DIFFERENTIATED INSTRUCTION IN AN INCLUSIVE 5TH GRADE COTAUGHT CLASSROOM

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Diversity in the classroom is growing rapidly with students reflecting differences in race, religion, disabilities, interests, backgrounds, and abilities. Differentiated instruction has been researched to successfully increase student performance and engagement in these diverse classrooms. This study aims at enriching the knowledge base centered on differentiated instruction and its effect on engagement. The research question guiding this study was: What is the nature of engagement for teachers and students in a differentiated instruction classroom? This research study investigated a 5th grade classroom in an urban area grade school in the Midwest. This is a full inclusion 5th grade classroom, with 11 typically developing students and 11 students with special needs. In addition, this classroom is co-taught by a general education teacher and a special education teacher. The participants for this study included the 22 students and two teachers in this classroom. The research conducted for this study is qualitative in nature and utilized phenomenology as the research method. Findings of the study indicated that differentiated instruction can be an invaluable tool utilized to increase engagement and motivation in the classroom while accommodating for student differences. Furthermore, cooperating teachers participating in the study emphasized the need for teacher’s willingness to accept students at their different ability levels and try to reach them so they succeed in the classroom.
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CHAPTER I: INTRODUCTION

Education is an ever changing process. It mutates and adjusts according to the changes in our society and current education reform approaches. The No Child Left Behind Act (NCLB), signed into law by President George W. Bush on January 8, 2002, created a new rush of educational reform ideas (NCLB, 2004). “As hailed as this act was, it has caused many unwanted and unintended problems” (Darling-Hammond, 2007). The leading reform ideas were centered around accountability, high stakes testing, and choice (Ravitch, 2010). Classrooms are finally reflecting the heterogeneous population of the United States of America, but we are still teaching students as if they belong to a homogenous class. Classrooms are now composed of students reflecting differences in race, religion, disabilities, etc. These diverse students come to school with very different backgrounds, abilities, interests, and needs. According to President Obama (2010), “the future belongs to the nations that best educate its citizens”. Yet, the question remains, how do we accommodate for the differences between students that are now present in these diverse classrooms? Differentiated instruction as a teaching philosophy has been researched to successfully increase student performance and engagement in the classroom (Beecher & Sweeny, 2008; Brimfield, Masci, & DeFiore, 2002; Cusumano & Mueller, 2007; Mastropieri et al., 2006; Rock, Gregg, Ellis, & Gable, 2008; Tieso, 2001). Now, more than ever, it should be important for students to receive a well rounded education focused on a curriculum that will prepare students for this ever evolving world.

I, as the researcher, investigate this study aware of my own subjectivity. Peshkin (1988) defines subjectivity as a researcher’s qualities that affect the results of all investigations. Subjectivity can be seen as a virtuous contribution to research because it results from a researcher’s unique personal background and qualities combined with their collected data and
analysis. Because subjectivity is consistently present in all research and non-research aspects of my life, I am disclosing my personal reasons for conducting this study.

I have known that I wanted to be a teacher since I was a little girl. I loved to play “school” and I, of course, was always the teacher. When I graduated from high school and decided to make my dream a reality, I had no idea of the challenges the teaching profession entails. Teachers now have to teach the most diverse learners due, in part, to changing societal rules. In addition, teachers have to deal with standardized testing and accountability procedures while balancing requests from principals, colleagues, parents, and the people we go into teaching for in the first place, the students (VanSciver, 2005). It is almost too easy for teachers to let students “fall through the cracks” and not receive the education that they so desperately need in order to succeed in today’s world.

I have always been interested in how teachers try to meet the diverse and unique needs of all of the students in their classrooms. During the history of my own experience in grade school, I was always concerned about why some students had to be pulled out of the classroom or why my friends couldn’t stay with me for certain subjects. I couldn’t understand the term disability or special needs and why those students didn’t stay with me in the regular classroom. When I got into middle school, I was asked to be in a program called OASIS, which was a class for talented and gifted learners. I nervously agreed and soon realized that I would not be in the regular classroom while attending OASIS. I was pulled out, along with a few other students, every morning. Although these classes were sometimes helpful and interesting, I did not feel that I learned much more than the students who stayed in “regular classes” and, instead, I spent most of the morning working on mind puzzles and challenge games. I have constantly wondered how this process could be improved for both the lower and higher ability students.
While completing my Bachelor’s degree for Early Childhood Education, I briefly heard of a teaching philosophy called differentiated instruction and I was immediately intrigued. I decided that I would like to know more about this philosophy: why teachers implement differentiated instruction and the impact this has on engagement, for both teachers and students. I have completed this thesis on differentiated instruction to further my own personal knowledge and enrich the knowledge base centered on differentiated instruction for all who are interested. This thesis will help teachers of any subject and grade level willing to put the effort forth to teach using differentiation, as well as curriculum development specialists, and textbook writers who prepare materials for classrooms.

Statement of Problem

Differentiated instruction is a teaching philosophy geared to help teachers differentiate instruction to best suit the needs of all students and to help them succeed to their highest potential. The teaching profession is extremely challenging and includes a wide array of necessary duties. Because of this, some teachers feel overwhelmed with just their daily requirements, let alone adding differentiation to their current instructional methods. Planning and implementing, while using differentiation, requires a lot of hard work and determination. Teachers will need to gather a variety of valuable resources and be willing to work with other colleagues to best help students succeed. Differentiation also requires more planning time for lessons so that content can be better geared towards each student’s ability level, instead of aiming somewhere in the middle of the levels of students in your classroom and hoping for the best.

When I ask educators if they are using differentiation in the classroom, the response is almost always yes. Yet when I ask what differentiation is, a different answer is provided every
time. Most of these educators are using differentiated instruction in some way and in some aspect of their classroom though it may look different for each teacher. “Differentiation” is becoming a common term with most educators but in order to plan and implement differentiated lessons, one has to know what differentiated instruction actually means. According to Tomlinson (2008), “differentiated instruction is student-aware teaching” that requires teachers, at any given point in a lesson, to be aware of which students are with us, which students are behind us, and which students are ahead of us, and adjust lessons accordingly (p. 27). Creating lessons and teaching them using differentiated instruction is no easy accomplishment. It requires practice and experience but, I believe, it is well worth the time and commitment if it helps each student succeed.

**Purpose Statement**

The purpose of this study is to investigate the nature of engagement for teachers and students in a differentiated, full inclusion, 5th grade classroom. This information will benefit all teachers to become further informed about differentiated instruction and, consequently, better at helping each student learn in a way that is best for their individual and unique learning styles and abilities. Differentiation will not only help the “average” learner but the higher ability and lower ability learners as well. This information will help teachers learn more about the different strategies used with differentiated instruction and how to implement them into a classroom.

**Research Question**

Due to the diverse learning needs of students in today’s classroom, differentiation of instruction is required to help them to all succeed. This study focuses on the following research question to help provide support for this challenging and important topic. What is the nature of engagement for teachers and students in a differentiated instruction classroom?
Definition of Terms

Content: Content is one of the three main ways to differentiate lessons as researched by Anderson, 2007; Bailey and Williams-Black, 2008; Huebner, 2010; Levy, 2008; and McGlinn, 2005. This refers to what students are learning, or the curriculum that is being taught.

Differentiated instruction: According to the purposes of this study, differentiated instruction is a philosophy of teaching that accommodates for student needs and unique abilities. It is teaching that is more aware of student differences so that a teacher knows which students are ahead of them, which students are with them, and which students are behind them during a lesson and adjusts the lesson accordingly.

Engagement: This refers to the degree of intensity and emotional quality of involvement in initiating and carrying out learning activities (Skinner & Belmont, 1993).

Flexible groups: This term is frequently used with differentiated instruction. Flexible groups refer to the use of mixed grouping strategies. Groups can be determined by ability, interest, student choice, teacher choice, or random assignment using the “draw out of a hat” method, or Popsicle sticks with student’s names written on them. Many different grouping strategies should be used in a differentiated classroom.

Leveled work: This refers to the content of a lesson being varied for different groups of students’ abilities or readiness. Leveled work is often split into three categories: high, average or on target, and low.

Process: This is one of the three main ways to differentiate lessons as researched by Anderson, 2007; Bailey and Williams-Black, 2008; Huebner, 2010; Levy, 2008; and McGlinn, 2005. This refers to how students learn, including the different activities and strategies that may be used.
Product: One of the three main ways to differentiate lessons as researched by Anderson, 2007; Bailey and Williams-Black, 2008; Huebner, 2010; Levy, 2008; and McGlinn, 2005. This refers to how students demonstrate what they have learned.

Student interest: One of the three main categories of student differences as researched by Garderen & Whittaker, 2006; Hall, 2009; and Tomlinson & Allan, 2000. Student interest refers to the topics that motivate a student.

Student readiness: Readiness is one of the three main categories of student differences as researched by Garderen & Whittaker, 2006; Hall, 2009; and Tomlinson & Allan, 2000. Student readiness refers to the student’s prior knowledge and ability level.

Student learning profiles: A learning profile is one of the three main categories of student differences as researched by Garderen & Whittaker, 2006; Hall, 2009; and Tomlinson & Allan, 2000. Student learning profiles refer to the different styles (individual, group, auditory, visual, etc.) in which students prefer to learn.

Summary of Methods

This study focused on the implementation of differentiated instruction in a 5th grade full inclusion classroom. The research conducted is qualitative in nature and utilized phenomenology as the research method. The data collected consists of six weeks of observation in the classroom, teacher interviews, and student learning profiles. Pseudonyms have been used throughout this study to ensure confidentiality of the teachers, students, and school.

Limitations

The research data collected for this thesis is limited to one fifth grade classroom in the Midwest. This classroom is a full inclusion classroom with eleven students who are typically developing and eleven students who are on Individual Education Plans (IEP’s). Furthermore,
this classroom is co-taught by a general education fifth grade teacher and a special education teacher.

