OBSERVING THE USE OF DIFFERENTIATED INSTRUCTION
IN A SECOND GRADE CLASSROOM AT A CHARTER SCHOOL

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ABSTRACT

Dr. Tracy Huziak-Clark, Advisor

The purpose of this research was to reflect on and analyze the actual implementation of differentiated instruction, by a single classroom teacher, in a regular education classroom. The purpose of this study was to qualitatively examine effective and attainable instruction methods that utilize differentiated instruction to meet the needs of all students. The research question this study attempted to answer read: How can a regular education classroom teacher utilize differentiated instruction to meet the diverse needs (student readiness, ability levels, interests, and learning styles) of all students simultaneously?

The qualitative research method ethnography was utilized during this study. A second grade teacher, Miss Lindsey, served as the sole participant for this study. The setting for the collection of data included the charter school in which Miss Lindsey is employed; specifically, her second grade classroom. Data was collected in three forms: participant-observation field notes, a formal interview with the classroom teacher, and a collection of lesson plans and supplemental activities and worksheets representing the planned use of differentiated instruction in the classroom. This data was then analyzed for significant findings using a set of pre-determined assertions: eleven hallmarks of a differentiated classroom (Tomlinson and Eidson, 2003). Evidence to support each hallmark, as discussed in this chapter, illustrated how differentiation was utilized, or implemented, in the observed classroom. The observed, regular education, classroom was found to be representative of a differentiated classroom based on Miss Lindsey’s ability to demonstrate and support each of the eleven hallmarks.
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CHAPTER I: INTRODUCTION

Study Background

With the obligation of No Child Left Behind and the continuous pressure to meet state and national standards, teachers are constantly challenged with the difficult task of meeting the needs of all students in the general education classroom. However, as Benjamin Bloom expressed, it makes no pedagogical sense to expect all students to learn in the same way or at the same pace when the variance in students’ background knowledge, readiness, learning styles, and strengths are taken into account (Eisner, 2000). Similarly, Hall (2009) states, “Students arrive from a montage of backgrounds with very different needs. They form a mosaic of diversity – academically, culturally, linguistically, economically, socially, and motivationally,” (p. 1). Therefore, it is understandable students require different instructional strategies. “The ‘teaching to the middle’ approach used in many classrooms does not provide optimum learning opportunities for such diverse student populations,” (p. 1). On the contrary, differentiated instruction is considered an effective method for catering to all students and “promotes equity and excellence by focusing on best-practice instruction in mixed ability classrooms,” (Tomlinson, 2000a, p. 25).

To further express the differentiated environment, Broderick, Mehta-Parekh, and Reid (2005) explain by using differentiated instruction, teachers expect students “to bring a variety of experiences, abilities, interests, and styles to their learning; they acknowledge that these affect students’ performance in the classroom; and they address this natural diversity when planning and delivering rigorous and relevant, yet flexible and responsive instruction,” (p. 196). The importance of utilizing differentiated instruction seems evident when considering these statements. For all students to be engaged and motivated in the classroom simultaneously, teachers must understand
and acknowledge their differences when teaching. Anderson (2007) writes, “Of the utmost importance to the teacher who differentiates is providing a learning environment and opportunities [for learning] that exclude no child,” (p. 50). Clearly, differentiating instruction to create such an environment makes sense; for every child deserves the best possible education.

Understanding the significance of meeting students’ diverse needs and the ability of differentiated instruction to do so, this research aimed to analyze the use of differentiated instruction in a second grade classroom at a charter school. A better understanding of effective and attainable ways to implement differentiated instruction, as a single classroom teacher, is sought in attempt to better understand and meet the diverse needs of students simultaneously during instruction. The focus of this study is not to define differentiated instruction through this classroom’s perspective; but to observe teaching strategies to support the implementation of differentiated instruction.

Purpose of Study

This study attempts to further current research by observing, analyzing, and synthesizing the use of differentiated instruction in a classroom. The focus of this research is not to produce additional literature expressing the importance of differentiated instruction or teaching strategies and instructional methods for utilizing differentiated instruction. The purpose of this research is to reflect on and analyze the actual implementation of differentiated instruction, by a single classroom teacher, in a regular education classroom. This study aimed to provide a descriptive analysis of what differentiated instruction looks like in use; in hopes of providing future and current educators with a more helpful perspective on differentiated instruction.
As a graduate student, working towards a master’s degree in Curriculum and Teaching, I have spent the majority of my graduate year researching and studying differentiated instruction. As someone who understands the need for differentiated instruction as a means to support the diverse needs, abilities, backgrounds, interests, and learning preferences of students, I highly value its use in the classroom. All students will not successfully learn in the same way or at the same pace. To truly be successful at teaching and promote students’ success learning, differentiated instruction is a must.

Despite having developed a comprehensive understanding of what differentiation is, I still find myself overwhelmed and unprepared by the task of planning for and implementing a differentiated curriculum. Understanding students will possess a variety of needs, ability levels, interests, learning styles, and backgrounds, I recognize the strong need for differentiated instruction and the terminology associated with differentiating. However, as a future educator, I am greatly intimidated by the overwhelming (but necessary) task of creating and implementing an effective curriculum utilizing differentiated instruction in my future classroom.

I believe current research provides a well-founded understanding of what differentiated instruction is, as well as the importance of differentiated instruction. Therefore, this research aimed to take my understanding of the literature a step further, not by defining differentiated instruction through the participant’s perspective; but by observing and analyzing the actual implementation of differentiated instruction in an early childhood classroom; composed of a diverse student body.

Through my data collection, I intentionally explored the task, process, and challenges associated with simultaneously meeting the diverse needs, interests, experiences, and ability levels
of all students in a classroom. I hoped to gain a better understanding of implementation strategies that utilize differentiated instruction and to gain a sense of confidence, capability, and motivation to meet all students’ needs and abilities through the use of differentiated instruction in my future teaching. Having gained an understanding of differentiated instruction in use, I am now better prepared to create opportunities for better teaching and improved student learning in my teaching career. Having the ability to successfully reach and teach all students in the classroom is vital to creating successful teachers. To effectively teach all students in the classroom, simultaneously, differentiated instruction is necessary and this research is intended to benefit all current and future educators.

The purpose of this research study was to examine and qualitatively analyze effective and attainable instruction methods that utilize differentiated instruction to meet the needs of all students. This research involved the observation and analysis of the use of differentiated instruction in a second grade classroom at a charter school. A better understanding of effective and attainable ways to implement differentiated instruction, as a single classroom teacher, was sought in attempt to better understand and meet the diverse needs of students simultaneously during instruction.

**Statement of Purpose**

The purpose of this study is to qualitatively examine effective and attainable instruction methods that utilize differentiated instruction to meet the needs of all students. The research question read: How can a regular education classroom teacher utilize differentiated instruction to meet the diverse needs (student readiness, ability levels, backgrounds, interests and learning styles) of all students simultaneously?
Summary of Methods

This research study was designed qualitatively and utilized ethnography as the research method to describe the implementation of differentiated instruction in one classroom. One participant, a classroom teacher, was recruited via e-mail for the purpose of this study. I had a previously established relationship with the participant and familiarity with her second grade classroom. For three to four months prior to the beginning of data collection, I spent time observing in the participant’s classroom. An information letter was provided with a formal consent letter and signed prior to the collection of data for this research. Throughout the research, pseudonyms have been employed to ensure confidentiality of the participant, her associated organization, and the classroom itself.

This research represents my attempt to study how one teacher uses and implements differentiated instruction. Data sources were collected over the course of three weeks. Three forms of data were collected: field notes were recorded through on-going participant-observation in the classroom; a formal interview with the participant was conducted and transcribed; and a collection of lesson plans and supplemental activities and worksheets representing the planned use of differentiated instruction in the classroom. This data was then analyzed for significant findings using a set of pre-determined assertions; eleven hallmarks of a differentiated classroom (Tomlinson and Eidson, 2003).

Summary of Chapters

Chapter I serves as the introduction to this thesis. Chapter I contains the study background, purpose of the study, statement of purpose, summary of the research methods, summary of the chapters, and definition of terms. Chapter II includes the review of literature.
The review of literature analyzes research to identify the importance of differentiated instruction, the definition of differentiated instruction, evidence of successful differentiated instruction, specific teaching strategies to support the use of differentiated instruction, and criteria to guide and explain differentiated instruction. Chapter III identifies and explains the research methods used to organize and analyze this research. Chapter III includes a description of the research method used, the conceptual framework, a description of the setting and participants, the study timeline, an explanation of the data collection, data analysis, and limitations of the study. Chapter IV includes a thick description of the classroom setting and the analysis of the collected data. The research question is answered in a summary of Chapter IV. Finally, Chapter V provides an extensive conclusion of the research, implications, and suggestions for further research.

Definition of Terms

Attainable – The term attainable is used throughout this research to refer to the implementation of differentiated instruction in a regular education classroom by a single classroom teacher. I use this term to signify achievable, reasonable teaching methods teachers are capable of planning and implementing; even in the absence of an aide.

Content – Content is a term frequently used in this research to represent one main criterion of differentiated instruction, as studied by Anderson, 2007; Broderick et al., 2005; Hall, 2009; Lawrence-Brown, 2004; Levy, 2008; and Tomlinson, 2000. Content refers to what is being taught; the academic standard or ‘content’ being presented in a lesson.

Differentiated instruction – To briefly explain the definition of differentiated instruction, I would explain differentiation as a teaching practice, or philosophy, carefully planned and purposefully implemented utilizing a variety of best practice methods and continuous, on-going
assessment for the purpose of meeting students’ diverse needs, ability levels, backgrounds, readiness levels, interests, and learning preferences. Differentiated instruction requires flexibility of content, process, product, and learning environment. Several highly supported research-based definitions of differentiated instruction can be found in the review of literature.

Flexible grouping strategies – Flexible grouping strategies is a term frequently utilized in describing ways to differentiate instruction. Flexible grouping strategies refer to the use of numerous, varied grouping strategies. Students may be grouped in self-chosen partners, randomly assigned partners, small-groups based on similar interests, small groups based on similar (or different) learning preferences, small groups based on ability levels, etc. An important aspect of differentiated instruction is creating a variety of collaborative work opportunities (flexible grouping) to strengthen student understanding and comprehension.

Implement(ation) – The term implement, or implementation, is used frequently throughout this research, even as a main part of the research question. It was a focus of mine to understand differentiated instruction beyond theory or definition. Going beyond literature descriptions of what differentiated instruction is and what teaching strategies it must use, I sought to determine how it is actually implemented in the regular education classroom. ‘Implement’ refers to the real, actual use of teaching strategies, resources, or intentions for the purpose of differentiating instruction. The implementation of differentiated instruction could be very contextualized to a particular classroom setting or educator.

Leveled work – Differentiated Instruction has a tendency to be highly reliant on the use and implementation of leveled work. The term leveled work is used to describe activities or assignments over the same content at various levels (often identified as low, middle, high) to
coordinate with students’ ability levels. The use of leveled reading books is very typical in the elementary grade levels. In my experiences, many classroom teachers will intentionally utilize differentiated instruction by planning leveled work for their students, differentiating the content of a lesson. Differentiating process and product are more often done unintentionally; teachers may not be aware they are differentiating these two areas of the curriculum.

Process – Process is a term frequently used in this research to represent one main criterion of differentiated instruction, as studied by Anderson, 2007; Broderick et al., 2005; Hall, 2009; Lawrence-Brown, 2004; Levy, 2008; and Tomlinson, 2000. Process refers to how content is taught; the methods or teaching strategies involved in the actual teaching of the lesson.

Product – Product is a term frequently used in this research to represent one main criterion of differentiated instruction, as studied by Anderson, 2007; Broderick et al., 2005; Hall, 2009; Lawrence-Brown, 2004; Levy, 2008; and Tomlinson, 2000. Product refers to the summative assessment for a lesson or the final result of a lesson, characterized by student work.

The terms student ability (or ability level), student background, student interest, student learning preference(s), student need(s), and student readiness are applied to express diversities among students. These differences are what create the need for differentiated instruction.

Student ability – Student ability refers to the level at which a student is performing. It is expected frequent, on-going assessments are taking place to ensure accurate placement according to student ability. One individual student may possess a low ability level for math but a high ability level for science. They may understand the concept of photosynthesis incredibly well but struggle with the concept of erosion. Student ability refers to the level at which a student is performing for a particular lesson. Student ability closely aligns with leveled work and
differentiating content; all of which, I have observed, become the primary focus of differentiated instruction in some classrooms.

Student background – Student background refers to a number of factors; namely students’ cultural characteristics. Background may include ethnicity, race, socio-economic status, family composition, language speaking, previous academic experiences, and more.

Student interest – Student interest is a term used to express students’ interests. It may include students’ hobbies, students’ future career choices, students’ favorite sport, students’ favorite school subject, or any other point of interest. An awareness of students’ interests may be gathered from a Student Interest Inventory/Survey.

Student learning preference – Student learning preference refers to several general characteristics (preferences) students’ maintain about learning. Howard Gardner’s Multiple Intelligences (1983) are a large part of students’ learning preference. Students’ learning style is just one aspect of their learning preference. Students’ preference to work alone or collaboratively is another aspect of their learning preference. Their preference to work at a desk/table or on a comfortable pillow on the floor is yet another type of learning preference. Students’ preference to learn from a teacher-centered lecture, or an interactive computer simulation activity, or an experiential student-centered project further exemplifies student learning preference. In a sense, student learning preference describes how students like to learn and the environment in which they prefer to do so.

Student need – Student need is a broad term utilized to represent any special or unique needs presented by the student. Many of the other terms described here effect and contribute to a student’s need. In addition, any medical needs or development needs are also recognized. A
special education student may present unique needs which must be met in the classroom. A student with vision problems also creates unique needs which require appropriate accommodation. A gifted student will present different academic needs than other students in the class. The term student need is employed to refer to this array of student differences.

Student readiness – Student readiness is similar to student ability, but refers more to students’ background knowledge and prior knowledge on the content being taught. A student who performs well on a pre-assessment may have a higher readiness level to progress with the unit than a student lacking any prior knowledge on the content.
CHAPTER II. REVIEW OF LITERATURE

Introduction

The review of literature for this study focused on five categories: the importance of differentiated instruction, defining differentiated instruction, teaching strategies that support differentiated instruction, the effectiveness of differentiated instruction, and criteria used to describe and explain differentiation. I discovered an ease locating resources about what differentiated instruction is and an abundant amount of literature advocating the use of differentiated instruction as a means of meeting students’ needs. It was more difficult to locate resources outlining specific teaching strategies to represent the use of differentiated instruction; although several valuable resources were discovered. Only a few studies were located discussing the effect a differentiated curriculum has on student learning and achievement. Literature written by Tomlinson (1999a, 2000c, 2003) served as the basis for identifying criteria used to describe differentiated instruction in the classroom.

This review of literature provided me with a comprehensive understanding of the importance of differentiation, a thorough definition of differentiated instruction, a variety of teaching strategies to support differentiated instruction, why differentiated instruction matters and how it improves student learning and achievement, and finally a better understanding of the elements of a differentiated classroom.

