will allow future academic development of MI-based curriculum enhancements.

More educational institutions can redesign their programs to reflect Gardner's work and establish connections within one grade to another. Continued progression of social change in education will lead to a more student-centered environment.



Recommendations for further implementation suggested by teachers, administration, and community members can only increase awareness of this growing necessity within our educational system.

### **Conclusion**

Section 4 included my personal reflections and insights on the completion of this doctoral study project. I have accomplished a self-evaluation of the roles of scholar-practitioner, project developer, and education professional. I have also considered and evaluated the strengths of the project, potential benefits of the research provided, and personal growth in the areas of reflection and study. Moreover, I have taken the opportunity to provide insight as to how project results and discoveries could affect future research both within and outside the educational field. Completion of this study has made a positive impact on my responsibilities as an educator and future opportunity within curriculum development and personal application within my own academic program. I have been provided with the necessary tools, resources, and literature to continue further scholarly work within the MI academic setting and all future endeavors in my life. Continued learning and application of research findings will help further projects within my professional career. The opportunity to change an aspect of the educational system that would influence a positive change for years to come will only serve as a launching point for future opportunities to encourage continued student growth and potential. Every education professional has the potential to instill a drive and determination in every student. It is through this change that educators' efforts will be worth the sacrifice of time and talents. Social change is the vehicle for future opportunity.

As a social change agent, this opportunity begins with an individual who has an idea that becomes reality.

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## Appendix A: The Project

### **Project Description**

When considering a doctoral level project, an individual must first look at the previous research within his or her chosen field on the subject matter and decide on whether to further advance another's work, or begin a new research effort. This project helped further address the problem through the potential for additional training to assist education professionals within the tools to develop MI theory-based curriculum targeting specialized instructional design methodologies. Introducing teachers to this format of learning could help incorporate a higher-level learning design within the classroom that will offer teachers the ability to implement new learning material into the classroom based on interview data gathered through the study. This project consisted of development of a three day in-service training that will be given to education professionals and others interested in the subject matter at the local district middle school. The project will begin with an introduction to MIs and Gardner's Theory at a basic level of understanding to accommodate all learners within the group. Following this introduction, the next set of information will introduce them to actual statistics of specialized learning instruction as well as the benefits of this type of curriculum implementation towards student achievement. Finally, the participants will be given specific instruction as to how to incorporate MIs in the classroom through a combination of lesson planning ideas and inter-group work and discussion.

Following the presentation, participants will be given a survey to complete based on their insight, comments, and questions from the presentation and training in general.

This information will be then used to complete more advanced training development for future use within the school district boundaries and elsewhere.

### **Description of Audience**

The targeted audience will be currently employed education professionals within the local school district who either have a responsibility for teaching or connection to the classroom. Additional participants will come from other interested individuals from the community or parental categories.

### **Learning Goals and Objectives**

Learning goals and objectives of the project were developed following research and reflection of interview notes as well as examination of current trends and research from within the educational system.

#### **Learning Objectives**

For this project, several learning objectives were developed to ensure proper learning and understanding could be measured with a high success rate to ensure knowledge attainment. Specific learning objectives are as follows:

1. All participants will gain a basic understanding of Gardner's Theory of MIs and be able to discern between each unique intelligence presented.
2. All participants will be able to implement a form of the material presented within their specific learning environment (home, school, work etc.)
3. All participants will have a basic interest in specialized learning processes.
4. Each participant will leave the training with a new sense of possible learning potential for each of their students or children.

### Project Goals:

For this project, determination of goals also came from the interview results.

Upon careful examination and reflection of the data collected, these project goals were developed with an influence of scholarly research and review.

1. Project participants will gain a basic knowledge and application of MIs within the learning environment.
2. Each participant will come out of the initial training with at least three new curriculum implementations to serve as a foundation for phase two and three of the project.
3. Project outcomes will be based on scholarly research and findings from recent data collection.
4. Each participant will develop a sense of self-interest in helping students achieve academic success through MI implementation as well as a continued love of learning.

### **Outline of Components and Timeline**

For this project, specific components of the training will be designed through MI-based instructional methods. Each participant will receive a series of handouts as well as a copy of the presentation for future reference and review. Project materials will be in a binder format to allow for note taking and reference during the training sessions. All funding for these materials will come directly from myself without the necessity of charging participants for the training. The timeline for this project will be as follows:

<b>Timeframe</b>	<b>Location</b>	<b>Project Aspect</b>
<b>Two weeks before the school begins in the Fall of 2015</b>	Home	Complete all presentation in-service materials
<b>At the beginning of the school year (Session One)</b>	Participant School	Hold In-service Training Session. Provide Same activities that incorporate MIs in the classroom.
<b>January 2016 (Session Two)</b>	Participant School	Follow up with participants for feedback and review of in-service training. Additional training will be offered at this session to include other implementation materials and more scholarly-based information. More sample lessons will be provided for teacher implementation.
<b>June 2016 (Session Three)</b>	Home/Participant School	. This final session will have a small agenda that includes project conclusions and potential for future research.  Following this training session, a report to the administration of the findings of the study along with participant progress will be made that will allow for future project and research opportunities.

Each session will have a specific agenda designed to meet project objectives and goals.

### **Specific Training Formats and Materials**

When providing a professional development training, many factors must be incorporated into the process. Taking into consideration individual learning styles of the participants, time constraints, and other factors that could potentially influence the learning process, it was determined that a power-point training presentation followed by a question and answer session would hold the best potential for success. Training will be provided through the use of examples from different current successful programs intertwined with video and other scholarly-based research findings. Each participant will have the opportunity to review the presentation prior to day one of the training to allow for question development and basic understanding of the training material.

Training materials will include the following:

1. Binder containing presentation materials
2. Pens or other writing utensils
3. Printed scholarly articles for participants to read during the training breaks.
4. Study materials to determine success or failure of knowledge attainment.
5. Projector and laptop specifically tailored to instructional presentation ability.
6. Other materials such as paper, instructional materials and currently used implementation examples for participants to use as a foundation for their own individual curriculum development.

### **Training Resources Required**

For this project, training resources required will come from a collaborative effort between myself and the participating school. Use of AV equipment, sound capability, and

other electronic materials will help foster a positive and engaging learning environment. Other resources will be guest lecturers who have experience implementing MIs in the classroom. These individuals will have previously been contacted and asked to volunteer for a while during the training sessions. Because the project is a professional development effort, connections with community organizations and parental groups will also serve as a valuable resource for all participants of the training sessions.

### *Evaluation Plan and Materials*

#### Evaluation Plan

The project evaluation will take place in several parts beginning with a formative feedback session with all the participants. Items that will be evaluated will include overall experience participating in the project, overall project design and outcomes, effectiveness of interview sessions, materials presented, and potential success for the future. In addition, participants will be asked to complete a post-study survey about multiple intelligences that will also measure their knowledge of MIs following the project implementation.

For this project study, the evaluation type will consist of a summative measurement survey (See Appendix J) using a pre-determined set of questions based on the project study requirements. Each participant will have the opportunity to fill out this survey consisting of questions. These evaluations will be conducted through a scale system of one to three, one being least influential in their future curriculum planning, two being somewhat influential in their curriculum planning, and three being highly influential in their curriculum planning. Appendix D contains the set of questions each

participant will be asked to submit a response to once the study has been completed and data evaluated and reviewed.

