Is There a Correlation Between Differentiating Instruction and English Language Learner Achievement?

Melissa Monique DeAngelo

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IS THERE A CORRELATION BETWEEN DIFFERENTIATING INSTRUCTION AND ENGLISH LANGUAGE LEARNER ACHIEVEMENT?

by

Melissa Monique DeAngelo

Abstract of a Dissertation
Submitted to the Graduate School of The University of Southern Mississippi in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy

May 2011
ABSTRACT

IS THERE A CORRELATION BETWEEN DIFFERENTIATING INSTRUCTION AND ENGLISH LANGUAGE LEARNER ACHIEVEMENT?

by Melissa Monique DeAngelo

May 2011

Minority students and English language learners are underachieving. Schools with a culture of every student, every day, have the ability to break generational cycles and to change the future of these students that has been predicted by circumstances. This case study examined and analyzed the differentiated instructional practices and implementation at three elementary schools, and determined if there was a correlation between differentiated instruction and success of English language learners. More specifically, the purpose of this case study was to examine (a) the extent of the principles of differentiated instruction present in the classroom (b) differentiated instruction in response to student diversity relating to student interest, readiness, and learning style (c) differences in the style of differentiated instruction occurring related to English language learners and subgroups within this group, and (d) the impact of implementation of differentiated instruction on MCT2 language arts and mathematics proficiencies. The results of the study suggests that teachers used a variety of consistent differentiated instructional methods to respond to student diversity, and the practices observed coincided with best practices and recommended strategies in literature for differentiating instruction for all students, specifically for English language learners. The research concluded that best practices essential in closing the achievement gap were observed in numerous classrooms but were not reflected in student mathematics and language arts
proficiencies. Throughout the study, themes became evident through a multitude of sources that close the achievement gap: collaboration, data analysis and data driven decision making, response to intervention, and differentiated literacy instruction. Effective leadership was also an essential factor that influenced the success of quality implementation of differentiated instruction.
The University of Southern Mississippi

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A Dissertation
Submitted to the Graduate School
of The University of Southern Mississippi
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy

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May 2011
DEDICATION

I would like to thank my amazing family; I truly could not have completed this journey, and kept my sanity, without you. To my husband, Nick, you have been my solid rock here on earth. God gave you to me to help me stay strong and stay focused. You are a wonderful husband and father. This accomplishment was possible because of you. I am so proud to be your wife. To my little men, Elias and Jacob, thank you for encouraging me. This accomplishment was possible because you are amazing children. I am so proud to be your mommy. This degree is for you.

To my brother and sister, Bernie and Margaret, I am very proud to be your sister, and I treasure you dearly. This accomplishment represents the hard work we have put into life, and it represents the name Mom and Dad gave us. To my in laws, you may not know it, but you, too, have helped me keep my sanity. Thank you for always being there and for offering help when we never asked. From cooking dinner, to keeping the boys, everything you have done is greatly appreciated. I am very proud to be your daughter-in-law.

To my mom and dad, you have encouraged me and pushed me my entire life. I have always believed I can accomplish anything with hard work and little sweat. My intellect and perseverance comes from you both. I know you are both so very proud of me. I am who I am because of you. Thank you both for the gifts you have undeniably passed down to me. Mama, thank you for your unwillingness to quit. No is not an option in your book, and I could not have made it without your strength and the strength you gave me to keep pushing. You have influenced me so much. Daddy, you fostered in me the gift of intellect at a very young age. Throughout my life, you showed me how you use
my gift outthink anyone and any situation. You, too, have influenced me so much. Thank
you, Mom and Dad, for loving me. I am so thankful to be the daughter of Will and
Dolores Keenum.

And most importantly, I am who I am because of the love of my Lord. God gave
me the people mentioned above. He put them in my life to help me do the things He
intended for me to do. My praises and gratitude goes to Him. This accomplishment, this
success, signifies who I am in my family and in God.
ACKNOWLEDGMENTS

The writer would like to thank the dissertation director, Dr. Ronald Styron, and the other committee members, Dr. Gaylynn Parker, Dr. Rose McNeese, and Dr. J.T. Johnson, for their advice and support throughout the duration of this project. Special thanks go to Dr. John Hoover of the School of Education at University of Colorado, Boulder (UCB) for the use of his checklist.
TABLE OF CONTENTS

ABSTRACT...........................................................................................................ii

DEDICATION........................................................................................................iv

ACKNOWLEDGMENTS........................................................................................vi

LIST OF TABLES..................................................................................................ix

LIST OF ILLUSTRATIONS....................................................................................x

CHAPTER

I. INTRODUCTION...................................................................................................1

Significance of the Study
Statement of Problem
Purpose of Study
Research Questions
Definition of Terms
Delimitations
Assumptions
Justification
Summary

II. REVIEW OF LITERATURE................................................................................12

Introduction
Theoretical Framework
Review of Literature

III. METHODOLOGY..............................................................................................69

Introduction
Research Design
Participants
Instrumentation
Procedures
Data Analysis
Summary

IV. ANALYSIS OF DATA ....................................................................................79

Introduction
Presentation and Analysis of Data
Summary

V. DISCUSSION ……………………………………………………………………………138

Introduction
Findings
Ancillary Findings
Recommendations for Policy and Practice
Limitations
Recommendations for Future Research
Summary

APPENDIXES ……………………………………………………………………………158

REFERENCES……………………………………………………………………………168
LIST OF TABLES

Table

1. MCT2 Data for the State of Mississippi ........................................28
2. MCT2 Data for the Selected District in Mississippi..........................29
3. School A MCT2 Language Arts and Mathematics Proficiencies.............84
4. Differences in Differentiated Instruction among Regular Education and Special Education.................................................................125
5. Differences in Differentiated Instruction among Economically Disadvantaged and Economically Stable...........................................138
LIST OF ILLUSTRATIONS

Figure

1. Hoover and Patton Checklist of Learning Factors for English Language Learners ................................................................. 38
CHAPTER I
INTRODUCTION

Significance of the Study

*Growth in English Language Learner Population*

The number of non-native speakers of English is rapidly growing in the United States. Stuart (2004) notes that one in ten Americans are foreign born; one in three Americans are identified as minorities. The melting pot idea no longer works to describe the United States. Language and culture distinctly identifies people and does not allow them to blend in as the ideas of the typical American. The Salad Bowl theory best fits the description of the diversity of the United States. It describes an idea in which separate and distinctly different items can coexist and not be part of each other. Cultural and ethnic backgrounds are a part of a person’s identity along with being an American (Glasgow, McNary, & Hicks, 2006). English language learners (ELL) are the fastest growing population in primary and secondary schools. Over one hundred languages are reportedly spoken in today’s schools. It is estimated that nearly one in every four students will be an English language learner by 2015. It is predicted by the year 2030 that 40% of school aged population will not speak English as their first language (Christie, 2008).

According the Mississippi Assessment and Accountability Reporting System, in 2008-2009, 36% of 3rd grade ELL students in the state scored proficient or above on the MCTT2 language arts; 56% scored proficient or above in mathematics. In 4th grade, 33 % scores proficient or above in language arts; 53 % scored proficient or above in mathematics. In 5th grade, 27% scored proficient or above in language arts; 46% scored proficient or above in mathematics. In 2009-2010, the percentages increased in each
grade level content area. 5th grade language arts showed the greatest improvement, from 27% to 37% of students scoring proficient or above. The goal of this study is to determine if an increase in student achievement is linked to differentiated instructional strategies.

*Academically At-Risk*

ELL students are academically at risk due to cultural and linguistic differences. They often fall in the category of economically disadvantaged, which statistics show, increase their risk of being low academic achievers. Students with limited English proficiency (LEP), also known as English language learners (ELL) fall below the achievement gap. Along with being economically disadvantaged, these linguistically and culturally diverse students are at high risk of failing one or more grades, dropping out of school, and having limited to no post secondary educational resources (York-Barr, Ghere, & Sommerness, 2007). Research does not pinpoint a common denominator as to why these students are prone to fail or drop out or why the achievement gap exists.

Educating English language learners requires strategies that will help determine where they are when entering the class and to help move them forward in the academic path as far as potential allows. Educators can begin by fostering the English language development, emotional, and social development of ELL students using tactics suggested by Tannenbaum (1996) (a) assess needs, (b) empathize, (c) foster a sense of belonging, (d) assign a buddy, (e) use sheltering techniques, (f) teach key words, (g) read and reread books aloud, (h) provide opportunities for success, (i) value bilingualism, (j) foster an appreciation of cultural diversity, (k) keep track of language progress. Levy (2008) describes these strategies as differentiated instruction.
Research is abundant in the types of differentiation instructional strategies that show growth. English language learners, however, are struggling with the content and acquiring the language. Research does not show whether the instructional focus should be on the content or language or the differentiation of either. Research does support enriching language skills while teaching content. Specific strategies or guidelines, unfortunately, have not been identified.

Differentiated Instruction

Differentiated instruction is strategizing and choosing activities that will yield essential understandings at different levels of mastery, scaffolding, monitoring, pacing, assessing, and reflecting on the how, why, and what is taught. In one study, researchers found that diverse learners who received differentiated instruction scored significantly higher in mathematics than students not receiving differentiated instruction (Rock, Gregg, Ellis, & Gabel, 2008). When differentiating instruction, teachers should take into account the limited language function, prior exposure to education and prior content knowledge, student learning styles, as well as cultural diversity. By thinking critically and analytically about a student’s readiness, background knowledge and interests, the teacher can differentiate a lesson to engage students in individualized tasks based on their needs and abilities (Tomlinson & Strickland, 2005). The key to determining readiness is found to be dependent on the ability to read in the first language. The act of reading is learned through literacy in the native language. It is determined by some researchers that English reading is appropriate for English language learners only after the intermediate stage of language acquisition (Avalos, Plasencia, Chavez, & Rascon, 2007).

Literacy acquisition is shown to improve with small group instruction with the
addition of teacher-student groups and intense teacher support. Quality literacy instruction encourages and expects higher order thinking and communication while addressing learning factors, curriculum standards, and teaching/learning styles (Mohr & Mohr, 2007, p. 443). Differentiated instruction in literacy is described as “using strategies that address student strengths, interests, skills, and readiness in flexible learning environment” (Hoover & Patton, 2005, p. 76). Differentiated Instruction in literacy has shown gains in reading proficiency, both in English speaking and non-English speaking students (Tobin, 2008).

Research support that differentiated instruction increases student achievement. Rate of growth of the English language learner population is rapidly increasing across the nation while the success rate of that population is decreasing. The combination of Exit Exams and No Child Left Behind Act of 2001 (NCLB) have resulted in high expectations without a full support system to help those failing students and schools succeed. Some education researchers believe NCLB uses sanctions instead of resources as a motivator to turn this around. Budget problems are restricting schools from having remedial courses. At least the high failure rates among ELL students has drawn attention to those states, which is leading the creation and funding of programs to address the issue (Gunderson & Siegel, 2001). These students are falling through the cracks, being lost in the achievement gap. Differentiated instruction has shown to improve literacy skills and math skills, among other skills. Studies need to focus specifically on English language learners and the strategies that are showing results in improving their achievement. English language learners have a high dropout rate, which results in unemployment and poverty. If the education system does not adapt to meet the needs of this growing
population, they will continually fall behind in school, increasing their chances of being retained in one or more grades, increasing their chances of dropping out. This rapidly growing population will soon be the rapidly growing unemployed and economically disadvantaged population (Gunderson & Siegel, 2001).

Statement of Problem

Growth in achievement of English language learners has been attributed to many individual factors, and the needs of these diverse learners have successfully been met by some schools. Factors that have been associated with closing the achievement gap include maintaining rigorous curriculum, effective leadership and instruction, and qualified teachers, prioritizing student achievement, maintaining high expectations of students, and analyzing and using data to meet students’ needs. Reading instruction in collaboration with the previously mentioned factors works to ensure success of all learners.

Schools have shown success in narrowing the achievement gap and raising student achievement through the implementation of research-based practices. Unfortunately, few schools are sustaining student achievement and narrowing the achievement gap. Equitable education has not been achieved, thus the achievement gap is a continuous problem. Schools that tackle the achievement gap are too often inconsistent and the practices are not implemented long-term. This is of great importance for cities and areas of high minority populations, where high populations of at-risk children are prevalent. The problem is that the achievement, or the lack thereof, of minority students, especially English language learners, has long-term effects for the student, school, community, and country, and few schools are narrowing the achievement
The lack of student achievement among English language learners originated the principles of this study. The research clearly indicates that an inequality exists in academic achievement on standardized assessments between minority and low socioeconomic students and their white counterparts. Examining differentiated instructional strategies and utilizing the case study design will relate the strategies and its related factors to student achievement. The factors that are necessary to ensure student achievement and narrow the achievement gap may be observed in the case study schools. Practices and strategies that ensure student success are essential to meeting the students’ needs, especially when the majority of a school is low-performing minorities. This case study’s purpose is to identify factors that contribute to closing the achievement gap in the schools with the highest population of English language learners.

Purpose of Study

The purpose of this study was to promote student achievement through analysis of practiced differentiated instruction strategies. The study could inform school officials as how to better assist the academic and emotional growth of English language learners. The results of the study could show if the strategies provided impacted the achievement of the students, specifically English language learners. By documenting the strategies at each school, comparing the strategies from the classroom to what the literature says, a correlation might be evident. The literature and results of study could also offer insight into the role of the teacher and their importance in promoting student achievement. By collecting information from teacher interviews, identifying the practices and strategies used by the elementary teachers and correlating those practices with test scores, results may offer significant insight as to which strategies may be linked to achievement. The
collection of literature and results of the study may offer a resource to teachers in their attempt to implement change in their classrooms by providing research based and successfully implemented strategies that resulted in student achievement and growth. The schools in the study was provided with the interpreted results, which may be reproduced and used in professional developments to guide teachers in teaching English language learners.

Research Questions

The study included three elementary schools in a chosen school district that had the highest populations of English language learners in the district. Two elementary schools with the highest ELL population were of the lowest achieving schools in the district. One of the three elementary schools implemented a scheduled time of differentiated instruction in an effort to increase student achievement and increase proficiency levels on the state standardized test. The two other elementary schools did not have a scheduled time for differentiated instruction for all students. The teachers of all three schools were encouraged to use differentiated instructional strategies as part of instruction. In an effort to describe the relationship differentiated instruction may have with academic achievement, the focus of the study were the following research questions:

1. To what extent are the principles of differentiated instruction present in the classroom?

2. In what ways do teachers use differentiated instruction to respond to student diversity relating to student interest, readiness, and learning style?

3. Is there a difference in the style of differentiated instruction occurring related to English language learners and subgroups within this group?
4. What impact does the implementation of differentiated instruction have on assessments, language acquisition, and state standardized tests?

Definition of Terms

*Literacy-* the ability to read and write proficiently.

*ELL*- English language learner. Someone whose first language is not English and is acquiring the language.

*English proficiency-* well advanced, competent, and skilled in the English language.

*Socioeconomic-* pertains to or signifying the combination of social and economic factors.

*Conundrum-* anything that puzzles.

*MCT2*- Mississippi Curriculum Test, second edition- standardized test, measure of students knowledge in language arts and math in grade 3-8.

*Standardized assessment-* test that is administered and scored in a consistent manner.

*High stakes test-* test that has major consequences or is used to base a major decision.

*Economically disadvantaged-* a family with an annual income below a level which is based on low-income thresholds according to family size published by the U.S. Bureau of the Census, adjusted annually for changes in the Consumer Price Index.

*Immigration experience-* the personal experience of coming to country where one is not a native to establish residence.
Culture - the set of shared attitudes, values, goals, and practices that characterizes an institution or organization, a racial, religious, or social group.

Native language- the language that a person has spoken from earliest childhood.

Ethnicity - the language that a person has spoken from earliest childhood.

Minority - group differing, esp. in race, religion, or ethnic background, from the majority of a population.

Poverty - the state or condition of having little or no money, goods, or means of support.

Vygotsky’s zone of proximal development - the distance between what a can perform independently and what a child can perform only with assistance.

Essential understandings - also called enduring understandings. The big idea upon which the unit is built.

Universal design - principles for developing instruction to give all students equal opportunities to learn.

Constructivist theory - knowledge is generated from the interaction between experience and ideas.

Delimitations

The 2009-2010 school year was the first year for the specific elementary school in the selected district to implement school wide differentiated instruction. Delimitations going into the study included possible attrition or resignation of teachers, which may have restricted the quantity of teacher interviews. Because of the transient population of the district, delimitation may have included student withdrawal or enrollment in the 2009-2010 school year, which may have affected the quantity of scores eligible. Also,
the transient population may have affected the ability to compare a student’s scores from the 2008-2009 school year to 2009-2010 school year.

Assumptions

For the study to go as planned, the following assumptions were made. All third through fifth grade teachers and the principal of the school took part in the interview and answered all questions honestly and accurately. Teachers had samples of work. Lesson plans were located in Pinnacle Instruction or EZ Lesson Planner, detailed, and listed the differentiated instruction. Also, all MCT2 language arts and mathematics scores for third through fifth grade were located for the 2008-2009 and 2009-2010 school years on EZ Test Tracker and all demographic information was be correct.

Justification

The growth of the ELL population compared to the decrease in the graduation rate of ELL students is alarming. Without an intervention, the education system will continually fail these students; these students will be the children left behind. The future of the United States depends on the success of its upcoming generations. The minority are becoming the majority, so the success of ELL students will directly affect the United States. If the majority are failing and dropping out, then the majority may eventually be economically disadvantaged or more specifically, in poverty (Gray, 2010). The results from the study could provide information regarding the effect of differentiated instruction on student achievement. This study could provide a basis for future research in this field. If the results of the study suggested that the differentiated instruction affects MCT2 scores, then further research and application could likely have increased the achievement of the students, specifically ELL students. If the research did not suggest this, the results
allowed for further research to look at other factors that influence achievement of English language learners.

Summary

Culturally and linguistically diverse student populations continue to grow in the United States and further diversify classrooms. Parental expectations, poverty rates, and gaps in readiness add to the diversity. Educators have modes of teachings that adjust to each student’s readiness, talents, interests, and backgrounds. Tomlinson and Strickland (2005) suggest that teachers observe and assess where their students are and set individual goals. Failure to adapt instruction according to student differences and needs results in ineffective instruction and ill prepared students that lack prerequisites to advance. Differentiated instruction has shown improvements in literacy and is standardized test scores. By comparing the MCT2 math and language scores of 3rd, 4th, and 5th graders 2008-2009 (pre-implementation) to 2009-2010, results may reflect and district change in scores, which could be attributed to the implementation of school wide differentiated instruction in 2009-2010 school year.
CHAPTER II
REVIEW OF LITERATURE

Introduction

The growth in the English language learner population has affected school accountability, graduation and dropout rates, and instructional methods. This population is struggling to master the content and the language of the classroom. Teachers are required through No Child Left Behind to meet accountability standards. Students are struggling because their needs are not met; teachers are struggling to meet the needs of the students. Research suggests numerous strategies to help ensure the academic success of English language learners. Differentiated instruction and differentiated strategies are among the factors that have repeatedly shown growth in student achievement. Research, however, has not identified specific factors of differentiated instruction or strategies that show growth in language acquisition and content knowledge. This goal of this study is to identify the best practices of differentiated instruction and strategies that may affect the achievement of English language learners.

Theoretical Framework

Theory of Second Language Acquisition

Five hypotheses of Krashen’s theory of second language are: Acquisition-Learning hypothesis, Monitor hypothesis, Natural Order hypothesis, Input hypothesis, and Affective Filter hypothesis. The acquisition-learning hypothesis is widely known among linguists and is the fundamental basis for Krashen’s theory. Acquisition is the first independent system or the theory and is describes as the ability to acquire language subconsciously, as a child does in the first language; meaningful interaction in the target
language is required (Krashen, 1981). Speakers are concentrating on the content of the communication. Learning results from formal instruction and the speaker has a conscious knowledge about the language, the grammar rules, and is able to talk about them. Similar to how correcting errors has little effect on a child learning the first language, correcting errors has little affect on second language acquisition (Krashen, 1981). In summary, acquisition is more important that learning.

Monitor hypothesis explains the relation between learning and acquisition and affect of learning on acquisition. The acquisition system plays the role of the expression and the learning system is the monitor. It knows the rules, grammar, and takes time to forms sentences correctly. Natural Order is based on research findings which suggest that grammatical structure acquisition takes place in a natural order. Some grammatical structure is learned early while others are learned late. Affective filter contains the variables that affects and facilitate, but not cause, second language acquisition, which include motivation, confidence, and anxiety.

Input hypothesis is how Krashen (1981) describes second language acquisition and explains how the learner acquires a language competency over time. According to the hypothesis, the learner progresses in a natural order when he or she receives input that is one step beyond his or her current level of linguistic competence. Learning takes place level+ (Krashen, 1981). The focus is on understandable communication. Immersion and requiring communication that is understandable reaches the stage +1 level.

Social Constructivist Theory

Vygotsky’s constructivist theory of language learning states that learning results from experience, reflection, and social interaction with others (Vygotsky, 1978). Innate
factors do not primarily determine patterns of thinking and cognitive skills; they are the products of the social institutions of the culture in which the individual grows up and the activities practiced within this culture. The complex process of learning a new language involves constructing knowledge of language by using internal, external, and cognitive processes that are not readily observable (Wenden & Ruben, 1987). Vygotsky’s theory references the zone of proximal development as the difference, or zone, between a child’s capacity to solve problems on his own and the capacity to solve problem with assistance. The ability or development level is what the child is capable of doing independently. The zone of proximal development is the level of activities and functions which a child can only perform with assistance (Vygotsky, 1978).

Other interdisciplinary perspectives on the acquisition of a second language include psycholinguistics, sociolinguistics, and classroom research (Baumgertner, Lipowski, & Rush, 2003). Psycholinguistic theories of language acquisition are based on previous knowledge and the role it plays in the language acquisition process. How the knowledge is acquired is also a main focus of this theory. The sociolinguistic approach to acquisition of a secondary language focuses on the linguistic variations among speakers and in social characteristics such as learning environment, age, sex, social class. Variation among speakers was found to also be affected by personal and social characteristics such as motivation, competence, attention, and attitude (Baumgertner et al., 2003).

Researchers examined language acquisition and the similarities between classroom-instructed learners and learners without formal instruction to develop classroom research theories. The rate of language acquisition increases in the presence of
meaningful and effective second language instruction, which leads to proficiency in social and academic language (Cummins, 1984). It takes at least two years, on average, to develop and maintain basic interpersonal communicative skills (BICS). It requires up to seven years to develop cognitive academic language proficiency (CALP). To attain a level of language proficiency needed to meet the cognitive challenges of the classroom, both BICS and CALP must be developed (Harley, Allen, Cummins, & Swain, 1990).

Cognitive Learning

The integration of differentiated instruction offers struggling students group and individualized instruction, supplementary support, and modifications. Traditional education does not benefit struggling students and students with disabilities, who come with various cognitive abilities and often perform below grade level. This deficit makes the struggling learners more vulnerable to a one-size fits all instruction (Garderen & Whittaker, 2006). Differentiated instruction is based on a cognitive theory to model, guide, coach, and scaffold the instruction. Cognitive learning is “the theoretical framework that supports differentiated instruction is rooted in cognitive psychology and based largely on research on student achievement” (McTighe & Brown, 2005, p. 234). Physical access and cognitive access to the curriculum do not hold the same benefits are not one in the same.

Review of Literature

A Population At-Risk for Underachieving

Minority students make up a large percentage of schools today. The population of at-risk minority students is a concern for educational stakeholders attempting to narrow the achievement gap (Gray, 2010). The U.S. Department of Education Nation’s Report
Card showed a decrease in white students from 80% in 1975 to 56% in 2008 in the nine year old category. The black population has remained stable with 14% in 1971 and 16% in 2008. In the same time frame, Hispanic students increased from 5% to 20% (U.S. Department of Education, 2010). A national-origin-minority student who is limited-English-Proficient is considered an English language learner (ELL), according to the Mississippi Department of Education (MDE, 2009). Discrepancies in academic achievement among minority and economically disadvantaged students and white and economically advantaged students are known as achievement gap. Gray (2010) states that the achievement gap “is the largest social injustice for the minority student population” (p. 4). Opinions vary as to why the gap exists as well as how to fix it. In many studies, family structure including environment, poverty, and early exposure to education is rated as a top influence on academic achievement. Research has concluded that “schools that recognize and create effective environments narrow the achievement gap and make learning possible for minority students” (Gray, 2010, p. 3).

Hispanic children are 2.2 times more likely to grow up in poverty than their fellow white students, which affects their academic success (Gray, 2010). Perpetual and generational poverty affects and keeps their children, and their next generations, in poverty and unsuccessful academically. It is estimated that 1.2 million secondary students will drop out of school this year, and only two thirds of those entering seniors will finish out the school year or make it to graduation (Petterway, Kritsonis, & Herrington, 2006). The average annual income for those without at least a high school diploma or GED is $18,734. This income falls close to the poverty line for a family of three or more (U.S. Census Bureau, 2010). Recent reports show that the population of
English language learners is at risk of poverty and having limited access to self-sufficiency (McKinsey and Company, 2009).

High school ELL students have the weight of passing the high stakes tests that many states mandate. In states with prominent ELL populations, there are evident differences between Caucasian, Hispanic, and ELL first time test takers. For many students, their high stakes test score could mean dropping out or getting a GED. Failing scores have another negative effect on ELL students. Low scores might target ELL students to be placed in remedial classes that do not offer hard material and rigor, which puts them at a disadvantage for higher education. High school exit exams ensure that students are not underprepared for college or workforce. Contrarily, the opposite effect has been a push-out phenomenon that has taken press headlines in Texas, New York, and Massachusetts. The push-out method occurs educators want higher test scores, so they encourage lower test achievers to enter the General Educational Development (GED) program or leave school and enter the workforce (Petterway et al., 2006).

History of Accountability

Accountability has been the hot topic of Education since the late ‘50s early ‘60s. The United States Supreme Court’s ruling in Brown v. Board of Education of Topeka, KS (1954) declared racially segregated schools as discriminatory and it in violation of the 14th amendment to the U.S. Constitution which declares that all citizens are guaranteed equal protection of the laws. In 1957, Congress received a proposal for civil rights from President Eisenhower. The Civil Right Act (CRA) of 1957, amended in 1964, initiated greater federal involvement in protecting the rights of African American
and other minorities (Civil Rights Act, 1957). The Commission of Civil Rights was
establish under the Civil Rights Act of 1957; its purpose was to keep the President and
congress informed of the civil rights protections implementation (Laney, 2008). In 1965,
the Elementary and Secondary Education Act (ESEA) was put passed by President
Lyndon B. Johnson (1965). It established accountability and high standards and
emphasized equal access to education. Title I of ESEA was entitled Improving the
Academic Achievement of the Disadvantaged. Part C was specific to migrant and
bilingual education. Title III was entitled Language Instruction for Limited English
Proficient and Immigrant Students. State and Federal Governments passed regulations
and laws, including Title VI of the Civil Rights Act (1964) and the Equal Education
Opportunities Act (1974) to protect the rights of English Language learners and their
families.

Eleven years later, the Education for All Handicapped Children Act was passed
(1975). It is currently the Individuals with Disabilities Education Act (IDEA) of 2004.
In 1983, A Nation At-Risk was issued by the secretary of President George Bush,
Terence Bell, a member of the National Commission on Excellence in Education (1983).
This report described the nation’s school system as fair and mediocre. It called for a
more rigorous curriculum, higher standards and graduation requirements, more
professional development for teachers, and higher salaries for teachers. In 1989,
President George Bush brought the nation’s governors together in the very first education
summit (Vinovskis, 1999). For the first time in history, national goals for education were
created: every kindergartener would begin school read to learn, the graduation rate would
increase to 90%, in grades 4, 8, and 12, students would master five core subject before
passing, American students would be global leaders in math and science, literacy and workforce preparedness for adults, and safe and drug-free schools.