Importance of Differentiated Instruction

As teachers continuously struggle to meet the demands of No Child Left Behind, they are constantly challenged by the obligation to meet state and national standards while also attempting to cope with the difficult task of meeting the needs of all students in the general education
classroom. As Benjamin Bloom expressed, it makes no pedagogical sense to expect all students to learn in the same way or at the same pace when the variance in students’ background knowledge, readiness, learning styles, and strengths are taken into account (Eisner, 2000). Similarly, Hall (2009) states, “Students arrive from a montage of backgrounds with very different needs. They form a mosaic of diversity – academically, culturally, linguistically, economically, socially, and motivationally,” (p. 1). Therefore, it is understandable students require different instructional strategies and diverse learning opportunities. “The ‘teaching to the middle’ approach used in many classrooms does not provide optimum learning opportunities for such diverse student populations,” (Hall, 2009, p. 1). Differentiated instruction is considered an effective method for catering to all students and “promotes equity and excellence by focusing on best-practice instruction in mixed ability classrooms,” (Tomlinson, 2000a, p. 25).

Broderick et al., (2005) explain by using differentiated instruction, teachers expect students “to bring a variety of experiences, abilities, interests, and styles to their learning; they acknowledge that these affect students’ performance in the classroom; and they address this natural diversity when planning and delivering rigorous and relevant, yet flexible and responsive instruction,” (p. 196). The importance of utilizing differentiated instruction seems evident when considering these statements. For all students to be engaged and motivated in the classroom, simultaneously, teachers must understand and acknowledge their differences when teaching. Anderson (2007) writes, “Of the utmost importance to the teacher who differentiates is providing a learning environment and opportunities [for learning] that exclude no child,” (p. 50). Clearly, differentiating instruction to create such an environment makes sense; for every child deserves the best possible education.
Defining Differentiated Instruction

Differentiating instruction is an important aspect in teaching students of various levels and appropriately implementing inclusion in the classroom. According to Broderick et al., (2005), “it is a comprehensive approach to teaching, which enables the successful inclusion of all students,” (p. 194). Differentiated instruction is defined as ‘teaching with student variance in mind, it means starting where the students are rather than adopting a standardized approach to teaching that seems to presume all learners are alike,” (Cox, 2008, p.53). Hall (2009) expresses, “differentiated instruction does not change WHAT is taught; it changes HOW it is taught. Instruction is tailored based on individual differences... teachers modify their instructional strategies to create appropriately different learning experiences for different students” (p. 1). According to Levy (2008), differentiated instruction consists of a variety of teaching strategies designed to meet individual students at their level as they begin the year and move them “forward as far as possible on their educational path” (p. 162). She also indicates the core of differentiated instruction is flexibility in content, process, and product based on students strengths, needs, and learning styles, which will be discussed in greater detail.

As formerly stated, differentiated instruction does not entail changing what is being taught, rather it provides ‘differentiated’ ways for doing so. Flexibility in content, process, and product are essential to successful differentiated instruction, (Anderson, 2007; Broderick et al., 2005; Hall, 2009; Lawrence-Brown, 2004; Levy, 2008; and Tomlinson, 2000a).

Anderson (2007) outlines the critical elements of differentiated instruction: most important to differentiated instruction are the elements of choice, flexibility, on-going assessment, and creativity resulting in differentiating the content being taught, or how students are processing and developing understanding of concepts and skills, or the ways in which students demonstrate what they have learned and their level of knowledge through varied products (p. 50).
This quote explains the most important aspects of differentiated instruction in one sentence. The use of best practice teaching methods (choice, flexibility, on-going assessment, and creativity) are an absolute requirement for successful differentiated instruction. By utilizing these teaching strategies, flexibility in content, process, and product becomes possible.

All students should be taught the same curriculum, but the content should be differentiated. “The content refers to the knowledge and skills that students are to learn,” (Hall, 2009, p. 2). Students bring different experiences and background knowledge to the classroom. Their understanding of content is greatly influenced and impacted by both their previous experiences and background knowledge. Pre-assessments and a concrete understanding of where students are in their readiness are crucial to understanding how the content must be differentiated. Teachers need to know where their students are before they are able to meet them there. Failing to differentiate content will result in teaching curriculum that is above some students’ comprehension, below others’ current understanding, and fortunately at some students’ current level, meaning many students’ needs are not being met and they are therefore not able to properly grasp the objectives being conveyed. When students’ are not being taught at their level, they may be more likely to lose motivation and become disengaged in the learning process, which often leads to behavior problems and surely results in a less than ideal opportunity to learn and acquire full academic potential.

Flexibility and differentiation of process are also vital to effective differentiated instruction. Hall (2009) defines process as, “the performance task that enables students to practice and make sense of the content,” (p. 2). Process refers to the way teachers teach and the activities they implement to teach content. Students learn in a variety of ways, possess different strengths, and
maintain diverse preferences in their ideal learning environment. Differentiating process, or providing multiple alternatives for students to acquire and learn content, is immensely aligned with Howard Gardner’s theory of Multiple Intelligences (1983). Classrooms consist of students with a variety of learning styles – students may be visual learners, auditory learners, bodily-kinesthetic learners, linguistic learners, etc. Students may also prefer to learn in environments different from their classmates, perhaps in a quiet room working alone, or in a rather energetic room working with peers. It is important for teachers to provide multiple methods of instruction and a variety of activities to cater to the unique needs of each student. Failure to implement process in a manner that appeals to all students may result in their incapability or difficulty to learn the curriculum at hand.

Finally, planning for and accepting a variety of products from students is critical of differentiated instruction. Levy (2008) defines product as, “the way students demonstrate what they have learned, it must reflect student learning styles and abilities,” (p. 162). A test or written essay may not always be the best way to assess student learning. Again, referring to multiple intelligences and varied learning preferences, an entire class of students will not occupy the same strengths and abilities. It is important to allow students to express what they have learned in a number of ways, to ensure that each style of learner and the ability of all learners can be optimized. Many students often comprehend the content as well as the next, but if they do not perform well on tests of the assessment at hand, their comprehension goes unnoticed and improperly evaluated.

Evidence of Successful Differentiated Instruction

There was limited literature indicating the effect differentiated instruction has on student performance and academic achievement. However, several studies and sources were located to
provide evidence of the effect differentiated instruction had on several classrooms and schools. Overall, it was found differentiated instruction had a significant effect on student learning and academic achievement at the elementary and high school levels.

Beecher and Sweeny (2008) studied one elementary school’s approach to “reducing the achievement gap that strategically blended differentiated curriculum with school wide enrichment teaching and learning,” (p. 503). Prior to implementing this strategy of enrichment and differentiation, the elementary school utilized a remedial paradigm. “This enrichment approach resulted in improved student achievement and the reduction of the achievement gap between rich and poor and among different ethnic groups,” (Beecher and Sweeny, 2008, p. 503). Success or improvement of the new approach was measured in students’ positive attitudes about school, increased engagement in learning, and improved achievement on district and state assessments. Specific to test performance, Beecher and Sweeny (2008) noted, “analyses of student achievement on state tests from 1997 to 2004 showed improvement in all subject areas and in all levels of proficiency,” (p. 525). Furthermore, a main goal of this new approach was to narrow or reduce the achievement gap between students of different socio-economic and ethnic statuses. After seven years under the new approach of enrichment and differentiated instruction, “the gaps in achievement between students with differing socioeconomic status narrowed from 62 percent to 10 percent. All ethnic groups showed improvement in their achievement, with Asian students making the largest gains at 60 percent and White and Hispanic students gaining 5 percent,” (Beecher and Sweeny, 2008, p. 525). Clearly, the utilization of enrichment and a differentiated curriculum proved successful in increasing student test performance, proficiency level, and
ultimately, narrowing the achievement gap for students of varying socio-economic and ethnic statuses.

In a comparison of three different classrooms, Tomlinson (1999b) describes the teaching strategies implemented and student involvement in various stages of a differentiated curriculum. One classroom neglects to use any part of differentiated instruction, a second classroom uses some differentiated techniques but doesn’t maintain an organized, intentional use of differentiated instruction, and the third classroom (Ms. Cassell’s classroom) is highly differentiated. After providing a general description of each classroom, the role the teacher maintains, and the nature of students’ involvement in the learning process, Tomlinson (1999b) explains, “Ms. Cassell’s class is highly likely to be effective for her varied learners, in part because she continually attempts to reach her students where they are and move them on – she differentiates instruction,” (p. 16). Because Ms. Cassell understands and knows her students, she is able to create specific, appropriate, and somewhat individualized goals for each one. “Because she is clear about their destination and the path of the travelers, she can effectively guide them, and she varies, or differentiates, her instruction to accomplish this goal,” (Tomlinson, 1999b, p. 16). Although this article did not provide statistical evidence to display the effect differentiated instruction had on one classroom, in comparison to two other classrooms, Tomlinson (1999b) did discuss the potentially promising effect differentiated instruction could have.

Further evidence supporting the effectiveness of differentiated instruction was discovered in a framework for differentiating classroom instruction developed by Rock, Gregg, Ellis, and Gable (2008). They reviewed several studies in this framework. Lewis and Batts (2005) reported “when elementary teachers relied heavily on undifferentiated approaches to instruction, students
had an overall 79 percent proficiency rate on state-mandated end-of-year tests. After five years of differentiated instruction, 94.8 percent of their students scored in the proficient range,” (Rock, et al., 2008, p. 34). A second study discussed the research of Fisher, Frey, and Williams (2003) who also found significant outcomes resulting from differentiated instruction. “Fischer et al. documented that the average student in their high school read at a 5.9 grade level. After four years of differentiated instruction, the average student read at an 8.2 grade level,” (Rock et al., 2008, p. 34). The results of these two studies further supports the effectiveness of differentiated instruction; both at the elementary and high school levels on proficiency and reading levels.

One final piece of literature was reviewed to better understand and support the evidence of the effect of differentiation. Cusumano and Mueller (2007) explain the journey of an elementary school, challenged with a student body poverty rate of nearly 90 percent and 25 percent English learners, to increase state rankings of one and one. Believing “that their students could and would learn the content standards,” (p. 8) the new principal and existing teachers of this school decided to meet students’ diverse needs through differentiated instruction. After six years of utilizing differentiated instruction, “current achievement results show the school’s rankings have moved to six and ten,” (p. 8). In additional to schoolwide improvement on state rankings, Cusumano and Mueller (2007) also indicate “there has been a significant decline in student discipline referrals, teacher morale is higher, and remarkable improvement has been made in students’ reading, writing, and math performance levels,” (p. 8). The specific structural changes, instructional programs, teaching strategies and activities, professional development activities, and allocation of resources are discussed throughout this literature. To briefly summarize, the elementary school researched by Cusumano and Mueller (2007) was able to greatly increase in state rankings and
increase student achievement by using differentiated instruction and best practice methods to meet the diverse learning needs presented by their students.

Differentiated instruction has been found to result in a significant increase of student achievement and performance (Beecher and Sweeny, 2008; Cusumano and Mueller, 2007; Fisher, Frey, and Williams, 2003; Lewis and Batts, 2005; and Tomlinson, 1999b).

Teaching Strategies to Support Differentiated Instruction

Despite initial difficulty discovering literature which discussed specific teaching strategies and instructional methods to support differentiated instruction; a number of valuable resources were eventually located. Several resources simply provide a list of teaching strategies to support a differentiated curriculum; others provide a detailed description of what each teaching strategy is and how it allows for differentiation among students. The following information is organized by literature source, many common strategies were repeatedly mentioned throughout this collection and review of literature.

Garderen and Whittaker (2006) provide several examples of ways to differentiate instruction. To differentiate content, the authors suggest using texts at varied reading levels, maintaining the use of organizers to guide note-taking, incorporating the use of examples and illustrations based on student interest, presenting material in visual, auditory, and kinesthetic modes, and providing materials in the primary language of second language learners. To differentiate process, they suggest varying the pacing of student work, using cooperative grouping strategies (e.g., Think-Pair-Share, Jigsaw), developing activities that seek multiple perspectives on topics and issues, highlighting critical passages in a text, and tiered assignments. In order to differentiate product, the authors recommend providing bookmarked Internet sites at different
levels of complexity for research sources, developing rubrics for success based on both grade-level expectations and individual student learning needs, and teaching students how to use a wide range of product formats (e.g., presentation software). To support differentiated instruction, Garderen and Whittaker (2006) encourage teachers to model respect, help students examine multiple perspectives on important issues, and ensure consistently equitable participation of every student. Finally, the authors provide several suggestions for producing a learning environment supportive of differentiated instruction; by rearranging furniture to allow for individual, small-group, and whole-group work, ensuring the availability of supplies and materials (e.g., paint, papers, pencil), and developing procedures for working at various places in the room and for various tasks.

A brief set of strategies for differentiating instruction is discussed by George (2005). “Differentiation provides a variety of ways for all students to feel affirmed, challenged, and successful: flexible grouping, appropriately challenging tasks for individuals, and emphasis on personal growth as one criterion for success,” (p. 188). Consistency is important when creating developmentally appropriate and challenging opportunities for both advanced learners and other students for a truly effective differentiated environment.

The use of learning centers appears repeatedly throughout this collection of literature. Arquette (2006) focuses specifically on literacy centers by identifying multiple activity learning literacy centers as an excellent differentiation technique; allowing for student choice and opportunities for preferred learning techniques. More so, teachers are presented with opportunities to directly teach skills to small groups of students or individual students while the rest of the class is engaged in meaningful literacy work.
Several strategies for differentiated instruction were outlined by Hall (2009). To assist in meeting the varying readiness levels of students, she recommends tiered assignments. “Tiered assignments are designed to instruct all students on the same objectives but at different levels of complexity and open-endedness,” (Hall, 2009, p. 3). The use of tiered lesson plans allows students to learn information and content at their own ability level. Compacting is also a strategy suggested for addressing various levels of student readiness. “Compacting is the process of modifying instruction by determining those basic skills students have already mastered... practice or repetition of those skills is replaced by more challenging options (such as enrichment or accelerated study),” (Hall, 2009, p. 3).

To address students’ readiness and interests, Hall (2009) recommends centers or groups. By allowing students to integrate their interests with classroom content; they become more motivated to learn. Additionally, “groups give students opportunities to research, problem solve, and work cooperatively,” (p. 4). The use of learning contracts may serve as a teaching strategy to address students’ readiness and learning profiles. This written agreement between the teacher and the student allows for an individualized plan. “The teacher specifies the concepts and skills to be learned and the required components of the assignment. The student identifies the methods for completing the tasks. The contract allows the student to work independently while setting daily and weekly work goals and developing management skills,” (Hall, 2009, p. 4).

Flexible grouping is a technique or strategy Hall (2009) recommends to meet students’ readiness levels, interests, and learning profiles. Differentiated classrooms should group students in various ways (perhaps by their readiness levels, interests, and learning profiles). Students should not always work within the same group, rather they should have opportunities to work and
“interact with a variety of their peers without being identified with any specific group or ability level,” (Hall, 2009, p. 4). Also in an attempt to address students’ readiness levels, interests, and learning profiles, the author suggests the use of cubing. “Cubing is a strategy that helps students perceive and idea or concept from six different points of view,” (Hall, 2009, p. 4). Cubes may be differentiated based on a variety of student needs; each side of the cube should vary in difficulty and not all groups should receive the same cube.

The final teaching strategy discussed by Hall (2009) is independent study projects. Independent study projects may be helpful in meeting students’ varied readiness levels, interests, and learning profiles. Students are given opportunities to develop problem-solving skills and initiate their own learning. Students choose topics that are “of personal interest and value,” (Hall, 2009, p. 4) and complete independent projects. Teachers may adjust the amount of scaffolding they provide based on individual student needs.