### **Roles and Responsibilities**

As the primary planner and research study leader, I assume responsibility for overall design, logistical planning, communication, attendance at in-service trainings, and documentation for all participants and administration requesting copies of study materials. Responsibility of the school administration was to provide a location adequate to complete the project in-service trainings. Responsibilities of the participants were to show willingness to be open in discussion when answering research study questions, survey materials and demonstrate diligence in a timely fashion to return study materials when requested.

### **Fiscal Resources**

For this project study, no fiscal resources were required because the school allowed me to use the space for the interviews without cost. All participants of the project study offered their time and services voluntarily. The following represents a potential budget for supplies and other materials required for the in-service training.

Item	Cost
Photocopies of Materials	\$100.00
Food and Drink for Participants	\$50.00
Total Costs	\$150.00

\*NOTE: No compensation will be provided for because of current existing teacher salaries.

### **Professional Development Presentation**

For this project study, presentation of material will be given during a three session in-service meeting with all interested faculty, staff, and administration within the local school district. During this meeting, information will be presented surrounding the study topic as well as a brief introduction to MI implementation within the classroom. The presentation will last about four hours with a question and answer session following the meeting. The agenda for the training will be discussed on the next few pages.



## **In-service Agenda – Session One**

### **8:00am: Introductions and Welcome**

- Welcoming of participants
- Introduction of session instructor
- Initial comments or questions

### **8:15 – 9:45am: Introduction to MIs**

- 8:45am:** Introduction to Gardner’s Theory of Multiple Intelligences
- 9:15am:** Who was Howard Gardner
- 9:45am:** Gardner’s Theory in a Nutshell

### **10:15am – 11:00am: Implementation within Language Arts Classrooms**

- 10:15am:** Creating a MI based language arts program
- 10:45am:** Working together with students to discover their own intelligences
- 11:30am:** Meeting Core Standard Requirements

### **12:00-1:00pm: Lunch**

### **1:00 -3:00pm: Practical Application**

- 1:45pm:** MI Based Language Arts Curriculum Development
- 2:15pm:** Successful MI based lesson planning
- 2:45pm:** Understanding a student’s MIs

### **3:30-4:00pm: Wrap Up/Evaluation**

- 3:30pm:** Final Thoughts
- 3:45pm:** Survey Completion/What’s Next

### **Notes for In-service Training Sessions:**

- ✚ Participants will receive a packet of information containing the following:
  - Multiple Intelligence Packet of Information containing basic intelligence information about the multiple intelligences.
  - Example worksheets (see example) for use within the classroom to help determine a student’s MI(s)
  - Example curriculum instructional design geared around MIs within the Language Arts environment.

- A list of resources surrounding MI for research purposes if needed.
- Contact information of all participants in the training session for collaborative networking and sharing of ideas.
- Copy of PowerPoint from Workshop 1

## ***MATERIALS AND HANDOUTS FOR SESSION 1***

### **Handout 1:**

#### **Participant Packet of Information**

#### **Section I: Gardner's Theory of MIs**

##### Introduction to Gardner's Theory of MIs

As we are moving away from a more industrialized society, within the education field, the notion of a one-size-fits-all idea is no longer valid due to the changing demographics of our student learners. With our diversities such as language, cultural differences among student learners, and the technology driven job market; the necessity to change how instructional information is taught is paramount. Our youth today must be internationally competitive. With any change come obstacles that might prevent progress towards the common goal of students' academic success.

Changing student demographics and the ability to adapt to students' individual learning styles by incorporating MIs into the delivery of course content continue to challenge teachers. Adaptive learning often can be challenging for many teachers simply because of the changes that are required.

By taking advantage of alternative instructional methods within our classrooms, we have the potential to allow MI implementation to serve as another valuable resources for our students and their over learning processes. This learning process can become active and collaborative which in turn will stimulate a stronger interest within the subject matter and promote higher level thinking skills (Siegfried, Saunders, Stinar, & Zhang, 1996; Totten, Sills, Digby, & Russ, 1991; Wilson, 2005). Through alternative methods, students can develop their own learning techniques using specific intelligences or combinations of intelligences that help foster the learning process not only academically, but also socially and intellectually. The true measure of success is only found within the achievement of a high level of adaptive learning and critical thinking, as demonstrated through various testing and knowledge-based evaluations. An understanding of this premise is essential to ensure adaptability of curriculum to incorporate MI into the classroom.

With the individuality of today's student, the necessity to create a specialized curriculum becomes more evident. Children are used to receiving instruction based upon traditional methodologies that focus on core testing requirements rather than the skills essential for future development and growth. The NCLB (2002) expects schools and teachers to teach to the necessity of each student. Teachers consistently feel pressure

from administrative members to teach to the test (Campbell & Pleyvak, 2008). Within the state of Utah's current educational model 27 academic days per year are spent in testing. This does not include the days that are spent "teaching to the test".

**Handout 2:**

## MULTIPLE INTELLIGENCES TEACHER INVENTORY

Please place a check mark in each box that represents or describes you.

**Linguistic**

- \_\_\_\_\_ I like to reading books and other literature
- \_\_\_\_\_ I can think about the words in my head before writing them down.
- \_\_\_\_\_ I can retain more from listening to spoken word rather than watching television.
- \_\_\_\_\_ I like to play word based board games such as Scrabble.
- \_\_\_\_\_ Subjects involving more written words are enjoyable such as English and History.
- \_\_\_\_\_ When I travel, I enjoy reading the billboards and other signs on the road.

\_\_\_\_\_ Total Linguistic Intelligence Boxes Checked

**Logical**

- \_\_\_\_\_ I can rapidly add numbers without writing them down.
- \_\_\_\_\_ I enjoy subjects like Science and Mathematics.
- \_\_\_\_\_ I like solving strategy games such as Brainteasers.
- \_\_\_\_\_ I look for the logical order in everything (ex. Patterns, sequences etc.)
- \_\_\_\_\_ I like to keep up-to-date on scientific information
- \_\_\_\_\_ I like to think in the abstract imagery.

\_\_\_\_\_ Total Logical Boxes Checked

**Spatial**

- \_\_\_\_\_ I see visual pictures when I close my eyes.
- \_\_\_\_\_ I am very responsive to images using color.
- \_\_\_\_\_ I often use a video device or basic camera to capture my surroundings
- \_\_\_\_\_ I enjoy putting together 3-D puzzles and look at 3-D images.
- \_\_\_\_\_ I often draw or doodle when I am not busy
- \_\_\_\_\_ The subject of Geometry was easier for me to comprehend than Algebra.

\_\_\_\_\_ Total Spatial Intelligence Boxes Checked

### Bodily-Kinesthetic

- I participate in at least 1 athletic sport or activity.  
 I cannot remain still for long periods of time.  
 I enjoy working with my hands (i.e. woodworking, auto mechanics)  
 I enjoy spending time outdoors  
 I enjoy the opportunity to physically touch an item and discover things about it.  
 I would be considered well-coordinated by my peers

\_\_\_\_\_ Total Bodily-Kinesthetic Intelligence Boxes Checked

### Musical

- I consider myself to have a decent singing voice.  
 I play an instrument  
 I enjoy listening to music from various time periods  
 I know how to keep time in a piece of music  
 I can often keep a song in my head throughout the day  
 I often tap my fingers or toes while doing work

\_\_\_\_\_ Total Musical Intelligence Boxes Checked

### Interpersonal

- People often seek me out for counsel or advice  
 I prefer to work in a team or group at work  
 I have more than two close friends I associate with on a regular basis.  
 I enjoy group oriented games such as twister.  
 I would consider myself to be a leader  
 I am very comfortable in a large group of people.