Summary of Chapters

This thesis will be organized into five chapters. Chapter I is the introduction to the topic of differentiated instruction and includes the statement of the problem, the purpose statement, the research questions utilized in this study, a definition of related terms, a summary of the methods used with this study, and the limitations involved. Chapter II is the review of literature for differentiated instruction and it works in conjunction with the research question to provide background and support for differentiated instruction. This chapter focuses on the definition of differentiated instruction, differentiated instruction in content, process, and products, differentiated instruction for interest, readiness, and learning profiles, teaching strategies used with differentiated instruction, the impact of differentiated instruction for both students’ performance and engagement, and any limitations involved. Chapter III is the summary of methods used in this study and includes the methods utilized, the research design, a description of the participants and study site, instrumentation used, procedures with data collection and analysis, and limitations involved. Chapter IV is the summary and analysis of data collected throughout the study. Chapter V includes the conclusions drawn from the research study and suggestions to utilize with differentiated instruction.
CHAPTER II: REVIEW OF LITERATURE

This chapter includes a review of related literature on differentiated instruction. In conjunction with the research question, this literature review will focus on the following category: the nature of engagement for teachers and students in a differentiated classroom. To provide a background for this topic, the reviewed literature focuses on information about what differentiated instruction is, the parts of differentiated instruction, strategies implemented in the classroom, the impact on students’ performance and engagement, students with special needs, and limitations involved with differentiated instruction.

**Differentiated Instruction Defined**

Differentiated instruction is a complex concept based on adjusting curriculum and teaching methods to best meet the needs of all students in a heterogeneous classroom. Research indicates multiple definitions of differentiated instruction. Tomlinson (2005), an authority on differentiated instruction, defines differentiated instruction as “a philosophy of teaching purporting that students learn best when their teachers effectively address variance in students’ readiness levels, interests, and learning profile preferences” (p.262). In addition, differentiated instruction is based on beliefs that students are all different; they learn differently and like different things (Anderson, 2007). Teachers should differentiate their teaching because students have many unique learning styles and abilities (Levy, 2008). Furthermore, differentiated instruction is a teaching philosophy that can help all students with unique needs reach their highest potential.

Based on the knowledge that not all students in a class are the same, differentiated instruction is a method of teaching that allows teachers to utilize different learning strategies and techniques (Hall, Strangman, & Meyer, 2002). When teachers consider all of the unique
differences a child has and factors those differences into their instructional methods and activities, they are using differentiation. “During properly differentiated instruction in a classroom, all students should be encouraged to think at high levels and should have consistent opportunities to be active learners by working on interesting and engaging tasks” (VanSciver, 2005, p. 39). This does not mean that each student needs to have a completely different task than another student in the classroom; students just need to be engaged in instruction at a level that “fits” them.

A planned lesson should have clear and reachable objectives and should be geared towards helping all students learn. Tomlinson (2008), states that “differentiation calls for teachers to have clear learning goals that are rooted in content standards but crafted to ensure student engagement and understanding” (p. 27). Teachers who plan their lessons with reachable and understandable learning goals are better prepared to employ differentiated instruction into their current instructional techniques.

Even with research on differentiated instruction, the definition seems to vary from researcher to researcher but the most important aspect is facilitating learning so that at any given point in a lesson, teachers should know who is with them, who is behind them, and who is ahead of them and, adjust their lessons accordingly (Anderson, 2007; Hall, Strangman, & Meyer, 2002; Levy, 2008; Patterson, Connolly, & Ritter, 2009; Tomlinson, 2005; 2008; VanSciver, 2005). In heterogeneous, full inclusion classrooms, differentiated instruction provides a method to plan for teaching to best meet all of the students’ exceptional differences (Patterson et al., 2009). Teachers should be the facilitator of learning and classroom space and they should monitor their students’ progress to constantly adjust a student’s instructional levels so that they can help each child succeed to their greatest potential.
Researchers have many definitions of differentiated instruction based upon the context of their own studies. For the purposes of this study, differentiated instruction is defined as a philosophy of teaching that accommodates for student needs and unique abilities. It is teaching that is more aware of student differences so that a teacher knows which students are ahead of them, which students are with them, and which students are behind them during a lesson and adjusts the lesson accordingly.

**Differentiation: Content, Process, and Products**

Differentiation is an intricate and detailed belief about teaching. It can be implemented in three main ways: content, process, and product (Anderson, 2007; Bailey & Williams-Black, 2008; Garderen & Whittaker, 2006; Hall, 2009; Heacox, 2009; Huebner, 2010; Levy, 2008; McGlinn, 2005; Tomlinson & Allan, 2000; Wormeli, 2007). Teachers can use one or all of these techniques when implementing differentiation into their classroom. It can be used with some lessons and not others, or used on a daily basis. Because this is a way of thinking about teaching and not just a simple strategy, teachers need to be flexible and allow for choice and creativity (Anderson 2007; Tomlinson, 2000).

Differentiating or leveling the content of a lesson is one of the methods of adjusting lessons for student differences. Content is described as what students learn or the curriculum that is being taught (Anderson, 2007; Bailey & Williams-Black, 2008; Garderen & Whittaker, 2006; Hall, 2009; Heacox, 2009; Huebner, 2010; Levy, 2008; McGlinn, 2005; Tomlinson & Allan, 2000; Wormeli, 2007). Content can be differentiated by creating tiers of lessons or targeting specific goals for the student to master (Bailey & Williams-Black, 2008). By differentiating the content of a lesson, teachers modify the materials provided for students to master a concept. This helps to adapt the content for all students in the class: the low learners,
the average learners, and the high learners. When students feel more comfortable with the content of the lesson, they will be more likely to succeed.

Differentiating through process is perhaps the most common form of differentiation. Process is defined as how students learn, or the learning activities and strategies that are used to help students master a concept (Anderson, 2007; Bailey & Williams-Black, 2008; Garderen & Whittaker, 2006; Hall, 2009; Heacox, 2009; Huebner, 2010; Levy, 2008; McGlinn, 2005; Tomlinson & Allan, 2000; Wormeli, 2007). Process can be differentiated by “how the teacher decides to teach (lecture for auditory learners; centers for tactile learners; small group and whole group)” and by “the strategies the teacher has the students use to help them explore the content that is being taught” (Bailey & Williams-Black, 2008, p. 136). Differentiating the process of a lesson helps to meet the learning preferences and styles of the students in a heterogeneous classroom.

Differentiating the products is another method of differentiation. The products of a lesson are defined as how students demonstrate their mastery of the knowledge or skills, or what students have learned (Anderson, 2007; Bailey & Williams-Black, 2008; Garderen & Whittaker, 2006; Hall, 2009; Heacox, 2009; Huebner, 2010; Levy, 2008; McGlinn, 2005; Tomlinson & Allan, 2000; Wormeli, 2007). Products may be differentiated in many ways by teachers giving students a choice from multiple options of assessments (Anderson, 2007). By teachers allowing multiple options for students to show mastery at the end of a lesson, students are better able to achieve success by corresponding with their own styles of learning.

By differentiating your instruction in these three ways, teachers are more likely to find a “fit” for all students in a classroom. Finding this “fit” for students helps them to understand lessons and master skills. Tomlinson (2006) states, “One thing is non-negotiable; each learner
works toward essential understandings and skills. How they do so is often highly negotiable” (p. 26). Adjusting lessons by content, process, and product allows teachers to reach more students’ distinctive and valuable learning differences in a classroom.

**Differentiation: Interest, Readiness, and Learning Profiles**

While differentiation can be implemented in the three main methods of content, process, and product, differentiation can be further implemented through interest, readiness, and learning profiles (Garderen & Whittaker, 2006; Hall, 2009; Tomlinson & Allan, 2000). Students are all different; they come to school bringing a wide array of interests, background knowledge, and learning styles. Teachers need to be aware of these specific differences and get to know each child to better help them succeed in a differentiated classroom.

Interest plays a large role in the engagement of a lesson for a student and technically refers to “topics that motivate a student or peak one’s curiosity” (Hall, 2009, p. 2). Everyone likes different things and enjoys participating in different activities. It is only natural that students will be interested in learning about some topics more than others. It is important for teachers to learn what students’ interests are so they can try to keep them engaged in learning in the classroom.

Readiness is one of the main factors determining the content acquisition for a student. Readiness is an “evaluation of the student’s prior knowledge, understanding, and current skill level” (Hall, 2009, p. 2). Students gain knowledge and understanding based on where they live, and the experiences they have before they enter school and while they are in school. Obviously, students are arriving to school with many different readiness levels based on this knowledge.

Learning profiles are the different styles in which students prefer to learn. These learning profiles are central in determining how lessons will be taught (Tomlinson & Allan, 2000; Hall
Students may learn better when information is presented in a visual, auditory, tactile, or kinesthetic manner. They may prefer to work individually, in small groups, or in whole class settings and they may also learn better in a quiet area or an area with some background noise. Learning profiles help a teacher determine how they will go about implementing a specific lesson. Implementation should vary from lesson to lesson or throughout a lesson to try to reach all students’ learning profiles.

Student differences make up the backbone of differentiated instruction. When teachers use interest, readiness, and learning profiles from their students, they help to provide better instruction for those differences. Interest, readiness, and learning profiles coincide with content, process, and product when planning for differentiated lessons implemented in a classroom. By further differentiation of lessons in these three areas, teachers can reach and engage more students in learning.

**Teaching Strategies Used with Differentiated Instruction**

Because there is no exact formula for implementing differentiated instruction, a multitude of teaching strategies can be used in a differentiated classroom. Several strategies are cited in research, such as: flexible groups, tiered assignments, learning contracts, compacting, cubing, and independent study projects (Anderson, 2007; Brimfield et al., 2002; George, 2005; Hall, 2009; Heacox, 2009; Levy, 2008; McGlinn, 2005; Wehrmann, 2000).

Using centers or small groups is a popular strategy associated with differentiated instruction (Brimfield et al., 2002; George, 2005; Hall, 2009; Levy, 2008; McGlinn, 2005). Groups need to be flexible. In flexible groups, students are placed in many different groupings depending upon the task or content area. Students are grouped based on ability, interest, or random selections. Groups can be selected by the teacher or by the students. The use of flexible
groups “may prepare students more effectively for real-life situations, now and in the future” (George, 2005, p. 186).