In 1994, Goals 2000: Educate America Act was signed into law. It provided resources to communities and states to ensure that all students are able to reach their potential and national goals. It added two goals: parent involvement and professional development. Improving America’s Schools Act (IASA) of 1994 was signed by President Clinton and is the renewal of the Elementary and Secondary Education Act (ESEA) of 1965. Title V and VII address racial and ethnic equality and language acquisition, respectively (1994). In 1997, the Individuals with Disabilities Education Act was passed to improve access to education for those with disabilities. In 2002, the No Child Left Behind (NCLB) Act was passed into law; it required annual assessments in reading and math in grades 3-8 along with one more in high school. It also required science assessments in at least three grade levels. The NCLB required teachers and support professionals to meet new highly qualified requirements. Schools that did not make Annual Yearly Progress (AYP) would receive sanctions.

_NCLB Act of 2001_

The purpose of NCLB Act is to raise the achievement of all students in the nation and eliminate the achievement gap among students differentiated by race, ethnicity, poverty, disability, and English proficiency. According to NCLB, schools, districts, and state departments are to hold high standards for all students and work toward increasing achievement in lower performing groups (NCLB, 2001). Public education in the United States is required to provide free and equitably to all school-aged children. School districts are required to do so for the students that live within the district’s boundaries.
Eligible districts are entitled to federal funds, but all districts must comply with laws and regulations (MDE, 2009). Since public schools are supported by public funds, they must meet the demands of accountability. Accountability is relative to the level of knowledge and skills students, regardless of race, gender, or disability, have attained. This knowledge is measured using standardized tests (Education M. M., 2007).

Response to Intervention

Under IDEA, Response to Intervention (RTI) and its three tier model was developed to aid and offer support to those students who are suffering academically. Tier I consists of quality classroom management and quality instruction based on the states curriculum frameworks. Tier II is focused supplemental instruction. Tier III is interventions designed to meet the individual needs of the student. Using progress monitoring, teachers are able to: determine if students are progressing adequately, identify students falling behind, and modify instruction to meet the individual needs of each student. “Monitoring of student progress is an ongoing process that may be measured through informal classroom assessment, benchmark assessment instruments and large-scale assessments” (Policy, 2005, p. 1).

The three goals of RTI are to provide systematic assessment of student performance, differentiate instruction, and offer high quality professional development. Differentiated instruction in Tier I of the three tier model is suggested to meet the needs of individual students through instruction that is tailored based on assessment, observation, judgment, reflection, readiness, and interest (Rock et al., 2008). If students are unsuccessful in Tier I, students are moved to Tier II. If Tier II is unsuccessful, students are to be reported to the teacher support team (TST). The TST is a support unit
that developed and oversees the implementation of the intense interventions. If Tier III intervention shows no adequate improvement, the TST may refer the student to diagnostics for further testing. The interventions developed are research based and designed to focus on the deficit areas. The effectiveness of the interventions is data driven. Identifying struggling students who need differentiated instruction in Tiers I and II facilitates the reduction in number of over represented minorities placed in special education (Walker-Dalhouse & Risko, 2009). The lack of adequate progress requires the support of Tiers I and II. In grades 1-3, if a student fails a grade, he or she is referred to TST. In grade 4-12, a student is referred to TST if he or she has failed two or more grades or if a student has been suspended or expelled for more than 20 days in the school year and had failed one of the prior two years.

All students benefit from academic support and a balance between access to curriculum, opportunities for success, and challenge of instruction (Mathes, Deonton, Fletcher, Anthony, Frances, & Schatschneider, 2005, p. 154). Levy describes this kind of instruction as differentiated instruction, strategies that will help determine where each child is when he or she enters the class and help move them forward in their academic path as far as their potential allows (2008). Differentiated instruction is strategizing and choosing activities that will yield essential understandings at different levels of mastery, scaffolding, monitoring, pacing, assessing, and reflecting on the how, why, and what is taught.

Accountability in Mississippi

The federal No Child Left Behind Act of 2001 (NCLB) and state statutes mandate the use of a standards-based English language proficiency test annually in public schools,
grades K-12. Mississippi uses the Mississippi Curriculum Test second edition (MCT2) as its standardized criterion reference test (Office of Student Assessment, 2009). The MCT2 is the source of accountability for grades 3-8 in Mississippi public schools. According to the Mississippi Department of Education Office of Student Assessment (2009), the MCT2 is also designed to meet the federal mandates of the No Child Left Behind. The MCT2 assesses reading/language arts and math and is aligned with the 2006 Mississippi Language Arts Framework Revised and the 2007 Mississippi Mathematics Framework Revised. The test questions are of different ranges of difficulty and depth of knowledge (DOK). The test questions are aligned with the content, processes, and skills corresponding to the academic standards set by the Mississippi curriculum frameworks and performance level descriptors.

The MCT2 is an annual assessment given in grades 3-8 in language arts and math and it given over a three day period. The language arts portion consists of two sections; the reading section is given in one day and the writing section is given in one day. The math portion is only one section and is given on the third day. The language arts section of the MCT measures knowledge of grade level curriculum (Office of Student Assessment, 2009). In language arts, the MCT2 measures competencies in vocabulary, reading, writing, and grammar. More specific, the competencies measured are the ability to use word recognition and word meaning to communicate, the application of strategies and skills to interpret, comprehend, respond to, or evaluate text with different levels of complexity and length, the expression, communication, or exchange of ideas, and the communication of standard English. In math, the MCT2 measures the level of knowledge and skill in general math for grads 3-7, and the level of knowledge and skills in pre-
algebra in grade 8. Competencies measured in math are in numbers and operations, algebra, geometry, measurement, and data analysis and probability. The competencies of number and operations are the abilities to: analyze of the four basic operations and the relationship among numbers, fluently compute and make reasonable estimates. In Algebra, the competencies measured include the abilities to use algebraic symbols to analyze, explain, and generate functions, patterns, and relationships, demonstrate an understanding of the basic operations properties, and analyze various changes in context. The competencies measured in geometry are the abilities to: use coordinate geometry to describe spatial relationships and develop mathematical arguments on geometric relationships. Measurement competencies measured include determining units of measure by developing concepts and applying techniques and tools. Data Analysis and Probability competencies measured are the abilities to devise questions that can be addressed with data, analyze data by choosing and utilizing appropriate statistical methods, and apply basic concepts of probability (Office of Student Assessment, 2009).

The results of these assessments are used in the state-wide accountability models: achievement, growth, and adequate yearly progress. All students in grades 3-8 must be take part in the assessments. The tests are multiple choice and a separate answer sheet is used for students to bubble in answers. The test is not timed. Third and 4th grade students have 63 items on the language arts section and 55 items on the math section. Fifth and 6th graders have 73 items on the language arts section and 60 items on the math section. Seventh and 8th grade students have 83 language arts items and 60 math items. On certain math questions, MCT2 allows for students to use a ruler. MCT2 advised teachers and parents to have students become accustomed to using 12 inch lead-in rulers with metric
and English measurements. Seventh and 8th graders are allowed to use approved calculators on all math items. Eighth grade students are provided a formula chart for the math section.

NCLB requires performance level descriptors (PLD) for at least three levels: basic, proficient, advanced. “The PLD for proficient must reflect the intended cognitive processes at the appropriate grade level as set forth in the standards. The total description for the PLD’s must reflect the full range of the content standards in terms of cognitive challenge, cognitive complexity, and depth” (Education M. D., Office of Student Assessment, 2007, p. 2). The results are used to determine instructional strategies to ensure student achievement. To receive a PLD, the student must demonstrate the performance explain at that level. The student is given the lowest level until he or she can perform all that is described in the next higher level. Students that scored in the advanced level are able to perform at a high level of complexity or fluency determined by the grade level standards. Those that score advanced consistently score beyond what is required to achieve at the next grade level (Education M. D., 2006). Those that score proficient are able to perform at the level complexity or fluency set by the state standards. This level requires performance of a firm mastery of content standards and skills necessary to achieve at the next grade level. At the Basic level, students perform some of the state standards at a low level of complexity or fluency. They exhibit partial mastery of the content standards and skills needed for the next grade. Student scoring Minimal are below basic do not exhibit mastery of the content standards and skills needed to achieve in the next grade. Remediation may be needed for those that scored basic. In grades 3-7, any student scoring in the minimal level, in any section of the MCT2, will be referred to
the Teacher Support Team (TST), which utilizes Response to Intervention (RTI) three tier model, as part of the State Board of Education Intervention Policy (Policy, 2005).

Performance on high stakes tests are also used to demonstrate if public schools deserve, and effectively utilize, public funding and meet the demands of accountability (Petterway et al., 2006). NCLB has explicit requirements for documenting and reporting academic achievement of ELL students (Gitomer, Andal, & Davison, 2005). Mississippi statutory regulations and federal laws dictate that schools not only must enroll students with limited English, but also provide an equitable quality education (Mississippi Department of Education, 2009).

Equitable Education

Students classified as ELL or limited English proficiency (LEP) are allowed to be tested in their native language in the first three years of school in the United States. After that point, schools must test them only in English. Schools, districts, and state departments are to hold high standards for all students and work toward increasing achievement in content areas for lower performing groups (Carlo et al., 2004). The shift to focus on the standards, however, has taken the focus from students.

Regardless of how hard schools work to ensure that learning occurs, schools with larger ELL proportions are at risk of receiving a rank of underperforming. Since students attend schools where they are zoned, some schools only serve one predominant ethnic group. Thus, schools that are located in zones with a predominantly large non-English speaking community, for example, will likely have more students who have limited fluency in English, resulting in a school population scoring minimal or basic in language, affecting the school and district’s accountability because of the presumption that learning
is not taking place (Abedi & Dietzel, 2004). “It is equally important that learning should occur in ways that are measurable. If students are unable to demonstrate what they have learned, it is presumed that no learning took place at all” (Petterway et al., 2006, p. 3).

Title III, Part A, of the No Child Left Behind Act (2001) has goals set to ensure the English language learners acquire English proficiency and academic competence in English and meet the same challenging standards and state academic content that all children are required to meet (MDE, 2009). It is under Title III that states, local educational agencies, and individual schools are held accountable for meeting the annual measurable achievement standards relative to LEP students’ acquisition and proficiency of English and academic content (MDE, 2009). Title III requires State Educational Agencies that receive federal funds under the program to establish those ELL proficiency standards, identify and implement assessments for English language proficiency, and define the annual objectives for measuring and improving the level of LEP children’s English proficiency. Local educational agencies must assess the student English Proficiency on an annual basis in speaking, writing, listening, and comprehension (MDE, 2009).

Title I requires that each state ensures that local educational agencies annually administer assessments of English written, oral, and reading skills of all English language learners enrolled in schools in the state (MDE, 2009). Title I, Part A Accountability provisions is linked to Title III, Part A English Language Learners (Education M. M., 2007). Both Titles hold state and local educational and schools accountable for improving English proficiency and academic achievement of LEP students. ELL students in K-12 public schools are assessed in listening, speaking, reading, and writing.
To assess and measure oral, written, and reading proficiency and skills, states are required to ensure that districts administer tests of English proficiency to all limited English proficient students. Results from the annual English language proficiency assessments are a part of the State accountability system. Language proficiency refers to the degree in which a student has control of the use of the language and skills associated with language: syntax, vocabulary, semantics, and phonology (Gottlieb, Cranley, & Cammilleri, 2007).

Limited English students are not only required to master the language, but also are required to meet standards and achieve scores at the same level as English speaking students. ELL students are to achieve at levels regulated by NCLB to be successful (Education M. M., 2007). Research shows that the academic performance of ELL students on standardized state tests is often 20 to 30 percentage points lower than general students (Abedi & Dietzel, 2004). Research also shows little growth in improvement over the past years. In separate studies conducted by the National Center for Research on Evaluation, Standards, and Student Testing (CRESST), research supports that the language demands of the standardized tests reduces accuracy in measuring ELL academic performance (Abedi & Dietzel, 2004). More efforts are needed to move testing to be more valid and equitable for linguistic minorities. Limited language ability negatively affects the accuracy of measuring content knowledge. Both language ability and achievement are technically measured by standardized tests. CRESST recommends that the “language difficulty of tests be heavily reviewed and test questions be modified to reduce superfluous linguistic complexity and cultural bias” (Abedi & Dietzel, 2004, p. 783). Controlled tests at CRESST have shown that simplifying the language of the tests
without sacrificing rigor has improved ELL performance by 10% to 20% percent (Abedi & Dietzel, 2004).

According to the Mississippi Assessment and Accountability Reporting System (MAARS), in 2009-2010, significantly fewer percentages of ELL students scored proficient or above on the MCT2 in 3rd, 4th, and 5th grade compared to white, black, Asian, and Hispanic students as shown in Table 1. Compared to the state, as illustrated in Table 2, the selected school district had fewer percentage of ELL student score proficient or above in mathematics for grades 3-5, and language arts for grade 3. Only in 4th and 5th grade language arts did a higher percentage of ELL students score proficient or above.

Table 1

**MCT2 Data for the State of Mississippi**

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>All Students</th>
<th>Disabled Only</th>
<th>Male</th>
<th>Female</th>
<th>Black</th>
<th>White</th>
<th>Hispanic</th>
<th>ELL/LEP</th>
<th>Economically Disadvantaged</th>
<th>Not Economically Disadvantaged</th>
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</thead>
<tbody>
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<td>77</td>
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<td>79</td>
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<td>49</td>
<td>70</td>
<td>49</td>
<td>44</td>
<td>52</td>
<td>72</td>
</tr>
</tbody>
</table>

Notes: Percentages 0-4% are reported as 4% and percentages 96-100% are reported as 96%.

Minimum N-count for reporting is 10 students.
Table 1 (continued).

*Note.* Mississippi Assessment and Accountability Reporting System. State level data for the year 2009-2010, retrieved from http://orsap.mde.k12.ms.us/MAARS/index.jsp

Table 2

**MCT2 Data for the Selected District in Mississippi**

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>All Level Students</th>
<th>Disabled Only</th>
<th>Male</th>
<th>Female</th>
<th>Black Language Arts</th>
<th>White</th>
<th>Asian</th>
<th>Hispanic</th>
<th>American Language Arts</th>
<th>ELL/ LEP</th>
</tr>
</thead>
<tbody>
<tr>
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<td>59</td>
<td>72</td>
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<td>44</td>
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</table>

**Mathematics**

<table>
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<tr>
<th>Grade Level</th>
<th>All Level Students</th>
<th>Disabled Only</th>
<th>Male</th>
<th>Female</th>
<th>Black Language Arts</th>
<th>White</th>
<th>Asian</th>
<th>Hispanic</th>
<th>American Language Arts</th>
<th>ELL/ LEP</th>
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</tbody>
</table>

Notes: Percentages 0-4% are reported as 4% and percentages 96-100% are reported as 96%. Minimum N-count for reporting is 10 students.

*Note.* Mississippi Assessment and Accountability Reporting System. District level data for the year 2009-2010, retrieved from http://orsap.mde.k12.ms.us/MAARS/index.jsp

Mississippi uses a five step process to identify and place student English language learners in an appropriate Language program. The Mississippi Guidelines for English Language Learners was created through funding under Title II of No Child Left Behind Act of 2001. The purpose of the guidelines is to “support school districts in their efforts to serve the special needs of English language learners in reaching high academic standards as well as attaining English language proficiency” (Education M. M., 2007, p.
1). The Mississippi Department of Education (MDE) claims to provide leadership across the state to promote high quality education for English language learners (MDE, 2009). The steps, which Mississippi puts in the Guidelines for English Language Learners, are (a) administer home language survey (b) assess ELL student proficiency level (c) notify the ELL student’s parent (d) place the ELL student in an appropriate grade and language instruction program, (e) evaluate program effectiveness (Education M. M., 2007).

Assessing English Proficiency

The World-Class Instructional Design and Assessment (WIDA) Consortium was adopted by the Mississippi Department of Education as the Standard English Proficiency Exam in 2007. In 2009, the WIDA consortium included 22 states, which together enrolled over 790,000 ELL students grades K-12. WIDA English Language Proficiency (ELP) Standards were developed by consortium funded by the United Stated Department of Education Enhanced Assessment Grant (Gottlieb et al., 2007). The WIDA is based on scientifically-based research on “best educational practices in general English as a Second Language (ESL) and Bilingual education in particular” (Gottlieb et al., 2007, p. 5). ELP standards require proficiency in social and academic language and have been adopted, along with its model performance indicators, the national model by Teachers of English to Speakers of Other Languages (TESOL). The WIDA resource manual dictates, “The WIDA ELP Standards are designed for the many audiences in the field of education who are impacted by ELLs” (Gottlieb et al., 2007, p. 6). WIDA consortium claims the development of its standards has answered the demand to link state academic content standards to language learning. These standards are viewed as the first step in constructing a valid assessment tool to English language learners.
The 2007 edition of WIDA ELP standards proclaims six proficiency levels for English language learners: Entering, Beginning, Developing, Expanding, Bridging, and Reaching (Gottlieb et al., 2007). The five ELP standards are in formative and summative frameworks, which are useful in planning curriculum, instruction, and assessments. The standards contain the expectations of social and academic language for ELL grades pre-K-12. These standards are not academic content standards, but rather standards based in the language needed to success in school. Standards one through five are based on communication in the content area. Standard 1- English language learners communicate for Social and Instructional purposes within a school setting. Standard 2- English language learners communicate information, ideas, and concepts necessary for academic success in the content area of language arts. Standards 3, 4, and 5 are identical to standard 2 expect the subject of language arts is mathematics, science, and social studies respectively. Each of the five ELP standards includes four language domains that classify how English language learners process and use language: listening, speaking, reading, and writing.

The ELP standards are organized by grade level cluster, framework, standard, and language domain. WIDA maps the stages of English language development and acquisition to help define the stages of English language proficiency (Gottlieb et al., 2007). The WIDA consortium takes into account students differences and diversities in mapping levels of English language proficiency, “The sets of features identified above describe ELL’ understanding and use of English at each level of language proficiency, but these features must be combined with personal characteristics as well” (Gottlieb et
al., 2007, p. 12). WIDA advises to take into consideration students’ characteristics and differences.

The WIDA assessment allows proficiency levels for the four domains. It offers CAN DO descriptors for levels of English language proficiency in listening, speaking, reading, and writing. These descriptors offer a beginning point for teachers working with ELL students and also offer a tool for teacher collaboration and planning. An example of a CAN DO descriptor is the level 3 developing level of listening, “categorize or sequence information using pictures, objects” (Gottlieb et al., 2007, p. 58). These descriptors are also useful in developing rubrics and alternative assessments.

**Effective ELL instruction**

The classroom norm is now to have a cultural and linguistic variety with a range of readiness. Gone are the days where the assumption that language and readiness had no relation to student success. The WIDA Consortium advises educators to take into consideration the diversity within the ELL population. The diversity within the ELL group is contributed to the variety of skills and background knowledge the students have, the exposure to interaction and communication in first language at an early eager, and most obvious, the level of English proficiency already attained upon entering the grade (Gottlieb et al., 2007).

Effective instruction is focused on student strengths, skills, and interests, exposes students to proper English use in academics, and creates opportunities for social interaction in English (York-Barr et al., 2007). In elementary and secondary schools, successful practices have included differentiated instruction, the use of alternative assessments and assessment results, progress monitoring, and strong literacy support.
Unfortunately, ELL instruction is not always designed for the multiple levels and skills of ELL students. Lectures are often delivered in a manner that is simplified, lacks rigor, and does not encourage participation.

An effective learning environment encourages participation and interaction with supportive proficient speakers. ELL students need quality instruction from teachers that understand and accept of the diverse backgrounds and cultures. Often times, English as a Second Language (ESL) programs use a pull-out method, where ELL students are pulled from mainstream classrooms and are put in the same room for language and academic tutoring. This method is argued by some as defeating the purpose of full language immersion and exposure to proper use of English in school context (Pransky & Baily, 2001).

*Special Education*

Modern classrooms consist of students with a broad range of abilities and needs. In the 2006 Annual Report to Congress on Individuals with Disabilities Education Act of 2004 (IDEA), nearly 96% of teachers in general education classrooms had students with learning disabilities. Of those teachers, nine out of 10 had at least three students each with an IEP (Anderson, 2007). IDEA strives for the early identification of students struggling academically. IDEA also mandates the teaching has been the cause of struggle for students yet the blame has been placed on a learning disability (Special Education Report, 2001).

Before 1975, students with particular diverse needs would not have been afforded the right to public education. After the passing of the Education of All Handicapped Children Act of 1975, students with handicap were able to attend public schools, but were
often referred for special education services. The students with disabilities would have then been removed from the general educational setting and placed in a self-contained classroom as the responsibility of the special education teacher. The Education of All Handicapped Children Act of 1975 is now the Individuals with Disabilities Education Act of 2004, which stresses that students with disabilities should be taught alongside students without disabilities (IDEA, 2004).

Presently, students with individualized education plans (IEP) are in general education classes and receive inclusive special education services. In the past, schools would lower their standards and expectations, assuming they were helping students with disabilities achieve. Contrarily, the academic performance of these students was hindered. IDEA 2004 and the No Child Left Behind Act were passed by U.S. Congress to reverse the trend of unknowingly oppressing the academic achievement of students with disabilities (NCLB, 2001).

**Identifying Learning Disabilities**

Culturally and linguistically diverse students are sometimes viewed as having a disability, when in fact, they do not. In contrast, some students from linguistically and culturally diverse backgrounds are in need of instructional assistance, yet remain unnoticed and therefore unidentified (Gunderson & Siegel, 2001). In documenting and reporting high stakes testing results and statistics, the objectives of meeting the needs of ELL students who are not reaching their goals has produced counter effects of increased dropout rates and increased referral to special education. Petterway et al. (2006) concluded that eight to nine percent of English language learners in the United States are receiving special education services. It is believe that flawed assessment practices will
continue to adversely affect ELL students, who make up 9.3% of public school students pre-k through grade 12, until better methods are discovered (Petterway et al., 2006). In one report, 25 states answered on a survey that they allow accommodations for ELL students during testing. However, the states said that they had no special routes or substituted tests for these subgroups (Petterway et al., 2006).

With the number of non-native speakers of English expected to grow over the next decade, teachers of ESL need to determine how to identify students who may have learning problems (Special Education Report, 2001). The challenge is determining when a student’s problem relates to learning English, and when it is a disability. Research shows that the best indication of a disability is a gap in ability. Determining this gap in ELL students is much more difficult than in Native speakers of English. Long-term observation usually can yield clues to what is affecting a student’s learning. If a child makes the same mistake over and over, it is likely to be a disability. In more difficult cases, it is sometimes necessary to bring in someone who speaks the student’s native language to determine whether the mistakes are made in the first language. Determining whether the student makes the same mistake in the native language is said to be the most important feature to assess. Presently, many school districts use IQ tests to determine if a child has a learning disability (Gunderson & Siegel, 2001).

Many students are diagnosed as having a learning disability if there is a large significant gap between an IQ test score and achievement (Gunderson & Siegel, 2001). When testing for a reading disability, if a native speaker of English is poor reader but shows no discrepancy between the IQ and reading scores, then he or she is not considered reading disabled. If there is this discrepancy, then he or she is said to have a reading
disability. Diagnoses of non-native speakers using this criteria cause many ELL students to be misdiagnosed. IQ tests are culturally and linguistically biased; experiences and native language impact IQ scores. Typically IQ tests consist of measures of factual knowledge, definitions of words, memory recall, and fluency of expressive language. For ELL students, these aspects are not being truly tested because of the language barrier. It is suggested that the concept of intelligence should signify problem-solving skills, skills in reasoning, critical thinking, and adaptation to environment. There is evidence to suggest that it is unnecessary to use an intelligence measure (IQ tests) to define a learning disability. Gunderson and Lee state that ELL students are marginalized by IQ tests, “They are not able to differentiate a first-language learning problem from a second-language learning problem or from a general language-learning problem” (p. 5).

Furthermore, the results of IQ tests illustrate what a student has learned and not what he or she is capable of doing. IQ test results are also used to test for gifted and talented. Similar to the results being used to identify a learning disability in a non-English Proficient student, IQ test results do not appropriately show the gifts and talents of culturally and linguistically diverse students, and those talents are many times overlooked.

Identifying Gifted and Talented

Many ELL students are prevented from receiving the services that would contribute to the development of their potential. In many countries, to be educated is to be bilingual. In this country, to be bilingual is to be uneducated. There is research that focuses on young Latino interpreters who may be enrolled in ELL programs rather than gifted programs, and they are not expected to succeed in school (Magazine, 2004). These
students act as translators in their communities. ELL children and young adults do incredible things when they are interpreting. They learn to respond to challenging situations that demand quick thinking skills. The current federal definition of giftedness is “Children and youth with outstanding talent who perform or show the potential of performing at remarkably high levels of accomplishment when compared to others of their age, experience, or environment” (Magazine, 2004, p. 2). It is suggested that these ESL students should not be placed in existing gifted programs, which have not been designed to foster and build upon their specific skills. Instead, the programs and methods used to educate ELL students should be reexamined, leading to the development of new instructional approaches designed to build on students’ promise, rather than perceived weakness.

**Differentiated Instructional Strategies**

Differentiated instruction moves standardized instruction to personalized instruction. Students enter a classroom with different experiences, abilities, interests, learning styles, and personalities. When differentiating instruction, teachers take into account the limited language function, prior exposure to education and prior content knowledge, student learning styles, as well as cultural diversity. Assessing prior knowledge guides instruction and planned interaction. Quality instruction encourages and expects higher order thinking and communication while addressing learning factors, curriculum standards, and teaching/learning styles (Mohr & Mohr, 2007). Differentiated instruction is described as “using strategies that address student strengths, interests, skills, and readiness in flexible learning environment” (Hoover & Patton, 2005, p. 76). Hoover and Patton (2005) charted six curricular factors that, as explained in the research, are
“necessary to effectively select and differentiate curriculum and instruction for ELLs” (p. 77). These factors are language function, acculturation, conceptual knowledge, thinking abilities, cultural values/norms, and teaching/learning styles. Tackling the six curricular factors will aid in establishing differentiated instruction while at the same time valuing the learner’s cultural and linguistic diversity. So that practitioners can successfully differentiate curriculum of ELLs, Hoover and Patton (2005) offer a checklist, illustrated in Figure 1, that helps determine the nature to which teaching, curriculum, and learning factors have been addressed.

___ Facilitate learning and development through joint productive activities
___ Access learner’s prior knowledge and learning
___ Provide teaching and learning activities based on student’s experiences and skills
___ Rigorous and higher-level thinking in problem-solving
___ Engage students through ongoing verbal dialogue
___ Relate academic content to students’ own cultural
   Environment/experiences
___ Integration so that content areas/skills are addressed and reinforced
   Over time
___ Cognitive AND academic curriculum goals are addressed
___ Students are challenged with high expectations
___ Cultural values/norms are valued

Note. Document other relevant information about the curriculum implementation.

Figure 1. Hoover and Patton (2005) recommend the checklist of learning factors for English language learners.

(Subscript 1) “Differentiating Curriculum and Instruction for English Language Learners with Special Needs,” by John Hoover and James Patton, 2005, Intervention of School & Clinic, 40, 231-235. Adapted with permission of the author.

Using the list as a guide, the average textbook worksheet activity would not meet the standards of differentiated instruction nor meet the needs of an ELL student. The simplified goal of the list is to guide teachers in choosing activities that are rigorous and
require previous skills and knowledge (Hoover & Patton, 2005). The checklist provides the areas to consider when differentiating instruction.