\_\_\_\_\_ Total Interpersonal Intelligence Boxes Checked

### Intrapersonal

- I usually spending time pondering the more important aspects of life.  
 I have attending workshops pertaining to how to gain insight in my own life.  
 I ponder specific goals of my life on a regular basis.  
 I have a hobby that I love to do alone instead of with others  
 I would be considered by others to be independent and strong-willed.  
 I enjoy journal writing about the events of my life.

\_\_\_\_\_ Total Intrapersonal Intelligence Boxes Checked

**Resources for MIs (Participant Packet)**

Armstrong, T. (1994). *Multiple intelligences in the classroom*. Alexandria: ASCD.

Armstrong, T. (2003). *The MIs of reading and writing: Making the words come alive*.

Alexandria, VA: ASCD.

Armstrong, T. (2009). *MIs in the classroom* (3rd ed). Alexandria, VA: ASCD.

Campbell, K., & Pleyvak, L. (2008). MIs: Analysis of a language arts curriculum. *Ohio*

*Journal of English Language Arts*, 48(2), 53-58.

Siegfried, J.J., Saunders, E., Stinar, E., & Zhang, H. (1996) Teaching tools: How is

Introductory economics taught in America? *Economic Inquiry*, 34(1), 182-192.

Wilson, P.N. (2005). Mutual gains from team learning: A guided design classroom

exercise. *Review of Agricultural Economics*, 27(1), 288-296.

<http://www.criticalthinking.org/pages/critical-thinking-development-a-stage-theory/483>

## **In-service Agenda – Session Two**

### **8:00am: Introductions and Welcome**

- Welcome back

### **8:15am: Multiple Intelligence Trends (As it pertains to High-Stakes Testing) – Handout 2**

**8:15am:** National Trends

**8:45am:** Nations Report Card 2011 Results

**9:15am:** Creating Minimum Requirements for Accountability

**9:45am:** Utah Statistics

### **10:15 am: Multiple Intelligence Activity**

- Using the following Resource, participants will complete a selected activity (see activity #1) - Copies of the activity pages will be provided

Understanding Multiple Intelligences: The Theory behind the Practice (Focus on Basics, Volume 3, Issue A, March 1999)

### **11:00-12:00pm: Lunch**

### **12:00-3:00pm: Practical Application**

**12:00pm:** MI Based Language Arts Curriculum Development

**1:00pm:** Successful MI based lesson planning

**2:00pm:** Team Collaboration Work Time

### **3:00 – 4:00pm: Wrap Up/Evaluation**

**3:00pm:** Final Thoughts

**3:30pm:** What's Next/ Question and Answers



## Activity 1

**\* Have all participants read the following article before the second training session:**

**Understanding Multiple Intelligences: The Theory Behind  
The Practice (Focus on Basics, Volume 3, Issue A, March 1999)**

Session Lesson Information:

**1. Explain:**

**All participants that they will identify their own specific intelligence(s), as well as be able to experience two activities that have been successfully accomplished in their classrooms on a previous occasion.**

**2. Review the Eight Signs of an Intelligence (Gardner, 1993)**

1. Potential isolation by brain damage
2. Existence of Savants, Prodigies, and other individuals distinguished by the presence of absence of specific abilities.
3. Recognizable end-state and distinctive developmental trajectory.
4. An identifiable set of core operations.
5. Evolutionary history and evolutionary plausibility.
6. Support from experimental psychological tasks.
7. Support from psychometric findings.
8. Susceptibility to encoding in a symbol system.

Gardner, H. (1993) "Choice Points as Multiple Intelligences Enter the School." Intelligence Connections, III, 1, 3, 7-8, Fall.

**3. Conduct small group discussion sessions based on article information**

**4. Reconvene the group and facilitate 10 minute discussing using the following questions as a guide:**

- What was your own self-discovery about your intelligence(s?)
- What reflections do you have after reading the article?
- Did you come to any conclusions or confirmations about key ideas you read in the article prior to today's session?

**Lesson planning Guide (Handout 1)*****LESSON PLAN GUIDELINE USING MIs in the Classroom***

***\*This is an example lesson plan outline to help you create exciting lessons based on MIs in your classroom.***

Date of Lesson: \_\_\_\_\_

Class Period: \_\_\_\_\_

Grade(s) \_\_\_\_\_

**Lesson Plan Outline**

1. Title of the Lesson or Topic
2. Content Area(s)
3. General Objective and Goal:
4. Background Information:
5. Vocabulary Word(s) for Student Mastery
6. Materials required/ Supplemental Information:
7. Specific classroom modifications required:
8. Learning Activities:
9. Assessment and Review Criteria
10. Self-Evaluation:

## Successful Lesson Planning (Handout 2)

### AN EXAMPLE LESSON PLAN

**Subject:** Language Arts

**Topic:** Poetry Unit

**Lesson Plan:** Students will create a poem based on their individual intelligence(s) for addition to their individual portfolios for end of year presentations.

#### **Multiple Intelligence-Based Curriculum Implementation:**

- ✚ Students who demonstrate a *musical intelligence* can write lyrics to a song in the form of a simple poem.
- ✚ Students who demonstrate a *linguistic intelligence* will create word game poems.
- ✚ Students who demonstrate a *mathematical intelligence* can create poems using numbers and how numbers can be used to showcase their own insight.
- ✚ Students who demonstrate a *intrapersonal intelligence* will use the avenue of a diary or journal as their poetic vehicle, thus being able to show their true feelings in the form of a literary work
- ✚ Students who demonstrate an *interpersonal intelligence* will be able to hold a poetry reading or other group session to discuss poetry.
- ✚ Students who demonstrate a *visual/spatial intelligence* can create a poster about a specific poem or author of poetry to showcase to the class.

#### **Evaluative Methods:**

For this activity, the final results will come directly from the student's own work in the form of an end of year portfolio that will be showcased at a renaissance fair for all the students of the English Department.

**Workshop Handout MI Assessment Sheet (Handout 3)**

# Multiple Intelligences

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## Worksheet for Student Assessment

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### MULTIPLE INTELLIGENCE SURVEY

Where does your intelligence come from? This little quiz will help you identify your intelligences and how to use them on a daily basis.

Read thoroughly each statement presented. Check each expression that describes you for the most part. If the statement is only partially true or false, leave that statement blank.