Similarly, Wehrmann (2000) suggested the use of student choice and independent study projects with many possible products are additional ways to differentiate instruction. She discusses her attempt to begin differentiation for a small group of gifted students in her classroom. Students were given the opportunity to embark on an independent study unit and provided with many options for projects and assignments. Students could choose their topic and the project or assignment they wished to complete; all students were learning literacy but in very different ways and using a variety of resources. In attempt to create a differentiated curriculum for all students in her classroom, Wehrmann (2000) developed this objective: “To offer students individualized learning experiences during an independent study unit so that students might sustain or create an interest, showcase their interests, and develop their skills in language arts,” (p. 22). Using Roger
Taylor’s (1999) I-SEARCH projects, Wehrmann encouraged her students to complete an independent study unit. Wehrmann allowed students to work independently or in small groups. This assignment became known as the “Passion Project.” Students developed a learning contract and selected a product of choice to submit at the conclusion of the independent study unit that would showcase their learning experience in a way that complimented their strengths.

A number of teaching strategies and instructional planning methods were discussed by Conklin (2007): tiered assignments; questioning; multiple intelligences; choices; inquiry-based learning, self-paced strategies, and flexible grouping techniques.

Tiered assignments were described; “similar to scaffolding, the teacher offers parallel tasks at varied levels of depth, complexity, and abstractness along with varied degrees of scaffolding, support and direction. All work towards one goal or outcome, but at different levels,” (Conklin, 2007, p. 5). In explanation of questioning as a differentiation technique, she stated, “teachers vary their questioning techniques by asking students different types of questions based on their abilities. The level of questions asked by the teacher allows for student success in participating in the lesson and articulating according to their level of comprehension or language level,” (Conklin, 2007, p. 6). Howard Gardner’s (1983) Multiple Intelligences (logical mathematical, visual spatial, verbal linguistic, rhythmic musical, bodily kinesthetic, interpersonal, and intrapersonal) are also a focus of differentiation strategies for Conklin (2007). Teachers should consider the multiple intelligences presented in their classrooms and create a variety of lessons and activities appealing to all categories. Student choice is a best practice method highly supportive of differentiation and another differentiation strategy discussed by Conklin (2007). She claimed, “when students have opportunities to choose some component of their learning process, they exhibit more motivation
and interest and feel like their learning is more relevant... choice can be an effective component of a differentiated classroom,” (p. 6). Inquiry-based learning strategy “encompasses problem-based learning and discovery-based learning as a means of differentiating the curriculum,” (Conklin, 2007, p. 6). Self-paced strategies are another teaching method identified by the author to assist in differentiation. “Providing students with the opportunity to complete self-paced activities is another way teachers can differentiate instruction while also helping students to learn to work independently,” (Conklin, 2007, p. 7). Suggested forms of self-paced strategies include learning contracts and self-regulated learning. The final differentiation strategy she described included flexible grouping techniques. There are “many ways teachers can arrange grouping in the classroom to address learning needs during a particular planned activity,” (Conklin, 2007, p. 7). Among some of the ways teachers can group students flexibly are heterogeneous groups, peer teaching, reading buddies, homogeneous grouping, and buddy studies (Conklin, 2007).

Brimfield, Masci, and DeFiore (2002) identify flexible grouping as a primary strategy for providing differentiated instruction. “Students are grouped and regrouped routinely within the class based on on-going pre-assessment, readiness needs, prior knowledge, interest, learning style, and student self-selection,” (p. 2). Brimfield et al. (2002) also coin anchor activities, student learning stations/centers, and tiered lessons as differentiation strategies.

A number of instructional and management strategies to differentiate instruction were identified by Tomlinson (1999a): multiple intelligences, jigsaws, taped materials, anchor activities, varying organizers, varied texts, varied supplementary materials, literature circles, tiered lessons, tiered centers, tiered products, learning contracts, small-groups instruction, group investigation,
orbitals, independent study, 4MAT, varied questioning techniques, interest centers, interest
groups, varied homework, compacting, varied journal prompts, and complex instruction.

In another literature source, Tomlinson (2000b) provided additional examples of ways to
differentiate elementary instruction based on content, process, product, and learning
environment. Examples of activities used to differentiate content include:

(1) using reading materials at varying readability levels; (2) putting text materials on tape; (3)
using spelling or vocabulary lists at readiness levels of students; (4) presenting ideas through
both auditory and visual means; (5) using reading buddies; and (6) meeting with small groups
to re-teach an idea or skill for struggling learners, or to extend the thinking or skills for
advanced learners (Tomlinson, 2000b, p. 1).

Tomlinson (2000b) also suggested a number of ways to differentiate the activities students
complete to practice content. To differentiate process in the elementary grades, Tomlinson
(2000b) suggests:

(1) using tiered activities through which all learners work with the same important
understandings and skills, but proceed with different levels of support, challenge, or
complexity; (2) providing interest centers that encourage students to explore subsets of the
class topic of particular interest to them; (3) developing personal agendas (task lists written by
the teacher and containing both in-common work for the whole class and work that
addresses individual needs of learners) to be completed either during specified agenda time
or as students complete other work early; (4) offering manipulatives or other hands-on
supports for students who need them; and (5) varying the length of time as student may take
to complete a task in order to provide additional support for a struggling learner or to
encourage an advanced learner to pursue a topic in greater depth (p. 1).

Suggestions for differentiating product, or the assessment students complete to show what they
have learned at the conclusion of a lesson, include:

(1) giving students options of how to express required learning (e.g., create a puppet show,
write a letter or develop a mural with labels); (2) using rubrics that match and extend
students’ varied skills levels; (3) allowing students to work alone or in small groups on their
products; and (4) encouraging students to create their own product assignments as long as
the assignments contain required elements (Tomlinson, 2000b, p. 1).
The last component of differentiation suggestions, offered by Tomlinson (2000b) includes suggestion for the learning environment. Examples of a differentiated learning environment include:

(1) making sure there are places in the room to work quietly and without distraction, as well as places that invite student collaboration; (2) providing materials that reflect a variety of cultures and home settings; (3) setting out clear guidelines for independent work that matches individual needs; (4) developing routines that allow students to help when teachers are busy with other students and cannot help them immediately; and (5) helping students understand that some learners need to move around to learn, while others do better sitting quietly (Tomlinson, 2000b, p. 1).

Understanding the many teaching strategies and suggestions for preparing a curriculum and learning environment supportive of differentiated instruction discussed is helpful in understanding the classroom observed for this study.

Criteria to Guide and Explain Differentiated Instruction

The final section of the review of literature identifies elements of differentiated instruction developed by Tomlinson (1999a, 2000c, 2003). Tomlinson (1999a) named eight principles that guide differentiated instruction. Tomlinson (2000c) outlined seven beliefs of differentiated instruction and finally, Tomlinson and Eidson (2003) discussed eleven hallmarks of a differentiated classroom. A brief look at the principles of differentiated instruction and the beliefs of differentiated instruction was conducted; while a more thorough analysis of Tomlinson and Eidson’s (2003) hallmarks of a differentiated classroom concluded this review of literature.

Eight principles that guide differentiated classrooms were described by Tomlinson (1999a): (1) the teacher focuses on the essentials; (2) the teacher attends to student differences; (3) assessment and instruction are inseparable; (4) the teacher modifies content, process, and products; (5) all students participate in respectful work; (6) the teacher and students collaborate in
learning; (7) the teacher balances group and individual norms; and (8) the teacher and students work together flexibly.

Tomlinson (2000c) exclaims, “what we call differentiation is not a recipe for teaching. It is not an instructional strategy. It is not what a teacher does when he or she has time. It is a way of thinking about teaching and learning. It is a philosophy. As such, it is based on a set of beliefs,” (p. 6). Seven beliefs are identified by Tomlinson (2000c) to explain differentiation: (1) students who are the same age differ in their readiness to learn, their interests, their styles of learning, their experiences, and their life circumstances; (2) the differences in students are significant enough to make a major impact on what students need to learn, the pace at which they need to learn it, and the support they need from teachers and others to learn it well; (3) students will learn best when supportive adults push them slightly beyond where they can work without assistance; (4) students will learn best when they can make a connection between the curriculum and their interests and life experiences; (5) students will learn best when learning opportunities are natural; (6) students are more effective learners when classrooms and schools create a sense of community in which students feel significant and respected; and (7) the central job of schools is to maximize the capacity of each student.

Additionally, Tomlinson and Eidson (2003) constructed eleven hallmarks of a differentiated classroom. The eleven hallmarks of a differentiated classroom (Tomlinson and Eidson, 2003) include: (1) there is a strong link between assessment and instruction; (2) the teacher is clear about learning goals; (3) the teacher groups students flexibly; (4) the teacher uses time, space, and materials flexibly; (5) the teacher involves her students in understanding the nature of the classroom and making it work for everyone; (6) the teacher emphasizes individual
growth as central to the success of the classroom; (7) the teacher works to ensure that all students have “respectful” work; (8) the teacher makes sure differentiation is always “a way up,” never “a way out;” (9) the teacher sets her own sights high, just as she asks her students to set their sights high; (10) the teacher seeks specialists’ active partnership in her classroom; and (11) the teacher’s differentiation is largely proactive rather than reactive. These hallmarks will be referred to throughout this research for understanding and analyzing the collected data.

The first hallmark indicates, “there is a strong link between assessment and instruction,” (p. 6). Tomlinson and Eidson (2003) first explain the importance of pre-assessments to design appropriate units. Secondly, the use of on-going, continuous assessments throughout the teaching of units is used to make “necessary adjustments to instructional plans to ensure progression toward individual and group goals,” (p. 7). The third form of assessment includes the assessment of individual student interests and learning profiles to increase motivation and learning efficiency. Finally, Tomlinson and Eidson (2003) discuss the importance of a variety of assessments for students to express what they have learned, understand, and can do at the conclusion of a unit.

The second hallmark states, “the teacher is clear about learning goals,” (Tomlinson and Eidson, 2003, p. 7). By clearly expressing what students should “know, understand, and be able to do for each unit of study,” teachers are able to “focus on essential learning goals with all students, but at varying degrees of complexity, with varied support systems, and so on,” (p. 7). Tomlinson and Eidson (2003) also explain the importance of creating sequences of skills and understanding to accommodate students performing at both below and above grade-level standards to ensure individual needs may be met.
Tomlinson and Eidson’s (2003) third hallmark of a differentiated curriculum is “the teacher groups students flexibly,” (p. 7). In this hallmark, students should be given opportunities to work with the whole-class, individually, and in small groups. Small groups should vary and may be formed “homogenously for readiness, based on similar learning needs; based on mixed-readiness groups, ensuring all students make key contributions to the success of the group; based on similar and mixed-interest groups; based on similar or different learning profiles; randomly or student-chosen,” (p. 7). Wonderfully summarized, Tomlinson and Eidson (2003) state, “the goal of flexible grouping is to balance the need to teach students where they are and to provide them with opportunities to interact in meaningful ways with a wide range of peers,” (p. 7). In addition to flexible grouping, Tomlinson and Eidson (2003) explain, “as often as she can, the teacher meets with students one on one to monitor progress, coach them in the next steps, and set new goals,” (p. 7). In many classrooms, teachers gain access to one on one time with students during small group work.

Hallmark four of a differentiated classrooms states, “the teacher uses time, space, and materials flexibly,” (Tomlinson and Eidson, 2003, p. 7). Briefly described by Tomlinson and Eidson (2003), “a teacher in an effectively differentiated classroom continues to look for ways to arrange the classroom to enable students to work in a variety of ways, to enable students to use time flexibly, to match materials to learner needs, and to meet with students in varied formats,” (p. 7). The physical composition of the classroom and use of resources can greatly increase the effectiveness of student learning if utilized properly. This hallmark also seems to support the previous one by allowing the classroom environment to support flexible student grouping.
The fifth hallmark of a differentiated classroom, as identified by Tomlinson and Eidson (2003), said, “the teacher involves her students in understanding the nature of the classroom and making it work for everyone,” (p. 7). Students are viewed as essential members of the classroom community and contribute greatly to the success and efficiency of a differentiated curriculum. “When a teacher guides her students in sharing responsibility for a classroom in which the goal is to help everyone receive the support he or she needs to grow academically, the students become a central factor in that classroom’s operation,” (p. 7). Tomlinson and Eidson (2003) identify a number of ways in which students can become involved in the classroom: establishing class rules, making suggestions for smooth movement from place to place in the classroom, helping a peer, distributing materials, keeping records of their own goals and progress, etc. Students need to understand their supportive role in the classroom is necessary to help everyone learn.

Tomlinson and Eidson’s (2003) sixth hallmark for a differentiated classroom states, “the teacher emphasizes individual growth as central to the success of the classroom,” (p. 7). This hallmark focuses on the importance of individual student progress and assessment. Instead of attempting to meet norm-based requirements, teachers must help students set and meet individual goals. Students must develop personal accountability and always put forth their personal best. Instead of competing with a general set of standards, expectations, or their peers, students are to compete against themselves; always striving to move forward in their own educational goals. Tomlinson and Eidson (2003) said, “each student is responsible for working to progress as much as he or she can towards goals that are personally challenging. The teacher is responsible for guiding and supporting that progress,” (p. 8). Teachers of differentiated classrooms must
collaborate with both students and parents to develop an appropriate and challenging set of individual goals for students.

Hallmark seven declares, “the teacher works to ensure that all students have “respectful” work,” (Tomlinson and Eidson, 2003, p. 8). This hallmark indicates the necessity to create work that is challenging for each student, at their level of understanding and ensuring that all students are creating appealing work; not just advanced learners. Furthermore, Tomlinson and Eidson (2003) point out, “while students display different interests, readiness levels, and learning profiles, every student should consistently have work that respects him or her as an individual,” (p. 8). Every student should feel as though the curriculum in their classroom is for them; students should not be repeatedly provided with work that is too easy or too challenging.

The eighth hallmark of a differentiated classroom says, “the teacher makes sure differentiation is always “a way up,” never “a way out,” (Tomlinson and Eidson, 2003, p. 8). Teachers who use differentiation must have an awareness of where their students are in academic understanding and comprehend their capabilities. Differentiated instruction should not be used as a way to teach content below student level, every student should be challenged with “respectable” work that always remains achievable with the appropriate scaffolding. The “learning potential” (p. 8) of students should never be underestimated.

The ninth hallmark states, “the teacher sets her own sights high, just as she asks her students to set their sights high,” (Tomlinson and Eidson, 2003, p. 8). “A teacher effective with differentiation is reflective about her students and her own practice,” (p. 8). It is important “good enough” doesn’t become a part of a differentiated classroom teacher’s philosophy. This teacher must strive to raise the performance levels and understanding of both herself and her students for
as long as they are a part of her classroom. In summary, the teacher who uses differentiated instruction “expects from herself no less than she expects of her students – maximum effort to achieve maximum potential,” (p. 8).

Tomlinson and Eidson’s (2003) tenth hallmark of a differentiated classroom indicates, “the teacher seeks specialists’ active partnership in her classroom,” (p. 8). When students present unique needs that require the special attention of an expert, or specialist, a differentiated classroom teacher is not afraid to ask for help. Classroom teachers are not expected to have the knowledge, or time, to provide the necessary help to every child in the classroom; utilizing the presence of specialists is expected and beneficial. Tomlinson and Eidson (2003) note, “an effective partnership between a specialist and a classroom teacher does more than benefit individual students; it is also a great vehicle for the classroom teacher and specialists’ own professional development, thus bringing exponential benefits to students for years to come,” (p. 9).