It is necessary for educators to understand cultural values before choosing curriculum revisions. Adaptation of curriculum based on these factors increase the success of the differentiated instruction and success of ELL students, especially those with special needs. Five teaching principals have been developed for effective teaching of ELL students with special needs. Teaching ELL students with special needs should focus on facilitating joint activities among students that promote learning and development, what the learner is presently learning and as previously learned, educational activities for students that extend within the milieu of prior experiences and skills, higher-level thinking and complex solutions, and having ongoing verbal dialogue. Saenz and Fuchs (2005) reported that these teaching principals should be utilized in all areas of education of ELL students, including curriculum implementation and differentiation. Saenz and Fuchs (2005) also reported that effective curriculum implantation for ELL students with special needs should emphasize the following:

Academic content relative to students’ culture, background, environment, and prior experiences, multiple content knowledge and skills that are reinforced over time and across subject area, cognitive and academic goals in integrated ways, high expectations while valuing diversity, and active learning and inquiry-based tasks. (p. 238)

Students are more likely to feel motivated and strive to achieve when the teacher is responsive to race, gender, culture, readiness, experience, interest, and learning preferences (Glasgow et al., 2006). High quality curriculum once set aside for advanced
learners are the standards that the diverse population is required to master. Problem solving and flexible thinking is required in society and in careers today. Students need to learn to be problem solvers, critical thinkers, and knowledge producers. Differentiated instruction has repeatedly proven to be effective in increasing students’ levels of proficiency. In a process to move from traditional instruction to differentiated instruction, results have shown that differentiated instruction is the key factor in increasing student achievement (Rock et al., 2008). In two out of three studies, authors Lewis and Batts (2005) reported that elementary school with traditional non-differentiated instruction had 79% of the students proficient on state mandated end of the year tests (2005). After five years of differentiate instruction, that number rose to 94% of the students in the proficient range. In their high school study, the average student read at a 5.9 grade level. After four years of differentiated instruction, the average student read at an 8.2 grade level (Lewis & Batts, 2005).

Research suggests four principles that support the framework related to differentiated instruction in the classroom: (a) focus on essential skills and ideas in each content area, (b) teacher responsiveness to student differences and needs, (c) use of assessments to guide instruction, (d) continual modification on content, process, and product to meet the levels of students’ needs (Tomlinson & Strickland, 2005). Rock et al. (2008) describes seven beliefs in his differentiated instruction model: (a) Same grade – same age students come to class with different levels of readiness and abilities as well as different life experiences and circumstances, (b) These differences impact the pace and level of the instruction, (c) student learning benefits from being challenged by the teacher to work just above the level of what students can do independently, known as
Vygotsky’s zone of proximal development, (d) student learning is heightened when content is related to life experiences, (e) learning is enhanced by authentic learning opportunities, (f) learning is boosted when students feel valued and respected within the school, (g) the overarching goal of school is to recognize and promote the individual abilities of each student.

**Essential Understandings**

The challenges of implementing differentiated instruction are less documented than the philosophy and principals behind it (McTighe & Brown, 2005). For instance, how to teach for understanding while still teaching reading skills needed. The differentiated approach calls for clarity on the essential understandings first, then differentiated the opportunities to practice and engage the skills supportive to the essential understandings. In differentiated instruction, all learners are striving for the same goal, the same essential understanding; teachers provide multiple access roads to gain and demonstrate mastery of the understandings. The teacher is the source for creativity and synthesizing the essential understandings. It is the teacher that needs to define what matters most, what is essential. Students benefit from focusing on essential understandings and overarching goals. Students can learn at their level with the same focus at the end.

In teaching reading comprehension, the teacher clearly identifies the essential idea, the big picture, related to reading comprehension, i.e., identifying story structure, relating with story character. In teaching the big idea, skills such as decoding, picture cuing, and question posing were skills taught and practices to gain the essential understanding. Similar to focusing on content standards, it is suggested by McTighe and
Brown (2005) to focus on the essential understandings of a unit. The essential understandings should remain the constant focus of the instruction, regardless of the diversity of ability and learning styles. Essential understandings are the target unaffected by the background knowledge or experiences. “In other words, the big ideas and essential questions provide the conceptual pillars that anchor the various disciplines” (McTighe & Brown, 2005, p. 238).

In literacy, Tomlinson argues, teachers should allow time, opportunities, and support for making sense of text, ideas, and skills. In a classroom driven by standardized tests, teachers face the challenge of differentiating and managing the required standards. Tomlinson (2005) also argues that standards are to guide instruction, not be instruction and that a curriculum focused on standardization and does not recognize and address diversity is sure to not succeed. Focus on essential understandings and skills embody the standards, which ensure the achieved outcomes. Pushing grade level material and ignoring the diversity and gaps that exists invite frustration and failure. In order to differentiate and ensure success for all students, Tomlinson declares that educators should be knowledgeable of the curriculum and the skills, interests, background, and understandings of the students.

*Universal Design*

Teachers can accomplish this by identifying the barriers that limit the students’ access to the content, such as knowing the readiness, background knowledge, disabilities, to name a few. When planning instruction, teachers should plan for the what, how, and why of learning. The *what* of learning is teaching information or the recognition stage. The *how* of learning is teaching skills and strategies, or the strategy stage. The *why* of
learning is teaching students to love learning or the affect stage (Garderen & Whittaker, 2006). Universal design works in conjunction with, if not overlaps, differentiated instruction. Universal design takes place at the planning stage of a lesson. If a teacher knows the abilities, strengths, and struggles or the students, the lesson is planned to include teaching those skills to everyone. From there, the teacher differentiates even further for those needing further assistance. Tobin (2008) uses a clear example of how universal design and differentiated instruction are compatible. Mrs. Lee knows she has a few new linguistically diverse students in her class. Best practices for English language learners include the use of context clues, repetition, visual support, removal of extraneous words in instruction, vocabulary development and expansion of background knowledge (Tomlinson & Strickland, 2005, p. 8). Mrs. Lee pulls from these components for whole class instruction. These strategies for the English language learners are essential for them but also make learning easier for the class. The concept is similar the grip on a set of kitchen utensils that were designed for those with disabilities. The utensils turned out to be easier to use for everybody. The same applies to the instruction and skills designed into the lesson; others will more than likely benefit from them. Students still struggling after the universal design of the instruction can then receive additional differentiated instruction (Tomlinson & Strickland, 2005).

**Strategies for Differentiating Instruction**

**Collaboration.** Peer collaboration is a type of reflection that involves teachers discussing and analyzing together, such tough parts of a lesson, struggles with individual student’s growth, and other problems encountered in the classroom that could help to improve future classroom struggles (York-Barr et al., 2007, p. 315). Collaboration
includes giving and receiving feedback, and sharing feelings and ideas. Collaboration, communication, and shared decision making is essential when implementing anything new—such as learning to differentiate instruction to meet the needs of the diverse learners. Teachers need professional development and ongoing support to assess students properly, monitor growth, and determine the effectiveness of instruction. Walker-Dalhouse and Risko (2009) suggest that teachers need to learn how to observe students daily and identify modifications that may be necessary. Tennessee is a pioneer in supporting teachers in the implementation of differentiated instruction. Tennessee reading specialists co-plan with classroom teachers, demonstrate effective implementation of instruction, and offer ongoing feedback as the teacher slowly attains the teaching responsibility. Follow-up for support is also recommended to ensure that inventions are being implemented correctly, according to state and local frameworks as well as students’ needs (Walker-Dalhouse & Risko, 2009).

**Literacy instruction.** There is a strong body of evidence to support differentiated literacy instruction. Baumgartner, Lipowski, and Rush (2003) implemented differentiated instruction in schools of two Midwestern communities which showed improvement in reading achievement of elementary and middle school students. Types of differentiation can range from re-teaching to small groups to providing choices from levels books about what they read. In Baumgartner, Lipowski, and Rush’s study, differentiated instructional strategies included flexible grouping, student choice on a variety of tasks, increased self-selected reading time, and access to various reading materials. The researchers concluded that the differentiated instruction were effective in increasing reading achievement. More specifically, the targeted students more effectively
applied comprehension strategies and demonstrated phonemic mastery and mastery of decoding skills. Tobin and McInnis (2008) findings suggest that differentiated instructional emphasis on fluency in reading connected text, phonological awareness, and phonological decoding are related to accelerated growth of struggling readers. Research is conclusive that differentiated instruction is essential in literacy and teachers should approach the literacy curriculum with a responsive disposition, focus on planning, curriculum, decision making, and flexible instructional flow (Dillar, 2005).

Specificities of differentiated literacy instruction are investigated. Differentiated approaches that show evidence of improvement in student reading levels are comprehension strategies, mastery of decoding and phonemic skills, and student attitudes toward reading are flexible grouping, student selected reading time, student choice of activities, and access to various literacy materials (Baumgertner et al., 2003). Researchers have investigated interest reading instruction differentiation and teacher response and reflection to students’ journal entries. In these studies, the researchers documented the level of engagement and of the students relative to the responses and feedback from the teacher (Dillar, 2005). In another study, a group of first and second grade students used thematic literacy bags that were appropriate for each ability level. The researchers studied the level of engagement relative to the various learning modalities. The latter study revealed that themed books at the appropriate level were well received by the students, who found the books engaging and predictable. The study also showed the students were enthusiastic and engaged in journal writing that encouraging creative responses to the literature (Saenz & Fuchs, 2005).
Interest reading. Selecting reading material that interests the students is recommended by Tobin and McInnes (2008) as a means of differentiation through independent reading, partner reading, and group discussions. Researchers have investigated interest reading instruction differentiation and teacher response and reflection to students’ journal entries. In these studies, the researchers documented the level of engagement and of the students relative to the responses and feedback from the teacher (Dillar, 2005). In another study, a group of first and second grade students used thematic literacy bags that were appropriate for each ability level. The researchers studied the level of engagement relative to the various learning modalities. The latter study revealed that themed books at the appropriate level were well received by the students, who found the books engaging and predictable. The study also showed the students were enthusiastic and engaged in journal writing that encouraging creative responses to the literature (Saenz & Fuchs, 2005). Once the topic of interest is chosen, instruction focuses on comprehension, comprehension strategies, vocabulary, and word studies. This style of instruction is known as responsive teaching.

Responsive literacy. Responsive literacy teaching is based on the theories of Vygotsky and the zone of proximal development (Vygotsky, 1978). “The social dimension of learning is paramount and the teacher is called upon to create learning situations that are sufficiently engaging to prompt problem solving without frustrating individual learners” (Tobin & McInnins, 2007, p. 39). Responsive teaching is evidence based and aligned with state and local frameworks, systematic, and focuses on strengthening students’ needs. Tobin describes responsive literacy instruction has instruction determined by the observed or pre-assessed needs of the students. The teacher
responds through scaffolding, which encourages and enables the student to apply strategies independently.

*Modified guided reading.* Modified Guided Reading (MGR) emphasizes language and literacy instruction in small group settings. It is modified for ELL because the majorities are emergent readers. The texts in MGR integrate reading, writing, listening, and speaking are built on what the students know. MGR was based on an interactive that model divides the reading process into two components: the reader’s experience or background knowledge, and the teacher’s cognitive process (Avalos et al., 2007). These processes help the reader to gain access to text and gain meaning. Teachers of students with limited English proficiency are recommended to read texts aloud, or have the assigned buddy read aloud, to help the students learn how to pronounce words, expand vocabulary, and build their knowledge (Shore, 2001). Texts recommended for the emergent ELL students those with large descriptive illustrations that correspond directly to the text. A technique suggested is to have the students repeatedly read the text so that the vocabulary and language patterns are internalized. Shore suggests that after the student reads the text so many times, the teacher should ask the student to read the text aloud, being conscious to avoid embarrassing or intimidating the student. If the student appears comfortable, have them read their book in front of the class, which offers the student a feeling of accomplishment. Having the student read out loud in their native language is another method of encouraging reading and boosting confidence.

Guided reading offers differentiated instruction for literacy groups of four to six students with comparable strengths and needs. To make valid gains in reading, it is suggested that these groups meet three times a week, 30 – 40 minutes per meeting
Guided reading is a common literacy center found in differentiated classrooms. Using grade level or levelized books, teachers are able to strengthen the students’ fluency, comprehension, and all around reading proficiency. Book levels per grade are often categorized by the children’s reading development: early emergent, emergent, early fluency, fluency. Other categories mentioned also include emergent, intermediate, and advanced readers. “Teachers act as guides, building on the knowledge, skills, and strategies the children possess” (Avalos et al., 2007, p. 320). Benefits of guided reading and using the guided reading model include individualized instruction, books at students’ levels, increased comprehension with sustaining meaning, exposure to academic language embedded in context and content. To benefit, students should be actively involved in the guided reading; student should read, write, and listen in a social environment through conversing before and after reading. Through modification and scaffold instruction, language of struggling learners, such as English language learners, are exposed to enhanced and enriched vocabulary. Specifically, they are exposed through detailed vocabulary instruction and language text structures, i.e., syntax, semantics, and morphology. Modified guided reading allows for literacy instruction as well as language. Using modified guided reading, students’ academic language and vocabulary increases (Avalos et al., 2007).

Readiness. Further support and differentiation comes from responding to student characteristics: readiness, interest, and learning profile. Readiness is what the students bring with him/her: knowledge, understanding, etc. Readiness, which is different from ability, is a reflection of what they are ready to do in light of what the teacher is presenting at that moment. To differentiate readiness, the material needs to be difficult
and support should be provided to succeed the new level of challenge. Interest is what interests the students, what they enjoy learning about. Interest differentiation should help students connect to new material and skill by connecting with things they already enjoy, things that are appealing and intriguing. Learning profile is the students preferred mode of learning (Huebner, 2010, p. 79). In a differentiated math lesson, where division is the topic, beginning with a whole group lesson then movies to small interest groups would be a differentiated strategy. Further differentiation would come from the teacher working one on one within the interest groups to focus on ability levels (Tomlinson & Strickland, 2005). Tomlinson and Strickland (2005) describe three main routes to modify or differentiate instruction in the classroom: content, process, and products.

*Content, process, product.* Content is the material taught and the access students have to the information. It is guided by local, state, and national standards. However these standards do not provide complete and coherent content. Many standards ignore the principles and concepts needed for genuine understanding. Often times, textbooks guide curriculum; textbooks cater to the larger purchasers such as Texas and Florida. Too often, the mandated standards confine what is taught, impeding the learning of both the struggler and the advanced. Students that can read above grade level are have limited exposure to more advanced literature. Mastering the standards is quite impossible when students are reading below grade level. Students are taught the same standards, but the content varies quantitatively and qualitatively (Levy, 2008). For example, students reading below grade level benefit from smaller amounts of content or instruction at the appropriate level for them.
Process is how the students come to own the knowledge or essential information. It is how the teacher delivers the instruction, and how the students receive it. By thinking critically and analytically about a student’s readiness, background knowledge and interests, the teacher can differentiate a lesson to engage students in individualized tasked based on their needs and abilities (Tomlinson & Strickland, 2005).

Products are the demonstrations of the ownership of knowledge—how students show they have the essential understandings. Pre-assessment are suggested tools to find out where they are to meet their needs and move them forward. These pre-assessment can range from a KWL chart (what I know, what I want to know, what I’ve learned) to a teacher-made test. If the teacher does not know where the student is cognitively, how can the student be moved forward? The goal of a pre-assessment is to use a tool to help determine where a student is to appropriately plan instruction to meet their needs.

Alternative assessments. Alternative assessment and their results are useful in curriculum based decisions and differentiating instruction. Allowing the students to choose their type of product is a differentiation technique is which the student has a choice of how he or she will produce and exhibit that they have mastered the essential understandings of a lesson. It is not necessary to assess each student the same (Levy, 2008). For example, the essential understanding of the process of mitosis may be displayed via research paper, descriptive poster, or built model. Planned differentiated choices are common successful practices in which students can choose their method learning and displaying mastery of essential understandings. Ongoing assessment through journal writing and discussion are a few examples how students and teachers can reflect (Liftig, 2010). Some of the oral and written products useful for assessing ELL
students’ progress are content area thinking and learning logs, reading response logs, written assignments, dialogue journals, and audio or video cassettes. Content area logs are designed to encourage the use of meta-cognitive strategies when students read expository text. Students can infer information under one of two headings: what I understood or what I didn’t understand.

Beginning ELL students often experience success when an expository writing assignment is controlled or structured. The teacher can guide students through a pre-writing stage, which includes discussion, brainstorming, webbing, outlining, and so on. The results of pre-writing, as well as the independently written product, can be assessed. Dialogue journals provide a means of interactive, ongoing correspondence between students and teachers. Students determine the choice of topics and participate at their level of English language proficiency. Beginners can draw pictures that can be labeled by the teacher. Audio and video cassettes can be made of student oral readings, presentations, dramatics, interviews, or conferences (with teacher or peers). These practical approaches, or alternative assessments, can use be to assess learning outcomes, learning disabilities, and strengthen the gifts and talents of ELL students.

Students’ individual needs should be the focus of assessments. Assessment results should be used to document individual student growth over time and not be used to compare growth between students. Reflecting on students’ performance on assessments is key to differentiate the lesson (Minott, 2009). Across the nation use a variety of alternative assessments and progress monitoring tactics. Commonly found practices include language software, nonverbal assessments, oral and written products, portfolios and KWL charts (Lenski, Ehlers-Zavala, Daniel, & Sun-Irminger, 2006).
Portfolios have been effective in organizing collected samples of student work and evaluating student development (Lenski et al., 2006). Teachers review student portfolios often to gauge student growth. Within a chosen time frame, two months for example, the portfolio would contain evidence of growth in language acquisition, content knowledge, and comprehension. Teachers have students reflect on their work and comment on their own progress. Portfolios include student work ranging from taped reading logs and writing samples to artwork and subject area tests. To gain multiple perspectives on students' development, it is important for teachers to include more than one type of material in the portfolio. Teachers can include activities that students are involved in, and reflective personal letters from the student which will help assess if the child is also developing emotionally and socially. The teacher of struggling literacy learners should go beyond the call of duty to ensure that their students are developing in these areas (Lenski et al., 2006).

KWL charts are a useful tool to monitor growth and make instructional decisions by organizing and documenting what the students already know, what they want to know, and what they have learned (Shore, 2001). Students complete the KWL charts throughout the lessons. Before beginning a new lesson, the teacher briefly describes the new unit. The students complete the K and W section of their chart in detail with what they already know about the subject and what they would like to know by the end of the unit. The use of reflection as a learning technique keeps students focused, aware, and interested. Upon completion of the unit, the teacher has the students complete the L section of the chart with what they have learned. Students are involved in their learning
process by recording the K/W/L in the chart throughout the unit. More importantly, students are able to view first hand their growth.

Non-verbal assessments are physical demonstrations by students that allow teachers to assess knowledge of academic concepts without requiring language. Depending on the age group, content knowledge can be assessed through gestures such as pointing or thumbs up/down, and the use of illustrations such as pictures, diagrams, models, graphs, and charts.

New technologies in language software can test a student’s language and reading ability, set up an individualized course of study and practice activities, and monitors progress and evaluates students’ strength (Glasgow et al., 2006). The initial assessment creates a starting point for each student. For example, two students were assessed and assigned to activities that met their needs. The results from the Spanish-speaking student assigned lessons to improve phonemic awareness and stress patterns. From the Arabic speaking student, the results assigned activities in letter recognition, pronunciation, and the basic concepts of print. The software does not take the place of quality differentiated instruction and interaction. These research based language programs were developed as supplements to help students of all learning styles, language proficiencies, cultural and educational backgrounds, and grade levels (Education M. M., 2007). These programs are also useful in monitoring student growth, evaluating success of an intervention, and reporting results. Teachers, administrators, and student intervention specialists can graph, chart, and analyze student results to monitor growth.

**Tiered lessons.** Adapting the lesson to students needs can be performed through numerous routes. Planning tiered lessons and scaffolding instruction is a common
practice in successful differentiated instruction (Levy, 2008). Tiered lessons are suggested for teachers to plan instruction for all levels. Tiered lesson planning allows the teacher to focus on the standards and essential understandings while modifying and maintaining flexibility in the content, process, and product. Focused on the essential understanding, the teacher can also tier for readiness (below, at, above grade level), style (auditory, visual, kinesthetic), and interest. In reading class, the literacy skills are focused on reading non-fiction. After determining the essential understanding, identifying the main idea for example, student can be placed in small groups based in interest. From there, the lesson is further differentiated through tiered assignments, readings, journal entries, homework, or assessments that reflect the level of student ability, interest, or learning style (Levy, 2008).

**Grouping.** Grouping is a common practice when discerning how to differentiate. Research suggests decreasing the emphasis on whole-group lessons and increased use of peer assisted learning and teacher-team collaboration (Fattig & Taylor, 2008). Research findings report that small group in-class instruction can effectively increase literacy in struggling readers (Reutzal & Cooter, 2005). Yet, whole group instruction is the predominant grouping format regardless of the benefits from small collaborative groups.

Certain concepts and skills need to be introduced in a whole group setting. Struggling readers, however, cannot receive the support they need to make connection in literary texts solely in a whole group setting. Small group setting or two to three students has been discussed as just as effective in at improving literacy in learners as one to one grouping, especially in developing literacy skills such as phonemic awareness, phoneme segmentation, fluency and comprehension (Reutzal & Cooter, 2005). Further
research indicates that collaborative mixed ability grouping of four to five students show benefits in fluency and comprehension in primary students. It is highly suggested to keep small groups functional and dynamic, to state a clear purpose for the group, and to change the groups’ composition often. By avoiding fixed small groups, the teacher can avoid setting low expectations for the low group. Instead small groups should be flexible and interest based, which facilitates participation and comprehension. In guided reading, early literacy learners may benefit from homogeneous grouping, which groups by ability level, because they can work with background knowledge and vocabulary (Avalos et al., 2007). In addition to the homogeneous reading group, it is important to include these learners in a variety of grouping based on other criteria, such as interests.

Grouping by ability is beneficial to all students in some cases. Ability grouping is based on ongoing assessment. Students struggling with blends in language can be grouped for further intense instructional support. Students that have mastered blends can be grouped for increased depth of knowledge activities or to begin the new material. Grouping by ability is not set; students change with assessment (Levy, 2008). Grouping by learning style is another suggested technique. Different children learn in different ways. Some students only process what the teacher says while other students tend to only process what the teacher writes on the board. Then, there are the children that have to experience or move with the instruction while the other students have to discuss or think aloud about the topic. The teacher can informally assess learning styles through a student interest inventory or through observation; the teacher can determine the students who need to show, the students who need to tell, and the students who need to write it out.
Combining style groups is a useful technique to allow students to learn from each other. Grouping based on interests, readiness, and likeness help students to develop understandings and knowledge of concepts (Levy, 2008). Types of grouping include whole group, small group, flexible group, individual or paired work. Grouping by interests allows students to work in an academic setting and learn using the things they are interested in, creating personal connection to the curriculum. Students with varied abilities that love sports can work together in language or reading class. Interest grouping is highly suggested in literacy activities (Lawerence-Brown, 2004). Flexible grouping, student selected reading time, student choice of activities, and access to various literacy materials are differentiated approaches that are supported by evidence of improvement in student reading levels, comprehension strategies, mastery of decoding and phonemic skills, and student attitudes toward reading (Baumgertner et al., 2003). In one study, researchers found that diverse learners who received differentiated instruction in in-class groups scored significantly higher in mathematics than student not receiving differentiated instruction (Rock et al., 2008). Sometimes, whole class grouping is necessary. In this group, the level of the instruction meets the needs of all ability levels. After the whole group instruction, the students begin their independent work, from which further support is offered in ability, learning style, or teacher-student groups. Levy (2008) describes this as a painter first using a broad paintbrush, then going back and filling in the details with a smaller brush. The key is the ongoing assessment to see where the needs lie.

Flexible grouping, student selected reading time, student choice of activities, and access to various literacy materials are differentiated approaches that show evidence of
improvement in student reading levels, comprehension strategies, mastery of decoding and phonemic skills, and student attitudes toward reading (Baumgertner et al., 2003). When discerning how to differentiate, research suggests decreasing the emphasis on whole-group lessons and increased use of peer assisted learning and teacher-team collaboration (Fattig & Taylor, 2008).

Reflecting. Differentiated instruction relies on reflective as well as responsive teaching. Teachers respond to students’ needs and reflect on the curriculum to gage how it can be modified so that each learner has the essential understandings to guide them to the next level (Minott, 2009). Reflection allows the teacher to adjust the instruction to meet the needs of the students based on interests and learning styles. Reflection also helps teachers to develop and sharpen their tool which enables them to learn from experience and know what works. Many experienced teachers used what they’ve learned and what works, but do not reflect. Therefore they do not see the change that exists in curriculum and student readiness. Reflection is vital to the needs of diverse learners.

Strategies for ELL

In an unfamiliar language and culture, ELL students can become overwhelmed and alienated in their classes. With their limited vocabulary, they struggle in their subjects and feel separated and marginalized from their peers as they struggle to socialize (Shore, 2001). An effective teacher understands this and reflects on their own learning process and the school’s educational values to help improve the learning process for these students and create a culturally diverse learning environment. An idea that can help encourage cultural acceptance is to invite a visitor to come in and teach a short unit to the class in another language, perhaps the primary language of the English language learner.
Students and teachers then reflect on the lesson and how it made them feel. This opens the door for students and teacher to understand and appreciate the role they play. An environment like this is supportive of the academic, social, and emotional success of the students (Pransky & Baily, 2001). With culture and language at the forefront, students find themselves more comfortable trying to socialize with the new non-English-speaking student. After an icebreaker, the students are more willing to help the ELL student around school.

**Buddy systems.** The buddy system is similar to a mentoring partnership, helping ELL students adapt to the school and procedures. Buddies help with classroom routines, involvement in games at recess or physical education (p.e.), and other simple tasks such as finding their way around campus, etc. (Shore, 2001). Buddies need to be assigned every few weeks so that all students can share in the experience. In a brief orientation, buddies are taught sheltered techniques. English speaking students are not aware of the English language proficiency level of an ELL student; they do not realize the student does not comprehend written or spoken language as they do. In the orientation, the teacher models articulation, annunciation, speed, and clarity when speaking. Buddies are encouraged to practice speaking at a slower rate and choose sentences wisely, avoiding unnecessary words.

**Sheltered English.** Sheltered-English techniques can help develop communication skills in both English language learners and non-ELL students and help students comprehend and participate in as much classroom learning as possible (Pransky & Baily, 2001). Suggested sheltered-English techniques include using simple subject-verb sentences, visual aids, and physical gestures. Teachers should teach key words to
make sure their ELL students know basic school-based words such as student, teacher, principal, bathroom, nurse, recess, cafeteria, bell, and so forth. Picture flash cards are recommended as great way to help the student learn these words as well as basic context phrases such as “I don’t understand, I’m sick, What page?” Mastering some basic school vocabulary is important because it sets the tone for their vocabulary usage. Pransky and Baily (2001) suggest that in learning a new language, mistakes equal progress. In assessing the ELL student’s mistakes, the teacher can assess effort and growth. Students adapt to learning beyond their comfort zone and begin interacting with academic language.

Welcoming parents. Involving parents in the classroom and instruction has repeatedly been suggested as a strategy to improve student achievement for all learners. Glasgow et al. (2006) suggest that schools and teachers engage parents and help them help their children. Classrooms are to be more accessible to parents and students, comprehensible, comfortable, and be an environment for learning. Learning goes beyond the classroom walls and teachers should involve parents to ensure that learning will be part of the home as well as the classroom. It is recommended that teachers or counselors help ELL parents feel part of the school environment by having an initial conference and inviting an interpreter (Kappan, 2001). Parents need to know school procedures and expectations, which may be unique to American schools, such as the emphasis on cooperative learning, the use of portfolio assessment, the need for parent volunteers, and so on (Glasgow et al., 2006).

Parent-teacher partnerships help teachers discover special skills, talents, and interests that could be shared with the class. It is a challenge for teachers to reach out to
the students and families, especially those who fear being rejected by a new culture, but doing so moves toward a more equitable learning environment (Glasgow et al., 2006). In examining parent-school relationships, Abrams and Gibbs (2002) confer that parents are more apt to participate in their child’s schooling if they are familiar with the language and educational environment. In their study of inclusive parental involvement strategies, they found that many parents were not familiar with the educational discourse in school settings, which prevented parent participation and school-parent communication. Glasgow (2006) stresses that parent communication is key to student achievement and that students view parental involvement as continued parental expectations for education. In studies of Latino immigrant families, Glasgow explains, strong parental support and desire for success are evident, even if parents are unfamiliar with the educational discourse.