Another strategy used with differentiated instruction is the use of tiered assignments (Hall, 2009; Levy, 2008). Tiered assignments are one way to effectively address students’ varying ability levels. Creating tiers or levels of assignments requires students to meet the same set of objectives designed at different levels of difficulty or critical thinking. This allows students to gain knowledge and understanding at their individual ability level.

Learning contracts are another strategy used when implementing differentiated instruction (Hall, 2009; McGlinn, 2005; Wehrmann, 2000). These contracts are created by the teacher and student working together to produce a written agreement of what material will be covered by when. Independent study projects are common projects used with learning contracts to develop independent learning skills. This allows for more independence with content, process, and products of assignments and, makes the student more responsible for their own learning.

Cubing, another strategy used with differentiated instruction, contains tasks, ideas, or concepts presented in six different ways (Brimfield et al., 2002; Hall, 2009). Cubes can be differentiated by readiness, interest, or learning profiles. Students roll the cube a predetermined number of times and are required to do the assignments that “land” on the top of the cube. This creates a range of learning activities throughout a lesson. Cubing is used to create more interesting assignments for the students, as well as being engaging and motivating.

Hall (2009) describes one more strategy called compacting. Compacting is the modification of instructional elements to determine pre-mastered material. Instead of students having to relearn material that they already know, the material will be replaced with more
challenging content or deeper thinking. George (2005) also parallels this strategy by advocating for “appropriately challenging tasks for individuals, emphasis on personal growth, and consistent opportunities for advanced learners to extend their knowledge, thought, and skill” (p. 188).

Levy (2008) focused on assessment strategies as well as teaching strategies. She maintains that “assessment is a tool [that] is more than a test” (p. 162). Pre-assessments, formative assessments, and summative assessments should all be used with differentiated instruction. Pre-assessments help the teacher gauge what a student already knows about a topic. Many forms of formative assessments exist and will guide a teacher in implementing further instruction. Summative assessments can be varied in form and inform the teacher if the student has successfully mastered the material. When all of these assessment types are used in a differentiated classroom, a teacher is better able to prepare lessons and materials that are aligned with students’ varying ability levels. Using multiple forms of assessment helps a teacher keep track of the progress of each student. Assessments will also help to notify the teacher of any students that are struggling with specific content so that it may be adjusted in a timely manner.

Many more researchers offer a wide variety of strategies for use with differentiated instruction. For example, Heacox (2009) advocates for choice boards, tic-tac-toe boards, two-by-two boards, and show-and-tell boards. Anderson (2007) also discusses strategies for use with implementing differentiated instruction, such as choice boards and product option sheets. Anderson (2007) suggests that “starting differentiation may [simply] begin with the creation of learning profiles; simple profiles of each student containing pertinent information specific to learning preferences, family structure, favorite hobbies and interests, and other aspects of interest” (p. 51). These ideas can be reproduced and adapted for many age groups and ability levels.
Some or all of the aforementioned strategies can be used in a differentiated classroom. When teachers vary their instructional methods and strategies, a teacher is more able to reach students by ability levels and content interests.

**Value and Impact of Differentiated Instruction**

This section focuses on how the implementation of differentiated instruction is a valuable tool that impacts students’ performance and engagement in a classroom. Several studies were examined to determine the value and success of differentiated instruction involving students’ performance, as well as their engagement in the classroom.

**Students’ Performance**

Teachers need to have patience and be resilient when implementing an educational change in their classroom. “Differentiating instruction, difficult as it may be, is the choice for teachers who will not accept a classroom where growing numbers of students are increasingly less successful” (George, 2005, p. 190). There are very few research studies directly relating to the effect of differentiated instruction on student learning. However, what was found supported the notion that when differentiated instruction is implemented effectively, student academic achievement improves.

A study conducted by Rock et al. (2008) described the successful effect of differentiated instruction at two school districts. In one of the school districts they report that when traditional instructional approaches were utilized, “students had an overall 79% proficiency rate on state-mandated end-of-year tests. After 5 years of differentiating instruction, 94.8% of their students scored in the proficient range” (p. 34). The second school district they reported on also had improved results from implementing differentiated instruction. In this second school district, the “average student in their high school read at a 5.9 grade level. After 4 years of differentiated
instruction, the average student read at an 8.2 grade level” (p. 34). The two school districts studied prove that properly differentiated instruction can produce desired results.

Another study with similar results was conducted by Beecher and Sweeny (2008), which followed an elementary school for eight years. Beecher and Sweeny (2008) compiled data from staff meetings, strategic plan information, professional development session documents, curriculum documents, and state tests. Teachers were trained on a specific model of differentiation. The success of the differentiation model “was evident in the increase in student achievement and the reduction in the achievement gap” (p. 527). The results of the standardized tests were grouped into three levels. “The average percentage of students at or above goal on state reading, writing, and math assessments demonstrated improvements in all segments of the population” (p. 527). This is another example of successful implementation of differentiated instruction.

Mastropieri et al. (2006) investigated outcomes of a tutoring program that used differentiated instruction and hands-on activities. “Results indicate that collaborative hands-on activities statistically facilitate learning of middle school science content on posttests and on state high-stakes tests for all students and that students enjoyed using the activities” (p. 130). This is yet another article proving the positive impact differentiated instruction can have.

A similar study conducted by Cusumano and Mueller (2007) reports about improvements made to a specific school that was ranked one and one with the state. The school had a poverty rate of close to 90%, and 25% of their students were English language learners. The staff and newly hired principal began implementing differentiated instruction to try to improve their ratings. “They were confident that this best practice would lead students to success” (p. 8). The school was able to produce positive results by maintaining their focus on improved student
learning, and alignment of the major systems in the school to differentiated instruction (academic delivery structure, professional development, and human/financial resource allocation). Six years later, the proof of successful implementation of differentiated instruction is shown because the Adequate Yearly Progress (AYP) targets have been met for all subgroups and the state rankings have moved to six and ten.

Early research about differentiated instruction as a teaching philosophy has been found to successfully increase student performance and achievement (Beecher & Sweeny, 2008; Cusumano & Mueller, 2007; Mastropieri et al., 2006; Rock et al., 2008). Related studies were synthesized and display similar results of improved achievement associated with implementing differentiated instruction (Bailey & Williams-Black, 2008; Brimfield et al., 2002; Garderen & Whittaker, 2006; Tomlinson, 1995; Wehrmann, 2000).

**Students’ Engagement**

Properly implemented differentiated instruction should not only improve academic achievement, but engagement of the students in learning as well. Heacox (2009) advocates that offering choices to students increases learning engagement and students’ attitudes about learning. Because differentiation allows for more choice and freedom, and capitalizes on the interests and passions of the students, engagement in a differentiated classroom is often higher than in a traditionally taught classroom. In traditionally taught classrooms where “a single curriculum is covered by all learners … students may find school restrictive, frustrating, and uninspiring” (George, 2005, p. 189).

Engagement plays a key role in student learning and achievement (Chapman, 2003). Skinner and Belmont (1993) define engagement as “the intensity and emotional quality of children’s involvement in initiating and carrying out learning activities” (p. 572). Students who
are interested in academic lessons and who are emotionally respected in the classroom are far more likely to be engaged in the classroom. “Children who are engaged show sustained behavioral involvement in learning activities accompanied by positive emotional tone” (Skinner & Belmont, 1993, p. 572). Students will work harder and push farther, within their academic abilities, when they are engaged in the classroom.

Brimfield et al. (2002) follow the opening of a new school that is implementing differentiated instruction into their philosophies. Teachers at this school “note improved student motivation and behavior, [and] student products are of a consistently higher quality than they have previously experienced” (p. 5). When students’ interests are brought into a lesson, students are more engaged because they want to learn about the academic topic.

A study conducted by Tieso (2001) found that a modified curriculum or differentiated instruction unit with “appropriate, escalated learning goals, and authentic resources and products can create substantial interest, motivation and a perceived value in learning for students of all ability levels” (p. 210). Teachers were trained on how to modify specific instructional units and for this study, a mathematical unit was modified to be more comprehensive and student centered. The math unit was a three-week long project of small group and independent study techniques that introduced students to the field of statistics, stem and leaf plots, mean, median, and mode, sampling techniques, and probability factors. When teachers were questioned, they suggested that even though they had initial thoughts that the material was too challenging, they found the unit to include activities that were engaging and motivating for students and that it offered more choices than the traditional units they taught. When students were questioned, they “revealed several major findings: students enjoyed the hands-on nature of the unit activities, they enjoyed participating in a variety of small groups, and they enjoyed and learned from the final original
projects they created” (p. 207). The enjoyment and engagement was apparent in the students who participated in the study.

A study of the success of one school was researched by Beecher and Sweeny (2008). Teachers at this school were required to know each student’s interest, readiness, and learning profiles due to the diverse differentiation strategies that were being implemented. The “success of the school improvement efforts was demonstrated in students’ positive attitudes about school [and] increased engagement in learning” (p. 525). This is yet another study specifically citing that differentiated instruction causes students to think more positively about school and increases student engagement.

Differentiation “is an important tool for engaging students while providing for individual needs” (Hall, 2009, p. 1). Differentiated instruction impacts student interests in and attitudes about school, and their engagement with the academic content (Beecher & Sweeny, 2008; Brimfield et al., 2002; Tieso, 2001). Furthermore, differentiated instruction is an important and valuable philosophy used to help students not only stay engaged, but improve performance and achievement as well.

**Students with Special Needs**

Students arrive to school varying in many ways including interests, readiness, learning profiles, and disabilities. Some students are determined to have “special needs.” These special needs students exhibit a range of needs from “severe developmental problems or more subtle symptoms that are often associated with learning disabilities” (Guarino, Buddin, Pham, & Cho, 2010, p. 163). Students who are identified as having special needs are set up with Individualized Education Plans (IEPs). An IEP “formalizes the student’s educational needs and specifies the measurable goals and objectives for the student for the academic year” (Laprairie et al., 2010, p.
Teachers need to follow these IEPs in the classroom. Furthermore, teachers are now expected to teach special needs students in the general education classroom alongside the typically developing students. “According to the National Education Association, the number of students who qualify for special services has risen 30% in the past ten years” (Laprairie, Johnson, Rice, Adams, & Higgins, 2010, p. 24). This rise in students identified with special needs is affecting the way that teachers are teaching. While differentiated instruction has been used in special education classrooms for years, it is becoming more popular as a way to accommodate for all student differences in the typical classroom while implementing IEPs as well.