The eleventh, and final, hallmark of a differentiated classroom as identified by Tomlinson and Eidson (2003) states, “the teacher’s differentiation is largely proactive rather than reactive,” (p. 9). In all classrooms, adjustments will always need to be made during instruction, however, in differentiated classrooms, instructional plans are created and purposefully designed with student differences in mind; it does not rely on last minute changes. Tomlinson and Eidson (2003) state, “effective differentiation rests upon purposeful planning for student variance, with improvisation as needed,” (p. 9). Differentiated instruction must be intentional and proactive.

These eleven hallmarks of a differentiated classroom (Tomlinson and Eidson, 2003) contribute greatly to my understanding of what a differentiated classroom looks like. They were also heavily utilized in the data analysis for this research. Understanding the hallmarks of a
differentiated classroom, as identified by Tomlinson and Eidson (2003) was essential to this research.

Conclusion

The concept of differentiated instruction is an increasingly popular method in education. As a result, a prevalence of research has been conducted in recent years. Valid definitions and explanations of the importance of differentiated instruction have been published (Hall, 2009; Tomlinson, 2000a; Broderick et al., 2005; Anderson, 2007; Cox, 2008; and Levy, 2008). Key aspects of differentiated instruction, such as differentiation, or flexibility, in content, process, and product have been clearly expressed (Anderson, 2007; Broderick et al., 2005; Hall, 2009; Lawrence-Brown, 2004; Levy, 2008; and Tomlinson, 2000a). More recently, research has begun to surface explaining a number of teaching strategies that support differentiated instruction (Garderen and Whittaker, 2006; George, 2005; Arquette, 2006; Hall, 2009; Wehrmann, 2000; Conklin, 2007; Brimfield et al., 2002; Tomlinson, 1999a; and Tomlinson, 2000b). Although these resources are helpful in providing an understanding of differentiated instruction and defining its importance, difficulty still arises in finding research that explains how to implement differentiated instruction in the regular education classroom. Additional research is needed to illustrate and describe specific implementation strategies for differentiated instruction a single classroom teacher may be capable of utilizing. Abundant research exists to express what differentiated instruction is, but research to explain how to use and actively implement differentiated instruction is vague.

There also appears to be very few studies describing the effectiveness of differentiated instruction. Several were located, which advocate for the use of differentiated instruction in
response to its ability to increase student achievement (Beecher and Sweeny, 2008; Cusumano and Mueller, 2007; Fisher, Frey, and Williams, 2003; Lewis and Batts, 2005; and Tomlinson, 1999b). These studies contribute great findings in support of differentiated instruction and more like them could be beneficial. Additional research could be conducted comparing the achievement and performance level of students in classrooms with differentiated instruction to those in classrooms that do not utilize differentiated instruction.

Tomlinson (1999a, 2000c, 2003) has also provided a number of principles, hallmarks, and beliefs describing differentiated instruction. Her research seems to adequately identify components of differentiated instruction and was entirely beneficial in the analysis of my data for this particular study.

This study sought to provide a descriptive analysis of one teacher’s use of differentiated instruction. The research studies analyzed in the review of literature provided me with a comprehensive understanding of what differentiated instruction is and specific teaching strategies that represent differentiated instruction. A criterion for differentiated instruction was formed as a result of previous studies and used to organize the collection and analysis of data in this study; particularly the hallmarks of a differentiated classroom (Tomlinson and Eidson, 2003). This review of literature resulted in a description of a variety of instruction techniques or activities effectively used to implement flexibility in content, process, and products. The examination of existing literature aimed to create an understanding of differentiated instruction; useful for understanding attainable methods that every teacher can use to purposefully and meaningfully reach every student cognizant of individual student readiness, background, ability, interest, and learning profile to answer this research.
CHAPTER III. RESEARCH METHODS

Introduction

This chapter contains a description of the research design, the setting and participants, study timeline, data collection, data analysis, and limitations of the study. This study utilized the qualitative research method of ethnography. A detailed definition of qualitative research and ethnography is provided as developed by the literature and myself in consideration for the context of this research. A second grade teacher, Miss Lindsey, served as the sole participant for this study. The setting for the collection of data included the charter school in which Miss Lindsey is employed. This school makes an active attempt to support differentiated instruction and has made a commitment to the professional development of their teachers on differentiated instruction. A brief explanation of the weekly meetings, data collection and analysis, writing of the thesis, and overall progress is explained in the procedures.

Data was collected over the course of three weeks and in a variety of forms. The first source of data included participant-observation field notes, collected twice weekly, for three weeks. The second source of data collected included interviews with the classroom teacher; primarily one formal interview. The final source of data included a collection of lesson plans, homework assignments, summative assessments, and leveled worksheets used by this teacher. A description of the data analysis process is included in this chapter; including a description of the pre-determined assertions used to analyze the collected data. Chapter III concludes with a brief description of study limitations and a summary of the information presented.
Research Methods

Ethnography

I believe qualitative research can be characterized largely by the sincere, active role of the participant, emerging themselves into the field. Qualitative research seeks not only to answer a problem, but to understand the answers or results discovered. In my opinion, much of the value associated with qualitative research is the production of understanding a problem or phenomenon. Smith (1987) refers to the importance of context in qualitative research; expressing the effect one’s environment (or context) has on their cognitive process and behavioral actions.

Denzin and Lincoln (2000) define qualitative research,

Qualitative research is a situated activity that locates the observer in the world. It consists of a set of interpretive, material practices that makes the world visible. These practices transform the world. They turn the world into a series of representations, including field notes, interviews, conversations, photographs, recordings, and memos to the self. At this level, qualitative research involves an interpretive, naturalistic approach to the world. This means that qualitative researchers study things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of the meanings people bring to them (p. 3).

A variety of qualitative research methods are identified: ethnography, case study, phenomenology, educational criticism, hermeneutics, and more (Glesne, 1999; Erikson, 1986; and Denzin and Lincoln, 2000). Each of these methods are hallmarked with specific data collection and analysis priorities.

This particular research study utilized ethnography as the qualitative research method. LeCompte and Preissle (1993) describes ethnography as “writing about people,” (p. 1) and “a way of studying human life,” (p. 3). Spradley (1979) takes ethnography a step further by exclaiming, “rather than studying people, ethnography means learning from people,” (p. 3). Not only is ethnography characterized as the study of people, but “ethnographies and other forms of case
studies always involve a consideration of people and events in their natural settings. They are, therefore, ideal for answering a question such as, “What’s really happening in this program or with this individual?” (Schensul, Schensul, and LeCompte, 1999, p. 85). In a sense, this research served as a way for me to learn from Miss Lindsey and understand how she utilizes differentiated instruction in her own classroom. Therefore, ethnography seemed the ideal qualitative research method as I learned from another person, observed the happenings of that person or program in their natural setting, and attempted to understand what was happening in this situation or environment. Ethnography considers the highly contextualized findings of my data collection.

The educational context and nature of my research also contributed to the selection of ethnography as the qualitative research method. LeCompte and Preissle (1993) explain, “Educational ethnography has been used to describe educational settings and contexts, to generate theory, and to evaluate educational programs. It has provided rich, descriptive data about the contexts, activities, and beliefs of participants in educational settings. Such data represent educational processes and their results as they naturally occur and in context; they rarely are limited to isolated outcomes,” (p. 8). My purpose in this study was to evaluate one teacher’s use of differentiated instruction through her regular classroom activity in the context of her own classroom over the course of several weeks. I strived to understand how Miss Lindsey believed she was using differentiated instruction, how she intentionally and unintentionally implemented differentiated instruction, and how this coincided with my observations and interpretations of her use of differentiated instruction.

Perhaps the best explanation for my use of ethnography considers “ethnography can be both a product as well as a process. As a product, ethnography describes a group of people in a
detailed situation. As a process, ethnography is the study of those people within that situation. The word can be interchangeable,” (LeCompte and Preissle, 1993, p. 1). Ethnography served as both the product of my research, through the analysis and synthesis of findings, and as the process of data collection. Throughout data collection, I immersed myself in the educational setting of a particular second grade classroom and observed both Miss Lindsey and the process of implementing differentiated instruction.

The forms of data collected for the purpose of this research also coincide with the qualitative research method of ethnography. Schensul, Schensul, and LeCompte (1999) cited eight types of data collection to compliment observations; including formal and informal interviews and artifacts both of which were utilized for the purpose of data collection for this research. Furthermore, the three pieces of data collected; participant observation notes, formal and informal teacher interviews, and artifacts (lesson plans and worksheets) were used comprehensively to understand the use of differentiated instruction. They were not analyzed in isolation from one another. In their book, Essential Ethnographic Methods, Schensul, Schensul, and LeCompte (1999) explain,

Typically, ethnographers and other case study researchers observe and talk to members of a group to find out what the members are doing and why. They try not to take for granted anything they see or hear, always cross-checking their own perceptions and conclusions with information from research participants. Then, they assemble all of the information that they have collected into descriptions of relationship and recurring patterns of behavior and belief so that a full portrait of the group can be constructed (p. 86).

A full understanding of Miss Lindsey’s use of differentiated instruction is what I hoped to depict; by assembling all of the information collected and analyzing the data for relationships or recurring patterns of behavior.
Ethnography allowed me to interpret the collected data through my own point of view. By gathering data in the form of interviews, observations, and lesson plans, the teacher was able to share with me why and how she implements differentiated instruction. After the collection of data, I was able to describe the process and behavior of teaching with differentiated instruction. I viewed the classroom setting from my own contextualized point of view; which allowed me to analyze and synthesize this classroom teacher’s use of differentiated instruction with my own thoughts, experiences, and knowledge of differentiated instruction.

Setting and Participants

This study used one participant; a regular education classroom teacher in a second grade classroom at a charter school. It is important to note the use of pseudonyms have been employed to protect the privacy and confidentiality of the participant and her organization throughout this thesis. The participant used for this study will be identified as Miss Lindsey.

As a Graduate and Teaching Assistant for several undergraduate courses, one of my responsibilities included finding and arranging field placements for introductory middle childhood education students. Having developed a positive relationship with the organization and a contact within this charter school, I was able to ask for an elementary classroom in which, I, myself could observe. I was recommended to Miss Lindsey and spent approximately four months observing in her classroom, one time a week, conducting a pilot study for a graduate course requirement. Therefore, I had already established a professional relationship with Miss Lindsey and built basic rapport with her students prior to beginning my data collection. It seemed Miss Lindsey was a sensible choice for a participant in this research after having gained access to this
particular school, already establishing a professional presence in her classroom, and noticing her intentional use of differentiated instruction.

Consent from the principal of this school was granted for access to the classroom for purposes of observing Miss Lindsey prior to the start of data collection. A recruitment e-mail (Appendix A) was sent to Miss Lindsey to gain an informal agreement and interest in participating in this research study. A formal information letter (Appendix B) was provided and a consent letter (Appendix C) signed by Miss Lindsey the week data collection began.

Miss Lindsey has six years of teaching experience and has worked at all grade levels in the kindergarten to third grade spectrum. This school year is her second year with the charter school in which data was collected. Miss Lindsey has earned both her bachelor’s and master’s degrees. She is educated about differentiated instruction and continues to embrace a number of professional development opportunities to further her teaching career. She reported taking classes about differentiated instruction in both her undergraduate and graduate degree programs. Her school also emphasizes the use of differentiated instruction and has provided several professional development workshops both on site and at the corporate office for their teachers. Based on my observations and interactions with Miss Lindsey, I would describe her organization, dedication, patience, professionalism, and initiative as wonderful assets to her teaching career. Her willingness to invite me into her classroom, share her ideas and lesson plans with me, and her dedication to creating an effective curriculum for every student made her a great participant for this research. She also appears to have a foundational understanding of what differentiated instruction is, how it helps her students, and attempts purposeful implementation of differentiated instruction.
A charter school served as the setting for the data collection of this research. This charter school proved to be welcoming of my presence and appreciate my ambitions as a future educator. The name and location of this school are not being presented to protect the privacy of the institution, the teachers, and the students. However, the School Report Card (2008-2009) for the charter school used in this research identified this school’s ranking at Continuous Improvement (Ohio Department of Education, 2010). The School Report Card (2008-2009) also provided statistical information regarding the student population. The average daily enrollment for this school is 649 students; grade levels kindergarten through eighth. Twenty-four and a half percent of the student population is black, non-Hispanic; 6.2 percent are Hispanic; 15.4 percent identify as multiracial; and 52.4 percent are considered white, non-Hispanic, resulting in a richly diverse cultural environment (Ohio Department of Education, 2010). The majority of the student population is also considered economically disadvantaged at 82 percent. Finally, 12.4 percent of students have identified disabilities (Ohio Department of Education, 2010).

The school environment appears new, full of academic resources and technology, and staffed with regular classroom teachers, intervention teachers and support staff, and specials (gym, art, music, library) teachers. Two regular secretaries occupy the main office and assist visitors, such as myself, with signing in each visit. Parents are strongly encouraged to volunteer and can be found present in the school every day. After viewing a map of the school, it became evident this facility houses a principal and assistant principal; both with offices. There is a parent room, a media center, a teacher’s conference room, a teacher work room, and four rooms designated for student support, each which hold two to three intervention teachers. The hallways of the school are adorned with student work, bright, colorful bulletin boards, school policies, current
fundraisers, and the mission statement of the school. The students do wear uniforms at this organization.

A second grade classroom within this charter school was the prime location of data collection for this research. Although statistical evidence was not gathered for this particular classroom, students’ racial and ethnic identity appears to be diverse. This classroom appeared to not only represent a diverse group of students in terms of gender and ethnicity; but also in ability level, background knowledge, and preferred learning style. Students’ individual needs are an extensive focus of the curriculum in Miss Lindsey’s second grade classroom.

Procedures

I began collecting data in the field as soon as I had appropriate approvals from Bowling Green State University’s Human Subjects Review Board. I was able to obtain a signature from the participant, Miss Lindsey, on the information and consent letter. After retrieving her signature and willingness to participate in the research study; I asked her to consider lesson plans and worksheets or supplemental activities I would be able to gather or copy as data. Miss Lindsey was informed I would collect these documents in two weeks, at the conclusion of my participant observation visits. I also visited her classroom twice this week for observation; one day for three and half hours in the morning and one day for three hours in the afternoon. An outline used to collect the participant-observation field notes from these two visits is noted in Appendix D. In addition to participant-observation data, Miss Lindsey and I scheduled our formal interview for week eight. We set up this interview to occur before school Thursday morning and a copy of the interview questions (Appendix E) were e-mailed to her.
During my third and final week of data collection, I made two final visits to Miss Lindsey’s classroom, again in the morning one day and the afternoon the second day. My final set of participant-observation notes were gathered. Miss Lindsey provided me with a small set of documents, including a lesson plan for next year, a homework schedule for students, and several leveled assessments used to summatively assess students, and several additional worksheets. We also discussed the use of resources from a website highly utilized by Miss Lindsey for leveled reading texts and activities. Although I did not obtain copies of these levels reading texts, Miss Lindsey did show me examples of them and explained her use of them. My final form of data collection, the formal teacher interview, was also held this week. The interview took place before school Thursday morning and was audio recorded for later transcription and analysis. The interview lasted about twenty minutes. As I concluded my data collection, I continued working on and adding to chapter four of my thesis, the analysis of findings and results.

Data Collection

Data for this research was collected in three main forms: on-going participant-observation, a series of interviews (including one formal interview), and the collection of lessons plans and supplemental activities and worksheets utilized by the teacher to support differentiated classroom instruction. The goal of utilizing multiple data-collection methods, or triangulation, was to increase the trustworthiness of the data and validity of each source (Glesne, 1999). The nature of these sources of data are supported by qualitative research, specifically ethnography.