- 1 \_\_\_\_ Rather than give someone verbal directions, I would rather draw them out.
- 2 \_\_\_\_ I have the ability to play (or used to play) a musical instrument.
- 3 \_\_\_\_ I can relate music to a specific mood that I am currently feeling.
- 4 \_\_\_\_ I have the ability to do simple mathematics in my head.
- 5 \_\_\_\_ I enjoy working on computers and other electronic devices.
- 6 \_\_\_\_ I easily learn new dance moves when I am taught them.
- 7 \_\_\_\_ I can easily verbalize my thoughts in an argument or debate on a subject.
- 8 \_\_\_\_ I always enjoy listening to a good speech or lecture.
- 9 \_\_\_\_ I can always find the north or south direction no matter my current location.
- 10 \_\_\_\_ Life is boring without music.
- 11 \_\_\_\_ I can easily comprehend instructions that come with a new device or appliance.
- 12 \_\_\_\_ I enjoy solving puzzles or games.
- 13 \_\_\_\_ Learning how to ride a bike came easily to me.
- 14 \_\_\_\_ I don't enjoy an argument that does not make sense to me.
- 15 \_\_\_\_ I have a great sense of balance and coordination when I walk.
- 16 \_\_\_\_ I can see patterns between numbers at a faster pace than those around me.
- 17 \_\_\_\_ I enjoy putting together a model.
- 18 \_\_\_\_ I am good at finding the roots of word meanings.
- 19 \_\_\_\_ I can see an object from multiple angles.
- 20 \_\_\_\_ I can make a connection between music and a significant event in life.
- 21 \_\_\_\_ I enjoy working with numbers.
- 22 \_\_\_\_ I enjoy looking at buildings and structures around me.
- 23 \_\_\_\_ I usually sing or hum in the shower when I am by myself.
- 24 \_\_\_\_ I have a talent for athletics.
- 25 \_\_\_\_ I enjoy studying languages.

- 26 \_\_\_ I am usually aware of the expressions that I use.  
 27 \_\_\_ I am caring and sensitive to those around me.  
 28 \_\_\_ I have little or no trouble knowing my current mood.  
 29 \_\_\_ I am sensitive to the moods of those around me.  
 30 \_\_\_ I have a good idea of what those around me think of me.

## Multiple Intelligence Score Sheet

A Linguistic	B Logical- Mathematical	C Musical	D Spatial	E Body- Kinesthetic	F Intra- Personal	G Inter- Personal
7	4	2	1	6	26	27
8	5	3	9	13	28	29
14	12	10	11	15	30	
18	16	20	19	17		
25	21	23	22	24		

Place a circle around each of the numbers you have checked that correlate to the list above. Add the total of each column only including those you circled and place that number at the bottom of the chart.

The following scale will be used to score your results.

1. A total of four in any of the categories A – E is an indication of a strong ability in that specific intelligence category.
2. Within the F and G Category, any score higher than 1 indicates a strong ability in that area.

Adapted from: [education.ky.edu/school.documents/MULTIPLE%20%20](http://education.ky.edu/school.documents/MULTIPLE%20%20)

Instructions for classroom application:

1. Make Copies of this handout for each student
2. Have each student complete the assessment honestly
3. Have each student calculate putting a check mark on each of those attributes that pertain to them.
4. Look at the areas that have the highest two or three dominant areas

5. These are their dominant intelligences.

### **In-service Agenda – Session Three**

#### **8:00am: Introductions and Welcome**

**8:00am:** Welcome to Final Training Session

**8:15am:** Review of last training session

**8:30am:** What do you remember?

**8:45am:** Expectations of the final session

#### **9:00am: MI Theory Seminar**

\* How to make the connection between MI theory and regular instructional methods  
(See Handout #1)

- Learn more in-depth information about MI theory
- Understand the importance of MI impact on student engagement
- Assessment of Student Progress using MI Theory

\*There will be a 15 minute break around 10:00am.

#### **11:00am-12:00pm: Lunch**

#### **12:00pm-3:00: Practical Application/Teaching Demonstrations**

#### **3:00pm-4:00pm: Wrap-Up/Final Thoughts**

**3:00pm:** Based on previous months experiences implementing MIs in the classroom

**3:30pm:** Overall MI implementation

**4:00pm:** End of training survey



## Making Connections to MIs (Handout 1)

*Here are a few tips to help make connections using MIs*

1. Build readiness for learning through an MI centered environment in school and home.

- Send a letter home to encourage parents to be a part of the learning process.
- Include upcoming activities/ lesson unit material
- Have projects that can include parental/guardian participation both within and outside of the classroom.

2. Model Good Work

- This is where you can use previous student work to showcase potential and give positive learning examples to your current students.
- Create a scrapbook for each student of their best work for an end of year showcase.

3. Hold Culminating Activities

- Have an end of year celebration of the student's achievements in the classroom
- Make connections to future learning through communication with their next year's teachers.

4. Create a virtual planning calendar that your students can help monitor and add their own individual things to.

5. Create classroom signs to encourage the use of MIs in the classroom setting. You can make this a class project and help students develop their own individual and group intelligences.

6. Develop SMART goals for your students using MIs and the foundational element

7. Other ways to incorporate MIs in the classroom

- Identify specific learning centers for application of MI theory
- Ensure the classroom atmosphere allows connections to each intelligence
- Integrate MI theory through the use of product selection.
- Integrate MI theory using classroom portfolios (including electronic)

**End of Training Survey**

Name: \_\_\_\_\_


Grade and Subject Taught: \_\_\_\_\_

Please provide a thorough answer to each question.

1. How did you feel the training helped you better understand the role of MIs in the classroom?
  
2. How would you incorporate MIs into your daily lesson planning to help students achieve a higher level of mastery on end of year test scores if given the proper training?
  
3. What further training do you think you need to help accomplish question three?
  
4. What additional feedback would you like to offer the research that you were not able to during the in-service training?
  
5. What information would you like to share than can help others not in your district to try to increase overall test scores?

6. In what way could you help encourage your administration to incorporate MIs into the classroom to help increase overall test scores and do you think this would be successful?

**Presentation Slides**



Using MI Theory-Based Instructional Design to Help  
Increase Overall Student Achievement on Grade 8  
Language Arts End of Year Tests

**John David McGroarty, M.Ed.**  
Doctoral Student  
Walden University

## Using MI Theory-Based Instructional Design to Help Increase Overall Student Achievement on Grade 8 Language Arts End of Year Tests

John David McGrouarty, M.Ed.  
 Decentral Scientist  
 Walker University

## Presentation Agenda

- Introduction:
  - Presenter Background
  - Purpose of Teacher Training
  - Goals and Objectives
- Overview: The 21st Century Classroom
  - Trends over the last 4 years
  - Student Background
  - Future Projections
- Design and Development of Multiple Teaching Models
  - Learning Center
  - MI Theory
  - Implementation Process
- Instructional Strategies
  - Overview
  - Introduction of Individual Teaching Models
    - Vertical Model
    - Horizontal Model
    - Matrix Model
    - Spiral Model
    - Single Classroom
    - Temporary and Permanent
    - 8-6 model
- Final Thoughts
- Resources

## Background of Researcher

- Professional Education
  - Ed.D. in Teacher Leadership (Walker University) – Expected December 2011
  - M.Ed. in Curriculum and Instruction (University of Phoenix)
  - B.S. in Human Development and Family Studies (University of Utah)
- Current Employment
  - Adjunct Faculty Member – Westminster College
  - Classroom Facilitator – Utah State University
  - Educational Specialist – Salt Lake and Jordan School Districts

## Purpose:

- This in-service training is designed to show teacher's how the use of a MI Theory-Based specialized instructional design to create Grade 8 language arts activities that will potentially increase student achievement on end of year test scores.

## Goals....

- Goals:
  - Create instructional strategies that MI principles can serve as the foundational element.
  - Be able to use MIs within daily and weekly curriculum instructional strategies.
  - Discover how to help students increase overall language arts test scores.
  - Be aware of current statistics on student achievement through end of year testing.