*Cultural acceptance.* Outside factors such as culture, family structure, interpersonal relationships and gender responsibilities, discipline procedures, religion, values, and traditions all affect student performance. “Teachers need to consider adapting classroom instruction to these circumstances and try to accommodate the instructional program to meet the needs of the students and parents” (Glasgow et al., 2006, p. 124). Some students may not be accustomed to being asked questions nor interacting with other students in the middle of class (Report, 2001). Culture affects how and what a student learns. Learning is a product of social interaction as well as experience. The role of the teacher, therefore, is to assist and scaffold the learning so that the students experience and socially interact with what they have learned (Anderson, 2007). ELL students offer so many opportunities valuable lessons through lectures, activities, discussions, etc.
Students can discuss family origin and cultural heritage in whole-group social studies. Learning about heritage helps advance the breakdown of cultural barriers. A world map display on a bulletin board can house the student/family countries of origin. A social studies unit could include family interviews, international food festival, vocabulary for the many languages, and so on. Through these and other differentiated activities, students can learn to connect with their own cultural heritage and come to appreciate that of their peers (Magazine, 2004).

Professional development. There is not an off-the-shelf curriculum; no perfect unit exists. Teachers need training and professional development to be able to take a unit and apply differentiated instruction techniques to any lessons. Differentiation is planning in consistent and logical ways (Tomlinson & Strickland, 2005, p. 9). The education world needs to move beyond the past classroom beliefs: that teaching is telling and the teacher is the teller, that learning comes from repetition, that coverage is the key to teaching curriculum, that students are unmotivated and dependant, that assessments happen at the end of a large blocks of teaching, that grades serve as purpose of separating the sheep from the goats, and that classroom management is synonymous for control. Some teachers are stuck with the fear that they have to teach like the next level does: if elementary, they have to teach to get the students ready for middle school, stuck in lecture and independent assignments, or students will be not be prepared for that next level. Tomlinson and Strickland (2005) express, “Break free from past paradigms of teaching” (p. 14).

Teachers learning to differentiate instruction are facing common challenges. “Conundrums or puzzling challenges that frequently arise as teachers adopt a more
responsive approach of meeting the needs of at-risk literacy learners in their regular classroom” (Tobin & McInnes, 2008, p. 4). The challenges are of two categories: instructional and foundational. Common instructional challenges include teaching a robust literacy program verses a more activity based model. Another instructional challenge is small group verse whole group. Foundational challenges include teaching for understanding verses teaching for skills, assessing growth verses comparative assessments. These common challenges arise and teachers learn to deal with them as they adjust build skills to differentiate their classroom and instruction.

Another challenge faced by teachers is to discern whether to use an activity based model or a robust literacy model (Tobin, 2008). Many literacy classrooms house literacy centers where students are engaged in literacy activities that are based on skills needs. Unfortunately, these activities are often disconnected from the overarching understandings are not truly based on students’ needs. Research strongly suggests that responsive teaching plays a critical role in the success of diverse learners. Responsive literacy teaching focuses on the educator modeling, guiding, and scaffolding the lesson. Responsive literary teaching also focuses on getting the student to a place of independence while they are learning to read and write meaningful text and promote critical thinking and problem solving.

Many times, teachers are mistakenly thinking as they are adequately differentiating by offering another choice of an activity and modifying the expected product, regardless of how they were reaching the targeted outcomes or practicing the target skills (Tobin, 2008). In some unfortunate cases, teachers allow activities that are not associated with the essential understandings. For example, teachers may revert to
allowing the struggling students to draw a picture in response to a reading. Though
drawing a picture is a useful respond when embedded in robust vocabulary and literary
lessons, but if the state goal is have student write an authentic text relating themselves
with a character in the reading, the struggling students may be further set back in their
writing skills and development because of an inappropriately planned differentiated
lesson. Instead, struggling readers should be offered a modeled writing, which often
helps struggling writers by providing them with prompts. Also, the teacher should reflect
if the assignment or literary opportunity is directly related to the set goal or overarching
idea and will this opportunity likely lead to knowledge transfer.

Regardless of the endless research supporting differentiated instruction, some
teachers still do not differentiate. Common misconceptions about the use of
differentiated instruction exist. The most common misconceptions include: (a) students
will not be prepared or show proficiency on the standardized test, (b) student may receive
unfair workloads, (c) students may receive unfair grades when they did not show mastery
of the same knowledge as other students, (d) students are not going to be able to compete
in the real world, and (e) differentiation has to be implemented equally among students.
There is no evidence for any of the mentioned assumptions (Rock et al., 2008, p. 39).

Tomlinson and Strickland (2005) stress that differentiated instruction is not a set
of directions for teaching nor is it an instructional strategy. It is incorrect to assume there
is only one way to differentiate instruction. The longevity of differentiated instruction
has been questioned by some individuals in education, whether it can withstand the
pressures of accountability and high-stakes testing (Baumgertner et al., 2003). Research,
however, has been ongoing and conclusive that differentiated instruction is vital in the
acquisition of skills and knowledge of diverse learners, while also maximizing their learning potential by breaking down inhibiting barriers that halt their unique abilities demonstrate their potential.

*Beyond the Public School Setting*

English language learners that graduate high school and attend a post secondary institution are finding it harder to adapt to the rigor of college classes and are often underprepared for higher education (Goldschmidt, Notzold, & Miller, 2003). Ironically, students that were considered ELL in elementary or secondary schools do not consider themselves ELL in college nor do they recognize reading and writing deficiencies because of their oral fluency and good grades prior to high school graduation. These students are often not at a level of proficiency necessary to meet the demands academically and linguistically of college course work. In a study conducted by the Institute of International Studies (2010), 684,000 foreign students attend American universities. A recent study conducted at the University of Maryland concluded one in every four students in community colleges are immigrants. Seventy percent of the ELL college students come from countries where little to no English is spoken. After studying two years in the American University, the students are expected to transitions from and ESL program to a mainstream university courses. Federal and state governments have programs to aid in language and content acquisition in elementary and secondary schools, but not so much in postsecondary levels (Bifuh-Ambe, 2009). Few manuals exist with strategies to help this style of student in the university setting.

An initiative designed and lead by students at a university, created a program to help prepare incoming freshmen, especially a group of ELL students, for the rigor of
college. This pre college summer program offers entering freshmen tutoring and
guidance in math, reading, writing, and language needed for their freshman year
(Goldschmidt et al., 2003). The program provides learning and studying strategies to
help them in their college courses, exposing them to note taking tips and textbook
studying tips, which are heavily used in college. Identified freshmen volunteer for the
program. They are assessed and interviewed to determine if they would benefit from the
program. Of the participating freshmen, included are language minority students known
as Generation 1.5. They are immigrant ELL students that are US residents through
naturalization, green card, etc. They may live their native culture in their home and try to
live their adopted culture at school. They graduated from U.S. high schools, often the
first in their family, some with high GPAs. They come to college not knowing they are
behind in reading or writing. They often do not consider themselves ELL and say they
are American rather than immigrant. Since they are typically the first in their family to
attend college, they do not know they are unprepared. Generation 1.5 is often
overwhelmed in their first year of college courses due to lack of study skills and not
knowing how or where to ask for help. With strong oral fluency, these students are
clueless that they lack in writing or reading ability. They do not recognize it in
themselves. Usually, they realize they are behind once they get into the classroom.

The program was initiated at this university after students in the learning lab
observed an increase in ELL students needing tutoring in basic math and English.
Generation 1.5 students are among other entering freshmen that have been identified as
possibly having gaps in ability, so they are not segregated. Close to 200 students are
invited to take part in the 30 hour pre-college summer program designed to help them
with reading, math, and writing skills. Of the 200 students that participated in the program, 50 claimed to be ELL. Many more spoke English as a second language, but only 50 claimed ELL status. The students are taught by peer tutors. Tutors work four hours a day in the summer, and are typically upper classmen that have maintained an A average in English and Math. The success of the program is relayed the following year, when 50% of the participants in the program come back as peer tutors. Short term statistical data show that the participants’ grade point averages, retention, and attitudes have improved (Goldschmidt et al., 2003). At a Maryland college, ESL courses are offered where students learn the language through reading, writing, and oral communication in context, much like the acquisition of their first language. In a class that combines American Language II and Reading for Non Native Speakers, students learn the language through studying culture and current events. The college is trying new ways to teach language the growing immigrant population (Goldschmidt et al., 2003).

Workforces have joined alliance with community colleges to offer onsite programs to support English language acquisition. Companies are trying to create opportunities for advancement and trying to bridge the communication gap between employees and supervisors. Most common initiatives include offering field specific ESL course to employees or a survival Spanish course to supervisors. Companies are moving beyond relying on an interpreter (Grove, 2005).

In Illinois, a pork processing plant experienced 1114% increase in immigrants between 1990 and 2000, the highest in Illinois (Grove, 2005). Deficiencies in this immigrant population were identified as inability to comprehend instructions in English, and lack of math and reading skills leading to ineligibility for promotion. The
cooperation aligned with a local community college to form a workforce partnership that resulted in an onsite ESL program that targeted strong Spanish speaking workers that were strong management candidates but lacked certain required skills. Within the first six months of the program, interviews and screenings were conducted. The candidates were assessed using an instrument that incorporated upper management skills. Candidates also received paid leave to attend writing and math classes. Of the thirty-three candidates, all improved on the post instructional assessment, four became trainer or supervisor, and eight attended a management program, which is the first step in applying for management positions in the company. Participant that receive promotions also receive pay raises and retention rates within the company improved. Reports of this workforce alliance claim that the program is replicable by businesses dedicated to improving the workforce in highly populated ELL community. The workforce partnership is in its third year, has had close to one hundred participants, and is steadily helping to improve the local economy.

An orchard plant in Oregon is in alliance with a local community college and piloted a program that allowed 35 Hispanic supervisors to improve their basic skills, English language, and use of technology. The 10 week course curriculum was designed using “industry specific horticultural information” (Downhill, 2001, p. 1). Lessons include: English usage, writing, interpersonal skills, and math, all tied in with technology. Many of them had been with the company for close to 20 years. The language and writing class helped them express themselves intellectually. The Hispanic supervisors targeted were experts in their field and were needed to move up in the organization. “The United States is moving from a nation constituted by a majority population and a number of minority populations to a nation of minorities” (Tomlinson & Strickland, 2005, p. 12).
New research development indicates that ELL programs are becoming readily available through nonprofit community programs, adult education programs at local community college, and workforce alliances with local community colleges. ESL programs at community colleges and universities are changing to adapt to ELL and workforce needs (Goldschmidt et al., 2003). McKinsey and Company (2009) concluded that the deficiency in educational skills of ethnic minorities impacts United States’ gross domestic product. The report of findings concludes that the United States gross domestic product would increase by trillions of dollars if the achievement gap were closed (McKinsey & Company, 2009). The United States and the globalized economy is impacted by the perpetual and generational poverty that ethnic minorities and ELL students are a part (Gray, 2010). The effects of low performance by ELL and minority students in the United States are lasting for the country and globalized economy (Gray, 2010). Minority students are becoming the majority, and the United States of America will one day have to financially support this ill-equipped majority.
CHAPTER III

METHODOLOGY

Introduction

The purpose of this research was to determine if differentiated instruction is correlated to student achievement. Student achievement was measured by the standard based assessment MCT2. The study involved MCT2 test scores in language arts and math for 3rd, 4th, and 5th grade students, specifically English language learners. State, district, and school data was evaluated to show comparisons.

Differentiated instruction strategies and techniques were observed in the classroom and in lesson plans. The strategies of differentiated instruction received by the students was evaluated and linked to the proficiency levels of 3rd, 4th, and 5th grade students. Teachers were also interviewed to gain perceptions and experience with differentiated instruction. The specific qualities and strategies of differentiated instruction were documented per teacher from three elementary schools with the highest English language learner population in the selected school district. The results of the study may be used in further research. Findings may result in the development of teacher resources for teaching English language learners. The study included the research, evaluation and analysis the following: MCT2 scores and proficiency levels in math and language arts of 3rd, 4th, and 5th grade students at three elementary schools with the highest ELL population, and the strategies, quality and duration of differentiated instruction.

Research Design

This case study examined and analyzed the practices and implementation of differentiated instruction and the student achievement at each of the three selected
elementary schools. The elementary schools selected had the highest populations of English language learners in the school district. One of the elementary schools implemented a differentiated instruction strategic plan that moved teacher assistants from the grade level whose classes are at electives, to another grade level for small-group or one-on-one instruction. Upon IRB approval (see Appendix A) the superintendent received a letter (see Appendix B) requesting permission to conduct the research on three elementary schools in the district as well as collect 2009 and 2010 MCT2 test data and demographics for 3rd, 4th, and 5th grade students from EZ Test Tracker, and view online lesson plans from EZ Lesson Planner and Pinnacle Instruction, which required passwords. Once approved, MCT2 data, including scores, proficiency levels, ELL status, and economically disadvantaged status was collected using EZ test tracker and stored in Microsoft Excel and SPSS. To protect the identity of the students, a colleague of the researcher removed the names of the students and replaced with a numerical value. Students with MCT2 test scores in 2009 and 2010 received the same identifying number for both years. Principals received a letter (see Appendix C) requesting permission to conduct the study on their campus, pending IRB approval. To collect data on the differentiated instruction used in the three elementary schools, teachers were observed and interviewed, and lesson plans evaluated using an approved checklist (see Appendix D). The interviews conducted were based on general differentiated instructional strategies that included quality, duration, planning, assessment, etc. The principal of the school during the 2008-2009 and 2009-2010 school years were also interviewed. Interview questions (see Appendix E) were tailored to gain perspective of perceptions, implementation, software programs, initiatives in
place, etc. Tutoring minutes, if available, were used to calculate duration outside of class. With all the data gathered, the study concluded with an analysis of the MCT2 data and the differentiated instruction data. The results from qualitative study showed if a correlation exists between differentiated instruction and student achievement. This research case study could assist schools, with or without similar populations, that aspire to close the achievement gap and maintain student achievement.

Participants

The study included 3rd, 4th, and 5th grade test scores from the 2008-2009 and 2009-2010 school years. Students did not directly participate in the study. MCT2 test scores and proficiency levels were collected and the students’ names were replaced with numerical values by a colleague of the researcher. Teachers of 3rd, 4th, and 5th grade were interviewed and observed, their lesson plans from 2008-2009 and 2009-2010 were collected for viewing and evaluation. The interviews were tailored around discussing differentiated instructional strategies, experiences, and perceptions. The principal of the elementary schools were interviewed regarding the implementation of the differentiated instruction, perceptions, and experiences. Teacher assistants involved in the implementation of differentiated instruction were interviewed in regards to differentiated instructional strategies, perceptions, and experiences. State, district, and school demographics and scores were available to the public from the Mississippi Department of Education website.

In 2008-2009, the selected school district in Mississippi had 568 3rd grade students take the MCT2. In 4th grade, 511 students participated and 526 5th grade students participated. The first selected elementary in the district, School A, had 58 3rd grade
participants, 71 4th grade participants, and 63 5th grade participants in the MCT2. School B assessed 61 3rd grade students, 59 4th grade students, and 59 5th grade students on the MCT2. School C assessed 33 3rd grade students, 43 4th grade students, and 39 5th grade students (Office of Student Assessment, 2009). Identifying factors such as the number of ELL student assessed is not made available on the Mississippi Department of Education website. Upon IRB approval, demographic and other identifying factors were made available at the school site.

Instrumentation

When studying a specific phenomenon, an intense method of studying them is through qualitative research designs. Case studies are a type of qualitative research design. The qualitative research design was the best fit for the research questions in this study. As a case study, this research focused on the specific phenomenon of the implementation of differentiated instruction and its correlation to achievement of English language learners. In this case study, the researcher observed teachers’ strategies in the classroom as well as examined the strategies in lesson plans. MCT2 data was gathered for 2008-2009 and 2009-2010 using EZ Test tracker.

MCT2 Language Arts and MCT2 Mathematics scores were collected for the three selected schools. EZ Test Tracker organized the test data by school, teacher, and by student. Each category contained a set of filters which the researcher selected to include race, gender, limited English proficiency (LEP), and economically disadvantaged (ED). The data spreadsheet included the students’ names, grade, school, teacher, and proficiency level. Before the researcher reviewed the data, a colleague of the researcher replaced the names of the students with a numerical code.
Hoover and Patton (2005) approved the use of the checklist for the study (see Appendix F). Using the checklist, various documents were reviewed and classroom instruction was observed for learning factors in differentiated instruction of English language learners. Samples of student work were collected from teachers that taught 3rd, 4th, or 5th grade during the 2008-2009 and 2009-2010 school year. The samples were reviewed using the Hoover & Patton checklist. When a learning factor was observed, it was checked off on the list. Numerous samples of work were used per teacher to observe student work as a whole and determine if learning factors for differentiated instruction were used. The checklist was also used to evaluate lesson plans. Lesson plans were available online through Pinnacle Instruction. Current lessons per teacher were reviewed to gain a holistic view of a teacher’s planning. When a learning factor was observed in plans, it was checked off on the list. Learning factors that were not evident within the variety of student work samples or the variety of lesson plans were not checked off. Other documents such as teacher collaboration notes and reflections were used. The document reviews gave an overall picture of each school setting and direction for the interviews and observation.

The Hoover and Patton (2005) checklist was used to observe learning factors and determine the style and quality of differentiated instructional strategies in classroom instruction. Teachers that taught 3rd, 4th, and 5th grade in 2008-2009 or 2009-2010 at the selected schools were observed during their regular classroom instructional time. A narrative of the classroom instruction was used to record various aspects of differentiated instruction according to literature. The narrative also increases the accuracy and credibility of the checklist. When a learning factor was observed during the observation,
it was checked off the list. By the end of the observation, learning factors that were not evident were not checked off and any other instructional documentation was noted on the checklist or in the narrative.

The same group of teachers were interviewed on a voluntary basis, using an interview questionnaire as a guide a digital voice recorder was used with the participant’s permission, to aid in increasing the accuracy of the transcription. The participants were interviewed in their natural work setting or a more comfortable setting of choice throughout an estimated three week period. The interview questionnaire was used as a guide to gather and place information into themes.

Interviews and observations lend critical information in order to analyze in depth the strategies implemented and practices in place. Interviews and direct observations lend the holistic portrayal of the phenomenon researched in this qualitative study. The interviews, observations, and document review provided the necessary information to complete the qualitative study.

Procedures

Collection instruments were aligned with literature and research questions to increase validity and reliability. MCT2 Language Arts and Mathematics scores for 3rd, 4th, and 5th grades students from the three selected schools in the district were collected using EZ Test tracker, the software purchased by the district to analyze assessment data. With approval from the superintendent of the district and approval from IRB, the researcher obtained administrator login for the website. The website allows a site administrator to select data by school, teacher, or student. Filters were available to include gender, race, LEP status, and ED status. Filtering the desired demographics by
school and student, the researcher was able obtain MCT2 data on every 3rd, 4th, and 5th student at the three selected elementary schools for 2008-2009 and 2009-2010. The researcher saved the data in an Excel spreadsheet. A colleague of the researcher, using the Excel spreadsheet, selected only the data of students who were labeled LEP. Numerical codes replaced the LEP students’ names. The data collected provided evidence to drive the observations and interviews.

Using the checklist adopted from Hoover and Patton (2005), various documents were reviewed and classroom instruction observed for learning factors in differentiated instruction of English language learners. The school district uses Pinnacle instruction to input and save lesson plan. Using an approved administrator login, current lesson plans were reviewed online of teachers who taught 3rd, 4th, and 5th grade during 2008-2009 and 2009-2010. Various lesson plans for each teacher were reviewed; as learning factors on the checklist were evident, they were checked off the checklist. Learning factors that were not evident within the various plans were not checked off the list.

Using the Hoover and Patton (2005) checklist, learning factors of differentiated instruction of English language learners were observed during regular classroom instruction. Teachers who taught 3rd, 4th, and 5th grade in 2008-2009 or 2009-2010 were observed for a 90-minute period; learning factors observed during the 90-minute observation were checked off on the checklist. Learning factors from the checklist that were not evident were documented as not evident. A narrative was written during the observation to increase accuracy on the checklist and to document any relevant points from the literature that were evident. The observation was digitally recorded to maximize the accuracy of the 90-minute observation. Using the data collected from the checklist,
evidence of learning factors per teacher were documented in an Excel spreadsheet in hopes to analyze along with student assessment data.

Using a questionnaire as a guide, the same group of teachers was interviewed on topics concerning school leadership, collaboration, classroom instruction, program implementation, intervention, practices that increase student achievement, data analysis, professional development, and student achievement. Teachers were initially contacted via formal letter (see Appendix G) and informal email requesting an interview. Interviews lasted approximately 40 minutes, which was the time frame for planning period. To meet the needs of the teachers, interviews were available to be conducted before or after school hours.

District and school information was collected from many various resources within the estimated three months. The information was collected from the district website, the Mississippi Department of Education website, the district office, school buildings, and other available resources and district personnel. The MDE website provided state, district, and school information for approximately the five years, disaggregated by race, socioeconomic status, and LEP status, along with state and federal educational information.

Data Analysis

The MCT2 data was collected from EZ Test tracker and saved in Microsoft Excel. Student numerical codes were the rows in the spreadsheet. Columns included race, gender, LEP status, ED status, and both 2008-2009 and 2009-2010 school, teacher, MCT2 Language Arts proficiency level, and MCT2 Mathematics proficiency level.
Students that had MCT2 scores for both 2008-2009 and 2009-2010 were given the same numerical code for both years.

The document review results, which included lesson plans and samples of student work, were placed in an Excel spreadsheet and organized school, learning factors listed on the Hoover & Patton (2005) checklist, and evident differentiated instructional strategies from literature. Results were recorded per teacher as either evident or not evident. Other important information observed was documented as needed.

Results from the class instruction observations were placed in an Excel spreadsheet. The results from the Hoover and Patton (2005) checklist were recorded per teacher and organized by the learning factors listed in the checklist. Once complied, the data was carefully copied and pasted into the same spreadsheet containing data from document review. Additional information from the narrative was documented as well as other evident differentiated instructional strategies.

Results from the interview were in an Excel spreadsheet by teacher. The responses were organized by question themes: school leadership, collaboration, classroom instruction, program implementation, interventions, practices that increase student achievement, data analysis, professional development, and student achievement and placed in categories according to the beliefs expressed and strategies and practices in place. The interview results were carefully copied and pasted in the spreadsheet containing data from teacher lesson plans and observations.

The research data was contained in two separate spreadsheets. Spreadsheet 1 contained the data from the three selected elementary schools: students’ school, teacher, MCT2, and demographic data for 2008-2009 and 2009-2010. Spreadsheet 2 contained the
combined differentiated instructional strategies data obtained from the document review, classroom observations, and interviews. The results from the interviews, observations, document review, and MCT2 data were analyzed per teacher and per school site. Similarities in instructional strategies and student test scores were analyzed. To ensure confidentiality of the participants, upon reporting the results, any identifying factors of the school district, schools, teachers, and students were deleted.

Summary

This case study will be conducted to determine if MCT2 language and math proficiency levels of 3rd, 4th, and 5th grade English language learners are affected by differentiated instruction. In this qualitative research study, MCT 2 proficiency levels of English language learners in math and language will be analyzed along with document review, observations, and interviews with teachers, assistants, and principal. The selected elementary schools have the highest ELL population in the district. Elementary 3 implemented a differentiated instruction program in 2008-2009. This allows for comparison from year to year and from school to school.
CHAPTER IV
ANALYSIS OF DATA

Introduction

This case study examined and analyzed the practices and implementation of differentiated instruction as measured by lesson plans, student work, classroom observation, and the student achievement as measured by MCT2 language arts and mathematics proficiency scores at each of the three selected elementary schools. School A, School B, and School C had the highest populations of elementary English language learners in the school district. In 2008-2009, School C implemented a strategic plan of differentiated instruction in reading in which every certified personnel and every teacher assistant were assigned to a classroom for small-group or one-on-one reading instruction. To measure and analyze the differentiated instruction that took place in classrooms, a checklist adopted from Hoover and Patton (2005) was used to identify the learning factors present in teacher lesson plans, student work, and classroom observations. Interviews were conducted based on differentiated instructional strategies which included quality, collaboration, planning, assessment, and professional development. Questions were tailored to gain perspective of perceptions, implementation, software programs, initiatives in place, etc. Data for School A, School B, and School C were collected and analyzed, along with consistencies and similarities, to answer the research questions posed by this study:

1. To what extent are the principles of differentiated instruction present in the classroom?
2. In what ways do teachers use differentiated instruction to respond to student diversity relating to student interest, readiness, and learning style?

3. Is there a difference in the style of differentiated instruction occurring related to English language learners and subgroups within this group?

4. What impact does the implementation of differentiated instruction have on assessments, language acquisition, and state standardized tests?

Provided is a brief description of School A, School B, and School C. The description contains information about the schools and allows the researcher to expand on the assessment data results, differentiated instructional strategies implemented, and staff and student population characteristics. Consistencies and characteristics of School A, School B, and School C are described to outline routines and common school culture. Describing the routine activities and school culture offers credibility to the findings. Results of the study are organized by research questions and then by school.

Presentation and Analysis of Data

Description of Schools

The superintendent encourages and expects differentiated instruction at all levels of instruction. The district mission statement encourages students to meet high standards, expect success, and be prepared for productive lives. The district has five main goals: low class sizes, school/community relationships, high quality teachers and administrators, bell to bell quality instruction, and safe and orderly schools. To assist with meeting the needs of diverse learners, the district superintendent developed a family interactive day, offered one Saturday a month, for children and their families to explore the district’s interactive center, which includes an IMAC room, a television recording studio, a music
recording studio, a science technology gadget room, a wetlands room, and a new mini golf course. The interactive center is used by the district as an advanced technology resource for teacher training, professional developments, and onsite instructionally based field trips. The principal of School A expressed, “We know the expectation, we know the benefits, we have the resources, and we receive the training. It was an initiative to be able to walk into any elementary classroom and see quality DI.”

School A, School B, and School C are three of 13 elementary schools in the school district. The district has the second highest population of English language learners in the state. Elementary School A, B, and C have the highest population of elementary English language learners in the district. There are 13 elementary schools in the district, which house approximately 3390 students. The 13 schools include 11 elementary schools distributed between two cities, one exceptional school that provides services for developmentally delayed, mentally and physically challenged, and emotionally delayed students in the county, one alternative school.

School A, School B, and School C are located in the same city, within three to five miles from each other. There are two major industries in the city. Industry 1 employs approximately 11,000 people from around the coast. Industry 2 employs approximately 8,500 people from around the coast. The student population of these schools is somewhat transient, due to the movement of families searching for available work and due to illegal residence outside of the school residency zones. The Director of Student Services for the district identifies students whose guardians reside outside of the schools’ residency zones and contacts the guardian via phone, letter, or home visit. Guardians must provide proof of residency or remove their child from the school.
Students are often moved to the correct schools, whether in district or out of district. The school district has dealt with many parents registering their children for school using a false address or an address of a friend or family member. Because it has been a persistent problem, the two cities within the district passed an ordinance in 2010 to help prevent parents from illegally registering their children. The four sections of the ordinance are (a) Misrepresentation of Residency is Unlawful, (b) Aiding, Abetting, or Concealing Misrepresentation of Residency is Unlawful, (c) Utility Connections, and d) Violation of Ordinance May Result in fines or Imprisonment. Residency and movement of students affect whether their state standardized test scores are counted under NCLB. When students move within the school year, the number of days at a school determines whether the student’s MCT2 scores may or may not be used toward AYP and calculating the QDI score.

The Mississippi Assessment and Accountability Reporting System (MAARS) through the Mississippi Department of Education website reported School A as having enrolled 417 students in 2008-2009 in pre-kindergarten through fifth grade. The student body consisted of 64% Black, 20% Hispanic, 15% White, and 1% Asian. At School A, approximately 77% of students qualified for free or reduced lunch and were considered economically disadvantaged. In 2008-2009, 17% of the student body was considered ELL and 5% qualified for special education services. In 2009-2010, 392 students were enrolled in pre-kindergarten through 5th grade at School A. The student population consisted of 62% Black, 19% Hispanic, 18% White, and 1% Asian. Seventy-nine percent qualified for free and reduced lunch and were considered economically
disadvantaged. In 2009-2010, 17% of the students were considered ELL and 4% were eligible for special education services.