Participant-observation was utilized as a main source of data throughout the collection process. “The main outcome of participant-observation is to understand the research setting, its participants, and their behavior. Achieving this outcome requires time and a learner’s stance,”
Observations were scheduled twice a week for three consecutive weeks. Each visit lasted at least three hours in length. One visit would occur in the morning and one would occur in the afternoon each week. An observation protocol was developed for the purpose of focusing field notes; although a more comprehensive look was also utilized. The observation protocol can be found in Appendix D. The primary focus of the participant-observation process included use of differentiated instruction through flexible content, flexible process, and flexible product during regular classroom activity. Additional notes were made, when appropriate, about the teachers purposeful use and implementation of differentiated instruction, ability to meet all students’ needs, ability to understand the importance of and need to meet all students needs, and use of varied teaching strategies. During my visits to the classroom, I always maintained availability to my notes and immediately noted activities, teaching strategies, materials, and assessments that occurred. There were times I would sit in the back of the classroom to focus on my note taking, although, most of my time was spent walking around the classroom and interacting with the teacher to better understand and experience her teaching. I developed an interactive role with the participant and was able to gather a richer set of observation notes as a result. Detailed field notes were recorded during each visit and typed and analyzed the same week to ensure accuracy. The date and location of observations were made available only to myself and my thesis committee to protect the confidentiality of the classroom, participant, and organization.

Interviewing is a main form of qualitative data collection. Throughout the data collection process, I conducted a series of interviews; both formal (structured) and informal (spontaneous) interviews. Glesne (1999) identifies a common tendency of ethnographic research to result in more informal interviews, “given the face-to-face nature of ethnographic research, you may ask
questions on the many occasions when something is happening that you wonder about. You inquire right then and there without formally arranging a time to ask your questions,” (p. 68). Informal interviews occurred in several brief occurrences concerning specific inquiry about single classroom activities or noticeable uses of differentiated instruction.

A structured interview also served as a primary source of data. This interview consisted of questions created by me, with regard to current literature, the observed use of differentiated instruction by this teacher, and intentions for utilizing differentiated instruction. A copy of the interview questions can be found in Appendix E. The interview questions were provided to the participant several days prior to the interview via e-mail. The interview was scheduled in advance, at a time convenient for Miss Lindsey. We met before school one morning, in her classroom to conduct the interview; it lasted approximately twenty minutes and was audio recorded. The audio file was transcribed following the interview and coded for analysis. “At the root of in-depth interviewing is an interest in understanding the experience of other people and the meaning they make of the experience,” (Seidman, 2006, p. 3). The focus of this interview was understanding the use of differentiated instruction through this teacher’s perspective. “Interviewing allows us to put behavior in context and provides access to understanding their action,” (Seidman, 2006, p. 4).

The final source of data for this study consisted of collected lesson plans and supplemental activities and worksheets to represent a differentiated curriculum. These documents were collected throughout the research process and explained by Miss Lindsey upon receipt. All lesson plans and supplemental activities and worksheets were examined and analyzed at the end of the three week observation period for purposeful, intentional use of and evidence of differentiated instruction.
Data Analysis

Data was collected in the form of participant-observation field notes, interviews with the teacher, and sample lesson plans, assessments, and worksheets used in the classroom observed. Erikson (1986) describes the detailed process of generating and testing assertions. He further identifies the process of generating and forming assertions as the first element to writing a report of fieldwork research. Instead of generating and forming assertions presented during analysis, pre-determined codes or assertions were used to analyze this data. The pre-determined codes were based on an extensive review of literature by Tomlinson (1999a, 2000c, 2003). The hallmarks of a differentiated classroom, as determined by Tomlinson and Eidson (2003) were chosen as the empirical assertions for this research. As a proclaimed expert on differentiated instruction, Tomlinson is a reputable source for the discussion and categorization of this data.

The eleven hallmarks of a differentiated classroom (Tomlinson and Eidson, 2003) include: (1) there is a strong link between assessment and instruction; (2) the teacher is clear about learning goals; (3) the teacher groups students flexibly; (4) the teacher uses time, space, and materials flexibly; (5) the teacher involves her students in understanding the nature of the classroom and making it work for everyone; (6) the teacher emphasizes individual growth as central to the success of the classroom; (7) the teacher works to ensure that all students have “respectful” work; (8) the teacher makes sure differentiation is always “a way up,” never “a way out;” (9) the teacher sets her own sights high, just as she asks her students to set their sights high; (10) the teacher seeks specialists’ active partnership in her classroom; and (11) the teacher’s differentiation is largely proactive rather than reactive. These eleven hallmarks of a differentiated classroom (Tomlinson and Eidson, 2003) contribute greatly to my understanding of what a differentiated classroom looks
like and became logical assertions for the analysis of data for this research; they provided a framework for my data analysis.

It is important to note, due to the similar nature of hallmark seven: the teacher works to ensure that all students have “respectful” work, and hallmark eight: the teacher makes sure differentiation is always “a way up,” never “a way out,” they were grouped together for data analysis. Despite being separately described and identified by Tomlinson and Eidson (2003); these hallmarks are highly integrated. Similar examples were analyzed from collected data to support both hallmarks and therefore, supporting evidence was presented together for hallmark seven and eight.

To successfully answer the research question of this paper (How can a regular education classroom teacher utilize differentiated instruction to meet the diverse needs (student readiness, ability levels, interests, and learning styles) of all students simultaneously?); elements, or hallmarks, of a differentiated classroom must be analyzed and assessed in the context of the classroom observed.

After deciding on the pre-determined assertions for data analysis, I moved on to establishing warrants. Erikson (1986) explains, “another basic task is to establish an evidentiary warrant for the assertions one wishes to make,” (p. 146). To do so, a thorough review of all collected data is necessary. To complete the thorough review of all collected data, I first read through all sources. Then, I sorted the data by hallmarks, typing evidence from all types of collected data (participant-observation field notes, interview transcripts, and collected lesson plans/documents) in support of each hallmark. The next step included an evaluation of all selected data for relevance. Finally, I selected inclusive data to support or refute each of the eleven
hallmarks. To achieve a balanced analysis of this classroom’s use of differentiation, only three to four examples of supporting evidence were selected per hallmark.

Erikson (1986) states, “to test the evidentiary warrant for an assertion the research conducts a systematic search of the entire data corpus, looking for disconfirming and confirming evidence,” (p. 146). Data sources were not analyzed in isolation from one another. Evidentiary warrants for each assertion, or hallmark, were sought using all forms of data (participant-observation field notes, teacher interviews, and collected artifacts/documents). Confirming, or disconfirming, evidence for all data sources was analyzed in response to each assertion and written under the categories of assertions, not individual data sources.

Findings were analyzed by the key linkages found across the multiple sources of data. “In reviewing the field notes and other data sources to generate and test assertions the researcher is looking for key linkages among various items of data. A key linkage is key in that it is of central significance for the major assertions the researcher wants to make,” (Erkison, 1986, p. 147). In many cases, the key linkages were the assertions, or hallmarks. In all cases, the key linkages came to represent the findings of the data analysis. For example, one key linkage, or assertion, proclaims differentiation teachers clearly represent learning goals. An analysis of the collected data provided several examples to support the clear representation of goals in the observed classroom, including: the reading of clearly posted lesson objectives prior to the beginning of each unit; clearly depicted objectives on each section of a summative math test; and a discussion of educational goals (from the teacher to the students) prior to taking a computerized assessment.
The main focus of the data analysis was to examine effective and attainable instruction methods, supportive of differentiated instruction, utilized by Miss Lindsey, to meet the varied and diverse needs of all students in her second grade classroom.

Limitations

This study was intentionally limited to one participant, in one classroom, at one school. It was my objective to provide a thick description, or detailed analysis of what was observed in this classroom; therefore, it served as the sole focus of my attention and only source for data collection. The data was interpreted and analyzed through my personal perspective and therefore presents a limited view and a possibly a narrow, or specific, instance of differentiated instruction. There are a vast number of teaching strategies to support the implementation of differentiated instruction into the curriculum; this study presents only those observed and utilized in this particular classroom.

Summary

Chapter III includes a description of the research design, the setting and participants, study timeline, data collection, data analysis, and limitations of the study. This research utilized the qualitative method of ethnography. My purpose in this study was to evaluate one teacher’s use of differentiated instruction through her regular classroom activity, in the context of her own classroom, over the course of several weeks. I strived to understand how Miss Lindsey believed she was using differentiated instruction, how she intentionally and unintentionally implemented differentiated instruction, and how this coincided with my observations and interpretations of her use of differentiated instruction. This research served as a way for me to learn from Miss Lindsey and understand how she utilizes differentiated instruction in her own classroom. Ethnography allowed me to interpret the collected data through my own perspective. I viewed the classroom
setting from my contextualized point of view; which allowed me to analyze and synthesize this classroom teacher's use of differentiated instruction with my own thoughts, experiences, and knowledge of differentiated instruction. Ethnography seemed the ideal qualitative research method for this study; as I learned from another person, observed the happenings of that person or program in their natural setting, and attempted to understand what was happening in this situation or environment. Ethnography considers the highly contextualized findings of my data collection.

A second grade teacher, Miss Lindsey, served as the sole participant for this study. The setting for the collection of data included the charter school in which Miss Lindsey is employed. This school makes an active attempt to support differentiated instruction and has made a commitment to the professional development of their teachers on differentiated instruction. The findings of this study may be limited by the small number of research participants and settings; this research aimed only to understand this teacher's use of differentiated instruction in her classroom as a means of meeting the diverse needs of students.

A brief explanation of the weekly meetings, data collection and analysis, writing of the thesis, and overall progress was explained in the study timeline. Data was collected over the course of three weeks and in a variety of forms. The first source of data included participant-observation fieldnotes, collected twice weekly for three weeks. Each week, I visited the classroom for observation two days; once in the morning and once in the afternoon. Each visit lasted approximately three hours. The second source of data collected included interviews with the classroom teacher; primarily one formal interview, which was audio recorded and transcribed for thorough analysis. The final source of data included a collection of lesson plans, homework
assignments, summative assessments, and leveled worksheets used by this teacher to represent her use of differentiation in the classroom.

A description of the data analysis process was also included in this chapter. The process of generating assertions and testing evidentiary warrants (Erikson, 1986) was utilized. Eleven hallmarks of a differentiated classroom (Tomlinson and Eidson, 2003) served as pre-determined assertions for the analysis of collected data. The data analysis was categorized according to these pre-determined assertions, or hallmarks, not according to individual sources of data. Each assertion was warranted with evidence from a variety of data sources (participant-observation field notes, interview transcriptions, and collected artifacts or documents). Chapter III served as the description of research methods for this study.
CHAPTER IV. DATA ANALYSIS AND DISCUSSION OF RESULTS

Introduction

The purpose of this research study was to examine and qualitatively analyze effective and attainable instruction methods that utilize differentiated instruction to meet the needs of all students. The research observed and analyzed the use of differentiated instruction in a second grade classroom at a charter school. A better understanding of effective and attainable ways to implement differentiated instruction, as a single classroom teacher, was sought in attempt to better understand and meet the diverse needs of students simultaneously during instruction.

This study aims to provide a descriptive analysis of what differentiated instruction looks like in use; in hopes of providing future and current educators with a more helpful perspective on differentiated instruction. The research question: How can a regular education classroom teacher utilize differentiated instruction to meet the diverse needs (student readiness, ability levels, interests and learning styles) of all students simultaneously?

This chapter includes the detailed analysis of data and answers the research question. To successfully answer the research question of this study, hallmarks of a differentiated classroom were used to assess and analyze the collected data for a better understanding of the use of differentiated instruction within the context of the observed classroom. The eleven hallmarks of a differentiated classroom (Tomlinson and Eidson, 2003) include: (1) there is a strong link between assessment and instruction; (2) the teacher is clear about learning goals; (3) the teacher groups students flexibly; (4) the teacher uses time, space, and materials flexibly; (5) the teacher involves her students in understanding the nature of the classroom and making it work for everyone; (6) the teacher emphasizes individual growth as central to the success of the classroom; (7) the teacher
works to ensure that all students have “respectful” work; (8) the teacher makes sure differentiation is always “a way up,” never “a way out;” (9) the teacher sets her own sights high, just as she asks her students to set their sights high; (10) the teacher seeks specialists’ active partnership in her classroom; and (11) the teacher’s approach to differentiation is largely proactive rather than reactive. These eleven hallmarks of a differentiated classroom (Tomlinson and Eidson, 2003) provided a framework for my data analysis and greatly contributed to my understanding of what a differentiated classroom looks like.

It is important to note, due to the similar nature of hallmark seven: the teacher works to ensure that all students have “respectful” work, and hallmark eight: the teacher makes sure differentiation is always “a way up,” never “a way out,” they were grouped together for data analysis. Despite being separately described and identified by Tomlinson and Eidson (2003); these hallmarks are highly integrated. Similar examples were analyzed from collected data to support both hallmarks and therefore, supporting evidence was presented together for hallmark seven and eight.

These assertions, or hallmarks appear throughout the data analysis accompanied by evidentiary warrants, or evidence, from the three forms of collected data: on-going participant-observation field notes, a series of interviews (including one formal interview), and the collection of lessons plans and supplemental activities and worksheets utilized by the teacher to support differentiated classroom instruction.

This chapter contains a detailed description of the classroom setting in which data was collected, a thorough analysis of the collected data, and concludes with a summary to answer the research question.
Classroom Setting

A second grade classroom, within a charter school was the prime location of data collection for this research. Based on visual observation; Miss Lindsey’s second grade classroom consists of twenty-six students; nine girls and seventeen boys; nine African American students, one Hispanic student, and sixteen white students. This classroom appeared to not only represent a diverse group of students in terms of gender and ethnicity; but also in ability level, background knowledge, and preferred learning style. Students’ individual needs are an extensive focus of the curriculum in Miss Lindsey’s second grade classroom.

The desks in the room are organized in a unique way. There are two large groups (with twelve students each) and two students have individual desks in the middle of the room. Each area of desks is considered a “group” – most groups contain between two and four students. The group names refer to an ocean theme (sea turtles, whales, dolphins, etc.) and are used by the teacher to dismiss students for certain activities. The teacher’s desk is in the back corner of the classroom. The entire classroom is well organized, the arrangement of desks and small groups is just one more way to do so. The students must work together to ensure their peers in their group are sitting properly or acting properly before the entire group can be dismissed. This strategy appears to instill accountability on behalf of the students.

There are several centers or stations arranged around the room; including Phonics, Writing, File Folder, Language, Reading, Listening, Teacher, Math, and Computers. The walls of the classroom are decorated with a number of ready-made and teacher-made resources; including ABC cursive flashcards, ABC sound cards/phonics, a numeric timeline (-20 to +100), phonics flashcards, star of the week (feature student, “All About Me”), spelling words, language station
(envelope for each student decorated by themselves, with letters from their peers), types of literature, grammar/punctuation symbols, sight words with student names, student helper jobs, school map/emergency weather/exit plans, the daily schedule (Appendix F), a concept question, math symbols/terms and definitions, spelling words in sentence strips contextualized with reading, noise limit signs, calendar, coin counter, United States flag, consequences, class rules, and the Social Contract (additional classroom rules). The goals, or objectives, for each content area are written across the top of the white board. Many of the resources decorating this classroom are school-wide and can be found in every classroom.