## Objectives....

- Begin to develop the foundation to create a system of learning that helps teachers collaborate together in reference to student learning and achievement.
- Develop professional relationships that can help build a successful MI implementation system.
- Help your students discover their full potential through specialized instructional strategies.
- Understand the importance of address the learning needs of the individual rather than the group and how that can help students achieve academic success on standard level testing each year.

### Alarming Statistics

- In 2007, between 80% and 90% of middle school and high school students had achieved what NAEP identifies as "basic" writing skills appropriate to their grade level, but only 31% at Grade 8 and 23% at Grade 12 were rated as "proficient" (Applebee and Langer, 2008). These alarming statistics have generated concern across many levels of education, including state and federal organizations. The opportunity to create specialized instructional methods to help students not only understand the material, but be able to recall that information has become a focus of many school districts.

### SECTION TWO: MI THEORY

### Background of MIs . . . .

- Gardner (1993) asserted that individuals possess abilities beyond those of a linguistic and logical nature. This belief was based upon three foundational principles: (a) Individuals are not all the same, that is, individual differences exist in reality; (b) people do not have all the same kind of basic brain structure; and (c) education is the most effective if the learning differences of students are considered.

### Background of Mis . . . .

- Kagan and Kagan (1998) describe MI theory as a powerful catalyst in education, noting that it is revitalizing the search for more authentic, student centered approaches to the curriculum, instruction, and assessment" (p.23).

Verbal-linguistic	Being language intelligent: Abstract and symbolic cognitive abilities, patterns of reading and writing that are conceptually based.
Logical-mathematical	Being numerically intelligent: Logic and mathematical reasoning, abstract reasoning and functioning.
Musical	Being musically intelligent: Recognition of basic musical elements such as rhythm and tone, overall sensitivity to vocal production and other musical instruments.
Spatial	Being picture intelligent: The overall ability to understand visual and spatial elements, sensitive to artistic elements such as color, texture, shape, and space, having the ability to represent work through graphical interpretation.

Bodily-kinesthetic	Being body intelligent: The ability to use your body as a form of expression to play a game, or create new objects.
Intrapersonal	Being self-intelligent: Understanding the world as it pertains to self-image and self-worth. Also focuses on areas concerning self-esteem and motivation.
Interpersonal	Being people intelligent: Being able to work collaboratively in a group through both verbal and non-verbal communication.
Naturalistic	Being nature intelligent: Being able to understand and relate to the natural world and understand the roles of different species.
Existential	Being thinking intelligent: Being able to question the world and the human response to it.

## Howard Gardner

## Howard Gardner...

- Gardner (1993) asserted that individuals possess abilities beyond those of a linguistic and logical nature which was based on three foundational principles: (a) Individuals are not all the same, that is, individual differences exist in reality; (b) people do not have all the same kind of basic brain structure; and (c) education is the most effective if the learning differences of students are considered.

## MI Theory....

- **Sound uses several key articles such as:**
  - They give us a breakdown of types of intelligence.
  - Intelligence may not refer to the traditional kind that we are used to.
  - MI can be used in the classroom.
  - It is a theory that is still being tested.
  - It is a theory that is still being tested.
  - It is a theory that is still being tested.
- The use of MI intelligence in the classroom.
- The use of MI intelligence in the classroom.
- The use of MI intelligence in the classroom.
- The use of MI intelligence in the classroom.
- The use of MI intelligence in the classroom.
- The use of MI intelligence in the classroom.
- The use of MI intelligence in the classroom.
- The use of MI intelligence in the classroom.

## MI theory....

- Within the field of education, MI theory has presented a new way to address issues relevant to student achievement. Understanding the application of MI theory will help to further the relationship between intelligence and student achievement.

## Implementation Potential...

- The application of MIs gives students the opportunity to use their own talents and abilities to meet state and local curriculum requirements. When designing curriculum, teachers who incorporate MIs into their instructional strategies allow students to use different abilities and strengths.
- Within the language arts curriculum, of the development of skills in reading and writing can be enhanced through the use of MIs

## Implementation Potential...

- Assessing students who are struggling can be problematic if no specialized program is available to help them. Implementing MIs in the language arts curriculum might help teachers and administrators to ease the burden of continued lower achievement on standardized testing and evaluations

## Logical-mathematical

- **Characteristics:**
  - Use the index your book for logical and mathematical examples. Use the resources you have ready, as well as connections between math and other subjects. This also leads you to clarify and assess information to help you learn or understand it.
  - Use work with numbers and use the system: complex calculations, the number of books of elementary and algebra, and use the mathematical examples: calculations in your head.
  - Use scientific approach to children: make you also measure your index with logical examples or models. Use index to look how to solve number words, words or actions, and use the index show you to work.

## Logical-Mathematical Instructional Strategies...

- Create and use lists by extracting key points from your material.
- Quantify it, think critically about it, put it in a logical framework, experiment with it
- Being numerically intelligent: Logic and reasoning, abstract reasoning and functioning.

## Logical –Mathematical Instructional Strategies

- Scoring sheets
- Out-loud problem solving
- Puzzles
- Games
- Outlining
- Strategizing
- Translate into mathematical formula
- Timeline
- Design and conduct an experiment
- Make strategy game
- Make a calendar
- Interpret data
- Hypothesize about..
- Create story problem
- Write a computer program
- Categorize facts and information

## Musical.....

- **Characteristics:**
  - Being musically intelligent: Recognition of basic music elements such as rhythm and tone, overall sensitivity to vocal production and other musical instrumentations.
  - Students who are sensitive to rhythm, pitch, melody, and tone of music and learn through songs, patterns, rhythms, instruments, and musical expression.

## Musical Intelligence Instructional Strategies...

- Orchestral music - write
- Write, use some music
- Discuss the difference between a concert
- Explain music
- Explain structure
- Sketch or sketch notes
- Musical notation
- Analyze the music
- Analyze
- Analyze
- Analyze a musical instrument
- Analyze the musical structure
- Give musical notes
- Musical score notation
- Analyze
- Analyze
- Analyze a musical instrument
- Analyze the musical structure
- Give musical notes
- Musical score notation

## Spatial Intelligence

- **Characteristics**
  - Being picture intelligent: The overall ability to understand visual and spatial elements, sensitive to artistic elements such as color, texture, shape, and space, having the ability to represent work through graphical interpretation.
  - Students who learn best visually and organizing things spatially by creating and manipulating mental images to solve problems.



### Intrapersonal instructional strategies

- Reflective journal track
- process and learning, daily or weekly goals, learning method, or results
- Self-assessment activities
- Describe feelings about learning, setting, achievement goals
- Monitor self-directed projects
- Describe qualities you possess that will help you be successful
- Describe personal values
- Use self-directed learning
- Explain the outcome in students
- Explain intuitive hunches
- Receive feedback
- Pen pals
- Selection technology
- Dialogue journals
- Design own models
- Make personal books
- Conduct research
- Individual instruction

### Naturalistic Intelligence

- Characteristics:
  - Students who love the outdoors, animals, plants, field trips, and nature in general and have the ability to identify and classify patterns in nature.
  - Being nature intelligent: Being able to understand and relate to the natural world and understand the roles of different species

### Naturalistic Intelligence Instructional Strategies...

- Create alternative ecosystems
- Describe changes in local or global ecosystems
- Care for ecosystems, gardens, or aqua
- Use a microscope, a satellite microscope, or microscope on
- Draw natural objects
- Photograph natural objects
- Visit natural objects
- Nature walk
- Science experiments
- Go to the zoo, natural museum, or state park
- Observe wildlife or plants
- Plant a garden
- Visit a farm, forest
- Get a pet
- Nature object lesson
- Teach the ecosystem
- Look for natural objects
- Class projects
- Leaf or insect collection
- Nature journals
- Diaries
- Create own natural
- Learn to do role or visit

### Existential Intelligence

- Characteristics:
  - The ability to be sensitive to, or have the capacity for, conceptualizing or tackling deeper or larger questions about human existence, such as the meaning of life, why are we born, why do we die, what is consciousness, or how did we get here.