**Implementing Change**

Tomlinson and Allan (2000) suggest nine fundamental principles on how to implement change in schools. Principle one states that “change is imperative in today’s classrooms” (p. 34). This principle refers to the fact that as educators learn and grow their teaching should reflect that growth, and they should adjust their teaching accordingly because change is vital when trying to make improvements to schools. Principle two states that “the focus of school change must be classroom practice” (p. 35). Schools and teachers should not implement change just for the sake of change but instead, they should implement change to better help each child succeed. Principle three states that “for schools to become what they ought to be, we need systemic change” (p. 38). Some teachers can effectively use differentiated instruction, but in order to better education as a whole, change needs to be widespread and universal. Principle four states that “change is difficult, slow, and uncertain” (p. 39). There is no guarantee that everything that is tried in a classroom is going to work on the first try, but persistence pays off. Principle five states that “systemic change requires both leadership and administration” (p. 40). Both a manager figure
and an innovator are required to fuel widespread change and make it flourish. Principle six states that “to change schools, we must change the culture of schools” (p. 43). Old practices and beliefs often do not mix with new practices. Sometimes, educational traditions need to change to make an impact. Principle seven states that “what leaders do speaks with greater force than what they say” (p. 44). Leaders need to educate teachers in the same way they would want those teachers to educate their students. Saying something and actually doing it are completely different. Principle eight states that “change efforts need to link with a wider world” (p. 44). The students in a teacher’s classroom are not the only people that change will affect; parents and community members need to be aware of and understand the change process as well. And, principle nine states that “leaders for change have a results-based orientation” (p. 44). Effective leaders are always looking for proof of change and growth. There is no specific recipe for correct change, but Tomlinson and Allan offer suggestions for starting to implement change.

Limitations with Differentiated Instruction

Differentiated instruction has been known to bring success in several classrooms and schools across the United States. However, success in one classroom does not guarantee success in every classroom because each classroom in the education world is unique (Tomlinson & Allan, 2000).

Differentiated instruction can sometimes be difficult or misused. Fahey (2000) states that there is difficulty in “making and sustaining educational change” (p.70). He describes a school that tried to implement differentiated instruction and the issues that arose. Parents disapproved of some aspects of how differentiated instruction was being implemented and the quick change from typical instruction to differentiated instruction. The parents did not like the changes to their child’s education without their approval. Numerous minor problems arose, and the
superintendent returned the instructional methods of the school to the tracking system instead of differentiated instruction to accommodate for these upset parents. The tracking system identifies students into high, middle, and low ability groups. This study is valuable in that it offers some advice to schools that are implementing differentiated instruction: “move slowly during change, include all stakeholders, provide mutual information throughout the process, provide training throughout the process, change is sometimes messy, people generally do not embrace the unfamiliar, [and] change is a journey” (Fahey, 2000, p. 72). This advice acknowledges that although differentiation can sometimes be difficult or misused, it does have benefits if implemented correctly.

Renick (1996) conducted a study in which a few minor issues arose, involving first year special education teachers implementing differentiated instruction into their classrooms or pull out groups. Four teachers were studied in different schools within rural, suburban, and urban areas. The teachers used multi-level activities and materials, a variety of teaching techniques to accommodate for an array of learning styles, and varying performance expectations with their students. Lack of planning time and educational materials were common tribulations during these teachers’ first year implementing differentiated instruction. All four teachers also stated how useful a supervisor would have been because they were not provided with much support. This study is important to show that teachers implementing differentiated instruction need support, sufficient time for planning, and materials

Differentiated instruction is ambitious, difficult, and sometimes perplexing, yet it is a valuable goal. School leaders may not find a more worthwhile goal if they believe in education that “provides equity of access and growth in individual excellence for all learners. Leaders who are consistent, insistent, and persistent in promoting effective differentiation should find both
challenge and reward aplenty” (Tomlinson, 2000, p. 31). Differentiating lessons is not an easy feat, but it is valuable and meaningful for helping each child succeed to their highest potential.

Summary

This chapter focused on the research other scholars and researches have conducted related to the research question with this study on differentiated instruction. It contained information about what differentiated instruction is, the major ways that differentiated instruction can be implemented, strategies that can be used with differentiated instruction, the impact differentiated instruction can have on students’ performance and engagement, and limitations surrounding differentiated instruction.
CHAPTER III: METHODS AND PROCEDURE

This study focused on the investigation of differentiated instruction in a 5th grade, full inclusion classroom. The research was conducted by using the following research question as a guide to support this challenging and important topic: What is the nature of engagement for teachers and students in a differentiated instruction classroom? This chapter contains a description of the research design, participants and study site, instrumentation used, data collection, data analysis, and limitations. Pseudonyms have been used throughout this study to ensure confidentiality of the teachers, students, and school.

Methods

Research Design

Research is defined as deliberately collecting data for specified purposes (Glesne, 1999). The research conducted for this study is qualitative in nature and utilized phenomenology as the research method. Qualitative research seeks to observe a problem or phenomenon and understand the answers or results that occur from the study. They seek to “interact and talk with participants about their perceptions” (Glesne, 1999, p. 5). In addition, qualitative research follows “general principles that include hearing the voices of those studied, using the researcher as a conduit for the information, studying things in a naturalistic manner, [and] looking at the whole of things” (Lichman, 2006, p. 62). Qualitative research generally uses a multitude of collected data. Data such as observational field notes, artifacts, interviews, and surveys are often gathered with qualitative research (Lichman, 2006). “Observing humans in natural settings assists in understanding the complexity of human behavior and interrelationships among groups” (Lichman, 2006, p.139). Observation in the 5th grade classroom was an important aspect in this study. Qualitative researchers “seek to make sense of personal stories and the ways they
Phenomenology coincides with qualitative research as a method that “looks at the lived experiences of those who have experienced a certain phenomenon” (Lichman, 2006, p. 70). “A phenomenological study focuses on descriptions of how people experience and how they perceive their experience of the phenomenon under study” (Glesne, 1999, p. 7). The qualitative method of phenomenology has become widely used in education. Differentiated instruction is a current phenomenon that is occurring in the field of education. Furthermore, phenomenology enables the researcher to come into contact with the participants and their actual lived experiences (Lichman, 2006). Observations of the teachers, students, and events that occurred in the 5th grade full inclusion classroom are documented within the phenomenon of differentiated instruction and student engagement.

**Participants and Study Site**

The study was conducted in a 5th grade classroom in an urban area grade school in a Midwest town in the United States. The 5th grade classroom is characterized as full inclusion, with typically developing students and students with special needs. In addition, this classroom is co-taught by a general education teacher and a special education teacher. The teachers share responsibility in teaching math, language arts, science, and social studies topics in their classroom.

The general education teacher, Mr. Gonzales, and the special education teacher, Mrs. Smith, facilitate learning in a classroom with 22 students. Out of the 22 students, 11 of the students are typically developing, and 11 of the students are on Individualized Education Plans (IEPs) and are identified as having special needs. Mrs. Phillips, the administrator of this school, and Mr. Gonzales are currently enrolled in professional development sessions focused on
differentiated instruction to try to best help the students in the classroom, and in the school in general. Both teachers and the principal of the school agreed to participate in the study. Consent forms were sent out to the guardians of the students and assent forms were signed by the students themselves to gain permission to survey the students as well. Copies of the assent form and consent form are located in Appendices A and B.

The study was conducted at a public elementary school. The elementary school, Rocket Elementary, contains grade levels kindergarten through 5th. Although the name and exact location of the school are not being disclosed to protect the privacy of the participants involved, the School Report Card did provide statistical information regarding the student population. This school is designated Effective but did not meet Adequate Yearly Progress (AYP) last year (Ohio Department of Education, 2009-2010). The average daily enrollment is 432 students with 4.5% of students who are Hispanic, 9.3% of students who are Multi-Racial, and 82.5% of students who are considered White, Non-Hispanic (Ohio Department of Education, 2009-2010). Furthermore, 58.5% of the students are considered economically disadvantaged and 15.1% of students at this school are classified as having disabilities (Ohio Department of Education, 2009-2010).

Instrumentation

To accumulate information for this study, many forms of data were collected. The data collected consists of observational field notes, interviews, and student learning profiles. By utilizing multiple forms of data, or triangulation, and using prolonged engagement with observations, the trustworthiness and validity of each source increased (Glesne, 1999). The research question for this study was derived from previous research on the strategies of differentiated instruction and engagement, co-teaching, and the specific purposes of this study. The methods of data collection were utilized to help answer the research question.
Observation was used throughout this study. Observation utilizes the researcher’s senses to gather information while observing in a specific situation (Glesne, 1999). A journal of observational field notes was kept for general notes of classroom activities. A specific observation protocol, developed by the researcher, was utilized while observing lessons as well. The observation protocol was set up in a table format to capture specific differentiation strategies used with content, process, products, flexible groupings, and awareness of student needs, interests, readiness, and learning profiles. It helped to document both student and teacher behavior. The protocol helped to guide specific observational notes, as well as allowed for general lesson information and important teacher quotations. The exact observation protocol can be found in Appendix C.

Interviews were also used to collect data for this study. Researchers use interviews because they have an “interest in understanding the experience of other people and the meaning they make of that experience” (Seidman, 1998, p. 3). The interviews used in this study were based on a set of semi-structured, open-ended questions involving thoughts about, motivation for, and use of differentiated instruction. Questions were also asked about the benefits of the professional development sessions and the impact of differentiated instruction on student achievement and engagement. The interview questions were formed based on previous research on engagement and differentiated instruction, as well as specific questions relating to this study in this co-taught classroom. A set of semi-structured interview questions was determined for the classroom teachers and can be found in Appendix D.