Technology also plays an active role in this classroom. The teacher has a computer on her desk, a computer station contains for computers for student use, an ELMO and computer projector system are in the center of the room and used frequently, and a radio and cassette player are utilized daily for the Listening Station. The organization and flexible nature of this classroom greatly contributes to the successful function and transition of students throughout the school day.

Data Analysis

As part of the data analysis, three sources were analyzed. Data sources included participant-observation field notes, interview transcripts, and a series of lesson plans and sample worksheets and assessments used in the observed classroom. Evidence from these data sources was used to support, or refute the eleven hallmarks of a differentiated classroom.

Assessment and Instruction

The first hallmark indicates, “there is a strong link between assessment and instruction,” (p. 6). Tomlinson and Eidson (2003) first explain the importance of pre-assessments to design appropriate units. The use on-going continuous assessments throughout the teaching of units to
make “necessary adjustments to instructional plans to ensure progression toward individual and group goals,” (p. 7) is the second form of assessment discussed. The third form of assessment includes the assessment of individual student interests and learning profiles to increase motivation and learning efficiency. Finally, Tomlinson and Eidson (2003) discuss the importance of a variety of assessments for students to express what they have learned, understand, and can do at the conclusion of a unit.

After spending several weeks observing Miss Lindsey’s classroom, witnessing many forms of and opportunities for assessment, and engaging in conversations with Miss Lindsey about her efforts to assess student performance, it is clear this hallmark is highly represented. From data collected during classroom observation, interviews with Miss Lindsey, and collected lesson plans and sample assessments, a significant amount of evidence was gathered to support a strong link between assessment and instruction.

One representative example of assessment in Miss Lindsey’s teaching was observed and discussed during one visit to the classroom; the Data Binder. Miss Lindsey shared with me her compilation of students’ summative assessments (Participant-Observation Field Notes, No. 1). She keeps a three-inch binder (completely full) of assessments. Each student has a tab, or section, in this binder and a number of individual assessments are documented. Assessments are performed frequently and compiled into this binder often. Examples of assessments contained in this binder include daily math time tests and regularly scheduled reading fluency assessments. Miss Lindsey explained the amount of time that goes into creating and maintaining the Data Binder; but also how helpful it is in planning a curriculum that meets all students’ ability and performance levels.
Formative assessments are an essential part of nearly every whole-class activity Miss Lindsey implements. One specific example of formative assessment witnessed during classroom observation occurred during a whole-class contraction review activity (Participant-Observation Field Notes, No. 4). A PowerPoint, projected onto the white board was used to show students two words at a time that were to be converted to a contraction. Each individual student had a dry erase board and marker at their desk. Students were expected to hold up their dry erase board after attempting to write the contraction. Once all students had made an attempt, a student would be chosen to explain how they formed the contraction by indentify what letters were removed and/or added and what grammatical symbol (apostrophe) was inserted. A second student was then called upon to use the contraction in a sentence. About twenty problems were completed before the activity ended. While students were participating in the contraction activity, I noticed Miss Lindsey would write select students’ names down on a note card. It appeared as though student’s who struggled to compose the correct contraction repeatedly throughout the activity were noted by Miss Lindsey. Later that same afternoon, during workshop, Miss Lindsey pulled the seven students aside whose name she had written down. While the rest of students were completing work and partaking in workshop learning stations, Miss Lindsey worked with these seven students more closely on contractions, providing the additional practice and help they needed to master the concept. She was able to gain an awareness of students’ needs and abilities through this formative assessment and use her understanding to benefit students.

During my formal interview with Miss Lindsey, she explained the importance of constantly moving students all year long, to keep them from being in the same group (Formal Teacher Interview). Taking advantage of the opportunity, I then asked Miss Lindsey if actual assessments
were utilized to demonstrate purposeful organization of student groups. She explained formative assessments were a strategy the school has come to support and she frequently uses them to assess where students should be placed. Miss Lindsey provided a detailed explanation of three different formative assessments she uses. Describing one formative assessment strategy, she said, “A lot of times I’ll use a PowerPoint and response cards, or a PowerPoint and dry erase boards. I’ll just keep a checklist of this person got it, this person I need to work with, that type of thing,” (Formal Teacher Interview). This assessment technique is the one I observed with the contraction activity. Miss Lindsey also explained how she can use the information from the formative assessment to determine who she may need to work with individually during workshop time, who needs to work with the math or reading specialist, or who might need more challenging work. Miss Lindsey frequently uses formative assessments to appropriately adjust and enhance her instruction to create a more effective curriculum.

A third classroom example to support the use of “a variety of assessments for students to express what they have learned, understand, and can do at the conclusion of a unit,” (Tomlinson and Eidson (2003), was represented in students’ Social Studies monument project. As observed through classroom observation (Participant-Observation Field Notes, No. 1-2), students concluded a unit of study on Washington, D.C. monuments with a project and presentation. Miss Lindsey explained the assignment during our formal interview:

Like I said, we like to give them choice. A lot of times it’s in their homework, but it’s also in the classroom. We just did a monument project, and with the monument project they could choose, did they want to make a brochure? Did they want to build something? Because some of my kids are really hands on, they need to manipulate, they need to build, that was really cool for them to do to learn. Others want to sit and write a report. So whatever learning style they have, whatever they choose, that’s what they did (Formal Teacher Interview).
Miss Lindsey also explained several general requirements had to be met in each student’s project, but there was flexibility in the open-ended nature of the assignment. Although I did not observe the day the final projects were presented, Miss Lindsey exclaimed, “You could tell that it fit them perfectly when they were presenting it, they were excited about it, they were engaged doing it, they had fun doing it, and yet they were still learning,” (Formal Teacher Interview). Fortunately, I was able to see examples of some of the projects presented. Several students created posters, others made models of their chosen monument using different materials, and some wrote papers about their monument. The flexibility and open-endedness of this summative assessment definitely represented differentiated instruction and provided all students with a way to demonstrate their knowledge and comprehension in a manner that appealed to them.

Further evidence of purposeful assessment was represented in a sample unit plan Miss Lindsey provided (Appendix G). It is clear assessment is continuous and on-going throughout the instructional plans of this math unit. A variety of assessment types are incorporated into Miss Lindsey’s daily math plans. Assessment types include: assessment opportunities; adjustment opportunities; and scoring opportunities. Adjustment opportunities require the reflection of the teacher on student understanding and result in the acknowledgement of necessary changes or adjustments to the lesson. Scoring opportunities for assessments serve as a summative assessment and often consist of various question types. By utilizing multiple question types students have more opportunities and formats for expressing what they have learned, understand, and can do at the end of a lesson.

Miss Lindsey also provided me with several leveled reading tests (Appendix H-J). I have noticed during classroom observation, many of her summative assessments are leveled. The low,
middle, and challenge reading test for *A Place Called Freedom* represent summative assessments tailored to meet student ability levels. The variety of question formats (multiple choice, short answer, correct order) and levels of scaffolding (i.e., teacher reads questions to the student) represent a good use of differentiated assessment. Students can also have additional time to complete the test if the available time is not sufficient for completion. Despite these attempts to differentiate, students’ learning styles and preferences are not greatly considered with this paper and pencil assessment.

During my data collection, I was also fortunate enough to get a glimpse of assessments implemented outside of class time. During the formal interview, when asked what aspects of differentiated instruction (i.e., small group work, various assessments, tiered lesson plans) she uses, Miss Lindsey provided many examples of assessments supportive of differentiated instruction. One assessment described included students’ weekly homework. She explained students have a leveled tic-tac-toe board (Appendix K). The sample tic-tac-toe board provided included assignments specific to Math and Reading. Miss Lindsey explained,

They [students] get to make choices, and they can choose whichever four assignments like in a row, diagonal, or down that they want to do, that they think is best for them. I always tell them to think about what you think you need help with the most and choose that. We also have a square on there that says, “complete the attached worksheet” well for my higher students they have a higher level worksheet, and for my lower students they have a lower level worksheet (Formal Teacher Interview).

This set of homework assessments is designed to be differentiated and aligns with the content of that week’s lessons. Student performance on homework is assessed and taken into consideration for future work and necessary scaffolding. The level of students’ homework for future weeks is determined by their performance on current homework activities and the challenge (or lack of) of the activities they select. Fortunately, because students must make a tic-tac-toe on the board, they
are forced to complete activities at various levels. Miss Lindsey explained every row, column, and diagonal consists of a variety of leveled assessments; no line is made up of all low, middle, or high work.

Strong evidence to support a strong link between assessment and instruction (Hallmark #1) was discovered through data analysis. Miss Lindsey tracks students’ individual progress throughout the year through the use of her Data Binder. She also implements continuous and frequent formative assessments to better understand students’ abilities and performance levels. Miss Lindsey incorporates flexible and purposeful assessments into her lesson plans and provides leveled summative assessments, consisting of multiple question formats to ensure every student is challenged to meet their highest potential. Open-ended and flexible projects, such as the Social Studies monument project, are frequent opportunities for students’ to convey their knowledge and comprehension in a meaningful and complimentary manner. Even assessments completed outside the classroom, like the leveled tic-tac-toe homework charts, support differentiated instruction. Miss Lindsey’s classroom represents and supports a differentiated curriculum in regards to the first hallmark; there is a strong link between assessment and instruction.

**Clear Learning Goals**

The second hallmark states, “the teacher is clear about learning goals,” (Tomlinson and Eidson, 2003, p. 7). By clearly expressing what students “know, understand, and be able to do for each unit of study,” teachers are able to “focus on essential learning goals with all students, but at varying degrees of complexity, with varied support systems, and so on,” (p. 7). Tomlinson and Eidson (2003) also explain the importance of creating sequences of skills and understanding to
accommodate students performing at both below and above grade-level standards to ensure individual needs may be met.

Based on several weeks of classroom observation and a study of the learning environment, several examples of clearly stated learning goals became apparent. Additional evidence to support this hallmark derived from a sample math test provided by Miss Lindsey. Students’ in Miss Lindsey’s classroom are often presented with clear learning goals and understand what skill or knowledge they are expected to gain at the conclusion of a unit or lesson.

As I began my first day of data collection, I made sure to note the aesthetic appearance of the classroom. I noticed the ‘goals,’ or objectives, for each subject area and lesson are neatly written above the dry erase board at the front of the classroom, (Participant-Observation Field Notes, No. 1). As I observed the daily activities of the classroom, I witnessed the start of each lesson began with a student being chosen to read aloud the learning goal for the appropriate subject. For example, prior to beginning Math, one student would read the learning goal for Math for that particular day (i.e., I will be able to use quarters, dimes, nickels, and pennies to make one dollar.). Miss Lindsey ensures students are exposed to learning goals prior to every activity.

Beyond daily content area learning goals, Miss Lindsey also presents clearly stated learning goals for standardized assessment preparation and yearly progress. During my first day of observing the classroom for the purpose of data collection, students were taking the Language Arts section of regional standardized assessment (Participant-Observation Field Notes, No. 1). Immediately after Miss Lindsey announced students would be going to the library/technology lab to complete this test, students showed excitement and enthusiasm. Miss Lindsey informed me they enjoy taking this test because it’s on the computer. She also explained how the test is
differentiated; students’ receive questions based on their performance. If a student answers correctly, the questions will gradually become harder. If a series of questions are missed, the level of questions becomes easier. There are three sections of this test, Reading, Math, and Language Arts. Students take only one section per day. All three sections of the test are completed three times throughout the academic year; Fall, Winter, and Spring.

Students’ performance is represented by a number and each student has a card identifying their performance on the test sections each time it was taken. Prior to beginning the assessment, Miss Lindsey passed out these cards and reminded students their goal is to “beat” or improve on their score from last time. Every student is working toward an individual goal, competing with themselves, not their peers. Miss Lindsey even stated, “It doesn’t matter what score your neighbor has, it only matters what score you have. Show your best effort,” (Participant-Observation Field Notes, No. 1). Based on my observations of students’ cards, it appeared as though performance on the last test ranged from about 154 to 192 with many students falling between high 170s and high 180s. Miss Lindsey said they should be at 190 by the end of second grade. It became apparent as students expressed happiness or frustration upon receipt of their new scores, they understood the learning goals stated by Miss Lindsey.

A final example of evidence to support clearly stated learning goals resulted from the analysis of a sample math test developed by Miss Lindsey (Appendix L). This math test was given at the end of a unit, therefore representing several educational objectives, or learning goals. Prior to the assessment of each objective, the educational objective is clearly written and presented on the math test. Having witnessed the administration of this actual test during the second week of classroom observation, I also saw Miss Lindsey includes an oral representation of the educational
objectives (Participant-Observation Field Notes, No. 3). As she reads through the test, to provide adequate scaffolding for most students, she clearly reiterates the objective stated. Students are visibly exposed to learning goals on written unit math tests.

Support for clearly stated learning goals (Hallmark #2) was demonstrated throughout the collected data. Miss Lindsey makes multiple attempts to convey learning goals and unit objectives to students. By visually posting learning goals, beginning each lesson by inviting a student to read the objective aloud, and posting educational objectives on summative tests, Miss Lindsey’s students are surrounded by clearly stated learning goals specific to academic content areas and units. Personal goals for students’ yearly progress are also clearly presented by Miss Lindsey in relation to standardized assessments. Students know what they are expected to learn and why they are learning it. The direct and clear statement of learning goals always allows for a meaningful curriculum. Analysis of the collected data revealed evidence to support Miss Lindsey’s demonstration of the second hallmark; the teacher is clear about learning goals.

Flexible Student Grouping

Tomlinson and Eidson’s (2003) third hallmark of a differentiated curriculum is “the teacher groups students flexibly,” (p. 7). In this hallmark, students should be given opportunities to work with the whole-class, individually, and in small groups. Small groups should vary and may be formed in a variety of ways. Wonderfully summarized, Tomlinson and Eidson (2003) state, “the goal of flexible grouping is to balance the need to teach students where they are and to provide them with opportunities to interact in meaningful ways with a wide range of peers,” (p. 7). In addition to flexible grouping, Tomlinson and Eidson (2003) explain, “as often as she can, the teacher meets with students one on one to monitor progress, coach them in the next steps, and set
new goals,” (p. 7). In many classrooms, teachers gain access to one on one time with students during small group work.

Throughout the process of data collection, I developed an awareness of the operations of Miss Lindsey’s classroom. The use of flexible grouping strategies and multiple learning opportunities in individual, partner, small group, and whole-class settings are a central focus of Miss Lindsey’s teaching philosophy and the functionality of her classroom. An analysis of collected data has proven the third hallmark is undoubtedly a focus in this classroom.

A significant majority of classroom activities in Miss Lindsey’s classroom are designed for small group work. During the formal teacher interview, I was able to discuss the specific grouping strategies utilized. After Miss Lindsey explained her intentional use of small group and partner work, I questioned her method(s) for grouping strategies. Having witnessed groups designed around similar ability levels, mixed ability groups, student interest, student choice, student learning profile and strategy, proximity (seating arrangements), and random assignment in classroom observation, I was aware of several popular grouping strategies utilized by Miss Lindsey (Participant-Observation Field Notes, No. 1-6). During the interview, Miss Lindsey discussed the importance of considering who students will be successful with, regardless of what grouping strategy was being utilized. She explained the importance of making good choices in the pair of students; to create opportunities for productivity and increased comprehension, not arguing and off-task behavior. She assured me the ability to create effective and productive groups comes with knowing your students. The interview allowed me to better understand the intentional use of flexible grouping strategies implemented by Miss Lindsey in support of differentiated instruction.
Based on classroom observation, I detected an adequate balance between whole-class instruction with active student engagement and participation, small group and partner activities, and independent student work. There are also opportunities for students to choose their work setting and the collaborative nature of their work. For example, one afternoon, students were assigned a book scavenger hunt following reading as a whole-class (Participant-Observation Field Notes, No. 3). After modeling what was expected of students for the scavenger hunt activity, Miss Lindsey offered students a choice: they could work independently to complete the activity or choose a partner to work with. Both options were utilized by students. In addition, with the exception of whole-class activities, students always have the option of choosing where they would like to work in the classroom. By the conclusion of my classroom observation visits, I had witnessed many similar opportunities enabling student choice and a flexible, collaborative work environment among students.