### Existential Intelligence Instructional Strategies...

- Essay writing
- Group Discussions
- Presentations concerning larger thought provoking questions
- Writing about themes
- Connecting literary and artistic themes

### Final Thoughts...

- Understanding the application of MI theory will help to further the relationship between intelligence and student achievement. Gouws (2008) noted that "the relationship of intelligences to the learning process should be a key point in any discussion about ways to promote higher academic achievement, learner success, and lifelong learning" (p.72).

### Spatial Intelligence Instructional Strategies...

- Pictorials - chart or graph of student progress in study unit
- Mind maps
- Timelines
- Models
- Photographic essays
- Videotapes
- Collages
- Art work
- Clusters, graphs
- Create videotape, slide show, or photo album
- Design a poster, bulletin board, or mural
- Visualize
- Use memory system
- Create a demonstration piece

### Bodily-kinesthetic Intelligence

- Characteristics:
  - Students who use the body to express their ideas and feelings, and learn best through physical activity – games, movement, hands-on tasks, dancing, building.
  - Being body intelligent: The ability to use your body as a form of expression to play a game, or create new objects.

### Bodily-kinesthetic instructional activities.

- Exhibitions – public demonstration of knowledge gained from books, videotapes, experiments, art work, models, or skits
- Manipulatives
- Products
- Simulations
- Mime
- Role plays
- Creative movement
- Exercise in seats
- Scavenger hunts
- Marching
- Field days
- Rehearse and perform a play
- Create a movement or sequence of movements to explain...
- Choreograph a dance
- Do a reader's theater
- Invent a board floor or adventure game

### Interpersonal Intelligence

- Characteristics:
  - Being people intelligent: Being able to work collaboratively in a group through both verbal and non-verbal communication.
  - Students who are sensitive to other people, noticeably people oriented and outgoing, and learn cooperatively in groups or with a partner.

### Interpersonal Instructional Strategies

- Peer review – students decide whether or skills and criteria or evidence
- Collaborative learning or service activities
- Teaching others, peer or student teaching activities
- Leadership skills
- Create and implement group rules
- Classroom government
- Needs/assume a role
- Present ideas
- Create or contribute to a story
- Use conflict management strategies
- Accommodate learning differences
- Mediate, mediate, or accommodate someone
- Collaborative after school
- Flexible accommodations
- Scavenger hunt across miles
- Situations
- Debate issues
- Help resolve local or global conflicts
- Field-trip to someone
- Use various resolutions

### Intrapersonal Intelligence

- Being self-intelligent: Understanding the world as it pertains to self-image and self-worth. Also focuses on areas concerning self-esteem and motivations.
- Students who are especially in touch with their own desires, feelings, moods, motivations, values, and ideas and learn best by reflection or by themselves.

## Resource Information...

- [Orinowski, S. \(2002\). The multiple intelligences of reading and writing: linking the reader and the writer. \*Journal of Applied Linguistics\*, 41\(1\), 65-80.](#)
- [Carpenter, P., & Fuchs, D. \(2001\). The impact of writing on the development of reading. \*Journal of Applied Linguistics\*, 40\(1\), 1-15.](#)
- [Cassidy, T. \(1998\). The impact of writing on the development of reading. \*Journal of Applied Linguistics\*, 37\(1\), 1-15.](#)
- [Cassidy, T. \(1998\). The impact of writing on the development of reading. \*Journal of Applied Linguistics\*, 37\(1\), 1-15.](#)
- [Cassidy, T. \(1998\). The impact of writing on the development of reading. \*Journal of Applied Linguistics\*, 37\(1\), 1-15.](#)
- [Cassidy, T. \(1998\). The impact of writing on the development of reading. \*Journal of Applied Linguistics\*, 37\(1\), 1-15.](#)
- [Cassidy, T. \(1998\). The impact of writing on the development of reading. \*Journal of Applied Linguistics\*, 37\(1\), 1-15.](#)
- [Cassidy, T. \(1998\). The impact of writing on the development of reading. \*Journal of Applied Linguistics\*, 37\(1\), 1-15.](#)
- [Cassidy, T. \(1998\). The impact of writing on the development of reading. \*Journal of Applied Linguistics\*, 37\(1\), 1-15.](#)
- [Cassidy, T. \(1998\). The impact of writing on the development of reading. \*Journal of Applied Linguistics\*, 37\(1\), 1-15.](#)

### Example of MI-Based Lessons

A crucial element of this training is found within the materials presented to all the participants. Each participant, through a collaborative avenue, will share ideas and help create possible lesson plan elements to implement within the classroom that incorporate MIs within them. Below are listed some examples:

<b>Intelligence</b>	<b>Application to Language Arts Classrooms</b>
<b>Verbal/Linguistic</b>	Debate issues within the classroom, Journal writing, Creative Writing exercises, Have each student create a slogan for an advertising campaign currently in use, write a small one-act play
<b>Bodily/Kinesthetic</b>	Use the great writers to act out a scene from Shakespeare, role-play different literary genre, and play a game of charades.
<b>Visual/Spatial</b>	Make a poster of a book for a presentation, illustrate a children's novel, draw a scene from a particular story
<b>Interpersonal</b>	Debate an issue with a partner, do a team presentation, practice active listening, practice constructive criticism, write a collaborative research paper
<b>Musical</b>	Write a song, hymn, or jingle to accompany a play, listen to different cultural music of the world literature settings

<b>Intrapersonal</b>	Read silently, describe your own feelings about a story or play, write personal poetry, write an autobiography
<b>Logical/Mathematical</b>	Have students create “what-if” based calculations from a story, Read investigative literature
<b>Naturalistic</b>	Use nature to create story ideas, poems, and other literary works. Make connections to the world around them from literary support

## Appendix B: Demographic Table of Participants

<b><i>Participant</i></b>	<b>Degree</b>	<b>Years of Teaching</b>	<b>Previous Incorporation of MIs in the Classroom?</b>
1	BS in English	5	Yes
2	BA in English	10	No
3	M.Ed.	14	No
4	BA in English	3	Yes
5	BA in English	4	No
6	M.Ed.	6	Yes
7	BS in English	9	Yes

\*Total Average Teaching Years: 7.28 Years

## Appendix C: Informed Consent for Participation

You are being invited to participate in a research study involving an examination of potential reasons why Grade 8 language arts test scores have been steadily declining over the last several years on end of year testing. This form will be considered “informal consent” which will allow you to have an understanding of the overall study information before making an informed decision as to the level of your participation.

This study is being conducted by John McGroarty, who is a doctoral student at Walden University and a current educational professional within the school district and that this study is separate from any professional responsibility within the school district.