Student learning profiles were utilized to help determine student engagement and personal views of the class. Student learning profiles in the form of survey questionnaires allow participants to provide their thoughts and feelings related to specified questions (Glesne, 1999).
Questions were asked to determine if students enjoy the class, are interested in the subjects, and feel motivated to learn. Further questions were asked to analyze if the students enjoy having two teachers in their classroom, if the teachers are helpful and supportive, and if students believe their interests, abilities, and learning profiles are taken into account with the classroom instruction. The questions on the student learning profile were determined based on previous research and the strategies of this specific classroom, including differentiated instruction and co-teaching. The student learning profile used can be found in Appendix E.

**Procedures**

**Data Collection**

Data for this study was collected in multiple formats to answer the aforementioned research question. Observations were completed two times per week for six weeks in the 5th grade classroom to provide support for the research question. The teachers were interviewed to find out their thoughts and opinions about the use and value of differentiated instruction. Interviews were conducted with the teachers, one at a time, near the end of the observational period. Finally, the students completed a learning profile after three weeks of observation in the classroom to find out their attitudes about the engagement in a differentiated instruction classroom.

Observation was utilized as one of the main instruments for collecting data from the 5th grade classroom. Observations in the 5th grade classroom were scheduled twice per week for six consecutive weeks. Each observation lasted approximately two hours, totaling around 23 hours of observation time in the classroom. A comprehensive observational design was utilized to observe the “whole picture” and an observation protocol was created to focus certain observations towards specified categories. The primary focus of the observational field notes
included the use of differentiated instruction with content, process, products, and groups with student and teacher behavior. An awareness of student needs, interests, readiness, and learning profiles was also noted when appropriate. Finally, the observation protocol allowed the researcher to note a summary of the lesson and any important quotes from the teacher that related to differentiated instruction.

Interviews were also conducted with Mr. Gonzales (the general education teacher), and Mrs. Smith (the special education teacher). Semi-structured interviews were scheduled and audio recorded at one time near the end of the observational period. The recordings of the interviews were used to create transcripts of the questions and answers, which were then used to analyze the data. Informal interviews were also utilized during several occasions following observations of class activities that used differentiated instruction.

Student learning profiles were given to the students on one occasion in the 5th grade classroom as well, three weeks into the observational period. These learning profiles were explained so the students knew they didn’t represent a grade in the class and were completely voluntary. Students were to write out their responses to the questions. Students were given assistance if required.

**Data Analysis**

Data was collected in the forms of observational field notes, interviews, and student learning profiles. Erickson (1986) describes the detailed process of generating assertions and finding corresponding evidentiary warrants. The data collected for this study was analyzed using codes or general assertions. All of the data was reread and analyzed based on assertions or themes of commonality. When the data was reread, the researcher looked for recurring themes and “coded” them as assertions of evidence. The assertions were then supported with specific
evidence from the collected data that served as the warrants. For example, an assertion might be that differentiated instruction is engaging and a warrant might be the specific response from a student learning profile. Data sources were not analyzed in isolation of each other but instead worked together to form the assertions and supporting warrants. Evidence, confirming and disconfirming, was separated into categories corresponding with each assertion. Key linkages, or primary pieces of confirming evidence, were listed first to signify the connections between assertions and warrants. Then, the assertions and warrants were grouped together to form narratives or “stories” about the evidentiary data.

Limitations

This study was deliberately limited to one classroom, in one school. The data was gathered from one 5th grade classroom. Therefore, the teachers and the students in the classroom were the sole focus of my attention for this study. This classroom also uses a co-teaching model with one general education teacher and one special education teacher. In addition, this classroom is also characterized as full inclusion with 11 students who are typically developing, and 11 students who are qualified as special needs students.

Summary

This chapter reviewed the methods of the research conducted, providing details about the research design, participants and study site, instrumentation used, data collection, data analysis, and limitations.

The purpose of this study was to observe the use of differentiated instruction through regular classroom activities in one classroom over the course of several weeks. The qualitative research was conducted using the phenomenological research design. The participants consist of two classroom teachers and the students in the 5th grade class. The study site is a public
elementary school in a Midwest city in the United States. Observation protocols, interviews, and student learning profiles were collected to attempt to answer the research question that guided this study. Various research limitations were also discussed.
CHAPTER IV: DATA ANALYSIS AND DISCUSSION OF RESULTS

The purpose of this research was to investigate engagement in a differentiated instruction, 5th grade, co-taught, full inclusion classroom. This research was guided by the following research question: What is the nature of engagement for teachers and students in a differentiated instruction classroom? This chapter includes a detailed description of the classroom observation setting in which the data was collected, a description of a typical classroom observation, and an analysis of collected data.

Classroom Setting

The research for this study was collected in a public school setting in the Midwest. A 5th grade classroom was the primary location for the collected data. The door opens into the classroom from the upper left corner. The desks are set up in rows where there is room to maneuver in between each of the seats. A chalkboard and whiteboard exist along the front wall of the classroom and contain the daily objectives, missing work list, and daily homework plan. The right wall contains a SMART board and a document camera, which are both frequently in use. Mr. Gonzales’s desk is in the back right corner of the classroom, while Mrs. Smith’s desk is in the back left corner of the classroom. There are three individual computer stations to the left of Mrs. Smith’s desk. In between the two teachers’ desks are the student cubbies, the stations to turn in completed material or assignments, and multiple filing cabinets. There are also numerous shelving units around the classroom full of books for all subject areas. Educational posters cover nearly every wall space available. The posters come in all shapes, colors, and sizes and contain information on all of the core subject areas.

There are two teachers who use a co-teaching model to teach in this classroom. Pseudonyms have been used throughout this study to ensure confidentiality of the teachers,
students, and school. Mr. Gonzales is a regular education, 5th grade teacher, and Mrs. Smith is an intervention specialist. The regular education teacher, Mr. Gonzales, is a Hispanic male and has been a teacher for 11 years, which was split between a few different school districts. The special education teacher, Mrs. Smith, is a White female and has been a teacher for over 17 years, which was also split between a few different schools. These two teachers share the instructional responsibilities of this classroom. They split the core subjects in which they take the lead teaching role. Mrs. Smith teaches math and spelling, while Mr. Gonzales teaches science and social studies. Reading and language arts are taught in small group settings. Both teachers have a small reading group assigned to them, where they teach individually for the only time throughout the school day. The co-teaching in this classroom is utilized in two main ways; sometimes both teachers are teaching together in the front of the classroom, and sometimes one teacher is teaching and the other is circulating the room and assisting students. These teachers have known each other and collaborated for a few years but this is the first year that they are both staying in one classroom and trying co-teaching with differentiated instruction.

This classroom contains 22 students. Out of the 22 students, 11 of them are typically developing, and 11 of them are classified as special needs students that are on IEPs. There are 11 girls and 11 boys. Based on visual observation, there are four Hispanic students, two African American students, and sixteen White students. The students come from diverse backgrounds and represent various abilities and learning styles.

**Classroom Observation**

I observed in this classroom twice per week for six weeks to gather data for this study. The following is an example of a typical classroom observation according to my observation field notes. Usually, when I arrived at Rocket Elementary, I would slip into the classroom
quietly and sit at Mrs. Smith’s desk in the rear left corner of the classroom. The class was always very inviting and as soon as there was a break in the lesson, the students and the teachers made sure to say hello. Mr. Gonzales asked the students to get out their Story Town textbooks. He began reading a story aloud called Dial-A-Fish. This was a science experiment story about listening comprehension. Mr. Gonzales used the students and objects to show some of the experiments in the story and how they would work. The students really seemed to like this. Throughout the story, the word “patent” was brought up. Mr. Gonzales used the internet to search for the meaning of the word “patent” and an example of one, which he then displayed on the SMART board for the students to see. There were multiple forms of teaching styles being employed throughout this lesson. Mrs. Smith was circulating the room making sure students are on the right page in the book and following along. When the story was finished, Mrs. Smith handed out a few goldfish snacks to eat while working on an activity. Mr. Gonzales then brought up an interactive SMART board activity. This activity was focused on vocabulary. He called on students to decide what a vocabulary term meant and where it should be moved on the board. He moved the words according to what the students said, even if they were incorrect. He did not tell them that they were incorrect but instead let the students figure it out as they worked through all of the vocabulary words. Next the students moved on to a Reader’s Theater in the Story Town textbook. Each student had a part in the story by volunteering. The students took turns reading their parts and were encouraged by both teachers to speak loudly and with emotion and expression. While the students were reading aloud their parts, Mr. Gonzales and Mrs. Smith circulated throughout the room and helped students with any words they got “stuck on”. While some of the students seemed shy about reading aloud during this lesson, all of the students made an effort without question or complaint. No students seemed to laugh at or pick on other
students when they messed up while they were reading; they really seemed to be accepting of their individual differences. When the students finished the reading, they were told to bring their books home and read it again for homework. The students then all took a restroom break at the same time.

When the students came back in from their restroom break, they gathered their reading items and switched to the classroom that their reading group is in. This is done at the same time every day. I observed in both Mrs. Smith’s and Mr. Gonzales’s reading groups. In Mrs. Smith’s reading group, the students were split into small groups to read a story. Mrs. Smith’s reading group in one of the lowest ability groups but they understood the directions and did not have questions as to what they were supposed to be doing. The students sat in small groups around the floor and really seemed to manage themselves. When they did get confused, they asked the other members of their small group for help. While the small groups were practicing reading the story, Mrs. Smith called students over one at a time to complete Oral Reading Fluency tests. In Mr. Gonzales’s reading group, the students sat in desks and read from a different story, taking turns to read one page per person (the story is leveled for each group). The book had a lot more text on the pages in this classroom. Although the students did not need as much help with reading specific words throughout the story, they were constantly reminded to read with expression and to try to think deeper about what the story actually meant. Mr. Gonzales’s reading group is one of the highest. The front page of the story was brought up on the SMART board. When the students came to an important part in the story, the class made a note about it on the SMART board. When the reading groups were finished, the students returned to their regular classroom.
**Data Analysis and Discussion**

Analysis of collected data for this study included three major sources. Data sources included observation field notes, teacher interview transcripts, and student learning profile responses. These data sources provided evidence which was used to support, or refute, the nature of engagement in a differentiated instruction classroom.