Every afternoon in Miss Lindsey’s classroom, the students participate in workshop, or learning stations. Students work in a variety of groups and partake in activities which appeal to a number of learning styles and preferences. There are opportunities to complete in-class work, independent silent reading, computer activities, listening to books on tape, writing letters to peers, and more. Students can move freely from station to station and work in with peers of their choice. Miss Lindsey encourages problem solving and team building by enforcing the workshop rule, “three before me,” in which students must ask three peers a question before asking Miss Lindsey (Participant-Observation Field Notes, No. 4). Miss Lindsey frequently reminds students, “We are a team.” In addition to the multiple opportunities for student choice and small group or individual activities, Miss Lindsey takes advantage of workshop to work one-on-one with students who need
additional help or guidance. In my experiences observing her classroom activity, she will work closely with three or four students at a time, often on different activities and content with each child. Miss Lindsey’s use of workshop supports this hallmark and represents differentiated instruction.

One of the most interesting examples of this hallmark being represented in Miss Lindsey’s classroom was the observed Reader’s Theatre activity (Participant-Observation Field Notes, No. 2). Miss Lindsey frequently uses www.ReadingA-Z.com for leveled reading resources. She located leveled reader’s theatre texts and spent one week completing the activity with her students. Students were split into small groups based on reading ability. One low group read Animals, Animals (Appendix M). Two small groups read a middle-level reader’s theatre titled Henny Penny (Appendix N). Finally, two advanced-level groups read a high-level reader’s theatre; Aladdin and the Magic Lamp (Appendix O). Every student had a character or role to play within their reader’s theatre. Witnessing this creative use of differentiation was beneficial and student ability groups served to support this hallmark.

Much like the Reader’s Theatre example, Miss Lindsey’s class often consists of small groups of students working on the same activity, with different content. One specific activity was observed during the first afternoon of data collection. Students worked with small groups, of three or four. Groups were randomly assigned by the teacher. Students collaborated with their group to complete an activity reviewing adjectives and nouns. All groups had the same materials and completed the same activity; but the words (adjectives and nouns) were different (Participant-Observation Field Notes, No. 1).
Miss Lindsey’s classroom supports all aspects of the third hallmark of a differentiated classroom; the teacher groups students flexibly. Students are given multiple opportunities each day to work individually, in small-groups, or through whole-class instruction. Miss Lindsey utilizes assessments to recognize individual students’ need and takes advantage of workshop time to work one-on-one with students; promoting individual growth and progress while remaining students’ work collaboratively at learning stations. A variety of grouping strategies are utilized, ensuring students have “opportunities to interact in meaningful ways with a wide range of peers,” (Tomlinson and Eidson, 2003). Miss Lindsey ensures flexible student grouping by forming groups based on: similar ability levels, mixed ability levels, similar student interest, various student interest, homogeneous learning styles and preferences, heterogeneous learning styles and preferences; random assignment; and student choice. The interactive and collaborative nature of Miss Lindsey’s classroom represents a significant component of differentiation; flexible student grouping (Hallmark #3).

*Flexible Use of Time, Space, and Materials*

Hallmark four of a differentiated classrooms states, “the teacher uses time, space, and materials flexibly,” (Tomlinson and Eidson, 2003, p. 7). Briefly described by Tomlinson and Eidson (2003), “a teacher in an effectively differentiated classroom continues to look for ways to arrange the classroom to enable students to work in a variety of ways, to enable students to use time flexibly, to match materials to learner needs, and to meet with students in varied formats,” (p. 7). The physical composition of the classroom and use of resources can greatly increase the effectiveness of student learning if utilized properly. This hallmark also seems to support the previous one; allowing the classroom environment to support flexible grouping.
Based on classroom observation and discussions with Miss Lindsey during the formal interview, flexibility is a key element to the success of this classroom. The wide range of needs presented by the twenty-eight students in this class requires a flexible use of time, space, and materials.

The flexible use of time was represented several times throughout classroom observations and further discussed during the formal interview with Miss Lindsey. A daily example of time flexibility was represented by the additional time students could acquire to finish in-class work or tests (Participant-Observation Field Notes No. 2). Students who did not complete these assignments were encouraged to do so during workshop. Students who did complete in-class activities and tests before the allotted time was up had a number of anchor activities to choose from. Additional time was utilized for meaningful learning; not wasted (Participant-Observation Field Notes, No. 3).

Miss Lindsey also discussed the importance of remaining flexible with time to ensure student engagement and interaction (Formal Teacher Interview). After stressing the importance of hands-on, experiential learning opportunities, she went on to discuss the helpfulness of shifting transitions in the daily routine. One suggestion she provided involved moving students from their seats to the carpet for a lesson. Another involved taking a restroom break half-way through a reading if the students were restless. An activity she frequently conducts outside of the daily scheduled time is Sound Spelling Cards or Hunks and Chunks. These two phonics activities are interactive chants or songs accompanied by movements to teach students about phonemic sounds and spellings. The students refer to large flashcards on the classroom wall to complete these activities (Participant-Observation Field Notes, No. 2). These interactive activities serve as a brief
outlet from sitting by engaging students verbally (musically), kinesthetically, and visually. By allowing students to engage in movement and active learning opportunities when they become restless, they will be able to come back to their seated learning more focused explained Miss Lindsey.

Miss Lindsey’s flexibility of space is represented in several ways. First, the general arrangement of the classroom represents ideal areas and stations for small group work. Students’ desks are arranged in a manner that allows them to interact frequently and the various learning stations surrounding the room are designed for multiple students. There is also an open corner in the room where students gather, as a whole-class, away from their seats, several times a day. The set-up of the classroom changes frequently to better suit the lesson structure and the needs of students. Secondly, students are almost always given a choice in the location of the room in which they would like to complete small group or partner activities (Participant-Observation Field Notes, No. 1).

To better exemplify Miss Lindsey’s flexibility of space, we engaged in a discussion about a letter she received from a student in her class the previous year (Participant-Observation Field Notes, No. 3). This student was a special education student, diagnosed with mild Autism. She explained how smart he was, but the difficulty he had sitting for long periods of time. Miss Lindsey explained there would be times throughout the day he would get up and walk around the classroom for a short period of time before returning to his work. When she would jokingly ask him if he was, “getting his jog on,” he always laughed and said yes. Miss Lindsey explained how the simple act of movement and getting out of his seat for several moments was all it took to get him back on task and focused on learning. The letter she received from this student explained
how he missed her being his teacher. Miss Lindsey informed me his new teacher does not allow him to be out of his seat during class and it has been a difficult year for him.

In a similar situation, a student in Miss Lindsey’s classroom this year rarely uses a chair. He stands, or leans on his desk throughout the day. He frequently walks around the classroom and requires constant movement and distraction to refrain from talking out and disrupting other students. This student performs well in the class and maintains participation during lessons. Miss Lindsey’s ability and willingness to allow for subtle flexibilities within the classroom seem to be very beneficial for select students.

The third aspect of this hallmark, flexible use of materials, is also demonstrated by Miss Lindsey’s teaching. Miss Lindsey utilizes a number of classroom resources and mediums for content to compliment her many teaching methods or strategies. I have witnessed several lessons that begin with the use of an interactive video clip or website (Participant-Observation Field Notes, No. 2, 6) and discussed the use of technology materials with Miss Lindsey. During math one afternoon, students watched a short video on math arrays (Participant-Observation Field Notes, No. 2). The video was very appealing to multiple learning styles. It provided written definitions, audio definitions, image (visual) representations, and related the use of arrays to real world situations and manipulatives. Following the video, Miss Lindsey involved students by creating a “student-body” array. She invited students to come to an open corner of the room and form an array using their bodies (i.e., four rows with three students each). Students were jumping up and down with excitement to participate in this activity. The students became the manipulatives (materials) in this activity.
There have been several instances during math journal or even a unit test where Miss Lindsey provides students with a variety of materials and encourages them to “choose what works best for you,” (Participant-Observation Field Notes, No. 5). Students are encouraged to use materials from around the room, whether it be as simple as extra paper or as specific as a particular grammar poster on the wall. Miss Lindsey always provides students with a choice of materials and has created a classroom where many materials serve as a basis for learning. Students use literature, posters around the room, charts and tables, games (created by Miss Lindsey) technology, peers, and the teacher as sources of knowledge. Miss Lindsey explained one resource available to them is Odyssey and Compass Learning computer games or interactive websites (Formal Teacher Interview). She said, “Well kids today are totally into video games and love animated stuff. So a quick introduction [using short videos available on Compass Learning], it takes maybe five to ten minutes and they are all engaged because it’s like watching T.V. But yet they [students] are still learning; it’s really educational,” (Formal Teacher Interview). By using a variety of materials, integrating the use of interactive materials into instruction, and presenting many different materials as sources of knowledge, Miss Lindsey represents this hallmark and a flexible use of materials.

Miss Lindsey demonstrates a successful representation of hallmark four (flexible use of time, space, and materials) in a number of ways. Flexible use of time is represented by the additional time students are provided to finish tests and in-class work as well as Miss Lindsey’s willingness to move activities around students’ needs. Miss Lindsey uses space flexibly by continuously rearranging the classroom to better suit the functionality of a lesson and meet students’ needs; by allowing students to move around the room or presenting opportunities for
them to be active during instruction; and by allowing students to choose their location in the room for small group activities. Finally, Miss Lindsey implements a flexible use of materials by incorporating a number of materials into her instructional activities; providing a variety of materials to suit students’ different learning styles and preferences; and ensuring students understand knowledge can come from a number of materials ( mediums ). The successfulness of Miss Lindsey’s classroom is largely in part of her flexibility with time, space, and materials.

*Students Understand the Nature of the Classroom*

The fifth hallmark of a differentiated classroom, as identified by Tomlinson and Eidson (2003), states, “the teacher involves her students in understanding the nature of the classroom and making it work for everyone,” (p. 7). Students are viewed as essential members of the classroom community and contribute greatly to the success and efficiency of a differentiated curriculum. “When a teacher guides her students in sharing responsibility for a classroom in which the goal is to help everyone receive the support he or she needs to grow academically, the students become a central factor in that classroom’s operation,” (p. 7). Tomlinson and Eidson (2003) identify a number of ways in which students can become involved in the classroom: establishing class rules, making suggestions for smooth movement from place to place in the classroom, helping a peer, distributing materials, keeping records of their own goals and progress, etc. Students need to understand their supportive role in the classroom is necessary to help everyone learn.

The data analysis of classroom observations and the formal teacher interview revealed the presence, or use of, many of the ways Tomlinson and Eidson (2003) identify for student involvement in the classroom. Students in Miss Lindsey’s classroom do understand the nature of
the classroom and collaborate to make the environment conducive to learning for each other; clearly representing the fifth hallmark of a differentiated classroom.

Several ways Miss Lindsey ensures students share responsibility in the success of the classroom include: composing classroom rules and the social contract; fulfilling roles as daily helpers; and being helpful resources for their peers. Students composed, and signed, the classroom rules and the social contract at the beginning of the year (Participant-Observation Field Notes, No. 1). When behavior issues arise, they are reminded they created and signed the guidelines for classroom behavior and most students show a willingness to take responsibility for their behavior. Daily helpers are also assigned in Miss Lindsey’s classroom (Participant-Observation Field Notes, No. 2). Each morning students are assigned to a job in the classroom, examples include: teacher’s helper, paper passers, floor checkers, restroom monitors, and line leaders. A specific use of these jobs can be witnessed during restroom breaks (Participant-Observation Field Notes, No. 2). During a restroom break, students form two lines (one girls, the other boys). The line leader is first, followed by the restroom monitor, and teacher’s helper. Students are guided into the hallway where the two lines sit. The restroom monitor goes to evaluate the bathroom and determine how many students from their line may use the restroom. Meanwhile, the line leader works with the rest of their line on math facts (flashcards). Students have a system for completing the restroom break and Miss Lindsey simply monitors the process.

Miss Lindsey also creates regular opportunities for students to become “the teacher” or play an active role in helping their peers learn. During the formal interview, Miss Lindsey explained,

Another teaching strategy that I really like to use is letting the students be the teacher. I will say “so-in-so you’re the teacher today, go sit at my desk, and you get to use the mouse and you get to do the activity, call on students when they’re ready,” and they do it. I mean, someone wanted to read a story to the class the other day, and we were learning about fossils and
dinosaurs, you know what, he was one of my higher readers so yes, go read to them. Not having to listen to me all day, and looking at their peer, they love it. With spelling words, having someone introduce them, and you know chant them and clap them, move around (Formal Teacher Interview).

During classroom observations, I observed situations to confirm Miss Lindsey’s explanation. Although I did not see the student read the book about dinosaurs and fossils, I witnessed another book being read about dinosaurs (Participant-Observation Field Notes, No. 5). While Miss Lindsey read the book to students, she came across the names (types) of dinosaurs and was unaware of how to pronounce them. On several occasions she invited students, whom she know shared an interest in dinosaurs, to read the pronunciation of the dinosaur to their peers and teach them how to say it. The students appeared excited to share their interest and intelligence with both their teacher and their peers. On a different day of classroom observation, students were receiving their new spelling words for the week (Participant-Observation Field Notes, No. 3). The teacher choose four students to “teach” the spelling words to their peers. Students know the routine for introducing words (call on someone to say the word, spell the word aloud as a whole class, repeat the word as a whole class, and finally, call on someone to use the word in a sentence) and lead their peers in introducing new words.

Perhaps the most unique evidence I found to support this hallmark resulted from my exposure to the students’ class book (Participant-Observation Field Notes, No. 5). The students worked for weeks on a class story which was then sent out for binding. Each student contributed to the story by writing one page of text and drawing and illustration to accompany the text. Their story took place under the sea and talked about a classroom of sharks with a whale as their teacher. Throughout the story, students would refer to specific activities and lessons they had completed in their own classroom this year. One student even refers to the various intelligence levels of the
students (sharks) and the use of challenge spelling words. It occurred to me then, students in Miss Lindsey’s class have an open awareness of the differentiation taking place around them. They understand the different ability levels and needs presented by their peers and accept the varied work completed in the classroom.

I was fortunate enough to ask Miss Lindsey about students’ awareness of differentiated instruction in our formal interview. I mentioned how I’ve noticed the students will refer to some of them being on challenge spelling words or more difficult math facts and how the awareness doesn’t seem to upset them or have them feeling ashamed of their own abilities. She replied, “No, because the first day of school and at the beginning of the year we talked about it. Everyone learns differently, everyone is at different levels, sometimes you’ll be doing the same thing and sometimes you won’t, and that’s okay. So they really know, no one ever says, “why are you doing that?” they just know, and that’s the way it is,” (Formal Teacher Interview). I found the simple reply of Miss Lindsey in this conversation to be the best evidence of hallmark five, students do understand the nature of this classroom and accept the use of differentiated instruction.