In 2010-2011, there were 27 certified teachers employed at School A, including one speech pathologist, one librarian, one physical education teacher, one music teacher, two special education teachers, one teacher of severely handicapped pre-kindergarten, and one teacher of developmentally delayed. Employed at School A were 20 assistant teachers, including one special education assistant, two ELL assistants, two RTI intervention specialists, and one computer lab manager. Between 2008-2009 and 2009-2010, School A employed 25-29 certified teachers annually. There were 22 assistant teachers employed in 2008-2009 and 20 assistant teachers employed in 2009-2010. The teaching staff was a combination of experienced and new teachers. Years of teaching experience ranged from zero to 33 years. In 2009-2010, 5th grade had a first year teacher. School A had one full time principal and a part time assistant principal. The assistant principal was shared with two other elementary schools in the district and shared the responsibility of discipline along with curriculum and instruction. The principal of School A was a first year principal in 2008-2009. She remained at School A in 2009-2010 and 2010-2011. A shift in administration during the summer of 2008 moved the principal from a lead teacher in 2007-2008 to the principal position in 2008-2009.

The motto and mission statement at School A encouraged integrity, respect, academic and behavioral achievement, positive choices, and all around success. School A provided many opportunities throughout the school year to involve students and parents in activities that promote academics and cultural awareness. To reach out to the diverse parents in the diverse community, the school website had the school newsletter in
English and Spanish. An ELL night was celebrated twice a year, where students and family came together at school to discuss school related topics, eat, and meet other diverse parents. In 2008-2009, School A was placed on academic watch with a QDI score of 139 and growth status not met. School A met AYP growth in reading/language, mathematics, attendance rate, and subgroups. In 2009-2010, School A was placed on academic watch by the Mississippi Department of Education with a QDI score of 144 and growth status not met. School A met AYP growth in reading/language, mathematics, attendance rate, and subgroups. Mathematics and language arts proficiency scores for ELL students in 2008-2009, as illustrated in Table 3, were 76% basic or above in language arts, 76% basic and above in mathematics, 35% proficient and above in language arts, and 48% proficient and above in mathematics. Mathematics and language arts proficiency scores for ELL students in 2009-2010 were 77% basic or above in language arts, 57% basic and above in mathematics, 50% proficient and above in language arts, and 48% proficient and above in mathematics. 

Table 3

School A MCT2 Language Arts and Mathematics Proficiencies

<table>
<thead>
<tr>
<th></th>
<th>Minimal</th>
<th>Basic</th>
<th>Proficient</th>
<th>Advanced</th>
</tr>
</thead>
<tbody>
<tr>
<td>School A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language Arts 2008-2009</td>
<td>24%</td>
<td>41%</td>
<td>35%</td>
<td>0%</td>
</tr>
<tr>
<td>School A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathematics 2008-2009</td>
<td>24%</td>
<td>28%</td>
<td>45%</td>
<td>3%</td>
</tr>
<tr>
<td>School A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language Arts 2009-2010</td>
<td>20%</td>
<td>30%</td>
<td>33%</td>
<td>17%</td>
</tr>
<tr>
<td>School A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathematics 2009-2010</td>
<td>23%</td>
<td>17%</td>
<td>53%</td>
<td>7%</td>
</tr>
<tr>
<td>School B</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language Arts 2008-2009</td>
<td>43%</td>
<td>21%</td>
<td>29%</td>
<td>7%</td>
</tr>
<tr>
<td>School B</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathematics 2008-2009</td>
<td>29%</td>
<td>29%</td>
<td>39%</td>
<td>3%</td>
</tr>
</tbody>
</table>
Table 3 (continued).

<table>
<thead>
<tr>
<th></th>
<th>Minimal</th>
<th>Basic</th>
<th>Proficient</th>
<th>Advanced</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>School B</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language Arts 2009-2010</td>
<td>41%</td>
<td>26%</td>
<td>32%</td>
<td>4%</td>
</tr>
<tr>
<td>School B</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Mathematics 2009-2010</td>
<td>32%</td>
<td>26%</td>
<td>45%</td>
<td>0%</td>
</tr>
<tr>
<td><strong>School C</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathematics 2009-2010</td>
<td>23%</td>
<td>48%</td>
<td>14%</td>
<td>5%</td>
</tr>
<tr>
<td>School C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathematics 2008-2009</td>
<td>29%</td>
<td>43%</td>
<td>21%</td>
<td>7%</td>
</tr>
<tr>
<td>School C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language Arts 2009-2010</td>
<td>35%</td>
<td>30%</td>
<td>30%</td>
<td>5%</td>
</tr>
<tr>
<td>School C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathematics 2009-2010</td>
<td>38%</td>
<td>22%</td>
<td>35%</td>
<td>5%</td>
</tr>
</tbody>
</table>

*Note: Percentages of English language learners scoring minimal, basic, proficient, advanced on the MCT2 language arts and mathematics in 2008-2009 and 2009-2010*

School B, according to MAARS, was reported as having enrolled 351 students in 2008-2009 in kindergarten through 5th grade. The student body consisted of 41% Black, 18% Hispanic, 40% White, and 2% Asian. At School B, approximately 77% of students qualified for free or reduced lunch and were considered economically disadvantaged. In 2008-2009, 15% of the student body were considered ELL and less than 1% qualified for special education services. In 2009-2010, School B had 340 students enrolled in kindergarten through 5th grade. The student population consisted of 45% Black, 18% Hispanic, 36% White, and 2% Asian. Seventy-five percent qualified for free and reduced lunch and were considered economically disadvantaged. In 2009-2010, 16% of the students were considered ELL and less than 1% were eligible for special education services.

In 2010-2011, there were 24 certified teachers employed at School B, including one speech therapist, one librarian, one physical education teacher, one music teacher, and three gifted teachers. Employed at School B were 18 assistant teachers, including
two RTI intervention specialists, and one computer lab manager. Between 2008-2009 and 2009-2010, School B employed 22-25 certified teachers annually. There were 19 assistant teachers employed in 2008-2009 and 20 assistant teachers employed in 2009-2010. The teaching staff was a combination of experienced and new teachers. Years of teaching experience ranged from two to 31 years. School B had one full time principal and a part time assistant principal. The assistant principal was shared with two other elementary schools in the district and was responsible for discipline along with curriculum and instruction. The principal of School B had nine years of experience and remained at School B in 2009-2010 and 2010-2011.

The motto and mission statement at School B encouraged respect and good choices. School B provided many opportunities throughout the school year to involve students and parents in activities that promote academics. To communicate with diverse parents, the school website had the school news updates and highlights in English and Spanish. In 2008-2009, School B was labeled successful. School B had a QDI score of 147 and met growth status. AYP growth was also met in reading/language, mathematics, attendance rate, and subgroups. In 2009-2010, School B was labeled successful with a QDI score of 137 and growth status met. School B met AYP growth in reading/language, mathematics, attendance rate, and subgroups. Mathematics and language arts proficiency scores for ELL students in 2008-2009 were 57% basic or above in language arts, 71% basic and above in mathematics, 36% proficient and above in language arts, and 42% proficient and above in mathematics. Mathematics and language arts proficiency scores for ELL students in 2009-2010 were 62% basic or above in language arts, 71% basic and
above in mathematics, 36% proficient and above in language arts, and 45% proficient and above in mathematics.

School C, according to MAARS, enrolled 293 students in 2008-2009 in kindergarten through fifth grade. The student body consisted of 46% Black, 31% Hispanic, 10% White, 3% Asian. At School C, approximately 82% of students qualified for free or reduced lunch and were considered economically disadvantaged. In 2008-2009, 29% of the student body was considered ELL and 2% qualified for special education services. In 2009-2010, School C had 287 students enrolled in pre-kindergarten through 5th grade. The student population consisted of 45% Black, 28% Hispanic, 23% White, and 4% Asian. Approximately 69% of the students qualified for free and reduced lunch and were considered economically disadvantaged. In 2009-2010, 26% of the students were considered ELL and 2% were eligible for special education services.

In 2010-2011, there were 25 certified teachers employed at School C, including one speech therapist, one librarian, one physical education teacher, one music teacher, two special education teachers, one ELL teacher, and one teacher of severely handicapped pre-kindergarten. Employed at School C were 22 assistant teachers, including two special education assistants, two ELL assistants, and two RTI intervention specialists. Between 2008-2009 and 2009-2010, School C employed 30-36 certified teachers annually. There were 32 assistant teachers employed in 2008-2009 and 34 assistant teachers employed in 2009-2010. The teaching staff was a combination of experienced and new teachers. Years of teaching experience ranged from two to 28. Grades three through fifth each had one new teacher in 2008-2009 who returned for a
second year in 2009-2010. School C had one full time principal and a part time assistant principal. The assistant principal was shared with two other elementary schools in the district and was responsible for discipline along with curriculum and instruction. The principal of School C was a first year principal in 2006-2007. She remained at School C from 2006 – 2010, earning administrator of the year in 2010. A shift in administration moved the principal to a larger elementary school and brought in a new first year principal in 2010-2011.

The motto and mission statement at School C encouraged citizenship, manners, respect for self and others, and meeting diverse needs. School C provided many opportunities throughout the school year to involve students and parents in activities that promoted academics and cultural awareness. In 2008-2009, School C was placed on academic watch. The QDI score of School C was 130 and growth status was met. School B met AYP growth in reading/language, mathematics, attendance rate, and subgroups. Mathematics and language arts proficiency scores for ELL students in 2008-2009 were 67% basic or above in language arts, 71% basic or above in mathematics, 17% proficient and above in language arts, and 28% proficient and above mathematics. In 2009-2010, School C was placed on academic watch. The QDI score was 126 and growth status was met. School C met AYP growth in reading/language, mathematics, attendance rate, and subgroups. Mathematics and language arts proficiency scores for ELL students in 2009-2010 were 65% basic or above in language arts, 62% were basic or above in mathematics, 35% were proficient or above in language arts, 40% were proficient or above in mathematics.
Participants

The researcher met with the principals of School A, School B, and School C at the beginning of October, 2010, to discuss the research and the goals of the study in depth. To gain the support of the principals, the researcher included the principals in strategizing how to approach the teachers with the study to obtain accurate results. The principals and researcher reviewed the technology needed to view test data. The principals also shared the school calendar to maximize the researcher’s options for observations, interviews, and data collection. The researcher spent a total of 11 days in various intervals on the schools’ campuses to gain an in-depth perspective of the culture, programs, and practices in place. Every 3rd, 4th, or 5th grade teacher who taught in 2008-2009 or 2009-2010 and were still in the district, were observed. Their lesson plans were viewed online through the district’s secure website and student work samples were collected from teachers.

The Extent of Principles of Differentiated Instruction

To determine to what extent the principles of differentiated instruction were present in the classroom, the study relied on data from teacher lesson plans, samples of student work, classroom observations, and educator interviews. Twenty-two 3rd, 4th, and 5th grade teachers and two administrators participated in the study. A checklist, adopted from Hoover and Patton, contained ten recommended learning factors for English language learners. As learning factors became evident in teacher lesson plans, samples of student work, and classroom observations, they were individually checked off the checklist. The learning factors recommended for English language learners provided angles for approaching differentiated instruction.
Document review and observations were conducted on a total of 22 teachers. Using the Hoover and Patton checklist to review lesson plans, sample student work, and observations, 12 of the 22 teachers showed evidence of all 10 learning factors recommended for English language learners in the three measured areas. From School A, three out of 10 teachers showed evidence of all 10 learning factors in lesson plans, student work, and observations. All three teachers were 3rd grade. Three out of 12 at School B, two 3rd grade and one 4th grade teacher, showed evidence of all 10 learning factors in all three areas. Five out of 10 teachers at School C had all 10 learning factors present in the three measured areas. The five teachers consisted of one 3rd grade, one 4th grade, and two 5th grade teachers.

Differentiated instruction was evident within lesson plans, student work, and observations for teachers of 29 ELL students at School A in 2008-2009. Multiple sets of teacher lesson plans were checked. Of 10 possible learning factors, seven learning factors were present in teacher lesson plans for 38% of the students. Lesson plans for 21% of ELL students had nine learning factors present. All 10 learning factors were present in lesson plans for 28% of the students. Lesson plans for 13% of the students were not available to the study. Multiple samples of student work were reviewed. Out of 10 possible learning factors, 14% of ELL students had teachers whose samples of student work had eight learning factors present. Three percent of ELL students had teachers whose samples of student work had nine learning factors present. Sixty-nine percent of the students had teachers whose samples of student work had all 10 learning factors present. Sample work was not available to the study for teachers of 13% of ELL students. Teacher observations occurred during regular class instruction. Out of 10
possible learning factors, six learning factors were present in observations of classroom of 21% of the students. Twenty-four percent of ELL students had teachers with seven learning factors present in the observations. Thirteen percent of ELL students had teachers with nine learning factors present in the observations. Twenty-eight percent of the students had teachers with all 10 learning factors present in the observations. Teachers of 13% of ELL students were not available for observation.

Differentiated instruction was evident in lesson plans, student work, and observations for teachers of 30 ELL students at School A in 2009-2010. Multiple sets of teacher lesson plans were checked. Out of a possible 10 learning factors, teacher lesson plans for 7% of the students had six learning factors present. Lesson plans for 20% of ELL students had seven learning factors present. Lesson plans for 20% of ELL students had nine learning factors present. Lesson plans for 50% of ELL students had all 10 learning factors present. Lesson plans for 3% of the students were not available to the study. The mean value of learning factors present in lesson plans at School A was 8.90 with a standard deviation of 1.42. Multiple samples of student work were viewed. Of 10 possible learning factors, seventeen percent of the students had teachers with eight learning factors present in the samples of student work. Seven percent of the students had teachers whose samples of student work had nine learning factors present. Seventy-three percent of the students had teachers whose samples of student work had all 10 learning factors present. Sample work for teachers of 3% of the students was not available to the study. The mean value of student work was 9.59 with a standard deviation of .78. Out of a possible 10 learning factors in classroom observations, teachers of 7% of the students had four learning factors present. Teachers of 17% of the students
had 6 learning factors present. Teachers of 10% of the students had seven learning factors present. Teachers of 13% of the students had nine learning factors present. Fifty percent of the students had teachers with all 10 learning factors present. Teachers of 3% of the students were not available for observation. The mean value of teacher observations was 8.44 with a standard deviation of 2.01.

Differentiated instruction was evident in lesson plans, student work, and observations for teachers of 28 students at School B in 2008-2009. Multiple sets of teacher lesson plans were checked. Out of a possible 10 learning factors, teacher lesson plans for 21% of the students had seven learning factors present. Lesson plans for 7% of the students had 8 learning factors present. Lesson plans for 72% of the students had all 10 learning factors present. Multiple samples of student work were viewed at School B. Out of a possible 10 learning factors, 18% of the students had teachers whose samples of student work had seven learning factors present. Ten percent of the students had teachers whose samples of student work had eight learning factors present. Fourteen percent of the students had teachers whose samples of student work had nine learning factors present. Fifty-seven percent of the students had teachers whose samples of student work had all 10 learning factors present. Out of a possible 10 learning factors in classroom observations, teachers of 21% of the students had six learning factors present in their observations. Teachers of 7% of the students had seven learning factors present in the observations. Teachers of 14% of the students had eight learning factors present in the observations. Fifty-seven percent of the students had teachers with all 10 learning factors present in the observations.
Evidence of differentiated instruction was found in lesson plans, student work, and observations for teachers of 22 students at School B in 2009-2010. Multiple sets of teacher lesson plans were checked. Out of a possible 10 learning factors, teacher lesson plans for 18% of the students had seven learning factors present. Lesson plans for 18% of the students had 8 learning factors present. Lesson plans for 5% of the students had nine learning factors present. Lesson plans for 55% of the students had all 10 learning factors present. Lesson plans for 4% the students were not available to the study. The mean value of learning factors present in lesson plans at School B was 9.00 with a standard deviation of 1.26. Multiple samples of student work were checked for each participating teacher. Out of a possible 10 learning factors, 32% of the students had teachers whose samples of student work had seven learning factors present. Nine percent of the students had teachers whose samples of student work had eight learning factors present. Eighteen percent of the students had teachers whose samples of student work had nine learning factors present. Thirty-seven percent of the students had teachers whose samples of student work had all 10 learning factors present. Sample work for 4% the students was not available to the study. The mean value of learning factors present in student work at School B was 8.61 with a standard deviation of 1.32. Out of a possible 10 learning factors in classroom observations, teachers of 18% of the students had six learning factors present in their observations. Teachers of 23% of the students had seven learning factors present in the observations. Teachers of 9% of the students had eight learning factors present in their observations. Teachers of 9% of the students had nine learning factors present in the observations. Thirty-seven percent of the students had teachers with all 10 learning factors present in the observations. Teachers of 4% of the
students were not available for observation. The mean value of learning factors present in observations at School B was 8.24 with a standard deviation of 1.64.

Evidence of differentiated instruction was found in lesson plans, student work, and observations for teachers of 42 students at School C in 2008-2009. Multiple sets of teacher lesson plans were checked. Out of a possible 10 learning factors, teacher lesson plans for 12% of the students had six learning factors present. Lesson plans for 62% of the students had all 10 learning factors present. Lesson plans for 26% of the students were not available to the study. Multiple samples of student work were reviewed at School C. Out of a possible 10 learning factors, 12% of the students had teachers whose samples of student work had six learning factors present. Sixty-two percent of the students had teachers whose samples of student work had all 10 learning factors present. Sample work for teachers of 26% of the students was not available to the study. Teachers were observed during instruction. Out of a possible 10 learning factors, teachers of 12% of the students had four learning factors present in their observations. Teachers of 62% of the students had teachers with all 10 learning factors present in the observations. Teachers of 26% of the students were not available for observation.

Evidence of differentiated instruction was found in lesson plans, student work, and observations for teachers of 40 students at School C in 2009-2010. Multiple sets of teacher lesson plans were viewed. Out of a possible 10 learning factors, teacher lesson plans for 18% of the students had six learning factors present. Lesson plans for 73% of the students had all 10 learning factors present. Lesson plans for 9% of the students were not available to the study. The mean value of learning factors present in lesson plans at School C was 9.22 with a standard deviation of 1.61. Multiple samples of student work
were checked for each participating teacher. Out of a possible 10 learning factors, 18% of the students had teachers whose samples of student work had six learning factors present. Seventy-three percent of the students had teachers whose samples of student work had all 10 learning factors present. Sample work for teachers of 9% of the students was not available to the study. The mean value of learning factors present in student work at School C was 9.22 with a standard deviation of 1.61. Teachers were observed during instruction. Out of a possible 10 learning factors, teachers of 18% of the students had 4 learning factors present in their observations. Teachers of 10% of the students had 8 learning factors present in the observations. Teachers of 63% of the students had teachers with all 10 learning factors present in the observations. Teachers of 9% of the students were not available for observation. The mean value of learning factors present in observations at School C was 8.61 with a standard deviation of 2.38.

*Using Differentiated Instruction to Respond to Student Diversity*

To determine in what ways teachers used differentiated instruction to respond to student diversity relating to student interest, readiness, and learning style, the study relied on teacher lesson plans, samples of student work, classroom observations, and educator interviews. The learning factors recommended to address the needs of English language learners and assist in differentiating instruction were observed in School A, School B, and School C. Lesson plans, student work samples, and observations were reviewed for evidence of the following ten principles or learning factors of differentiated instruction: (a) Facilitate learning and development through joint productive activities, (b) Access learner’s prior knowledge and learning, (c) Provide teaching and learning activities based on student’s experiences and skills, (d) Rigorous and higher-level thinking in problem-
solving, (e) Engage students through ongoing verbal dialogue, (f) Relate academic content to student’s own cultural environment/ experiences, (g) Integration so that content areas/skills are addressed and reinforced over time, (h) Cognitive and academic curriculum goals are addressed, (i) Students are challenged with high expectation, and (j) Cultural norms/values are valued.

At School A, School B, and School C, teachers used a variety of consistent differentiated instructional methods to respond to student diversity. A district expectation was for teachers of 3rd, 4th, and 5th to use leveled reading, allowing students to choose books on their reading level based on their interests. Using Accelerated Reader, all students took a STAR reading test at the beginning of the year, which provided the reading level of each student. Students continually chose books on their level from the school library or from the teacher’s personal classroom library. Students took AR tests to assess comprehension. As reading levels increased, students chose books at higher levels based on their interest. Literacy centers were observed in various 3rd, 4th, and 5th grade classes. Lesson plans for literacy centers were viewed and included an objective and an activity. Centers lasted approximately 15-20 minutes. Students worked on one skill individually or in small groups. After the allotted time, teachers directed students to move to the next center. The activities in the centers focused on skills as well as learning styles. Strong and weak teachers of differentiated instruction were observed, as measured by lesson plans, student work, and observation.

**School A in 2008-2009.** A variety of differentiated instructional techniques was observed at School A. Literacy centers were a common practice in grades 3-5. Within centers, activities focused on vocabulary, comprehension, and fluency. Leveled reading
groups known as flex groups and language arts ability groups were established to meet the literacy and language arts needs of students at their level and move them forward. Accelerated Math and Accelerated Reader were two programs used by the teachers to assess students’ levels, have students work and test on their level as weekly assessments showed growth patterns. School A used assessment data to create lessons plans and tailor the plans to students’ needs. Teachers collaborated to plan lessons according to the needs.

A 3\textsuperscript{rd} grade teacher from School A expressed in an interview:

Student success is the topic of every faculty meeting, grade level meeting, parent conference. As a grade level, we are constantly meeting discussing our plans, the content. We meet as a faculty and we sit down and analyze the data, we meet with our grade level; we meet with the grade level below and above us to collaborate and coordinate, to discuss week areas or areas that need more attention, areas with low scores, etc.

To meet the needs of the students through differentiated instruction, suggested practices include resources for SPED and ELL, pull out for ELL and interventions, and tutoring. Almost all are based on assessment data. According to the findings in the observation and interview, teachers at School A utilized collaboration, data analysis, planning, and constant monitoring to adapt instruction to meet the students’ needs.

Common practices used to increase student achievement are data analysis and data driven planning. Various teachers in 3\textsuperscript{rd}, 4\textsuperscript{th}, and 5\textsuperscript{th} grade at School A were observed using assessment data to plan lessons and activities to meet the diverse needs of the students. A fourth grade teacher involved her students in fun literacy activities using Readers Theatre from Reading A-Z. Students were assigned a play to perform in front of
the class. A task or role was assigned to each student. Students worked in small groups reading the script aloud. The teacher set the expectation for students to read with prosody, intonation, and feeling. Vocabulary was introduced with each play. Another teacher at School A consistently reinforced background knowledge and asked higher level Depth of Knowledge questions. The third grade team, which consisted of three veteran teachers, met weekly to discuss the previous week’s instruction and to collaborate for the upcoming week’s instruction. In an interview, a third grade teacher expressed, “We talk constantly. My grade level constantly shares ideas, we plan together, we discuss what works, what doesn’t, everything.” Accelerated Reader and Accelerated Math are used to meet students at their level and move them forward. “I can’t say enough about AR and AM, we have not been using it as much because of time constraints. With remediation and working with students, we often don’t have time to test the students like we should,” expressed the third grade teacher.

In 2008-2009 at School A, 72% of the students had teachers with lesson plans that showed evidence of facilitating learning and development through joint productive activities; 14% of the students had teachers whose lesson plans did not show evidence. Teacher lesson plans for 14% of the students were not available for review. Eighty-six percent of the students had teachers whose samples of student work showed evidence of the learning factor. Teachers of 14% of the students were not available to provide samples of student work. Eighty-six percent of the students had teachers whose classroom observations showed evidence of the learning factor. Teachers of 14% of the students were not available for observation.
Access to prior knowledge and learning was evaluated and results yielded 83% of the students had teachers whose lesson plans showed evidence of the learning factor; 3% of the students had teachers whose lesson plans did not show evidence. Teacher lesson plans for 14% of the students were not available for review. Eighty-six percent of the students had teachers whose samples of student work showed evidence of the learning factor. Fourteen percent of the students had teachers who were not available to provide samples of student work. Forty-one percent of the students had teachers whose classroom observations showed evidence of the learning factor; 45% of the students had teachers whose observations did not show evidence. Teachers of 14% of the students were not available for observation.

Whether a teacher provided learning opportunities based on student’s experience and skill was evaluated and results yielded that 86% of the students had teachers whose lesson plans showed evidence of the learning factor. Teacher lesson plans for 14% of the students were not available for review. Eighty-six percent of the students had teachers whose samples of student work showed evidence of the learning factor. Fourteen percent of the students had teachers who were not available to provide samples of student work. Sixty-five percent of the students had teachers whose classroom observations showed evidence of the learning factor; 21% of the students had teachers whose observations did not show evidence. Teachers of 14% of the students were not available for observation.

Rigorous and higher-level thinking in problem-solving were evaluated and results yielded 48% of the students had teachers whose lesson plans showed evidence of the learning factor; 38% of the students had teachers whose lesson plans did not show evidence. Teacher lesson plans for 14% of the students were not available for review.
Sixty-nine percent of the students had teachers whose samples of student work showed evidence of the learning factor; 17% of the students had teachers whose student work samples did not show evidence. Fourteen percent of the students had teachers who were not available to provide samples of student work. Forty-one percent of the students had teachers whose classroom observations showed evidence of the learning factor; 45% of the students had teachers whose observations did not show evidence. Teachers of 14% of the students were not available for observation.

Engagement of students through ongoing dialogue was evaluated and results yielded that 86% of the students had teachers whose lesson plans showed evidence of the learning factor. Teacher lesson plans for 14% of the students were not available for review. Eighty-six percent of the students had teachers whose samples of student work showed evidence of the learning factor. Fourteen percent of the students had teachers who were not available to provide samples of student work. Eighty-six percent of the students had teachers whose classroom observations showed evidence of the learning factor. Teachers of 14% of the students were not available for observation.

Whether a teacher relates academic content to students’ own cultural or environmental experiences was evaluated and results yielded that 72% of the students had teachers whose lesson plans showed evidence of the learning factor; 14% of the students had teachers whose lesson plans did not show evidence. Teacher lesson plans for 14% of the students were not available for review. Eighty-six percent of the students had teachers whose samples of student work showed evidence of the learning factor. Fourteen percent of the students had teachers who were not available to provide samples of student work. Seventy-two percent of the students had teachers whose classroom
observations showed evidence of the learning factor; 14% of the students had teachers whose observations did not show evidence. Teachers of 14% of the students were not available for observation.

Integration so that content areas and skills are addressed and reinforced over time was evaluated and results yielded that 65% of the students had teachers whose lesson plans showed evidence of the learning factor; 21% of the students had teachers whose lesson plans did not show evidence. Teacher lesson plans for 14% of the students were not available for review. Eighty-six percent of the students had teachers whose samples of student work showed evidence of the learning factor. Fourteen percent of the students had teachers who were not available to provide samples of student work. Eighty-six percent of the students had teachers whose classroom observations showed evidence of the learning factor. Teachers of 14% of the students were not available for observation.

Whether cognitive and academic goals were addressed was evaluated and results yielded that 86% of the students had teachers whose lesson plans showed evidence of the learning factor. Teacher lesson plans for 14% of the students were not available for review. Eighty-six percent of the students had teachers whose samples of student work showed evidence of the learning factor. Fourteen percent of the students had teachers who were not available to provide samples of student work. Eighty-six percent of the students had teachers whose classroom observations showed evidence of the learning factor. Teachers of 14% of the students were not available for observation.

Whether students were challenged with high expectations was evaluated and results yielded that 41% of the students had teachers whose lesson plans showed evidence of the learning factor; 45% of the students had teachers whose lesson plans did not show
evidence. Teacher lesson plans for 14% of the students were not available for review.

Eighty-six percent of the students had teachers whose samples of student work showed evidence of the learning factor. Fourteen percent of the students had teachers who were not available to provide samples of student work. Eighty-six percent of the students had teachers whose classroom observations showed evidence of the learning factor. Teachers of 14% of the students were not available for observation.

Whether cultural values or norms were valued was evaluated and results yielded that 86% of the students had teachers whose lesson plans showed evidence of the learning factor. Teacher lesson plans for 14% of the students were not available for review.