A differentiated classroom is engaging for both teachers and students. After spending several weeks observing in this classroom, interviewing both classroom teachers, and surveying the students using student learning profiles, it is nonnegotiable that in a differentiated instruction classroom, engagement is a major component. From the data collected, an ample amount of evidence supported the relationship between engagement in the classroom and differentiated instruction. The data is presented in the following themes: teacher support and feedback, student interests, student abilities, and student learning styles. The themes are assertions, involved in this study, followed by confirming or disconfirming evidentiary warrants.

**Teacher Support and Feedback**

The teachers in this classroom offer various forms of support to students and feedback about student work. This support to students is crucial in promoting engagement in the classroom. After coding the teacher interviews, student learning profiles, and observational field notes, the evidentiary warrants yielded both positive and negative results.

One representative example of teacher support was recognized in a student learning profile with Alexis. As the student learning profile was conducted with the class, Alexis explicitly wrote about her engagement in the classroom, gained from teacher support to students. Alexis seemed to passionately write, “I am usually motivated in this classroom because my teachers always help me when I am struggling. Mr. Gonzales usually calls me back to his desk
and tells me that I can do it, and he congratulates me when I finish the problem.” This was echoed in my observation field notes. When I noticed students were struggling or when they had just finished a particularly difficult question, I frequently observed Mr. Gonzales and Mrs. Smith lean down and speak quietly to the student congratulating or encouraging them (Observation Field Notes). Mark also chimed in to say, “If you are struggling, they [the teachers] will help you. If it is easy, they might make it harder. Or we might partner up with someone if it is hard. This helps me to stay focused and engaged.” Many of the students exclaimed their excitement when they get a paper back and it has a sticker on it or it tells them they did a good job. Multiple students also stated that they like knowing the fact that, with two teachers in the classroom, they can always get help and support when they need it.

Mr. Gonzales and Mrs. Smith commented several times, throughout formal and informal interviews, the desire to make students feel comfortable and to help them succeed. Both of these teachers have the lead teaching role on some of the subjects in this classroom. Depending upon their level of comfort with the material or the expected difficulty or understanding of the students, the teachers might teach the subject together in a true co-teaching model but usually, the teachers use a one teach-one assist approach, so support to students was frequently observed (Observation Field Notes). For this approach, one teacher would take the lead teaching role while the other teacher circulated around the room with the students (Observation Field Notes). The circulating teacher made sure that students were following along, helped them with any difficulties, took care of any behavioral issues, and organized and distributed materials for activities (Observation Field Notes). Because the teachers used this approach often, they gained more valuable teaching time and were better able to support the students through the learning process (Observation Field Notes). This support helped the students to stay engaged in the
lessons more often than would otherwise be expected. This demonstrates an important link between teacher support and engagement in the classroom.

Some of the students did not agree that teacher support helps to keep them engaged in this classroom. Emma frequently commented, “Sometimes my teachers will help me but usually they tell me that I am in 5th grade so I should be able to do it on my own.” While I did hear this throughout my observations, it was infrequent. I believe that the teachers were trying to use it as an encourager. Zaine agreed by saying, “My teachers don’t really do anything to tell me I am doing a good job. Sometimes I wish they would.” When Carla was asked though, she said, “First, they come to me and explain the concept. One time, I did really bad on a paper and Mrs. Smith took the time to put a small group together to help us understand.” Most of the students agreed that Mr. Gonzales and Mrs. Smith provide them with support and feedback on their progress; however, a few of the students were not convinced that their teachers’ support and feedback make them any more engaged in the classroom.

**Student Interests**

Student interests are included with differentiated instruction. Including students’ interests in the classroom is vital in promoting engagement within the classroom (Heacox, 2009). Children like to hear about and study what is intriguing to them; teachers who proactively work to figure out what their students are interested in, have a better chance of keeping them engaged.

A key theme was discovered about student interests when reviewing the student learning profile. Kevin, Rae, and Megan agree that their teachers try to include their interests in the classroom. Kevin declared, “If my teacher figures out that I like something, they try to bring it into the classroom.” Rae mimicked his written response. Megan stated, “Sometimes the teachers don’t even have to ask what you like. They can just tell so they use it in class.” Several
students in the class confirmed that Mr. Gonzales and Mrs. Smith try to include their interests in math problems, spelling sentences, and reading. Observation field notes were also recorded during several occurrences of students’ names being included in spelling sentences or math problems. Although Emma mentioned that her teachers only bring her interests into the classroom occasionally, most of the students were in agreement that hearing about things they are intrigued by in the classroom or hearing their name put into instructional problems is engaging to them.

**Student Abilities**

The ability levels of students are definitely taken into account in this differentiated instruction classroom. Because the students in the class come from diverse backgrounds and because this classroom is full inclusion, there are many varying abilities to accommodate for. Although there were many different ability levels of students in this classroom, the students were kept engaged throughout most lessons (Observation Field Notes). It really was refreshing to see a classroom with such a wide range of abilities and the teachers actively trying to keep all of the students engaged. Students can become frustrated and give up if all of their work is too hard (George, 2005); students could also become bored and not pay attention if their work is too easy. To accommodate for this, Mr. Gonzales and Mrs. Smith vary the ability levels on some of their assignments.

On several occasions during my observational period, observational field notes were recorded regarding the reading program at this school. The reading program is a key component in the mixed ability group of students in this classroom. The students in this class are combined with all other 5th grade classes at Rocket Elementary to better form groups with the reading program (Observation Field Notes). The students are grouped by ability into six groups: highest,
high, middle, low, lower, lowest (Formal Teacher Interview). Each group has between seven and twelve students from the 5th grade classes. Mr. Gonzales teaches the high group; there are eleven students in his group, five of which are from his shared classroom with the intervention specialist (Observation Field Notes). Mrs. Smith teaches the lower group and has eight students, five of which are from her shared classroom with the regular education teacher (Observation Field Notes). The reading material and assignments in these groups are leveled to better fit the students.

The data analysis of observation field notes, student learning profiles, and formal interviews with the teachers also recorded several instances of varying student abilities. During my formal interview with Mr. Gonzales, he stated, “DI is a great tool with meeting the needs of all students regardless of their ability levels. It is challenging and supportive and can use a variety of leveled activities” (Formal Teacher Interview). My formal interview with Mrs. Smith brought up the same concepts. She remarked, “Every student can learn, though everybody learns at different paces. We have it [instruction] at their level so they are going to feel more successful but before they couldn’t do it because maybe it was on such a higher playing field” (Formal Teacher Interview). The student learning profile responses from students in this class also touched on varying abilities in the classroom. Kaly noticed differing abilities when she said, “If it [assignments] is too easy, they might partner us up with someone who is having trouble. If it is too hard, they will help us through it.” Kaly pointed out a valuable tool in the classroom, peer support from various ability levels. Finally, this classroom uses three computer programs that are extremely supportive of the individuality and uniqueness of each student (Observation Field Notes). Study Island, Read Naturally, and Success Maker are all programs that are individualized. The students work at their own level and at their own pace to complete learning
activities and assignments in mathematics, reading, science, and social studies (Observation Field Notes). Undeniably, students’ varying abilities are identified and supported in this full inclusion classroom, which helps to promote engagement.

**Student Learning Styles**

The learning profiles of students are clearly taken into account with instruction in this classroom. Students learn best in different situations when teachers utilize diverse instructional methods and techniques (Tieso, 2001). For example, some people learn best when material is read aloud, some people need to see and read for themselves, and some need to do an activity with their learning to really gain an awareness of the content. In a typical classroom, there will be a mix of all of these types of learners.

The time spent in this classroom observing, surveying students, and interviewing the teachers introduced many examples of learning styles. During the formal interview with Mr. Gonzales, the regular education teacher, he commented, “I take into consideration all of the different learning styles. I group students with a purpose. I use different activities, introductions, and assessments” (Formal Teacher Interview). Mr. Gonzales frequently started a lesson with an “attention grabber” or introduction on the SMART board (Observation Field Notes). Most often, the SMART board activity or video introduced the lesson while getting the students excited and engaged in the content to be taught (Observation Field Notes). Sometimes the introduction consisted of an interactive activity regarding vocabulary or math problems; the words or numbers would be manipulated into the correct categories on the screen (Observation Field Notes). The instructional methods he mentioned using are: co-teaching, direct instruction, audio, visual, hands-on, multiple groups, inclusion of technology, etc. (Formal Teacher Interview).
Many students also established that they learn best in different circumstances and that their teachers teach in multiple ways. Alexis likes when the directions are read aloud; Kaly learns best when working in groups; Mark enjoys learning in hands-on situations. My observational field notes illustrate several examples of activities completed while observing at Rocket Elementary. The students worked in whole group, small group, and individual situations; the students completed paper-pencil assignments, manipulated activities on the SMART board, completed experiments, and played games as well (Observation Field Notes). Mr. Gonzales and Mrs. Smith tried to incorporate many teaching methods and instructional techniques to accommodate for the various learning styles throughout my time spent in this differentiated instruction classroom.

Summary

The main reason for completing this study was to examine the nature of differentiated instruction and the impact it has on engagement. This chapter discussed the actions of teachers, the implementation of lessons, and the importance that has on the nature of engagement. This study attempted to find an answer to the following research question: What is the nature of engagement for teachers and students in a differentiated instruction classroom? In response, the research indicated that differentiated instruction is a valuable tool in increasing engagement in the classroom while accommodating for student differences. When teachers, who are utilizing differentiated instruction, provide support and feedback and get to know their students’ interests, abilities, and learning styles, engagement in the classroom is increased for both students and teachers. Carla’s student learning profile really made clear the impact that teachers can have on their students when she said, “Both of my teachers have different ways of teaching. In all my years at school, I have never been motivated to get up in the morning and be excited but this year
I have been!” The evidence provided outlines the nature of engagement in a differentiated instruction classroom.
CHAPTER V: SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this study was to investigate the nature of engagement in a differentiated instruction classroom. This is a 5th grade, full inclusion classroom, taught by a general education teacher and a special education teacher jointly. This research was conducted by using the following research question as a guide: What is the nature of engagement for teachers and students in a differentiated instruction classroom? This chapter contains a summary of all previous chapters, conclusions of the study, suggestions for implementation with differentiated instruction, and recommendations.