### **Background Information:**

The overall purpose and goal of this study is to evaluate and analyze current teacher perceptions as to why Grade 8 language arts high-stakes testing scores have been slowly declining and how the implementation of an MI theory-based instructional strategy and design could help improve scores. Potential participants was selected based on the following criteria to be considered for involvement in the study: (a) hold an academic degree in language arts area; and (b) be a faculty member at the selected school.

### **Procedures:**

If you agree to participate in this study, you will:

1. Answer a short questionnaire as to current knowledge and understanding of MI theory.
2. Asked if you would like to participate in interviews and feedback sessions
3. Have the opportunity to review interview session notes for accuracy and completeness.
4. Complete a follow-up survey that will take approximately 1 hour in length that will indicate subject matter knowledge and interest.

### **Voluntary Nature of the Study:**

Since this study is voluntary, there will be no disrespect of your decision to participate. No individual or organization will treat you any differently if you decide not to join this study research project group. If you make the choice to join this study, you can, at any time without risk, withdraw from formal participation.

### **Risks and Benefits of Being in the Study:**

Being in this study would not have any serious effect on your well-being or health. Your participation in this study can offer insight as to how to best help students increase overall scholastic achievement on Grade 8 language arts high-stakes test scores with an end goal of incorporating specialized instructional strategies such as Gardner's Theory of Multiple Intelligences as a way to meet the learning needs of all students.

**Time Commitment:**

Participants in this study was expected to give an hour of their personal time following a school day as determined by the researcher based on participant availability to participate in the interview process. Each participant will also be expected to meet again for about ½ hour following the interview sessions and data collection to complete review of data collected for accuracy and validation.

**Payment:**

There is no formal compensation for participation in this study.

**Privacy:**

Any and all information will be kept confidential in a locked cabinet within my home office in a specific location. I will not use any of your personal information for any reason outside the boundaries of this research study project. Also, I will not include your name or any other identifiable information in the study details. Data will be kept secure in the locked cabinet. All electronic data will be stored on a password protected file on one computer and then deleted within a five year period as currently directed by the university.

**Contacts and Questions:**

You make ask me any questions you have at any given time during the process. If you have questions at [john.mcgroarty@waldenu.edu](mailto:john.mcgroarty@waldenu.edu). If you would like to discuss your participant rights in a more private setting, you can call Dr. Leilani Endicott. She is the Walden University representative who can discuss this with you. Her phone numbers is 1-612-312-1210.

Please keep a copy of this consent form for your personal/educational files.

**Statement of Consent:**

I have read this form to the best of my ability and I believe I understand the study purposes and objectives clearly enough to make a decision about the level of my involvement. By returning a completed survey, I acknowledge that I agree to the terms described in the above document information.



## Appendix D: Teacher Interest Form Survey Questions

Web Address: <http://www.surveymonkey.com/s/CC2YNDL>

This form will allow you to express interest in participating in the research study and provide information about current perceptions, knowledge, and teaching strategies surrounding the decrease in Grade 8 language arts end of year test scores.

1. What are your current perceptions of why Grade 8 language arts test scores are decreasing each year?

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2. Give three examples of your current methods used to prepare students for end of year testing?

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3. Do you have a current knowledge of specialized instructional practices such as MI theory?

\_\_\_\_\_yes \_\_\_\_\_ no

4. If you have knowledge of MI theory, have you used any instructional strategies based on MIs in your classroom to help prepare students for end of year testing?

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5. What do you believe could help students achieve higher test scores on Grade 8 language arts end of year test scores?

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6. Do you have any other suggestions or comments about the decline of Grade 8 language arts test scores?

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7. If you are interested in being interviewed for this doctoral study, please reply with your contact information including phone number and best available time.

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If you have any other questions, feel free to contact me at through the method listed below.

Thanks,

John David McGroarty  
Doctoral Student

Walden University  
Email: [john.mcgroarty@waldenu.edu](mailto:john.mcgroarty@waldenu.edu)

## Appendix E: Introductory Letter to Participate in Study (Email)

Dear Teacher,

Within the school district, the progress towards collaborative learning organizations has begun to take shape. I am conducting a doctoral study project that will examine current and future teacher perceptions of why Grade 8 language arts end of year test scores have been declining over the last several years and how using an MI theory-based instructional strategy and design could impact student achievement on end of year Grade 8 language arts tests.

Your participation in this study is completely voluntary and your confidentiality is assured. No one at the school district will treat you differently if you decide not to be in the study. If you choose to participate in the first be asked to complete an online survey. At the end of the survey, you was asked if you would also like to be interviewed. You will have complete confidentiality during the process if requested. All participants will complete the survey process; only 7 individuals was selected for the actual interview process. Potential participants was selected based on the following criteria to be considered for involvement in the study: (a) hold an academic degree in language arts area; and (b) be a faculty/staff member at the selected school.

This data is being used as part of a doctoral study project authorized by Walden University with the intention of publishing the results in professional journals. The results will also be presented to the stakeholders of the three middle schools involved with the study at a future time. You have the right to ask me questions at any time during this study by contacting me at the number below, contacting my doctoral study chair, Dr. Anju Jolly, or Walden University's Institutional Review Board.

Sincerely,

John David McGroarty, M.Ed.  
Doctoral Student, Walden University

Dr. Anju Jolly  
Doctoral Program Chair  
Walden University  
Anju.jolly@waldenu.edu

## Appendix F: Semi-structured Interview Questions

RQ1: What are the underlying factors for a steady decline in Grade 8 language arts test scores on end of year testing?

1. Do you see any major underlying factors that could influence these decreasing scores?
2. What are your perceptions of how these factors could influence success/failure on end of year testing results?

RQ2: What current instructional practices are being used to prepare students for end of year testing?

1. What are some current instructional practices being used in your classroom to adequately prepares students for end of year testing?
2. What specifically designed instructional programming methods are you currently using to help prepare students such as a writing program or literacy program?
3. What specific instructional practices do you feel work to better prepare students for end of year testing?

RQ3: What are teacher's current perceptions of reasoning for recent decline of Grade 8 language arts test scores?

3. What do you feel are three potential reasons for recent decline in Grade 8 language arts test scores?
4. What are your current perceptions of how introduction of specialized learning methodologies into the classroom could reverse the recent decline of Grade 8 test scores?

## Appendix G: Participant Transcript

(These are only excerpts from the interview used for an example)

**John:** This is the interview that study teachers' perceptions on improvement of declining Grade 8 Language Arts test scores between the interviewer John McGroarty and participant 1. Just to make sure you are okay with being recorded, please respond yes or no.

**P1:** Yes

**John:** Perfect, let's begin. I will be asking a series of questions throughout this interview process. First, how long have you been teaching?

**P1:** 10 years

**John:** What subject do you currently teach?

**P1:** 8<sup>th</sup> Grade Language Arts

**John:** Thank you for that information. Now, I will begin with the first section of questions.

**John:** *Do you see any major underlying factors that could influence these decreasing scores?*

**P1:** "We are held accountable to teaching our lessons to prepare students for these benchmark tests each year. This does not allow us to really dive into the more specialized instructional methods that could help students learn material better." "We don't have the time to focus on more advanced writing skills which would help students more adequately prepare for end of year testing. One of the challenges we face as educators is that we have high standards to meet and are held accountable in several aspects each

year. This does not allow us to really focus on individual student achievement and effort, a critical focus being lost.”