Seventy-two percent of the students had teachers whose samples of student work showed evidence of the learning factor. Fourteen percent of the students had teachers who were not available to provide samples of student work. Fourteen percent of the students had teachers who were not available to provide samples of student work. Eighty-six percent of the students had teachers whose classroom observations showed evidence of the learning factor. Teachers of 14% of the students were not available for observation.

School B in 2009-2010. In 2009-2010 at School A, teachers of 87% of the students had lesson plans that showed evidence of facilitating learning and development through joint productive activities; 10% of the students had teachers whose lesson plans did not show evidence. Teacher lesson plans for 3% of the students were not available for review. Ninety-seven percent of the students had teachers whose samples of student work showed evidence of the learning factor. Teachers of 3% of the students were not available to provide samples of student work. Ninety-seven percent of the students had
teachers whose classroom observations showed evidence of the learning factor. Teachers of 3% of the students were not available for observation.

Access to prior knowledge and learning was evaluated and results yielded 84% of the students had lesson plans that showed evidence of learning factor; 13% of the students had teachers whose lesson plans did not show evidence. Teacher lesson plans for 3% of the students were not available for review. Ninety-seven percent of the students had teachers whose samples of student work showed evidence of the learning factor. Teachers of 3% of the students were not available to provide samples of student work. Sixty-three percent of the students had teachers whose classroom observations showed evidence of the learning factor; 33% of the students had teachers whose observations did not show evidence. Teachers of 3% of the students were not available for observation.

Whether a teacher provided learning opportunities based on student’s experience and skill was evaluated and results yielded that 97% of the students had teachers whose lesson plans showed evidence of the learning factor. Teacher lesson plans for 3% of the students were not available for review. Ninety-seven percent of the students had teachers whose samples of student work showed evidence of the learning factor. Three percent of the students had teachers who were not available to provide samples of student work. Seventy-three percent of the students had teachers whose classroom observations showed evidence of the learning factor; 23% of the students had teachers whose observations did not show evidence. Teachers of 3% of the students were not available for observation.

Rigorous and higher-level thinking in problem-solving were evaluated and results yielded 67% of the students had teachers whose lesson plans showed evidence of the learning factor; 30% of the students had teachers whose lesson plans did not show
evidence. Teacher lesson plans for 3% of the students were not available for review.

Seventy-three percent of the students had teachers whose samples of student work showed evidence of the learning factor; 23% of the students had teachers whose student work samples did not show evidence. Three percent of the students had teachers who were not available to provide samples of student work. Sixty percent of the students had teachers whose classroom observations showed evidence of the learning factor; 37% of the students had teachers whose observations did not show evidence. Teachers of 3% of the students were not available for observation.

Engagement of students through ongoing dialogue was evaluated and results yielded that 97% of the students had teachers whose lesson plans showed evidence of the learning factor. Teacher lesson plans for 3% of the students were not available for review. Ninety-seven percent of the students had teachers whose samples of student work showed evidence of the learning factor. Three percent of the students had teachers who were not available to provide samples of student work. Ninety percent of the students had teachers whose classroom observations showed evidence of the learning factor; 7% of the students had teachers whose observations did not show evidence. Teachers of 3% of the students were not available for observation.

Whether a teacher relates academic content to students’ own cultural or environmental experiences was evaluated and results yielded that 87% of the students had teachers whose lesson plans showed evidence of the learning factor; 10% of the students had teachers whose lesson plans did not show evidence. Teacher lesson plans for 3% of the students were not available for review. Ninety-seven percent of the students had teachers whose samples of student work showed evidence of the learning factor. Three
percent of the students had teachers who were not available to provide samples of student work. Eighty percent of the students had teachers whose classroom observations showed evidence of the learning factor; 17% of the students had teachers whose observations did not show evidence. Teachers of 3% of the students were not available for observation.

Integration so that content areas and skills are addressed and reinforced over time was evaluated at and results yielded that 87% of the students had teachers whose lesson plans showed evidence of the learning factor; 10% of the students had teachers whose lesson plans did not show evidence. Teacher lesson plans for 3% of the students were not available for review. Ninety-seven percent of the students had teachers whose samples of student work showed evidence of the learning factor. Three percent of the students had teachers who were not available to provide samples of student work. Ninety-seven percent of the students had teachers whose classroom observations showed evidence of the learning factor. Teachers of 3% of the students were not available for observation.

Whether cognitive and academic goals were addressed was evaluated and results yielded that 97% of the students had teachers whose lesson plans showed evidence of the learning factor. Teacher lesson plans for 3% of the students were not available for review. Ninety-seven percent of the students had teachers whose samples of student work showed evidence of the learning factor. Three percent of the students had teachers who were not available to provide samples of student work. Ninety-seven percent of the students had teachers whose classroom observations showed evidence of the learning factor. Teachers of 3% of the students were not available for observation.

Whether students were challenged with high expectations was evaluated at and results yielded that 64% of the students had teachers whose lesson plans showed evidence
of the learning factor; 33% of the students had teachers whose lesson plans did not show evidence. Teacher lesson plans for 3% of the students were not available for review.

Ninety percent of the students had teachers whose samples of student work showed evidence of the learning factor; 7% of students had teachers whose student work samples did not show evidence. Three percent of the students had teachers who were not available to provide samples of student work. Sixty-four percent of the students had teachers whose classroom observations showed evidence of the learning factor; 33% of the students had teachers whose lesson plans did not show evidence. Teachers of 3% of the students were not available for observation.

Whether cultural values or norms were valued was evaluated at and results yielded that 97% of the students had teachers whose lesson plans showed evidence of the learning factor. Teacher lesson plans for 3% of the students were not available for review.

Eighty-seven percent of the students had teachers whose samples of student work showed evidence of the learning factor; 10% of the students had teachers whose student work did not show evidence. Three percent of the students had teachers who were not available to provide samples of student work. Ninety-seven percent of the students had teachers whose classroom observations showed evidence of the learning factor. Teachers of 3% of the students were not available for observation.

School B in 2008-2009. A variety of differentiated instructional techniques were observed at School B. Though literacy centers were common in lesson plans in grades 3-5, literacy centers were not observed. Activities were evident that focused on vocabulary, comprehension, and fluency. Teachers utilized leveled reading to meets the literacy needs of their students. Comprehension worksheet, Shurley English, and 6-Trait writing
were common instructional practices at School B. Accelerated Math and Accelerated Reader were evident in the classroom through leveled book areas and poster sticker charts. School B did not appear to use assessment data to create lessons plans or to tailor the plans to students’ needs. In the lesson plans, evidence of intervention time and ELL pull out were observed. Teacher collaboration was not evident.

In 2008-2009 at School B, 100% of the students had teachers with lesson plans that showed evidence of facilitating learning and development through joint productive activities. One hundred percent of the students had teachers whose samples of student work showed evidence of the learning factor. One hundred percent of the students had teachers whose classroom observations showed evidence of the learning factor.

Access to prior knowledge and learning was evaluated and results yielded 89% of the students had teachers whose lesson plans showed evidence of the learning factor; 11% of the students had teachers whose lesson plans did not show evidence. Eighty-nine percent of the students had teachers whose samples of student work showed evidence of the learning factor; 11% of the students had teachers whose student work samples did not show evidence. Eighty-nine percent of the students had teachers whose classroom observations showed evidence of the learning factor; 11% of the students had teachers whose observations did not show evidence.

Whether a teacher provided learning opportunities based on student’s experience and skill was evaluated and results yielded that 89% of the students had teachers whose lesson plans showed evidence of the learning factor; 11% of the students had teachers whose lesson plans did not show evidence. Eighty-two percent of the students had teachers whose samples of student work showed evidence of the learning factor; 18% of
the students had teachers whose student work sample did not show evidence. Seventy-one percent of the students had teachers whose classroom observations showed evidence of the learning factor; 29% of the students had teachers whose observations did not show evidence.

Rigorous and higher-level thinking in problem-solving were evaluated and results yielded 71% of the students had teachers whose lesson plans showed evidence of the learning factor; 29% of the students had teachers whose lesson plans did not show evidence. Fifty-seven percent of the students had teachers whose samples of student work showed evidence of the learning factor; 43% of the students had teachers whose student work samples did not show evidence. Fifty-seven percent of the students had teachers whose classroom observations showed evidence of the learning factor; 43% of the students had teachers whose observations did not show evidence.

Engagement of students through ongoing dialogue was evaluated and results yielded that 100% of the students had teachers whose lesson plans showed evidence of the learning factor. One hundred percent of the students had teachers whose samples of student work showed evidence of the learning factor. One hundred percent of the students had teachers whose classroom observations showed evidence of the learning factor; 25% of the students had teachers whose observations did not show evidence.

Whether a teacher relates academic content to students’ own cultural or environmental experiences was evaluated and results yielded that 100% of the students had teachers whose lesson plans showed evidence of the learning factor. One hundred percent of the students had teachers whose samples of student work showed evidence of
the learning factor. One hundred percent of the students had teachers whose classroom observations showed evidence of the learning factor.

Integration so that content areas and skills are addressed and reinforced over time was evaluated and results yielded that 100% of the students had teachers whose lesson plans showed evidence of the learning factor. One hundred percent of the students had teachers whose samples of student work showed evidence of the learning factor. One hundred percent of the students had teachers whose classroom observations showed evidence of the learning factor.

Whether cognitive and academic goals were addressed was evaluated and results yielded that 100% of the students had teachers whose lesson plans showed evidence of the learning factor. Eighty-nine percent of the students had teachers whose samples of student work showed evidence of the learning factor; 11% of the students had teachers whose lesson plans did not show evidence. One hundred percent of the students had teachers whose classroom observations showed evidence of the learning factor.

Whether students were challenged with high expectations was evaluated and results yielded that 71% of the students had teachers whose lesson plans showed evidence of the learning factor; 29% of the students had teachers whose lesson plans did not show evidence. Ninety-three percent of the students had teachers whose samples of student work showed evidence of the learning factor; 7% of the students had teachers whose student work samples did not show evidence. Seventy-one percent of the students had teachers whose classroom observations showed evidence of the learning factor; 29% of the students had teachers whose observations did not show evidence.
Whether cultural values or norms were valued was evaluated and results yielded that 100% of the students had teachers whose lesson plans showed evidence of the learning factor. One hundred percent of the students had teachers whose samples of student work showed evidence of the learning factor. One hundred percent of the students had teachers whose classroom observations showed evidence of the learning factor. Teachers of 26% of the students were not available for observation.

*School B in 2009-2010.* In 2009-2010 at School B, teachers of 96% of the students had lesson plans that showed evidence of facilitating learning and development through joint productive activities. Teacher lesson plans for 4% of the students were not available for review. Ninety-six percent of the students had teachers whose samples of student work showed evidence of the learning factor. Teachers of 4% of the students were not available to provide samples of student work. Ninety-six percent of the students had teachers whose classroom observations showed evidence of the learning factor. Teachers of 4% of the students were not available for observation.

Access to prior knowledge and learning was evaluated and results yielded that 86% of the students had teachers whose lesson plans showed evidence of the learning factor; 9% of the students had teachers whose lesson plans did not show evidence. Teacher lesson plans for 5% of the students were not available for review. Eighty-six percent of the students had teachers whose samples of student work showed evidence of the learning factor; 9% of the students had teachers whose samples of student work did not show evidence. Teachers of 5% of the students were not available to provide samples of student work. Eighty-six percent of the students had teachers whose classroom observations showed evidence of the learning factor; 9% of the students had teachers
whose observations did not show evidence. Teachers of 5% of the students were not available for observation.

Whether a teacher provided learning opportunities based on student’s experience and skill was evaluated and results yielded that 86% of the students had teachers whose lesson plans showed evidence of the learning factor; 9% of the students had teachers whose lesson plans did not show evidence. Teacher lesson plans for 5% of the students were not available for review. Fifty-four percent of the students had teachers whose samples of student work showed evidence of the learning factor; 41% of the students had teachers whose student work sample did not show evidence. Teachers for 5% of the students were not available to provide sample of student work. Fifty-four percent of the students had teachers whose classroom observations showed evidence of the learning factor; 41% of the students had teachers whose observations did not show evidence. Teachers of 5% of the students were not available for observation.

Rigorous and higher-level thinking in problem-solving were evaluated and results yielded 54% of the students had teachers whose lesson plans showed evidence of the learning factor; 41% of the students had teachers whose lesson plans did not show evidence. Teacher lesson plans for 5% of the students were not available for review. Forty-five percent of the students had teachers whose samples of student work showed evidence of the learning factor; 50% of the students had teachers whose student work samples did not show evidence. Teachers of 5% of the students were not available to provide samples of student work. Thirty-six percent of the students had teachers whose classroom observations showed evidence of the learning factor; 59% of the students had
teachers whose observations did not show evidence. Teachers of 5% of the students were not available for observation.

Engagement of students through ongoing dialogue was evaluated and results yielded that 95% of the students had teachers whose lesson plans showed evidence of the learning factor. Teacher lesson plans for 5% of the students were not available for review. Ninety-five percent of the students had teachers whose samples of student work showed evidence of the learning factor. Five percent of the students had teachers who were not available to provide samples of student work. Seventy-seven percent of the students had teachers whose classroom observations showed evidence of the learning factor; 18% of the students had teachers whose observations did not show evidence. Teachers of 5% of the students were not available for observation.

Whether a teacher relates academic content to students’ own cultural or environmental experiences was evaluated and results yielded that 95% of the students had teachers whose lesson plans showed evidence of the learning factor. Teacher lesson plans for 5% of the students were not available for review. Ninety-five percent of the students had teachers whose samples of student work showed evidence of the learning factor. Five percent of the students had teachers who were not available to provide samples of student work. Ninety-five percent of the students had teachers whose classroom observations showed evidence of the learning factor. Teachers of 5% of the students were not available for observation.

Integration so that content areas and skills are addressed and reinforced over time was evaluated and results yielded that 95% of the students had teachers whose lesson plans showed evidence of the learning factor. Teacher lesson plans for 5% of the
students were not available for review. Ninety-five percent of the students had teachers whose samples of student work showed evidence of the learning factor. Five percent of the students had teachers who were not available to provide samples of student work. Ninety-five percent of the students had teachers whose classroom observations showed evidence of the learning factor. Teachers of 5% of the students were not available for observation.

Whether cognitive and academic goals were addressed was evaluated and results yielded that 95% of the students had teachers whose lesson plans showed evidence of the learning factor. Teacher lesson plans for 5% of the students were not available for review. Eighty-six percent of the students had teachers whose samples of student work showed evidence of the learning factor; 9% of the students had teachers whose student work samples did not show evidence. Five percent of the students had teachers who were not available to provide samples of student work. Ninety-five percent of the students had teachers whose classroom observations showed evidence of the learning factor. Teachers of 5% of the students were not available for observation.

Whether students were challenged with high expectations was evaluated and results yielded that 59% of the students had teachers whose lesson plans showed evidence of the learning factor; 36% of the students had teachers whose lesson plans did not show evidence. Teacher lesson plans for 5% of the students were not available for review. Seventy-two percent of the students had teachers whose samples of student work showed evidence of the learning factor; 23% of students had teachers whose student work samples did not show evidence. Five percent of the students had teachers who were not available to provide samples of student work. Fifty-four percent of the students had
teachers whose classroom observations showed evidence of the learning factor; 41% of
the students had teachers whose lesson plans did not show evidence. Teachers of 5% of
the students were not available for observation.

Whether cultural values or norms were valued was evaluated and results yielded
that 95% of the students had teachers whose lesson plans showed evidence of the learning
factor. Teacher lesson plans for 5% of the students were not available for review.

Ninety-five percent of the students had teachers whose samples of student work showed
evidence of the learning factor. Five percent of the students had teachers who were not
available to provide samples of student work. Ninety-five percent of the students had
teachers whose classroom observations showed evidence of the learning factor. Teachers
of 5% of the students were not available for observation.

School C 2008-2009. A variety of differentiated instructional techniques were
observed at School C. Literacy, language arts, and math centers were a common practice
in grades 3-5. Centers were often adult led with activities focused on vocabulary,
comprehension, fluency, and math facts. Leveled reading groups which were further
grouped by ability were established to meets the literacy needs of students at their level
and move them forward. Imagine Learning computer software program was used by the
teachers to assess students’ English literacy levels, have students work and be tested on
their level, and show growth patterns through weekly assessments. In 2009-2010, to
meet the needs of the growing ELL population, School C implemented a structured
differentiated instruction time frame in which every support staff member and certified
teacher was working with students during reading. According to the principal of School
C, “We tried something like this for six weeks in second grade and the students blew the
roof off their state test.” The principal implemented the structured plan in August of 2009. In the schedule, every assistant, regardless of grade level, every certified personnel including physical education, music, speech therapy, was assigned to a classroom as a reading coach from 7:30 a.m. to 9:30 a.m. “The classroom teacher created the lesson plans for that time frame based on the needs of the students and the reading coach executed those plans,” stated the principal. The needs of the students were based on objectives not mastered identified through formal and informal assessments. To ensure the needs of each student were met, teachers documented in their lesson plans the objectives and method of mastering those objectives for each student that is struggling. Assistant teachers were required by the principal to keep a daily log of who they worked with, the objectives that were studied, and the method used. Differentiated instruction in reading was observed through adult led centers, literacy groups, peer groups, and one-on-one groups focusing on fluency, vocabulary, and comprehension. English language learners received ELL support in the classroom from assistant teachers and peers. Students with very limited English proficiency were pulled out for intense English tutoring by a certified ELL teacher. ELL assistants worked one-on-one or in small groups with students in the classroom. The principal of School C mandated the use of assessment data to create lessons plans and tailor the plans to students’ needs. The principal also mandated teachers to collaborate weekly to evaluate students’ weekly data and create lesson plans to meet the needs of every student. The principal of School C expressed in an interview:

I require the faculty to have team meeting weekly. Each week it is a different set of data. They have to keep team meeting minutes in which I review. I tell them
what to talk about and they discuss how the other team member taught that week, what was a strength, weakness, etc. Some meet across grade level.

Other differentiate instructional practices include resources for SPED and ELL, pull out for ELL and interventions, and tutoring. According to the findings in the observation and interview, teachers at School C utilize data driven decision making, shared leadership, collaboration, planning, and constant monitoring to adapt instruction to meet the students’ needs.

In 2008-2009 at School C, 74% of the students had teachers with lesson plans that showed evidence of facilitating learning and development through joint productive activities. Teacher lesson plans for 26% of the students were not available for review. Seventy-four percent of the students had teachers whose samples of student work showed evidence of the learning factor. Teachers of 26% of the students were not available to provide samples of student work. Sixty-two percent of the students had teachers whose classroom observations showed evidence of the learning factor; 12% of the students had teachers whose observations did not show evidence. Teachers of 26% of the students were not available for observation.

Access to prior knowledge and learning was evaluated and results yielded 62% of the students had teachers whose lesson plans showed evidence of the learning factor; 12% of the students had teachers whose lesson plans did not show evidence. Teacher lesson plans for 26% of the students were not available for review. Sixty-two percent of the students had teachers whose samples of student work showed evidence of the learning factor; 12% of the students had teachers whose student work samples did not show evidence. Twenty-six of the students had teachers who were not available to provide
samples of student work. Sixty-two percent of the students had teachers whose classroom observations showed evidence of the learning factor; 12% of the students had teachers whose observations did not show evidence. Teachers of 26% of the students were not available for observation.

Whether a teacher provided learning opportunities based on student’s experience and skill was evaluated and results yielded that 74% of the students had teachers whose lesson plans showed evidence of the learning factor. Teacher lesson plans for 26% of the students were not available for review. Sixty-two percent of the students had teachers whose samples of student work showed evidence of the learning factor; 12% of the students had teachers whose student work sample did not show evidence. Twenty-six percent of the students had teachers who were not available to provide samples of student work. Sixty-two percent of the students had teachers whose classroom observations showed evidence of the learning factor; 12% of the students had teachers whose observations did not show evidence. Teachers of 26% of the students were not available for observation.

Rigorous and higher-level thinking in problem-solving were evaluated and results yielded 62% of the students had teachers whose lesson plans showed evidence of the learning factor; 12% of the students had teachers whose lesson plans did not show evidence. Teacher lesson plans for 26% of the students were not available for review. Sixty-two percent of the students had teachers whose samples of student work showed evidence of the learning factor; 12% of the students had teachers whose student work samples did not show evidence. Twenty-six percent of the students had teachers who were not available to provide samples of student work. Sixty-one percent of the students
had teachers whose classroom observations showed evidence of the learning factor; 12% of the students had teachers whose observations did not show evidence. Teachers of 26% of the students were not available for observation.

Engagement of students through ongoing dialogue was evaluated and results yielded that 74% of the students had teachers whose lesson plans showed evidence of the learning factor. Teacher lesson plans for 26% of the students were not available for review. Seventy-four percent of the students had teachers whose samples of student work showed evidence of the learning factor. Twenty-six percent of the students had teachers who were not available to provide samples of student work. Seventy-four percent of the students had teachers whose classroom observations showed evidence of the learning factor. Teachers of 26% of the students were not available for observation.

Whether a teacher relates academic content to students’ own cultural or environmental experiences was evaluated and results yielded that 62% of the students had teachers whose lesson plans showed evidence of the learning factor; 12% of the students had teachers whose lesson plans did not show evidence. Teacher lesson plans for 26% of the students were not available for review. Seventy-four percent of the students had teachers whose samples of student work showed evidence of the learning factor. Twenty-six percent of the students had teachers who were not available to provide samples of student work. Sixty-two percent of the students had teachers whose classroom observations showed evidence of the learning factor; 12% of the students had teachers whose observations did not show evidence. Teachers of 26% of the students were not available for observation.
Integration so that content areas and skills are addressed and reinforced over time was evaluated and results yielded that 74% of the students had teachers whose lesson plans showed evidence of the learning factor. Teacher lesson plans for 26% of the students were not available for review. Seventy-four percent of the students had teachers whose samples of student work showed evidence of the learning factor. Twenty-six percent of the students had teachers who were not available to provide samples of student work. Sixty-two percent of the students had teachers whose classroom observations showed evidence of the learning factor; 12% of the students had teachers whose observations did not show evidence. Teachers of 26% of the students were not available for observation.

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evidence of the learning factor; 12% of the students had teachers whose student work samples did not show evidence. Twenty-six percent of the students had teachers who were not available to provide samples of student work. Sixty-two percent of the students had teachers whose classroom observations showed evidence of the learning factor; 12% of the students had teachers whose observations did not show evidence. Teachers of 26% of the students were not available for observation.

Whether cultural values or norms were valued was evaluated and results yielded that 74% of the students had teachers whose lesson plans showed evidence of the learning factor. Teacher lesson plans for 26% of the students were not available for review. Seventy-four percent of the students had teachers whose samples of student work showed evidence of the learning factor. Twenty-six percent of the students had teachers who were not available to provide samples of student work. Seventy-four percent of the students had teachers whose classroom observations showed evidence of the learning factor. Teachers of 26% of the students were not available for observation.

_School C in 2009-2010._ In 2009-2010 at School C, teachers of 90% of the students had lesson plans that showed evidence of facilitating learning and development through joint productive activities. Teacher lesson plans for 10% of the students were not available for review. Ninety percent of the students had teachers whose samples of student work showed evidence of the learning factor. Teachers of 10% of the students were not available to provide samples of student work. Seventy-three percent of the students had teachers whose classroom observations showed evidence of the learning factor; 17% of the students had teachers whose observations did not show evidence. Teachers of 10% of the students were not available for observation.
Access to prior knowledge and learning was evaluated and results yielded that 73% of the students had teachers whose lesson plans showed evidence of accessing learner’s prior knowledge and learning; 17% of the students had teachers whose lesson plans did show evidence. Teachers of 10% of the students were not available to provide lesson plans. Seventy-three percent of the students had teachers whose samples of student work showed evidence of the learning factor; 17% of the students had teachers whose observations did not show evidence. Teachers of 10% of the students were not available to provide samples of student work. Ninety percent of the students had teachers whose classroom observations showed evidence of the learning factor. Teachers of 10% of the students were not available for observation.

Whether a teacher provided learning opportunities based on student’s experience and skill was evaluated and results yielded that 90% of the students had teachers whose lesson plans showed evidence of the learning factor. Teacher lesson plans for 10% of the students were not available for review. Seventy-three percent of the students had teachers whose samples of student work showed evidence of the learning factor; 17% of the students had teachers whose student work sample did not show evidence. Teachers for 10% of the students were not available to provide sample of student work. Sixty-three percent of the students had teachers whose classroom observations showed evidence of the learning factor; 27% of the students had teachers whose observations did not show evidence. Teachers of 10% of the students were not available for observation.

Rigorous and higher-level thinking in problem-solving were evaluated and results yielded 73% of the students had teachers whose lesson plans showed evidence of the learning factor; 17% of the students had teachers whose lesson plans did not show
evidence. Teacher lesson plans for 10% of the students were not available for review.

Seventy-three percent of the students had teachers whose samples of student work showed evidence of the learning factor; 17% of the students had teachers whose student work samples did not show evidence. Teachers of 10% of the students were not available to provide samples of student work. Seventy-three percent of the students had teachers whose classroom observations showed evidence of the learning factor; 17% of the students had teachers whose observations did not show evidence. Teachers of 10% of the students were not available for observation.

Engagement of students through ongoing dialogue was evaluated and results yielded that 90% of the students had teachers whose lesson plans showed evidence of the learning factor. Teacher lesson plans for 10% of the students were not available for review. Ninety percent of the students had teachers whose samples of student work showed evidence of the learning factor. Ten percent of the students had teachers who were not available to provide samples of student work. Ninety percent of the students had teachers whose classroom observations showed evidence of the learning factor. Teachers of 10% of the students were not available for observation.

Whether a teacher relates academic content to students’ own cultural or environmental experiences was evaluated and results yielded that 73% of the students had teachers whose lesson plans showed evidence of the learning factor, 17% of the students had teachers whose lesson plans did not show evidence. Teacher lesson plans for 10% of the students were not available for review. Ninety percent of the students had teachers whose samples of student work showed evidence of the learning factor. Ten percent of the students had teachers who were not available to provide samples of student work.
Seventy-three percent of the students had teachers whose classroom observations showed evidence of the learning factor; 17% of the students had teachers whose observations did not show evidence. Teachers of 10% of the students were not available for observation.

Integration so that content areas and skills are addressed and reinforced over time was evaluated and results yielded that 90% of the students had teachers whose lesson plans showed evidence of the learning factor. Teacher lesson plans for 10% of the students were not available for review. Ninety percent of the students had teachers whose samples of student work showed evidence of the learning factor. Ten percent of the students had teachers who were not available to provide samples of student work.

Whether cognitive and academic goals were addressed was evaluated and results yielded that 90% of the students had teachers whose lesson plans showed evidence of the learning factor. Teacher lesson plans for 10% of the students were not available for review. Ninety percent of the students had teachers whose samples of student work showed evidence of the learning factor. Ten percent of the students had teachers who were not available to provide samples of student work. Ninety percent of the students had teachers whose classroom observations showed evidence of the learning factor. Teachers of 10% of the students were not available for observation.

Whether students were challenged with high expectations was evaluated and results yielded that 73% of the students had teachers whose lesson plans showed evidence of the learning factor; 17% of the students had teachers whose lesson plans did not show
evidence. Teacher lesson plans for 10% of the students were not available for review. Seventy-three percent of the students had teachers whose samples of student work showed evidence of the learning factor; 17% of students had teachers whose student work samples did not show evidence. Ten percent of the students had teachers who were not available to provide samples of student work. Sixty-three percent of the students had teachers whose classroom observations showed evidence of the learning factor; 27% of the students had teachers whose lesson plans did not show evidence. Teachers of 10% of the students were not available for observation.

Whether cultural values or norms were valued was evaluated and results yielded that 90% of the students had teachers whose lesson plans showed evidence of the learning factor. Teacher lesson plans for 10% of the students were not available for review. Ninety percent of the students had teachers whose samples of student work showed evidence of the learning factor. Ten percent of the students had teachers who were not available to provide samples of student work. Ninety percent of the students had teachers whose classroom observations showed evidence of the learning factor. Teachers of 10% of the students were not available for observation.