Summary of Chapters

The first chapter for this research outlined the topic for this study. The focus was the nature of differentiated instruction in an inclusive, co-taught, 5th grade classroom. It included the introduction of the topic, the statement of the problem, the purpose statement, and limitations. It also included a definition of relevant terms and a brief summary of the methods used to gather data.

The purpose of the second chapter was to review pertinent research that had already been conducted. Research was reported on the following topics: definitions of differentiated instruction, differentiation through content, process, products, interests, readiness and learning profiles, teaching strategies currently utilized, and the value and impact of differentiated instruction related to performance and engagement.

The third chapter was designed to introduce the research methods and procedures. This was a qualitative study using phenomenology as the research method. The research instruments utilized to gather data included: observations in the classroom, a student learning profile, and
interviews with the two classroom teachers. The collected data was then analyzed by creating assertions, or codes, and warrants, or statements of evidence. In the fourth chapter, the analyzed data was presented using the following categories or themes: teacher support and feedback, student interests, student abilities, and student learning styles. Chapter IV answered the research question by providing evidence of the nature of engagement in the differentiated classroom.

**Conclusions**

Research has demonstrated the value of differentiated instruction and the impact it can have on engagement in the classroom (Beecher & Sweeny, 2008; Brimfield et al., 2002; Heacox, 2009; Tieso, 2001). Differentiated instruction is not an easy philosophy or method to use, but it can be a valuable tool to increase engagement while accommodating for student differences. The differentiated instruction in this classroom may look different from other classrooms because teachers may adjust and adapt this philosophy or strategy as needed.

Results of this study emphasize the benefits of using differentiated instruction to increase engagement. Teachers who make the effort to get to know their students have a better chance at keeping their students engaged in the classroom (Heacox, 2009). The two teachers in this classroom work extremely hard to provide support to their students, as well as feedback on progress and assignments. The teachers commonly use a one teach-one assist approach. In this approach, one teacher takes the lead teaching role while the other teacher circulates around the classroom encouraging students stay on track, helping them with any confusion, handling any behavioral problems, and distributing materials for activities in the lesson.

Engagement in this classroom is centered around both student and teacher actions. The teachers are staying more engaged because of all they are doing to keep the students in the
classroom engaged. The students are staying more engaged because they are constantly supported and provided with constructive feedback. Additionally, the students are more engaged in the classroom because they are learning about things at their individual ability level, and they are learning about topics they are interested in. In my observation field notes, I recorded several occurrences of engagement. The one teach-one assist model of teaching that Mr. Gonzales and Mrs. Smith utilize, as well as the methods of differentiated instruction, keeps the teachers focused on the students and engaged in the lesson (Observation Field Notes). The students listen to and follow directions, learn about intriguing concepts at their ability level, and are supported to succeed (Observation Field Notes). Using differentiated instruction in this classroom is invaluable in increasing student engagement.

Mrs. Smith and Mr. Gonzales continually try to get to know their students, so they can provide useful feedback and best include and provide for students’ interest, abilities, and learning styles. Knowing student interests is extremely important in maintaining engagement for a student throughout a lesson (Hall, 2009). Both of these teachers listen to their students and have casual conversations with them during free time and recess. This helps the teachers to get to know what their students are interested in. Continuous evaluation of a student’s current skill level or ability is another important factor in keeping students engaged (Hall, 2009). Multiple forms of assessments are included in this classroom as well. The teachers use the assessments to continually gauge where students’ abilities currently are and how much they have improved. This continuing assessment assists the teachers in knowing the students’ individual ability levels and how to best accommodate for them in the classroom. Mr. Gonzales and Mrs. Smith also use multiple methods of instruction throughout the day and throughout most lessons. Teaching methods should be varied from lesson to lesson to try to reach all students’ preferred learning
styles (Tomlinson & Allan, 2000). Using multiple methods of instruction better incorporates students’ learning styles into teaching methods on a daily basis. In this differentiated classroom, teacher support and feedback and inclusion of student interests, abilities, and learning styles increases engagement in the classroom.

The data collected in this study indicated that the nature of engagement in a differentiated classroom includes providing support and constructive feedback to students, including student interest and different student ability levels, and using a variety of teaching methods to best accommodate different learning styles. These themes have a profound impact on student engagement. Engagement is a key component in student learning (Chapman, 2003). This classroom is unique in that it uses a co-teaching model and differentiated instruction to increase engagement in the classroom. Mr. Gonzales and Mrs. Smith use their co-teaching to better help the students succeed and stay engaged. The use of differentiated instruction in this classroom assists the teachers in accommodating for student interest, abilities, and learning styles, which also helps the students to succeed and stay engaged.

I am a certified early childhood education teacher who plans to implement strategies of differentiated instruction in my own classroom. Results of this study are important to my life and my future. In my classroom, I plan to take these findings to heart. Because implementing everything at once is near impossible, I will start the school year by providing support and feedback to students on a daily basis. In the beginning of the school year, I will give students an interest survey and a student learning profile. This will then help me to start implementing students’ interest and learning styles into my lessons. Finally, as the year progresses and I get to know my students better, I will implement differentiation with the content of my lessons to be able to better accommodate for the students’ differing abilities. This study showed some of the
benefits and strategies of differentiated instruction in conjunction with engagement in the classroom.

**Suggestions for Implementation of Differentiated Instruction**

Wehrmann (2000) provides basic tips and concrete examples for making differentiation possible and manageable. Take small steps by adding differentiation gradually. Differentiation can start with one student or one activity and can be accomplished by differentiating content, process, or product but, does not have to be all three at once. Mr. Gonzales and Mrs. Smith did not actually inform their students they were teaching with differentiated instruction; they just slowly started providing activities and lessons in a differentiated format, starting with students who are on IEPs. Include a variety of activities and vary them so a student is not doing more or less of the same thing repetitively, but instead doing different activities with different challenges and expectations (Wehrmann, 2000). The reading groups at Rocket Elementary are a great example of varying activities and expectations (Observation Field Notes). Each reading group has different challenges and expectations while completing varied activities. No two reading groups are focusing on the exact same content, nor are the teachers teaching it in exactly the same format (Observation Field Notes). Raise expectations for all students in the classroom, not just gifted students (Wehrmann, 2000). In the 5th grade classroom in this study, Mr. Gonzales and Mrs. Smith maintain that they hold high expectations for all of their students (Formal Teacher Interview). Observations in this classroom confirm this belief. The students in this classroom did not know which students are typically developing or which students were on IEPs because all students are expected to try their best at all times (Observation Field Notes; Formal Teacher Interview). Finally, Wehrmann (2000) suggests that teachers should find out their students’ interests. A lesson that students are interested in and enthusiastic about will create
more engaging and pertinent learning experiences. When Mr. Gonzales was questioned about student interest, he held up a little toy car. He said that he listens to the students to try to find out their interests and then bring them into the classroom (Formal Teacher Interview). The little toy car was something he found out that a student was interested in so he used it during a math lesson (Observation Field Notes). Although the object may not always be physical (i.e., toy car), students’ interests should be brought into the classroom and into instructional lessons as often as possible.

While differentiated instruction as a teaching philosophy addresses student differences, implementing differentiated instruction into a classroom addresses learning needs of teachers as well. The teachers in this classroom were clearly engaged in their teaching (Observation Field Notes). Tomlinson and Allan (2000) suggest providing staff and professional developments to make “differentiation more accessible and relevant to [teachers] as individuals” (p. 86). Mr. Gonzales was enrolled in professional development classes centered on differentiated instruction. He stated that the information he learned in the professional development classes was helpful and relevant with his classroom (Formal Teacher Interview). Clearly, there is no specific formula for implementing differentiated instruction “correctly” because each classroom is different, but researchers do offer sound advice for beginning the process (Tomlinson & Allan, 2000; Wormald, 2007).

This study emphasizes four major themes to use to increase engagement in the classroom while utilizing differentiated instruction: teacher support and feedback, student interests, student abilities, and student learning styles. Teachers need to support their students and provide constructive feedback at least on a daily basis. This positive thinking can go a long way with keeping students focused and engaged. Teachers also need to include student interests into the
classroom and instructional lessons as often as possible. It is not expected that students’ interests are known right away. The more a teacher gets to know their students, the better they will be at identifying students’ interests and including them into core content. Furthermore, teachers need to assess their students to figure out the range of abilities present in their classroom. Adjusting material to accommodate for students’ individual abilities can slowly be incorporated, through one student at a time or one subject at a time. Finally, teachers need to vary the instructional methods they use throughout each lesson. Multiple methods of instruction can be used throughout a single lesson. For example, a lesson could start with a short video, move on to a short direct instruction section where the teacher is teaching aloud and the students have the material in written format. The students might next move on to an activity individually or in small groups. Students could possibly have a choice in using a graphic organizer to write down their thoughts or having a choice as to how they, or their small group, will show how they have learned the material. These themes were reoccurring through observational field notes, teacher interviews, and student learning profiles. Implementing these themes into a classroom will help keep both students and teachers engaged.

**Implications for Teachers**

This study was designed to further the research on differentiated instruction and the impact it has on engagement in the classroom for both teachers and students. Implications resulting from this study are noteworthy to discuss. This study found that utilizing differentiated instruction can have a profound impact on engagement in the classroom. However, this study was conducted in one classroom, in one school. Differentiated instruction and engagement may look different in every classroom. Nonetheless, Mr. Gonzales pointed out some great advice in his formal interview. “Differentiated instruction is another tool to utilize in the classroom. The
more strategies you incorporate, the more successful you will be” (Formal Teacher Interview).

Mr. Gonzales and Mrs. Smith offered valuable insight for beginning teachers or teachers who are thinking of implementing differentiated instruction into their classroom. Mr. Gonzales’s advice includes building as much experience as possible and creating and using a good classroom management technique. Mrs. Smith suggests that teachers need to be very willing to accept kids at their different ability levels and try to reach them so they may be successful. She also suggests collecting, bringing in, and utilizing as many resources as possible.