**John:** *What are your perceptions of how these factors could influence success/failure on end of year testing results?*

**P1:** We are held accountable to teaching our lessons to prepare students for these benchmark tests each year. This does not allow us to really dive into the more specialized instructional methods that could help students learn material better.

**John:** *What are some current instructional practices being used within the classroom to adequately prepares students for end of year testing?*

**P1:** We have several assessments during the year that offer students the materials and time to prepare for the actual test. My students are typically given writing assignments at various times of the year, some formal and some informal. It is through these assessments, specifically designed to measure certain aspects of Grade 8 language arts, that we can hopefully gain some perspective of their preparedness.

**John:** *What specifically designed instructional programming methods are you currently using to help prepare students such as a writing program or literacy program?*

**P1:** We currently do not have a structured program in place to help students get ready for their end of school year testing. I would like to see one implemented that would allow us to have the ability to change prompts and other writing tools to measure where a student might have weaknesses, i.e. grammar, sentence structure etc. One of the challenges that we face is that we typically don't have the resources to create a specialized learning program that would help our students in these key areas.

**John:** *What specific instructional practices do you feel works to better prepare students for end of year testing?*

**P1:** One thing that we do have in place within our school district is the secondary literacy model. This is a unique program that focuses on several key categories as they relate to the core curricula and student success. Such areas as Assessment, Instructional Delivery, and High Quality Instructional Materials are a few of the specific categories in this model. This is a great tool to have as a resource, but still we are limited in our use because of other constraints from state and federal testing requirements and standards. Currently I use Direct Instruction, Visual, textile, Audio, and even Music as the main instructional methods in my classroom.

Right now our system is not set up to focus on individual intelligences. As I start each new year or as we get a new student I try to look and see what makes each child tick and what educational method works the best for them and then incorporate activities for the whole class that will assist each child in internalizing the concepts were are learning about.

**John:** *What do you feel are three potential reasons for recent decline in Grade 8 language arts test scores?*

**P1:** Our education system is so watered down. We educate to the lowest student instead of pushing all students to be higher. When the news reports that the U.S. is low in math or science compared to students in other countries it is comparing apples to oranges. The other countries have weeded out the lower students and educate the best. They compare their best to all of our students. Not the same. Another potential reason is the lack of



consistency in our teaching. We often get either behind or ahead in the curriculum which might cause issues with other teachers who need to be in-line with us. Finally, I believe that some of our state academic requirements put too much pressure on adequate scores on tests and lose sight of actual student learning.

**John:** *What are your current perceptions of how introduction of specialized learning methodologies into the classroom could reverse the recent decline of Grade 8 test scores?*

**P1:** My current perceptions can be slightly biased because of being familiar with MIs and how they can help the overall student learning process. It is my understanding that we are required to meet certain curriculum standards each year in order to get our students adequately prepared for the end of year testing processes. I also know that our system is flawed. My students sometimes struggle on these tests because of not being able to fully comprehend how something they are learning applies and that we usually do not have enough allotted time during the day to explain it to them in the depth we need to simply because of time constraints.

**John:** Thank you for those answers. I am really appreciative of your time and willingness to participate.

**John:** Thank you again for your willingness to be a part of this study. This concludes the interview session. You are free to request a copy of this transcript to ensure validity and completeness of this information. Let me know if any questions or comments should arise in the future.

Interview Ended

Appendix H: Themes and Subthemes That Emerged from Teacher Responses

**Change is required to change perceptions of standardized test scores.**

1. Teachers notice “watered-down” educational system
2. Parents and students feel testing is non-essential
3. Students lack of effort due to non-effect on grades
4. Lack of administrative support

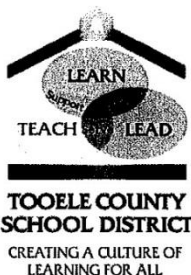
**Teachers have varying current instructional practices.**

1. Many teachers follow a pre-determined educational model
2. Consistently changing educational focus requires change in instructional methods
3. Limited materials for use by teachers. Much is old and outdated
4. Instructional design format is non-flexible. Teachers have standardized required formats

**Varying levels of understanding of MIs exist within our school system**

1. Varying levels exist because of lack of MI exposure during collegiate years
2. Lack of proper training in MIs or other specialized instructional practices
3. Experience with MIs needs to increase

## Appendix I: District Study Approval Letter



Date: 2-4-14

Dear Mr. McGroarty,

Based on my review of your research proposal, I give permission for you to conduct the study entitled *Teacher's Perceptions on Improvement of Declining Grade 8 Language Arts Test Scores* within the following schools within the Tooele County School District: **Clarke N. Johnsen Junior High**.

As part of this study, I authorize you to conduct the following study activities within the schools mentioned above including:

1. Access to participants requested for the study\*.
2. Use a single classroom or other designated area for the interviews of the participants.
3. Ability to conduct the research project study at the selected location.
4. Allow the opportunity for member checks and validation of interview information from participants when required or asked.
5. The ability to disseminate the study findings to individuals/organizations at their request.

\* Individuals' participation will be voluntary and at their own discretion.

We understand that our organization's responsibilities include the following:


1. Provide a secure location to conduct interviews of the participants.
2. Provide minimal supervision if necessary during interview sessions.
3. Allow for the researcher to conduct the project study during the afterschool hours to allow participants the understanding that time will not be taken out of their teaching responsibilities.
4. Provide an opportunity for the researcher to share findings and recommendations of the study with administrative members, community partners, and others who might have an interest in the study results.

We reserve the right to withdraw from the study at any time if our circumstances change.

I confirm that I am authorized to approve research in this setting.

I understand that the data collected will remain entirely confidential and may not be provided to anyone outside of the research team without permission from the Walden University IRB.

Sincerely,

  
Doelene P Pitt

Assistant Superintendent

Tooele County School District

## Appendix J: Summative Evaluation

Name: \_\_\_\_\_

Grade and Subject Taught: \_\_\_\_\_

Please provide a thorough answer to each question.

1. How do you feel the training helped you better understand the role of MIs in the classroom?
2. How would you incorporate MIs into your daily lesson planning to help students achieve a higher level of mastery on end of year test scores if given the proper training?
3. What further training do you think you need to help accomplish question two?
4. What additional feedback about the in-service training would you like to share with the researcher that you were not able to during the in-service training.
5. Please rate this training on the following scale to determine how influential this training will be on future curriculum planning by circling the appropriate response below.

1. Least influential
2. Somewhat influential
3. Very influential

## Appendix K: End of Training Survey

**End of Training Survey**

Name: \_\_\_\_\_

Grade and Subject Taught: \_\_\_\_\_

Please provide a thorough answer to each question.

1. How did you feel the training helped you better understand the role of MIs in the classroom?
  
2. How would you incorporate MIs into your daily lesson planning to help students achieve a higher level of mastery on end of year test scores if given the proper training?
  
3. What further training do you think you need to help accomplish question three?
  
4. What additional feedback would you like to offer the research that you were not able to during the in-service training?
  
5. What information would you like to share than can help others not in your district to try to increase overall test scores?

6. In what way could you help encourage your administration to incorporate MIs into the classroom to help increase overall test scores and do you think this would be successful?

## Appendix L: Certificate of NIH Training