*Differentiated Instruction Styles within Subgroups*

To determine if difference in the style of differentiated instruction occurred related to English language learners and subgroups within this group, the study relied on MCT2 language arts and math proficiencies, demographics of subgroups, data from teacher lesson plans, samples of student work, classroom observations, and educator interviews. The results of the research suggest that differentiated instruction offered to English language learners was also offered to subgroups within the group. Differentiated
instruction was evident in lesson plans, student work, and observations for teachers of 84 students in 2008-2009 and 86 students in 2009-2010 at School A, School B, and School C. Up to 10 possible learning factors were checked off the Hoover and Patton (2005) checklist as the recommended learning factor became evident in lesson plans, student work, and classroom observations. To determine if any differences in styles of differentiated instruction existed within English language learners and its subgroups, the mean value of learning factors present in lesson plans, student work, and observation were examined. The results indicate that there was no difference in the style of differentiated instruction occurring related to English language learners and subgroups within this group.

In 2008-2009 and 2009-2010, the subgroups within English language learners were special education (SPED) and economically disadvantaged (ED). The mean value of the learning factors evident measured by lesson plans, student work, and observations, illustrates whether differences existed in the style of differentiated instruction that occurred with English language learners and the subgroups within this group.

Table 4

*Differences in Differentiated Instruction among Regular Education and Special Education*

<table>
<thead>
<tr>
<th></th>
<th>Regular Ed</th>
<th>n</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lesson Plans 08-09</strong></td>
<td>Regular Ed</td>
<td>79</td>
<td>9.05</td>
<td>1.42</td>
</tr>
<tr>
<td></td>
<td>Special Education</td>
<td>5</td>
<td>8.80</td>
<td>1.64</td>
</tr>
<tr>
<td><strong>Student Work 08-09</strong></td>
<td>Regular Ed</td>
<td>79</td>
<td>9.37</td>
<td>1.23</td>
</tr>
<tr>
<td></td>
<td>Special Education</td>
<td>5</td>
<td>9.20</td>
<td>1.10</td>
</tr>
<tr>
<td><strong>Observation 08-09</strong></td>
<td>Regular Ed</td>
<td>79</td>
<td>8.62</td>
<td>1.93</td>
</tr>
<tr>
<td></td>
<td>Special Education</td>
<td>5</td>
<td>8.40</td>
<td>2.19</td>
</tr>
</tbody>
</table>
As illustrated in Table 4, in 2008-2009, at the selected elementary schools, there were a total of 79 regular education English language learners and five special education English language learners. The mean value of learning factors evident in lesson plans for special education students was 8.80 with a standard deviation of 1.64; the factors evident in lesson plans for regular education students had a mean value of 9.05 with a standard deviation of 1.42. The mean value of learning factors evident in student work for special education students was 9.20 with a standard deviation of 1.10; the factors evident in student work for regular education students had a mean value of 9.37 with a standard deviation of 1.23. The mean value of learning factors evident in teacher observations for special education students was 8.40 with a standard deviation of 2.19; the factors evident in teacher observations for regular education students had a mean value of 8.62 with a standard deviation of 1.93. In 2009-2010, there were a total of 82 regular education English language learners and eight special education English language learners. The mean value of learning factors evident in lesson plans for special education students was 8.25 with a standard deviation of 1.50; the factors evident in teacher observations for regular education students had a mean value of 9.09 with a standard deviation of 1.45.

Table 4 (continued).

<table>
<thead>
<tr>
<th></th>
<th>Regular Ed</th>
<th>n</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lesson Plan 09-10</td>
<td>Regular Ed</td>
<td>82</td>
<td>9.09</td>
<td>1.45</td>
</tr>
<tr>
<td></td>
<td>Special Education</td>
<td>4</td>
<td>8.25</td>
<td>1.50</td>
</tr>
<tr>
<td>Student Work 09-10</td>
<td>Regular Ed</td>
<td>82</td>
<td>9.21</td>
<td>1.34</td>
</tr>
<tr>
<td></td>
<td>Special Education</td>
<td>4</td>
<td>8.75</td>
<td>1.50</td>
</tr>
<tr>
<td>Observation 09-10</td>
<td>Regular Ed</td>
<td>82</td>
<td>8.50</td>
<td>2.09</td>
</tr>
<tr>
<td></td>
<td>Special Education</td>
<td>4</td>
<td>7.75</td>
<td>2.06</td>
</tr>
</tbody>
</table>

*Note.* Means and standard deviations for learning factors evident in lesson plans, student work, and observations. Max value for learning factors evident is 10.
The mean value of learning factors evident in student work for special education students was 8.75 with a standard deviation of 1.50; the factors evident in student work for regular education students had a mean value of 9.21 with a standard deviation of 1.34. The mean value of learning factors evident in teacher observations for special education students was 7.75 with a standard deviation of 2.06; the factors evident in teacher observations for regular education students had a mean value of 8.50 with a standard deviation of 2.09.

Table 5

*Differences in Differentiated Instruction among Economically Disadvantaged and Economically Stable*

<table>
<thead>
<tr>
<th></th>
<th>Economically Disadvantaged</th>
<th>n</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lesson Plans 08-09</td>
<td>Yes</td>
<td>65</td>
<td>9.00</td>
<td>1.47</td>
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<tr>
<td></td>
<td>No</td>
<td>19</td>
<td>9.15</td>
<td>1.25</td>
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<tr>
<td>Student Work 08-09</td>
<td>Yes</td>
<td>65</td>
<td>9.29</td>
<td>1.27</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>19</td>
<td>9.57</td>
<td>1.02</td>
</tr>
<tr>
<td>Observation 08-09</td>
<td>Yes</td>
<td>65</td>
<td>8.54</td>
<td>2.00</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>19</td>
<td>8.84</td>
<td>1.68</td>
</tr>
<tr>
<td>Lesson Plans 09-10</td>
<td>Yes</td>
<td>63</td>
<td>9.11</td>
<td>1.39</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>23</td>
<td>8.91</td>
<td>1.65</td>
</tr>
<tr>
<td>Student Work 09-10</td>
<td>Yes</td>
<td>63</td>
<td>9.29</td>
<td>1.24</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>23</td>
<td>8.96</td>
<td>1.61</td>
</tr>
<tr>
<td>Observations 09-10</td>
<td>Yes</td>
<td>63</td>
<td>8.57</td>
<td>1.98</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>23</td>
<td>8.17</td>
<td>2.35</td>
</tr>
</tbody>
</table>

*Note.* Means and standard deviations for learning factors evident in lesson plans, student work, and observations. Max value for learning factors evident is 10.

As illustrated in Table 5, in 2008-2009, at the selected elementary schools, there were a total of 65 economically disadvantaged English language learners and 19 economically stable English language learners. The mean value of learning factors evident in lesson plans for economically disadvantaged students was 9.00 with a standard deviation of 1.47; the factors evident in lesson plans for economically stable students had
a mean value of 9.15 with a standard deviation of 1.25. The mean value of learning factors evident in student work for economically disadvantaged students was 9.29 with a standard deviation of 1.27; the factors evident in student work for economically stable students had a mean value of 9.57 with a standard deviation of 1.02. The mean value of learning factors evident in teacher observations for economically disadvantaged students was 8.54 with a standard deviation of 2.00; the factors evident in teacher observations for economically stable students had a mean value of 8.84 with a standard deviation of 1.68.

In 2009-2010, there were a total of 63 economically disadvantaged English language learners and eight economically stable English language learners. The mean value of learning factors evident in lesson plans for economically disadvantaged students was 9.11 with a standard deviation of 1.39; the factors evident in lesson plans for economically stable students had a mean value of 8.91 with a standard deviation of 1.65. The mean value of learning factors evident in student work for economically disadvantaged students was 9.29 with a standard deviation of 1.24; the factors evident in student work for economically stable students had a mean value of 8.96 with a standard deviation of 1.61. The mean value of learning factors evident in teacher observations for economically disadvantaged students was 8.57 with a standard deviation of 1.98; the factors evident in teacher observations for economically stable students had a mean value of 8.17 with a standard deviation of 2.35.

**Impact of Differentiated Instruction on MCT2 Language Arts and Mathematics Proficiencies**

To determine the impact the implementation of differentiated instruction had on MCT2 language arts and mathematics proficiencies of English language learners, 2008-
2009 and 2009-2010 MCT2 language arts and mathematics proficiencies for English
language learners were collected along with differentiated instruction data from teacher
lesson plans, samples of student work, classroom observations, and educator interviews
for School A, School B, and School C. In 2008-2009, School A assessed 29 English
language learners in language arts and mathematics. In language arts in 2008-2009,
School A had 24% of the students to score minimal. Forty-one percent of the students
scored basic. Thirty-five percent of the students scored proficient. The mean value of
language arts proficiency in 2008-2009 was 2.10 with a standard deviation of .772. In
mathematics in 2008-2009, School A had 24% of the students to score minimal. Twenty-
eight percent of the students scored basic. Forty-four percent of the students scored
proficient. Four percent of the students scored advanced. The mean value of mathematics
proficiency in 2008-2009 was 2.28 with a standard deviation of .882. In 2009-2010,
School A assessed 30 English language learners in language arts and mathematics. In
language arts in 2009-2010, School A had 20% of the students to score minimal. Thirty
percent of the students scored basic. Thirty-three percent of the students scored
proficient. Seventeen percent of the students scored advanced. The mean value of
language arts proficiency in 2009-2010 was 2.47 with a standard deviation of 1.008. In
mathematics in 2009-2010, School A had 23% of the students to score minimal.
Seventeen percent of the students scored basic. Fifty-three percent of the students scored
proficient. Seven percent of the students scored advanced. The mean value of
mathematics proficiency in 2009-2010 was 2.43 with a standard deviation of .935.

The MCT2 language arts and mathematics proficiency data was collected for
School B assessed 28 English language learners in language arts and mathematics. In language arts in 2008-2009, School B had 43% of the students to score minimal. Twenty-one percent of the students scored basic. Twenty-nine percent of the students scored proficient. The mean value of language arts proficiency in 2008-2009 was 2.00 with a standard deviation of 1.018. In mathematics in 2008-2009, School B had 29% of the students to score minimal. Twenty-nine percent of the students scored basic. Thirty-nine percent of the students scored proficient. Three percent of the students scored advanced. The mean value of mathematics proficiency in 2008-2009 was 2.18 with a standard deviation of .905. In 2009-2010, School B assessed 22 English language learners in language arts and mathematics. In language arts in 2009-2010, School B had 41% of the students to score minimal. Twenty-three percent of the students scored basic. Thirty-two percent of the students scored proficient. Four percent of the students scored advanced. The mean value of language arts proficiency in 2009-2010 was 2.00 with a standard deviation of .976. In mathematics in 2009-2010, School B had 32% of the students to score minimal. Twenty-three percent of the students scored basic. Forty-five percent of the students scored proficient. The mean value of mathematics proficiency in 2009-2010 was 2.14 with a standard deviation of .889.

The MCT2 language arts and mathematics proficiency data was collected for each School C in 2008-2009 and 2009-2010. In 2008-2009, School C assessed 42 English language learners in language arts and mathematics. In language arts in 2008-2009, School C had 33% of the students to score minimal. Forty-eight percent of the students scored basic. Fourteen percent of the students scored proficient. Five percent of the students scored advanced. The mean value of language arts proficiency in 2008-2009
was 1.90 with a standard deviation of .821. In mathematics in 2008-2009, School C had 29% of the students to score minimal. Forty-three percent of the students scored basic. Twenty-one percent of the students scored proficient. Seven percent of the students scored advanced. The mean value of mathematics proficiency in 2008-2009 was 2.07 with a standard deviation of .894. In 2009-2010, School C assessed 40 English language learners in language arts and mathematics. In language arts in 2009-2010, School C had 35% of the students to score minimal. Thirty percent of the students scored basic. Thirty percent of the students scored proficient. Five percent of the students scored advanced. The mean value of language arts proficiency in 2009-2010 was 2.05 with a standard deviation of .932. In mathematics in 2009-2010, School C had 38% of the students to score minimal. Twenty-two percent of the students scored basic. Thirty-five percent of the students scored proficient. Five percent of the students scored advanced. The mean value of mathematics proficiency in 2009-2010 was 2.08 with a standard deviation of .971.

The results of the research suggest that there is no correlation between differentiated instruction and success of English language learners. In 2008-2009, the implementation of differentiated instructed as measured by lesson plans, student work and observation had no impact on 3rd, 4th, or 5th grade language arts proficiency. 

$F(3, 80)=1.107, p=.351 \quad R^2=.040$ The result is not significant. In 2008-2009, the implementation of differentiated instructed as measured by lesson plans, student work and observation had no impact on 3rd, 4th, or 5th grade mathematics proficiency. 

$F(3, 80)=.955, p=.418 \quad R^2=.035$ The result is not significant. In 2009-2010, the
Implementation of differentiated instructed as measured by lesson plans, student work and observation had no impact on language arts proficiency.

\[ F(3, 82) = .300, p = .826, R^2 = .011 \]. The result is not significant. In 2009-2010, the implementation of differentiated instructed as measured by lesson plans, student work and observation had no impact on mathematics proficiency.

\[ F(3, 82) = 1.380, p = .255, R^2 = .048 \]. The result is not significant.

Summary

The purpose of this case study was to examine and analyze the differentiated instructional practices and implementation at three elementary schools, and determine if there was a correlation between differentiation instruction and success of English language learners. Success was measured by MCT2 language arts and mathematics proficiency. The practices and implementation of differentiated instruction was measured by lesson plans, student work and observation. To identify and examine the differentiated instruction in classrooms with English language learners, a checklist adopted from Hoover and Patton (2005) was used to classify the learning factors present in teacher lesson plans, student work, and classroom observations. School A, School B, and School C were selected based on their populations of elementary English language learners, which were the highest in the school district. At School A, School B, and School C, results suggest that the teachers used a variety of consistent differentiated instructional methods to respond to student diversity. The researcher’s goals were to answer the research questions posed by the study. The results were organized by research question and school.
The research indicates that a variety of principles of differentiated instruction were present in the 3rd, 4th, and 5th grade classrooms at School A. Literacy centers were a common practice in grades 3-5. Research suggests that focusing on literacy will not only improve language acquisition but also lead to growth in subject areas. To respond to student diversity relating to interests, readiness, and learning style, teachers employed leveled reading groups known as flex groups and language arts ability groups; these practices were used to meet the literacy and language arts needs of students at their level and move them forward. Accelerated Math and Accelerated Reader were two programs also used by various teachers to assess students’ levels, have students work and test on their level as weekly assessments showed growth patterns. Various teachers in 3rd, 4th, and 5th grade at School A used assessment data to plan lessons and activities to meet the diverse needs of the students. The results of the study suggest that teachers at School A utilized collaboration, data analysis, planning, and constant monitoring to adapt instruction to meet the needs of all students. The research indicates that a difference in the style of differentiated instruction did not occur related in English language learners and the subgroups within the group. Special education students were placed in classrooms with regular education students and received the same styles of differentiated instruction.

The results of the study suggest that the implementation of differentiated instruction at School A had no impact on the MCT2 language arts or mathematics proficiency levels. Using the Hoover Patton checklist to measure the DI evident in lesson plans, student work, and lesson plans, the results indicate no correlation between differentiated instruction and success of English language learners. In examining the

The research indicates that variety of principles of differentiated instruction were present in the 3rd, 4th, and 5th grade classrooms at School B. Literacy centers were evident in lesson plans for 3rd, 4th, and 5th grade teachers. Contrarily, literacy centers were not evident in observations. During the planned literacy interval on lesson plans, many teachers were having a snack time, taking a restroom break, or doing whole group instruction. Various differentiated instructional strategies and tiered lessons were evident in lesson plans. Contrarily, multiple DI strategies and tiered lessons were not evident in observation as portrayed in lesson plans. Many teachers used whole group instruction with worksheets.

To respond to student diversity relating to interests, readiness, and learning style, Shurley English and 6-Trait Writing were two language arts programs consistently employed in the classrooms at School B. Shurley English lessons were evident in both lesson plans, student work, and observation. To improve writing scores, 6-Trait writing was employed in 3rd – 5th grade, but concentrated in 4th grade. School B had evidence of
differentiating language arts when the focus was on writing. Another consistency in the instruction at School B is the RTI intervention time and ELL pull-out. Lesson plans and observations contained evidence of both. Lesson plans were specific with objectives and student names for ELL students and RTI students. Teacher collaboration was not evident in lesson plans, student work, or observation of 3rd, 4th, and 5th grade teachers at School B. Teachers did not appear to collaborate as a grade level or subject area team. Unlike School A and School C, School B did not appear to use assessment data to create lesson plans. The planning for RTI students showed evidence of data driven decision making, but not at the level observed at School A and School C, which was designed to meet the needs of all students. The research indicates that a difference in the style of differentiated instruction did not occur related in English language learners and the subgroups within the group. Research suggests that special education students were placed in classrooms with regular education students and received the same styles of differentiated instruction as regular education students. Research suggests that economically disadvantaged students were placed in the classrooms with economically stables students and received the same styles of differentiated instruction as regular education students.

The results of the study indicate that MCT2 language arts and mathematics proficiency scores did not improved between 2008-2009 and 2009-2010. Over 40% of English language learners scored basic in 2008-2009 and 2009-2010. In language arts, the percentages that scored minimal, basic, proficient, and advanced in 2008-2009 and 2009-2010 were within 2.8% of each other. In mathematics, 43% of English language learners scored proficient and above in 2008-2009; 46% scored proficient and above in mathematics in 2009-2010. More percentage of students scored minimal in mathematics
in 2009-2010 than in 2008-2009. The results of the study suggest that the implementation of differentiated instruction at School B had no impact on the MCT2 language arts or mathematics proficiency levels.

The research indicates that variety of principles of differentiated instruction were present in the 3rd, 4th, and 5th grade classrooms at School C. Common practiced observed in 3rd, 4th, and 5th grade classrooms were literacy centers, language arts centers, math centers, flex grouping, and designated reading coaching. To respond to student diversity relating to interests, readiness, and learning style, School C implemented a differentiated instruction strategic plan in reading. Every educator on campus was directly involved in coaching reading. Teachers and assistants documented the objectives and students’ names at each reading session, which were checked by the principal. According to the findings in the observation and interview, teachers at School C utilized data driven decision making, shared leadership, collaboration, planning, and constant monitoring to adapt instruction to meet the needs of all students. The research indicates that a difference in the style of differentiated instruction did not occur related in English language learners and the subgroups within the group. Research suggests that special education students were placed in classrooms with regular education students and received the same styles of differentiated instruction as regular education students. Research suggests that economically disadvantaged students were placed in the classrooms with economically stable students and received the same styles of differentiated instruction as regular education students.

The results of the study indicate that MCT2 language arts proficiency scores did improved between 2008-2009 and 2009-2010; mathematics proficiency score did not
improve between 2008-2009 and 2009-2010. Fourteen percent of English language learners scored proficient in 2008-2009; 30% scored proficient in 2009-2010. The percentage of English language learners scoring basic in language arts reduced from 48% in 2008-2009 to 30% in 2009-2010. The percentages that scored minimal and advanced in 2008-2009 and 2009-2010 were within 1.7% of each other. In mathematics, the percentage of English language learners scoring proficient and above increased from 29% in 2008-2009 to 40% in 2009-2010. Less percentage scored basic in mathematics in 2009-2010 than 2008-2009, while more percentage of students scored minimal. The results of the study suggest that the implementation of differentiated instruction at School C had no impact on the MCT2 language arts or mathematics proficiency levels.
CHAPTER V
DISCUSSION

Introduction

To produce an educated generation and become a competitive nation, the persistent achievement gap must be tackled. The minority student populations, especially the ELL population, are increasing from coast to coast in the United States and the achievement gap is increasing as well. English language learners are commonly identified as economically disadvantaged. Combining their financial hardships with their linguistic and cultural diversity, English language learners are at high risk of failing one or more grades, being misidentified for special education, dropping out of school, and having limited to no post secondary educational resources. Closing the achievement gap prevents the continuing cycle of generational poverty.

Many excuses are given as to why the achievement gap exists. Examples of excuses include that if they had a nutritious breakfast, if they had caring and supportive parents, if they spoke English, if they were made to behave, if they avoided drugs/alcohol, then they would be able to learn. Unfortunately, school faculty and staff regularly use these excuses to rid themselves of the responsibilities of teaching minority students, especially those with limited English proficiencies. The goal of this study was to determine if there was a correlation between differentiated instruction and success of English language learners. The study focused on four research questions that encompassed the extent to which the principles of differentiated instruction were present in the classroom, the ways teachers used differentiated instruction to respond to student diversity relating to student interest, readiness, and learning style, the difference in style
of differentiated instruction occurring related to English language learners and subgroups within this group, and the impact that the implementation of differentiated instruction had on MCT2 language arts and mathematics proficiencies.

Findings

The process of data collection included document review of lesson plans and student work, classroom observations, and interviews. The combination of the resources was to create a clear picture of the differentiated instruction in the classroom instruction and to increase the reliability and validity for the case study design. In the case study, several themes emerged throughout the data collection and analysis process and were evident across multiple data sources: collaboration, data analysis and data driven decision making, and differentiated literacy instruction. The document review of lesson plans and student work, the observations, and the interviews supported the themes.

The Extent of Principles of Differentiated Instruction

Collaboration. As described in Chapter IV, collaboration was evident at School A and School C. Collaboration included administrators, teachers, parents, and students. To the researcher, the extent of the how the principles of differentiated instruction were present in the classroom reflected the extent to which teachers and grade levels employed collaboration to aid in differentiation. Teachers and grade levels that collaborated had evidence of best practices for differentiated instruction for all students and for English language learners. The culture of collaboration was apparent to the researcher upon initial visit and continued throughout the process of data collection. School B did not appear to have a culture of collaboration through the multiple data resources collected. Collaborative relationships are important, according to York-Barr et al. (2007) to reflect,
discuss, and analyze together to help improve future class struggles. Collaboration at school A and School C occurred among key stakeholders, both formally and informally.

At School A and School C, the cultural norm of collaboration was evident across grade levels. The collaboration was among school administrators, teachers, assistant teachers, and support staff. Effective collaboration was provided in part by the shared leadership practices among school personnel. Collaboration between principals was also evident, specifically between principals of School A and School C. Commonalities of School A and School C observed in multiple resources included high expectations and differentiated instructional practices.

The principal at School A provided opportunities for teachers to collaborate during grade level meetings and staff meetings. The principal and assistant principal provided MCT2 data at the beginning of the school year for teachers to analyze. The principal set forth guidelines for teachers to report strengths, weaknesses, and a plan to teach the objectives not mastered according to the MCT2 data results. The shared leadership among the 3rd, 4th, and 5th grade teams was evident through the practices and efforts to analyze other assessment data weekly and create lesson plans as a team to meet the needs of all students. Teachers at School A also met at the beginning of the year with the grade levels above and below to discuss areas of strengths and weaknesses observed the previous year and in the MCT2 data results. The cross grade-level collaboration offered insight for goal setting and lesson planning.

The principal at School B provided teachers with time to collaborate during grade level meetings and staff development meetings, however collaboration was not evident in document review of lessons or student work or in observations. The principal provided
MCT2 analyzed data results per teacher at a staff development at the beginning of the year. Follow-up for support is recommended by Walker-Dalhouse and Risko (2009) to ensure that interventions are being implemented correctly, according to both state and local frameworks as well as students’ needs. Follow up on the use of the results did not occur and documented team minutes were not required. The lack of unity among grade levels was evident. Teachers were following the district pacing guide, but team collaboration was not observably apparent across the data sources.

The principal at School C created opportunities and guidelines for teachers to collaborate during grade level meetings and staff development. Guidelines for collaboration included planned meetings to discuss and analyze MCT2 data and Aimsweb fluency probing data, strategies and best practices to meet the needs of all students, including English language learners and struggling students, and plan lessons geared towards meeting the needs of the students identified as struggling from assessment data. The shared leadership within the grade level teams was evident through team collaboration. Teams assessed data weekly and created lesson plans to meet the needs of all students. Using the team plans, teachers were able to add on to lessons plans, tailoring them to the needs of their students using the team lesson plan as a guide.

Using Differentiated Instruction to Respond to Student Diversity

Differentiated literacy instruction. School A, School B, and School C addressed the needs of the diverse learners through differentiation instruction, tiered lessons, and interventions. All students were exposed to the different styles of DI, classrooms contained a mixture of students, and teachers strived to meet the needs of the diverse learners: economically disadvantages, economically stable, Black, White, Hispanic, ELL,
regular education, and special education. All three schools had specific instruction with variation of rigor to increase achievement. Research is conclusive that differentiated instruction is essential in literacy. Tobin (2008) states that differentiated instruction in literacy has shown gains in reading proficiency, both in English speaking and non-English speaking students. Among the three selected school, literacy instruction was differentiated by interest, response, delivery, and skill.

For a specific time each day, 3rd, 4th, and 5th grade students at the selected schools were grouped in reading flex groups. Flex grouping was employed in reading and language arts in 2009-2010 at School A, School B, and School C. Students were ability grouped at the beginning of the year. With constant monitoring and assessment, students were reevaluated and regrouped as seen fit to meet the needs of the students. The groups were flexible. Within flex groups, literacy centers were a common practice. Within literacy centers, fluency, comprehension, and vocabulary were the main focuses. Reutzal and Cooter (2005) discussed using small group settings of two to three students as being just as effective at improving literacy in learners as one on one grouping, especially in developing literacy skills such as phonemic awareness, fluency, and comprehension.

All three elementary schools appeared to strive for quality literacy instruction. According to Mohr et al. (2007), quality literacy instruction encourages and expects higher order thinking and communication while addressing learning factors, curriculum standards, and teaching/learning styles. At each school, ELL students were clustered outside of the classroom with either an ELL teacher or an ELL assistant. Pransky et al.
(2001) argues that the pull out method defeats the purpose of full language immersion, limiting exposure to proper use of English academic context.

At School A, strengths and weaknesses were observed in classroom instruction. Rigorous and challenging instruction was observed in few classrooms, specifically in one 4th grade class and in each 3rd grade classes. One 4th grade teacher employed a rigorous and challenging theatrical approach to reading. Reader’s Theatre from Reading A-Z was an approach a 4th grade teacher at School A used to help students with fluency, prosody, and intonation. The researcher observed students highly engaged and excited to participate in Readers’ Theatre. In the other two 4th grade classes, the instruction lacked rigor and was not challenging for the students. The activity used by two 4th grade teachers had a rigorous concept, but the method of delivery and amount of time of the task decreased the rigor. For the activity, the students were to take one vocabulary word, write the antonym, break it into syllables, then draw a picture symbolizing it. One of the teachers used the activity as a literacy center while the other centers were off task. The other teacher used the activity as whole group instruction and completed the entire activity on the board with the students. It appeared that quality activities were collaboratively planned, but the quality of the instruction decreased as the plan was individually implemented.

Differentiated instruction in literacy was evident in various classrooms at School B. One 4th grade and one 5th grade teachers had evidence of rigorous and challenging literacy instruction. These two teachers used higher depth of knowledge (DOK) questioning to promote comprehension and thinking skills, and used modified guided reading as a literacy center. These same teachers modeled reading using fluency,
prosody, and intonation. The remaining 3rd, 4th, and 5th grade practices observed in the classroom included popcorn reading where students took turns reading aloud, listening to a book on audio while students followed on the page, and whole group instruction of question and answers. Literacy centers were not highly evident in 3rd, 4th, or 5th grade at School B.

At School C, outside of flex groups, every student had reading in small differentiated literacy groups with an adult reading coach. School C initially implemented an intense differentiated instruction in 2nd grade six weeks prior to the state standardized test. The evidence of student learning was apparent through the phenomenal gains the grade level had made on the standardized test. This encouraged the principal and the grade level chairs to continue with the differentiated instruction and lend the strategies to the MCT2 grade levels. An uninterrupted reading block was scheduled by the principal. Literacy instruction was differentiated to meet the students’ individual needs in literacy, whether it was fluency, vocabulary, or comprehension. Small group instruction with the addition of teacher-student groups and intense teacher support is shown to improve literacy acquisition. Hoover et al. (2005) describes differentiated instruction in literacy as having a flexible learning environment that employs strategies which address strengths, interests, skills, and readiness of the students.