**Summary**

This study was designed to examine the nature of engagement in a differentiated instruction classroom. Qualitative research and phenomenology were utilized to gather data for this study. A 5th grade differentiated, co-taught classroom served as the sole study site. The 22 students and two teachers were the participants in this study. The data collected consisted of six weeks of observation field notes, two teacher interviews, and responses from individual student learning profiles. Teacher support and feedback, student interests, student abilities, and student learning styles were the resulting themes after analyzing the data. The results indicated that utilizing differentiated instruction in the classroom does have an impact on engagement with both teachers and students. Furthermore, the results indicated that the nature of engagement in a differentiated classroom includes teachers providing support and feedback on a consistent basis, teachers including student interests and various ability levels, and teachers utilizing multiple instructional methods to accommodate for students’ diverse learning styles.

Although these findings cannot be generalized, some elements of this study on differentiated instruction and engagement are compatible and applicable in a variety of classrooms, especially with higher levels of interest and engagement. Differentiated instruction
is geared to keep both teachers and students more engaged in the classroom. The teachers in this classroom were found to be very supportive of their students, and they provided feedback in a timely manner. Furthermore, these teachers put forth the effort to get to know each and every one of their students. Because they took the time to get to know their students, they were able to gain knowledge about their students’ individual interests, abilities, and learning styles. By applying this knowledge, Mr. Gonzales and Mrs. Smith increased engagement with their students. In conjunction, the teachers were also more engaged in the classroom because they were so engaged in their efforts for the students. In closing, differentiated instruction is an invaluable philosophy of teaching to increase engagement in the classroom while accommodating for differing abilities.
References


APPENDIX A

STUDENT CONSENT FORM
Explanation and Informed Assent Form for Students

Introduction
My name is Rebecca Ellerbrock. I am a student in the Curriculum and Teaching Master’s Program at Bowling Green State University. I am doing this study for research purposes for my school. Dr. Mohammed Darabie is my research advisor for this study. Dr. Darabie teaches in the College of Education and Human Development at Bowling Green State University. This study is going to look into the different ways your teachers are teaching and how your two teachers keep you interested in the classroom.

Why?
This study may help in understanding the teaching practices used in this classroom and how the students are kept interested and busy. Money will not be given for filling out this student learning profile.

What Do I Do?
Students will be given an assent form. A consent form will already be signed by your parent/guardian. After you read this form, fill out the student learning profile and sign the assent form. Then, place the finished student learning profile and signed assent form on the back table. This should take about 15-20 minutes to finish.

Your Choice
It is your choice to decide to fill out this student learning profile. You are free to stop filling this paper out at any time. You may skip questions or stop filling this profile at any time without getting into trouble. Choosing to fill the student learning profile out or not will not affect your grades/class standing or your relationship with your teacher, school, or Bowling Green State University. Any information you provide will be helpful and very much valued.

Risks
While filling in this student learning profile, there are no risks other than those that happen with everyday life or normal classroom activity. Your choice to fill in this student learning profile or not fill in this student learning profile will not affect your relationship with your school or Bowling Green State University. All student learning profiles will be kept in a locked filing drawer in my office. I am the only person with a key to open the drawer to these papers.

Your Rights
The information that you fill in on the student learning profile will remain private and your name will not be shared in any way. No information you fill in will be used against you in any way. The results (or what I figure out), if they are published, will be written into a summary.

You have the right to ask any questions you may have about the student learning profile or about filling out a student learning profile. You may request a copy of the results of the study.
Researcher’s Contact Information:

Researcher: Rebecca Ellerbrock  Advisor: Dr. Mohammed Darabie
110 Education Building  529 Education Building
Bowling Green State University  Bowling Green State University
Bowling Green, Ohio 43403  Bowling Green, Ohio 43403
Email: rcox@bgsu.edu  Tel: (419) 372-3194
Email: madarabi@bgsu.edu

Please feel free to email me if you have any more questions. If you have questions about the way this study was carried out or your rights as a person filling out this student learning profile, you may email or call the Chair of Bowling Green State University’s Human Subjects Review Board at 419-372-7716 (hsrb@bgsu.edu).

Informed Assent Statement

I have been informed of why I am filling out this student learning profile, what I have to do, and the risks and benefits of this study. I have had the chance to have all my questions answered and I have been informed that filling out this information is totally my choice. I agree to fill out this student learning profile.

Print Name Here_____________________________________________________

Sign Here_________________________________________________________

Date_____________________________________________________________
APPENDIX B

PARENT/GUARDIAN CONSENT FORM
Explanation and Informed Consent Form for Parents/Guardians

Introduction
My name is Rebecca Ellerbrock. I am a student in the Curriculum and Teaching Master’s Program at Bowling Green State University. I am conducting this study for research purposes. Dr. Mohammed Darabie is my research advisor for this study. Dr. Darabie is a professor in the College of Education and Human Development at Bowling Green State University. The specific focus of this study is to investigate the teaching methods of differentiated instruction and student engagement in an inclusive 5th grade co-taught classroom.

Purpose
This study may help lead to an improved understanding of the teaching methods used in this classroom and student engagement. There are no direct monetary benefits for participating in this student learning profile.

Procedure
Student learning profiles will be distributed to you with the consent form stapled to the cover of the student learning profile. After you read the consent form and review the student learning profile, please sign the consent and return it to school with your child by Friday, March 4, 2011. Your child will also sign an assent form and, he/she will complete the student learning profile in class. The student learning profile should take about 15-20 minutes for your child to complete. If your child does not have consent to participate in this student learning profile, he/she will work on homework/class work during the allotted time frame.

Voluntary Nature
Your child’s participation is completely voluntary. Your child may discontinue participation at any time without penalty. Deciding to participate or not will not affect your child’s grades or relationship with their teacher, school, or Bowling Green State University. However, any information provided will be helpful and greatly appreciated.

Risks
There are no more anticipated risks to participating in this survey than those normally encountered in everyday life or typical classroom activity. Your decision to participate or not participate in this research project will not impact your relationship with the elementary school or Bowling Green State University. All data will be kept in a locked filing cabinet in my office. I am the only one with access to these data.

Your rights as a subject
Your personal information that you provide will remain confidential and your identity will not be revealed in any published results. No information you provide will be used against you or your child in any way. The results, should they be published, will be presented in summary manner.

You have the right to ask any questions about the survey or other concerns related to your rights as a participant. You may request a summary or copy of the results of the study.
Researcher’s Contact Information:
Researcher: Rebecca Ellerbrock
110 Education Building
Bowling Green State University
Bowling Green, Ohio 43403
Email: rcox@bgsu.edu

Advisor: Dr. Mohammed Darabie
529 Education Building
Bowling Green State University
Bowling Green, Ohio 43403
Email: madarabi@bgsu.edu

Please feel free to contact me if you have any further questions. If you have questions about the conduct of this study or your rights as a research participant, you may contact the Chair of Bowling Green State University’s Human Subjects Review Board at 419-372-7716 (hsrb@bgsu.edu).

Informed Consent Statement

I have been informed of the purposes, procedures, risks and benefits of this study. I have had the opportunity to have all my questions answered and I have been informed that my child’s participation is completely voluntary. I agree to have them participate in this research.

Print Parent/Guardian’s Name ______________________________________________________

Print Child’s Name _________________________________________________________________

Parent/Guardian’s Signature______________________________________________________

Date_____________________________________________________________________________
APPENDIX C

OBSERVATION PROTOCOL
<table>
<thead>
<tr>
<th><strong>Observation-Differentiated Instruction</strong></th>
<th><strong>Teacher Behavior</strong></th>
<th><strong>Student Behavior</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Differentiation used with the content of the lesson.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Differentiation used with the process of the lesson.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Differentiation used with the product of the lesson.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flexible groups used during the lesson.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrated awareness of student needs, interests, readiness, and learning profiles.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Lesson Summary:**

**Important Teacher Quotes:**
APPENDIX D

TEACHER INTERVIEW QUESTIONS
Teacher Interview Questions

1. Tell me about your teaching philosophy.

2. What is your opinion of differentiated instruction?

3. What types of things do you like about DI? Why?

4. What types of things do you not like about it? Why?

5. What is your definition of differentiated instruction?

6. What motivated you to start teaching with differentiated instruction? *Probes-Why do you use it?*

7. How do you plan your lessons using differentiated instruction?

8. How do you use differentiation when you implement your lessons?

9. Describe the types of instructional methods you use daily? *Probes- groupings, full instruction, pull outs, teaching methods (direct instruction, audio, visual, hands-on, etc)*?

10. Where do you find your materials for DI?

11. Do you feel like you were prepared to teach using differentiated instruction?

12. Do you feel that the professional development on differentiated instruction is helpful or beneficial?

13. How well would you say differentiated instruction works with achievement and engagement for students?

14. What types of things do you do to try to keep all students engaged in your classroom?

15. If you were talking to a new teacher who was trying to implement DI, what do you think they should know? Any helpful hints?
APPENDIX E

STUDENT LEARNING PROFILE
Student Learning Profile

1. Do you like the subjects that you learn about in school? Which subjects do you like the best?
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

2. Do you enjoy learning in this classroom? Why or why not?
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

3. How are you motivated to learn in this classroom? What types of things do your teachers do to make you want to learn in their classroom?
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

4. Do you like having two teachers in your classroom? Why or why not?
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

5. How do your teachers give you positive feedback about your work in class?
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

6. How do your teachers offer you support when you need help in their classroom?
7. How are your interests incorporated into the classroom instruction?

______________________________________________________________________________

______________________________________________________________________________

8. How do you think the instruction is geared towards your abilities?

______________________________________________________________________________

______________________________________________________________________________

9. How are lessons taught in ways that you like to learn? For example: groups, pairs, individual work, auditory (lectures), visual (Smart Board, videos, posters, etc.), hands-on learning, etc.

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

10. Do you like the way that you are taught this year better than last year? Why or why not?

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________