Data analysis and data-driven decision making. Teachers with strong observable evidence of differentiated instruction analyzed data and made data driven decisions to differentiate instruction based on readiness, learning style, interest, and needs. Data analysis and data driven decision making were evident through multiple approaches at School A, School B, and School C. The integration of data analysis into the daily routine
differed among the schools. School A, School B, and School C analyzed data from formal and informal assessments, using the data to plan interventions, remediation, and lessons. The principal at each school helped teachers identify the needs of the diverse learners, based on readiness, interest, and learning style. The principals also encouraged and assisted monitoring through assessment data. All three principals were instructional leaders in that they updated and shared assessment data with teachers.

School A encouraged data diving, their school term for data analysis. Beginning in August, teachers were analyzing MCT2 scores, areas of strengths and weaknesses, tracking students, etc. The 3rd grade team’s ability to daily collaborate and incorporate differentiated instruction to meet the specific needs of the students was unmatched. Data analysis and data driven decision making were an integral part of the 3rd grade teachers’ daily routine. Fourth and 5th grade also integrated data analysis and data driven decision making. Aimsweb probing of fluency was a weekly assessment given in 4th grade. In a fluency literacy center, students read aloud for the teacher for 30 seconds. The teachers used the data to show growth throughout the semester. Uniquely, the students were also involved in the data analysis. Students graphed their fluency in order to visualize their progress. School A was unified in regards to data analysis and data drive decision making. The principal shared leadership with teachers, who shared leadership with students.

The culture of School B was not one of unity in regards to data analysis and data driven decision making. The principal, assistant principal, and student intervention specialists (SIS) were the leaders in gathering, organizing, and delivering student data. At the beginning of the year, in a staff development, teachers received analyzed student
assessment data and were told to plan lessons according to the needs of the students. Guidelines of how to use data to plan was not provided. The perception from the observations was that the principal did not follow up on whether teachers were executing planned lessons according to MCT2 data. Teachers lacked ownership of the analysis and decision making. Teachers planned lessons individually; they did not normally meet as a team to collaborate or exchange ideas of best practices or differentiated instructional strategies. The teacher was required to have interventions and differentiated instruction in the lesson plans; though interventions and DI were evident in lesson plans, they were not evident in the classroom. The researcher observed students being pulled out for either ELL interventions or Tier II and Tier III remediation interventions. It was the school practice to pullout students for interventions to offer that extra needed instruction, ELL instruction, or Tier II and Tier III remediation. The teacher ran weekly assessment reports, planned individual or group interventions, and an assistant or teacher pulled them out of class and implemented the plans.

School C encouraged data diving, the same term used by School A. Data analysis and data driven decision making were an integral part of the school culture and daily routine. At the beginning of the school year, teachers analyzed MCT2 scores, areas of strengths and weaknesses, and began planning for the needs of struggling students. The principal required each grade level to collaborate weekly and record minutes. Teachers were required to document in lesson plans how they were going to incorporate differentiated instruction for the specific students identified in assessment results as struggling. In observing the 3rd, 4th, and 5th grade lesson plans, student work, classroom instruction, data analysis and data driven decision making were evident. Evidence was
apparent in fluency assessments, language acquisition assessment, and math facts assessment. Many teachers planned their literacy, language arts, and math centers according the previous week’s assessment data. The principal at School C required documentation or minutes from meetings held, to ensure teachers were planning for student achievement. The principal provided analyzed MCT2 data to the teachers at the beginning of the school year. The principal mandated that teachers report strengths, weaknesses, and a lesson plan for each objective not mastered according to the MCT2 data results. The principal also mandated that all students who scored minimal have goals and an individual plan per month. Formal and informal assessment data was used daily by all grade levels to plan lessons and interventions. The principal required reading and math assessment data weekly, along with a plan per student to meet their needs. The principal at School C not only shared leadership with teachers, but shared leadership with parents and students. A goal of the principal was to meet with each student at the beginning of the year. Each student discussed with the principal their MCT2 scores, their areas of strengths and weaknesses, and also created goals for the year. For students scoring basic and minimal, the principal met with parents to explain their child’s MCT2 results. The principal and parents discussed the observed strengths and weaknesses. The principal provided the goals set by the child and encouraged the parents to help their child meet those goals.

Differentiated Instruction Styles within Subgroups

Response to intervention. Tier I of the three tier process of RTI, as discussed by Rock et al. (2008) requires differentiated instruction to meet the needs of all students, through observation, assessment, monitoring, interest, etc. The purpose of differentiated
instruction at Tier I is to meet the needs of all students, including English language learners and the subgroups within the group. Tier I is simply high quality instruction; tier I was evident in School A, School B, and School C. All three schools excelled at implementing interventions and monitoring the students. English language learners, and the subgroups within, received ELL support at each school site, often by pull out method. School C employed a certified ELL instructor along with two ELL assistants to work with students in class as well as in small groups pulled out from class. The environment and focus of School A, School B, and School C were to increase the achievement of all students, but also to close the achievement gap. The culture of School C appeared to have the culture with the most acceptance of diversity. The school culture appeared to invite and embrace cultural diversity. The researcher was asked to participate in the multicultural celebration held with students and parents. The culture of School A was one of acceptance and also embraced the diverse cultured within the school. It is suggested that embracing and appreciating the student diversity is the key to reaching diverse students and parents. Parent communications at School A and School C were a priority; both School A and School C employed bilingual faculty members. School B embraced the student diversity; the culture of the school was not one that embraced or invited cultural diversity.

Assessment data was used by teachers and student intervention specialists to create and execute individualized lesson plans to meet the needs of the students. The extent of differentiated instruction at each school varied. School A utilized effective leadership and collaboration to identify the needs of the students and strategically plan to meet those needs in the classroom. Literacy centers and grouping allowed teachers to
focus on the needs of small groups. School B appeared to minimally differentiate instruction in the classroom, although planning was evident. In many classrooms, due to school practice, students in Tier II, Tier III, ELL were pulled out of the classroom for intervention. The researcher observed the remaining students in whole group instruction. Tier I differentiation was not evident in many classrooms. The differentiated instruction observed in two classrooms reflected the best practices suggested in literature. The majority of differentiated instruction observed took place in small groups outside of the classroom, away from regular classroom instruction, with those students pulled out for interventions. School C exemplified the use of differentiated instruction and data driven decision making. It also exemplified Tier I differentiated instruction. Students were observed completing multiple differentiated tasks in class to master the same objective. Assignments were differentiated to offer students choices based on strengths and interests. Teachers used multiple delivery styles within the classroom: whole group, small group, centers, one-on-one.

Student intervention specialists at School A, School B, and School C worked collaboratively with teachers to schedule interventions so that students received individualized instruction. Principals, teachers, and student intervention specialists analyzed assessment data to ensure that students were placed appropriately in reading and language arts flex groups. The flex groups were formed using assessment data, but teachers could move students freely into groups based on their ability. Document review, observations, and interviews supported the differentiated instruction and daily practices and procedures confirmed the findings. Differentiated instruction was also offered in before and after school tutoring which was designed for struggling students. Tier II and
Tier III interventions were scheduled during language arts and typically were arranged in small groups. The intervention scheduling could have allowed the teacher to be more effective in differentiating instruction in the classroom, which is a critical element of narrowing the achievement gap for English language learners.

*Impact of Differentiated Instruction on MCT2 Language Arts and Mathematics*

*Proficiencies*

The results of the study conclude that the differentiated instruction did not impact MCT2 language arts and mathematics proficiencies, as measured by lesson plans, student work samples, and observations. The researcher observed multiple strategies of differentiated instruction employed that were not measurable on the instrument chosen by the researcher. Only three out of 10 teachers had evidence of all 10 learning factors, yet 33% of the students scored proficient and 17% scored advanced in language arts in 2009-2010 and 53% scored proficient while 7% scored advanced in mathematics. School A had a higher percentage of ELL students score proficient or better in 3rd grade language arts and math compared to the district and to the state. The third grade team consisted of the only three teachers at School A that had all 10 learning factors present in lesson plans, student work samples, and observation. School B had a higher percentage of ELL students score proficient or better in language arts compared to the state, and math compared to the district and the state. School C had a lower percentage of students score proficient and above compared to district and state. The faculty and staff at Schools A, B and C employed various strategies to ensure that all students achieved, regardless of external factors. School C, the case study school, and School A employed numerous observable strategies from literature that ensured success of all students, specifically
English language learners. School B did not employ as many observable strategies as the selected schools with similar demographics, but excelled in both language arts compared to the state and math compared to the district and state.

Ancillary Findings

There is an additional factor at Schools A, B, C that might be a considering factor in narrowing the achievement gap and ensuring success of all students, specifically English language learners. Effective leadership is an essential factor in narrowing the achievement gap. Once an effective principal shows significant progress, he or she is often promoted out of the school. This is a common practice in the selected district as in many districts. In 2009-2010, the principal of School C was selected as Administrator of the Year. Between 2007 and 2010, the principal changed the perception of the school in the community, changed the climate and culture of the school by assisting the negative and ineffective teachers to move on and by focusing on the shining star teachers. The principal also started a student counsel, honors society, and environmental club, all in which students were able to show pride and take ownership of the school. For the 2010-2011 school year, the principal was moved to a larger elementary school in the district. If having effective site leadership is essential in narrowing the achievement gap, schools within districts that shift administration often are at a disadvantage. School A and School C set the expectations for the teachers and followed up on the progress teachers made meeting those expectations. The principals at School A and School C were effective in that multiple routes to lead to student achievement were taken, research based programs were in place, and teachers were held accountable for their students’ success.
Recommendations for Policy and Practice

The researcher recommends that assistant superintendent of curriculum and instruction, the assistant superintendent of elementary education, principals, and a selected group of instructional leaders and teachers come together to develop an instrument for identifying and measuring differentiated instruction in the classroom. Throughout the study, the participating principals did not have a method for observing and evaluating strategies for differentiated instruction, including but not limited to, delivery style, alternative assessments, scaffolding, tiered lessons, interest, and readiness. Involving the mentioned key stakeholders, the administrators and the teachers would be able to develop a fair and rational instrument based on the needs of the district and perhaps the needs of an individual school.

The researcher also recommends that all principals require observable evidence of implemented differentiated instruction. Lesson plans, for School B, were the only evidentiary source of documentation for differentiated instruction. The principal of School A mandated documentation of specific differentiated instructional strategies for individual students, including the objective, methods of teaching objective, and methods of assessing for mastery. Principal of School C also mandated documented minutes from grade level meetings which reflected teachers collaborating about assigned topic, such as the current week’s reading assessment scores, as well as show how teachers plan to address the issue. This principal, along with the assistant principal, followed up on the differentiating and monitoring of student progress. Teachers were held accountable.

A recommendation for the superintendent is to utilize the resources within the district to facilitate professional development for teachers to incorporate collaboration,
data driven decision making, and effective differentiated instruction. Teachers need to collaborate and exchange ideas on lesson plans, methods of differentiated instruction, what works, and what does not. Teacher collaboration of this nature offers insight and eliminates stress due to lack of planning. District administration can utilize star teachers as role model instructors, allowing other teachers to observe and learn from their peers. The professional development would also allow opportunities to assess needs of the teachers and offer planned collaboration with star teachers. An observation instrument for differentiated instruction could be a product of the professional development.

Limitations

In 2008-2009, teachers submitted lesson plans using EZ Lesson Planner. Going into the study, the researcher included the use of 2008-2009 lesson plans to identify the extent of differentiated instruction employed in the classroom. The selected school district did not renew the contract with EZ Lesson Planner, making any archived lesson plans unavailable without a renewal of the subscription. The researcher learned from a representative from EZ Lesson Planner that renewal of the contract estimated at $875 for the year, and any lesson plans were unavailable without the renewal. In 2009-2010, the school district began using Pinnacle Instruction, which offered a one stop online database, connecting all educators in the district. Pinnacle Instruction provided an online database for lesson plans, viewable only through login name and password. Attendance and student information was also kept in Pinnacle Instruction. The district had no desire to renew the contract with EZ Lesson Planner.

Going into the study, the researcher expected missing data due to the transient population and attrition or resignation of teachers. Through the data collection process, it
was determined that out of 151 students between 2008 and 2010, 52 students had missing data in 2008-2009 and 59 students in 2009-2010. Of the 26 teachers for 3\textsuperscript{rd}, 4\textsuperscript{th}, and 5\textsuperscript{th} grade at School A, School B, and School C between 2008-2009 and 2009-2010, there were missing data for one teacher from School A, two teachers from School B, and four teachers from School C. The extent of the missing data could have affected the results of the study.

As a limitation, the researcher expected some resistance from the teachers in reference to participation in the observation, the interview, and the student work collection. Throughout the study, teachers from School A and School C were very willing to participate, collect student work samples for the study, and be observed. The environment at School A and School C was very welcoming and enthusiastic about the study. Administrators at the three schools were very willing to help. Some teachers at School B were not as willing to participate as expected. Of the 10 teachers asked to participate in interviews and asked to collect student work samples, seven teachers initially declined. The assistant principal of School B collected the student work on her personal time for the seven teachers.

The researcher concluded that a limitation in the study was the instrument; it measured learning factors in lesson plans, student work, and observations and was not sensitive enough and did not offer an accurate measure of the differentiation. The researcher observed strong differentiated instruction in various classrooms at all three schools that were not measurable on the instrument. The instrument was not sensitive enough to detect multiple strategies of differentiation. Also, the instrument did not include a measure for instructional best practices, such as monitoring and data driven
decision making. Mediocre teaching often contained evidence of nine out of 10 learning factors.

Recommendations for Future Research

School A, School B, and School C were ability grouped for reading and language arts. Tutoring for at-risk students was offered before and after school. Students on tier II and tier III of the three tier model and ELL students were pulled out of class for intensive interventions. School C had a distinctive approach to differentiated literacy instruction. Every day for two hours, students were in small groups receiving differentiated literacy instruction. Every certified personnel was in a classroom as a reading coach. The classroom teacher developed the instructional plan per student needs, the reading coach executed it. This practice was unique to School C and could be a vital factor to narrowing the achievement gap. Further research could examine this practice and measure the effectiveness of this coordinated effort for all students, for minority students, and for ELL students. Specific differentiated instructional strategies and interventions could be the focus of the research.

Although School C had the highest level of observable differentiated instruction, ELL students’ MCT2 language arts and mathematics proficiencies, on average, were the lowest of the participating schools. Further research could include non ELL students to the participating group, looking for correlation between MCT2 language arts and math proficiencies and differentiated instruction received, measuring for specific differentiated instructional practices. This could shed light on whether general best practices for differentiated instructional strategies are universally applicable. The Mississippi Department of Education adopted the WIDA Consortium as the standard English
proficiency exam in 2007. Future research could examine the differentiated instruction received by ELL students and determine whether a correlation exists between WIDA English language proficiencies and differentiated instruction.

It would be beneficial to extend this study to include 1st and 2nd grade student achievement, as measured by the state standardized test, the ITBS (Iowa Test of Basic Skills). It would be interesting to determine whether the same differentiated instructional strategies employed at 1st and 2nd grade level would have the same impact on state the assessments. Future research could shed light on specific differentiated instructional strategies that impact success and growth, as measured by ITBS and MCT2 scores.

The selected instrument used in the study was a limitation in measuring the differentiated instruction evident in classroom observations, student work, and lesson plans. Further research to develop an instrument to accurately measure the presence of differentiated instruction strategies would be beneficial to all grade level administrators as well as teachers and students. An instrument developed to identify the presence of research bases strategies would increase opportunities for success for teachers, which will affect opportunities for success for students.

The indicators of differentiated instruction evaluated planning and preparation, instructional delivery, and student product. According to literature, the content, process, and product should all be differentiated to meet the needs of the students. Future research could examine a specific indicator, such as product, to establish if a correlation exists. Student work, as a product, contains evidence of differentiation. Using a developed instrument, future researchers can evaluate student work and student products for evidence of differentiation and differentiated instructional strategies from literature.
Researchers can then determine if there is a correlation between the differentiation of student product, or other indicator, and student success.

Summary

Administrators and teachers at School A, School B, and School C saw a need for differentiated instruction and implemented strategies best thought to fit the needs of their students. The practices observed at School A and School C are the first steps towards closing the achievement gap. In the 3rd grade at School A, in one teacher’s room at School B, and every aspect of School C, the researcher experienced an environment of every child, every time. The operations and routines at School C summarized the best practices mentioned in the literature review. Every faculty member and support staff ensured daily that all students could learn. Using personnel, students, and parents, School C utilized its resources to educate every child regardless of fiscal resources. School A and School C had a culture of collaboration, data analysis and data driven decision making, response to intervention, and differentiated literacy instruction. School B possessed a culture of differentiated literacy instruction and response to intervention. Minority students and English language learners are underachieving, so practices that show growth on assessments, formally and informally, should be repeated. Schools with a culture of every student, every day, have the ability to break generational cycles and to change the future that has been predicted by circumstances. Effective leadership is an essential factor that influences the success of quality implementation of differentiated instruction. Effective leaders set goals, expectations, and hold teachers, parents, and students accountable.
APPENDIX A

IRB APPROVAL TO PERFORM STUDY

THE UNIVERSITY OF SOUTHERN MISSISSIPPI
Institutional Review Board
118 College Drive #5147
Hattiesburg, MS 39406-0001
Tel: 601.266.6820
Fax: 601.266.5509
www.usm.edu/irb

HUMAN SUBJECTS PROTECTION REVIEW COMMITTEE
NOTICE OF COMMITTEE ACTION

The project has been reviewed by The University of Southern Mississippi Human Subjects Protection Review Committee in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

- The risks to subjects are minimized.
- The risks to subjects are reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered regarding risks to subjects must be reported immediately, but not later than 10 days following the event. This should be reported to the IRB Office via the "Adverse Effect Report Form".
- If approved, the maximum period of approval is limited to twelve months. Projects that exceed this period must submit an application for renewal or continuation.

PROTOCOL NUMBER: 10110806
PROJECT TITLE: Is There a Correlation Between Differentiating Instruction and English Language Learner Achievement?
PROPOSED PROJECT DATES: 11/01/2010 to 08/01/2011
PROJECT TYPE: Dissertation
PRINCIPAL INVESTIGATORS: Melissa Monique DeAngelo
COLLEGE/DIVISION: College of Education & Psychology
DEPARTMENT: Educational Leadership
FUNDING AGENCY: N/A
HSPRC COMMITTEE ACTION: Expedited Review Approval
PERIOD OF APPROVAL: 01/03/2011 to 01/02/2012

Lawrence A. Hosman, Ph.D.
HSPRC Chair

Date: 11/29/2011
October 19, 2010

Mrs. Melissa DeAngelo
P. O. Box 42
Gautier, MS 39553

Dear Mrs. DeAngelo:

Upon approval from the University of Southern Mississippi’s IRB, you have permission to conduct your study for the purpose of your research entitled *Is There a Correlation Between Differentiating Instruction and English Language Learner Achievement*.

Please contact me should you have any questions.

Sincerely,

Superintendent
APPENDIX C

PERMISSION FROM PRINCIPALS TO PERFORM STUDY

School A

October 19, 2010

Mrs. Melissa DeAngelo
P. O. Box 42
Gautier, MS 39553

Dear Mrs. DeAngelo:

Upon approval from the University of Southern Mississippi’s IRB, you have permission to conduct your study for the purpose of your research entitled *Is There a Correlation Between Differentiating Instruction and English Language Learner Achievement.*

Please contact me should you have any questions.

Sincerely,

Principal A

Principal
October 19, 2010

Mrs. Melissa DeAngelo
P. O. Box 42
Gautier, MS 39553

Dear Mrs. DeAngelo:

Upon approval from the University of Southern Mississippi's IRB, you have permission to conduct your study for the purpose of your research entitled

*Is There a Correlation Between Differentiating Instruction and English Language Learner Achievement.*

Please contact me should you have any questions.

Sincerely,

Principal B

Principal,
October 19, 2010

Mrs. Melissa DeAngelo
P. O. Box 42
Gautier, MS 39553

Dear Mrs. DeAngelo:

Upon approval from the University of Southern Mississippi's IRB, you have permission to conduct your study for the purpose of your research entitled Is There a Correlation Between Differentiating Instruction and English Language Learner Achievement.

Please contact me should you have any questions.

Principal C
APPENDIX D

OBSERVATION CHECKLIST

___ Facilitate learning and development through joint productive activities
___ Access learner’s prior knowledge and learning
___ Provide teaching and learning activities based on student’s experiences and skills
___ Rigorous and higher-level thinking in problem-solving
___ Engage students through ongoing verbal dialogue
___ Relate academic content to students’ own cultural Environment/experiences
___ Integration so that content areas/skills are addressed and reinforced Over time
___ Cognitive AND academic curriculum goals are addressed
___ Students are challenged with high expectations
___ Cultural values/norms are valued

Note. Document other relevant information about the curriculum implementation.

Figure 1. Hoover and Patton (2005) recommend the checklist of learning factors for English language learners, which provides angles in approaching differentiated instruction.

(Subtitle 1) “Differentiating Curriculum and Instruction for English Language Learners with Special Needs,” by John Hoover and James Patton, 2005, Intervention of School & Clinic, 40, 231-235. Adapted with permission of the author.
APPENDIX E

EDUCATOR INTERVIEW QUESTIONS

“By taking part and completing the interview, I am consenting to participate and understand that I will never be individually identified.”

1. School Leadership
   a. What is your school’s vision and mission?
   b. What is your school’s primary goal?
   c. How is this vision/mission/goal communicated?
   d. Who is your school leader? Why?
   e. How does the leadership foster student learning?
   f. Do various school personnel share the leadership? How?
   g. Are the needs of at-risk students met by the leadership? How?
   h. Are school-wide decisions made based on students’ needs? Example?

2. Collaboration
   a. What does the collaboration look like at your school?
   b. Are their specific leaders of the collaborative sessions? Who?
   c. Do you collaborate? With whom? How often?
   d. What are the outcomes of collaboration?
   e. Which programs and practices are in place at your school to ensure student achievement?

3. Classroom Instruction
   a. Which classroom practices support student learning?
   b. What are teachers suppose to do and know?
   c. How do you know they do it or know it?
   d. How is instruction differentiated to meet the needs of all students? Examples?

4. Program Implementation?
   a. What programs are in place at your school that has helped close the achievement gap?
   b. Are programs in place that have improved attendance? How as this affected the achievement?
   c. Which programs have improved your school climate?
   d. Which programs have improved content learning?
   e. Which programs have improved content learning specifically for students with diverse needs?
   f. Which programs have improved literacy skills?
   g. Which programs have improved mathematics skills?

5. Intervention
   a. Which support resources are in place for students and their families?
   b. Which students receive support resources? Who determines that?
   c. How are support resources distributed, implemented, and monitored? By whom?
   d. What do interventions look like at your school?
   e. Which interventions are offered to underperforming or low achieving students?
   f. How are these interventions implemented and monitored?
   g. Who is involved in the interventions?
   h. How do you ensure that each individual student’s needs are met?
   i. How is learning supported for traditional underperforming or low achieving student groups?

6. Practices that increase student achievement
   a. Which school-wide practices support student achievement?
b. Who determines which practices will be implemented?
c. How is the efficacy of these practices measured? Is data collected?
d. How do you know the practices are successful?
e. Has the practice been modified since initial implementation?
f. How do you know that all students, especially traditional underachieving student groups, have access to the practices?
g. What are the grade-level or departmental practices that support student achievement?
h. How do you know that students are appropriately placed in classes, programs, or courses?

7. Data Analysis
   a. How is data used to support student achievement?
   b. How is responsible for disseminating and reviewing data?
   c. How is the information share among teachers? Stakeholders?
   d. Does your school utilize data analyzing program? Which?
   e. How often does data analyzing take place at your school?

8. Professional Development Practices that support student achievement
   a. Which professional development opportunities are available to teachers and support staff?
   b. Who is the leader in professional development?
   c. What is the role of the administrator?
   d. What is the role of the teacher?
   e. How do know teachers are using information and skills learned?
   f. What professional development have you received in the past three years?

9. Student achievement
   a. Have you ensured the academic achievement of your students? How?
   b. What advice would you offer to others who desire to imitate your programs and practices to sustain student achievement and close the achievement gap?

10. Do you have anything to add in relation to student achievement and closing the achievement gap?
APPENDIX F

REQUEST TO USE CHECKLIST

John J. Hoover
BUENO Center
UCB 247 School of Education
University of Colorado, Boulder 80309

October 18, 2010

Dr. Hoover,

My name is Melissa DeAngelo and I am doctoral student at The University of Southern Mississippi. I am currently working on my dissertation. I want to find out if there is a correlation between differentiated instruction and English language learners? I read your article Differentiated Instruction for English Language Learners with Special Needs. I believe the checklist for learning factor in English language learners would benefit my study. Thank you for granting me permission to use it.

The purpose of this letter is to formally request your permission to the checklist for learning factors in English language learners in my dissertation, Is there a correlation between differentiated Instruction and English language learner achievement? Please complete, sign and return in the pre-stamped envelope.

Thank you,

Melissa DeAngelo
P.O.Box 42
Gautier, MS 39553
(228)990-8856
mdeangelo@psd.ms

I. __________________________, give my permission for Melissa DeAngelo, doctoral student at The University of Southern Mississippi, to use the checklist for learning factors in English language learners in her study and dissertation. She has my permission to reprint the checklist as needed for her dissertation.

I. __________________________, do not give Melissa DeAngelo permission to use the checklist for learning factors in English language learners in her study nor permission to reprint.
Dear Educator,

Hello, my name is Melissa DeAngelo and I am a Doctoral student at the University of Southern Mississippi. The Pascagoula School District is allowing me to conduct a research study on differentiated instruction and academic achievement of English language learners. The purpose of the study is to improve differentiating instructional strategies and all around academic achievement of students, specifically English language learners.

I will be observing classroom instruction of 3rd, 4th, and 5th grade teachers at three elementary schools. The observations will last approximately 45 minutes. I will contact you and arrange a time for this voluntary observation. I will also be interviewing 3rd, 4th, and 5th grade teachers. The interview is also voluntary. The interview will consist of 55 questions and will last approximately 30 minutes. A digital audio recorder may be used to record an audio version of the interview, which will later be transcribed for accuracy. I will also be analyzing randomly selected student work, which will have the identities removed to decrease residual risk of identifying students.

There are very few risks involved. Student will not directly participate in the study. Student interaction will be minimal or nonexistent. Copies of student work with names removed will be evaluated as products of instruction. Your identity will be kept confidential and identifying information will be discarded. Participation is completely voluntary and participation may be discontinued at any time without penalty or prejudice.

Benefits from this study include, but are not limited to, improving the quality of differentiated instruction to increase the proficiency levels of English language learners. The study could inform school officials as to better assist the academic and emotional growth of English language learners. The results of the study could show if the strategies provided impacted the achievement of the students, specifically English language learners. By documenting the strategies at each school, comparing the strategies from the classroom to what the literature says, a correlation might be evident. The literature and results of study could also offer insight on the role of the teacher and its importance in promoting student achievement. By collecting information from teacher interviews, identifying the practices and strategies used by the elementary teachers and correlating those practices with test scores, results may offer significant insight as to which strategies may be linked to achievement. The instruction is the focus, not the students. Any identifying information of the students will be discarded prior to my observation and analysis. Any identifying information indirectly obtained will be kept strictly confidential. I will securely store the student work and observation information for a maximum of two years in a locked filing cabinet. Then the student work and observation information will be shredded and discarded.

The results of this research may appear in publications. Individual who directly or indirectly participated will not be identified. The findings of the research study will be reported in my dissertation, entitled Is There a Correlation Between Differentiating Instruction and English Language Learner Achievement? If you would like to be informed of the results, you may contact me at mel_deangelo@msn.com after August 2011.

This project and this consent form have been reviewed by the Institutional Review Board, which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research participant should be directed to the Chair of the Institutional Review Board, The University of Southern Mississippi, 118 College Drive #5147, Hattiesburg, MS 39406-0001, (601) 266-6820. A copy of this form will be given to the participant.

Thank you,
Melissa M. DeAngelo
REFERENCES


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