There are many opportunities for students to contribute to the classroom’s operation (i.e., student helpers, establishing classroom rules and guidelines for social interactions, and assisting peers in learning) in Miss Lindsey’s classroom. As Tomlinson and Eidson (2003) explain, “When a teacher guides her students in sharing responsibility for a classroom in which the goal is to help everyone receive the support he or she needs to grow academically, the students become a central factor in that classroom’s operation,” (p. 7). Opportunities for the students to be the teacher and their awareness of the use of differentiation in their classroom also contribute to a better understanding of the nature of the classroom and becoming active partners in the success of the
room. Miss Lindsey does, indeed, involve her students in understanding the nature of the classroom and making it work for everyone (Hallmark #5).

**Emphasis on Individual Student Growth**

Tomlinson and Eidson’s (2003) sixth hallmark for a differentiated classroom states, “the teacher emphasizes individual growth as central to the success of the classroom,” (p. 7). This hallmark focuses on the importance of individual student progress and assessment. Instead of attempting to meet norm-based requirements, teachers must help students set and meet individual goals. Students must develop personal accountability and always put forth their personal best. Instead of competing with a general set of standards, expectations or their peers, students are compete against themselves; always striving to move forward in their own educational goals. Tomlinson and Eidson (2003) said, “each student is responsible for working to progress as much as he or she can towards goals that are personally challenging. The teacher is responsible for guiding and supporting that progress,” (p. 8). Teachers of differentiated classrooms must collaborate with both students and parents to develop an appropriate and challenging set of individual goals for students.

Based on an analysis of collected data in the form of classroom observations and a formal teacher interview, it became apparent Miss Lindsey places a tremendous emphasis on individual student growth and progress. Students work towards individual goals on a number of on-going assessments and content area objectives; they compete against their previous performances, not against their peers. Every child is encouraged to put forth their personal best at all times. Miss Lindsey frequently tells students, “Give me your best effort! We must give our best effort to learn,” (Participant-Observation Field Notes, No. 1-6).
As described in the data analysis of Hallmark #1, students take a computerized assessment three times during the academic year. Students’ performance on the computerized assessment is represented by a number and each student has a card identifying their performance on the test sections each time it was taken (Participant-Observation Field Notes No. 1). Prior to beginning the assessment, Miss Lindsey passed out these cards and reminded students their goal is to “beat” or improve on their score from last time. Every student is working toward an individual goal, competing with themselves, not their peers. Miss Lindsey even stated, “It doesn’t matter what score your neighbor has, it only matters what score you have. Show your best effort,” (Participant-Observation Field Notes, No. 1). It became apparent as students expressed happiness or frustration upon receipt of their new scores, they understood the learning goals stated by Miss Lindsey and the importance of personal growth.

A second example of individual goals and progress can be measured by the students’ daily math time tests. When asked what aspects of differentiated instruction (i.e., small group work, various assessments, tiered lesson plans) during our formal interview, Miss Lindsey provided many examples of assessments supportive of differentiated instruction (Formal Teacher Interview). One assessment described by Miss Lindsey included the daily math time tests. Miss Lindsey explained, “they [students] take a timed test each day which levels itself out basically. Some of them are on addition, and some of them are on subtraction, and some of them are on multiplication. But everyday they work towards their goal of passing that test,” (Formal Teacher Interview). Having observed this assessment several times; I’ve noticed the vast span of students’ ability levels and assessments (Participant-Observation Field Notes, No. 3, 6). Inside their test folder, a colorful chart represents students’ individual progress on their current set of math facts. Some students are
on early addition, others complete double-digit addition. A number of students are working on subtraction problems and still others have begun multiplication facts. One student surpassed all second grade tests and has begun working through third grade leveled time tests.

Similar to individual math goals, represented with the previously discussed math timed tests, students take home daily, leveled reading texts throughout the year (Participant-Observation Field Notes, No. 2). They work at their own pace progressing to more challenging levels of text throughout the academic year. The emphasis is not on getting all students to the same reading level. Miss Lindsey attempts to help every child progress as far as they can from their reading level when they entered the classroom; highly characteristic of differentiated instruction and supportive of individual student growth (Hallmark #6).

Miss Lindsey emphasized the use of differentiated instruction in her classroom is not meant to single students out or make them feel uncomfortable; they are all able to work at their level (Formal Teacher Interview). By utilizing individual assessments, providing appropriate resources to students, and encouraging students to meet individual goals and compete against themselves by setting challenging goals, Miss Lindsey’s classroom demonstrates the sixth hallmark; the teacher emphasizes individual growth as central to the success of the classroom.

Despite the positive attempts Miss Lindsey makes to differentiated instruction in support of individual student growth, this classroom is still composed of second grade students. In any classroom, behavior issues and disciplinary distractions exist. There were days I observed when the students were particularly distracted, energetic, or slightly difficulty to keep on-task. To further support individual student growth, and possibly eliminate off-task behavior and occasional behavior issues, inquiry-based learning opportunities could be incorporated. Miss Lindsey’s
classroom attempts to support students in many ways, however, inquiry-based learning opportunities seem to be lacking. Understandably, classroom teachers will not always have flexibility with their curriculum sequence depending on administrative policy. Therefore, it may not be possible to spend several weeks on a project inspired by student-choice and student-interest. However, I believe this classroom, as well as any other, could largely benefit from a balance of teacher-selected (or state-mandated) concepts and student-chosen, inquiry-based learning projects. Inquiry-based learning has been identified as a teaching strategy supportive of differentiated instruction (Hall, 2009; Wehrmann, 2000; Conklin, 2007; Tomlinson, 1999a; and Tomlinson, 2000b). Creating opportunities for students to engage in learning through a topic of interest to them can be very motivating. Off-task behavior could be eliminated if students feel more engaged and enthusiastic about learning.

"Respectable" Work and "A Way Up" not "A Way Out"

Hallmark seven declares, “the teacher works to ensure that all students have “respectful” work,” (Tomlinson and Eidson, 2003, p. 8). This hallmark indicates the necessity to create work that is challenging for each student, at their level of understanding and ensuring that all students are creating appealing work; not just advanced learners. Furthermore, Tomlinson and Eidson (2003) point out, “while students display different interests, readiness levels, and learning profiles, every student should consistently have work that respects him or her as an individual,” (p. 8). Every student should feel as though the curriculum in their classroom is for them; students should not be repeatedly provided with work that is too easy or too challenging.

The eighth hallmark of a differentiated classroom says, “the teacher makes sure differentiation is always “a way up,” never “a way out,” (Tomlinson, 2003, p. 8). Teachers who use
differentiation must have an awareness of where there students are in academic understanding and comprehend their capabilities. Differentiated instruction should not be used as a way to teach content below student level, every student should be challenged with “respectable” work that always remains achievable with the appropriate scaffolding. The “learning potential” of students should never be underestimated.

Miss Lindsey demonstrates hallmarks seven and eight in her classroom frequently. By implementing leveled work and utilizing ability-level groups, students are presented with “respectable” work and challenged to improve performance. Based on an analysis of classroom observations, the formal teacher interview, and collected documents representing leveled work, evidence was found to support hallmarks seven and eight. Miss Lindsey maintains high expectations for each student, viewing each one as a capable learner, and challenges them each day with “respectful” work.

As previously discussed, Miss Lindsey embraces differentiation through flexibility of content by utilizing leveled work for students and designing curriculum to meet varying ability levels. The math timed tests and reader’s theatre (Participant-Observation Field Notes, No. 2), mentioned in hallmarks two and six are prime examples of Miss Lindsey’s use of ability level work. Because students are completing work suited for them, these examples also support hallmarks seven and eight. The Social Studies monument project (Participant-Observation Field Notes, No. 1) discussed in support of hallmark one is also evidence to support “respectful” work. Although all students work on the same content, the work becomes “respectful” in regards to their learning style and interests as they have choices in creating a final product.
Perhaps the most significant evidence analyzed to support hallmarks seven and eight resulted from a classroom observation. Students in Miss Lindsey’s class take leveled spelling tests, three different lists of words are provided each week; at the low, middle, and challenge levels. Morning work consists of leveled spelling practice several times a week (Participant-Observation Field Notes, No. 2-3, 6). A sample worksheet for low (Appendix P), middle (Appendix Q), and challenge (Appendix R) spelling words was provided by Miss Lindsey. Believing each student is capable of completing quality work and recognizing students’ potential, Miss Lindsey frequently assesses students’ performance levels and adjusts accordingly. During one classroom observation, I noticed she had moved several students to a more challenging spelling list; either from low to middle or middle to challenge (Participant-Observation Field Notes, No. 3). As one student realized his more challenging worksheet, he asked Miss Lindsey why he had those words. Miss Lindsey encouraged him; by expressing he is smart and can do this new work. She enthusiastically told him to, “Always do your best! I know you can do this,” (Participant-Observation Field Notes, No. 3). This example clearly supports differentiation as “a way up” and a way of proving “respectable” work for all students.

Students’ readiness levels are also addressed to ensure “respectable” work and movement towards success, or “a way up” for all students. During the formal interview, Miss Lindsey explained how she ensures all students are given resources and assistance to ensure success in the classroom. Miss Lindsey said,

_We’re always looking at where the student is, what they already know when they come in. Some kids come in and they already have background of a lot of things and others don’t. So the kids that already know everything, you just kind of get them started in something and they can do it on their own. Or the other students, you know sometimes you have to do a small group, sometimes I pull them up to the reading table, I pull them during workshops. If there is something in math that were doing, that I know they’re going to struggle with, I’ll_
have our math specialist pre-teach the lesson before I ever teach it, that way they already have a background of what is going on before I introduce it to the whole class (Formal Teacher Interview).

Students who lack prior knowledge or may be behind grade level are not left with work to easy or lacking challenge. Miss Lindsey collaborates with specialists and support staff to provide students’ with the assistant they need. She uses differentiation as “a way up,” not “a way out.”

Every student should feel as though the curriculum in their classroom is for them; students should not be repeatedly provided with work that is too easy or too challenging. Miss Lindsey ensures each student has a curriculum complimentary of their ability level, readiness level, and learning profile. Through the use of leveled work and ability-level groups, student choice in products, and adequate scaffolding for struggling learners, Miss Lindsey ensures all students have “respectable” work. Miss Lindsey also demonstrates support for students’ learning potential by continuously challenging students with more challenging work; in which she assesses they are competent of completing.

Teacher and Students Have High Expectations

The ninth hallmark states, “the teacher sets her own sights high, just as she asks her students to set their sights high,” (Tomlinson and Eidson, 2003, p. 8). “A teacher effective with differentiation is reflective about her students and her own practice,” (p. 8). It is important “good enough” doesn’t become a part of a differentiated classroom teacher’s philosophy. This teacher must strive to raise the performance levels and understanding of both herself and her students for as long as they are a part of her classroom. In summary, the teacher who uses differentiated instruction “expects from herself no less than she expects of her students – maximum effort to achieve maximum potential,” (p. 8).
Evidence to support this hallmark was witnessed during every classroom observation visit. The constant encouragement Miss Lindsey provides to her students to put forth their best effort and achieve high standards is balanced with her own dedication and efforts to always be a better teacher.

During the six days of classroom observation, I witnessed many discussions and encouraging words being offered from Miss Lindsey to her students. She always expects that students will put forth their best effort and strive to learn. Encouraging words are spoken to students as a whole class multiple times daily. Individual encouragement is offered more frequently when students feel as though they are incapable of completing their work. Miss Lindsey will constantly provide motivation and support. One afternoon, a student had been moved up to a more challenging level of spelling words. After questioning the difficulty of the work in front of him, Miss Lindsey said, “I know you can do this, you are so smart! Always do your best,” (Participant-Observation Field Notes, No. 3).

The encouragement of Miss Lindsey to her students’ high expectations was easy to see throughout classroom observation. I had to look more closely to understand the tremendous amount of effort and dedication put forth by Miss Lindsey to ensure effective teaching and a high achieving group of students. It was evident Miss Lindsey was always prepared for lessons and spent a significant amount of time working outside of her brief planning period to make that possible. She would often express being at school hours after the school day ended, often until seven o’clock. Miss Lindsey went above and beyond expectations ensuring she does not encompass a “good enough” attitude. The daily leveled morning work, math time tests, and differentiated summative assessments require hours more preparation that providing every student with the same
worksheet or assessment. Despite the additional work and time required, Miss Lindsey strives to create a classroom where every child gets the education they need to succeed.

Beyond the time Miss Lindsey spends ensuring she is prepared to provide students’ with a good educational experience, she also works hard during planning and teaching to help students succeed. Tomlinson and Eidson (2003) stated, “A teacher effective with differentiation is reflective about her students and her own practice,” (p. 8). Through informal assessment and observation during teaching, Miss Lindsey evaluates the effectiveness of her teaching and her students’ ability to comprehend. She frequently engaged in conversations with me about how successful, or unsuccessful a lesson might have been (Participant-Observation Field Notes, No. 1-6). On several occasions, Miss Lindsey has invited me to share ideas on bettering the functionality of the classroom or helping students understand content. I have also witnessed her seeking advice from her co-workers, always striving to better her teaching practices.

Miss Lindsey is a highly dedicated teacher; always challenging herself to be better and ensuring her students gain knowledge. Through her encouragement and support of students, her dedication to her teaching position, and her willingness and attempt to seek the advice and suggestions of others, Miss Lindsey successfully demonstrates the ninth hallmark; the teacher sets her own sights high, just as she asks her students to set their sights high.

**Teacher Seeks Specialist’s Active Partnership**

Tomlinson and Eidson's (2003) tenth hallmark of a differentiated classroom indicates, “the teacher seeks specialists’ active partnership in her classroom,” (p. 8). When students present unique needs that require the special attention of an expert, or specialist, a differentiate classroom teacher is not afraid to ask for help. Classroom teachers are not expected to have the knowledge,
or time, to provide the necessary help to every child in the classroom; utilizing the presence of specialists is expected and beneficial. Tomlinson and Eidson (2003) notes, “an effective partnership between a specialist and a classroom teacher does more than benefit individual students; it is also a great vehicle for the classroom teacher and specialists’ own professional development, thus bringing exponential benefits to students for years to come,” (p. 9).

Based on an analysis of classroom observation notes, I felt this school was fortunate to employ a number of specialists’ and support teachers. After analyzing the formal interview with Miss Lindsey, it became apparent how much she seeks’ the assistance of these specialists in her classroom. As a result of data analysis, several examples of evidence were discovered in support of this hallmark.

Miss Lindsey informed me only one student in her class has been identified as having special needs. This student does not present an unmanageable situation in the classroom, he simply requires extra assistance more frequently than other students. A special education teacher is available to this student. Although this student does not have regularly scheduled time with the special education teacher, he is allowed to visit her whenever he feels the need. Miss Lindsey also mentioned two students are in the process of being identified, seeing doctors and therapists regular. She said, “It has been a lot of, you know, writing things down, a lot of documentation, kind of one-on-one help to kind of see what they need,” (Formal Teacher Interview).

The special education teacher does spend time in Miss Lindsey’s classroom, working with small groups of students when she has time. Miss Lindsey explained, “If the special education teacher comes in and wants to work with her student, she’s working with a group of students or a pair of students, it’s not singling out that child. So it’s not like, ‘oh you are special needs and you
need extra help,’ well no, everyone gets extra help,” (Formal Teacher Interview). The special
education teacher is definitely a valuable source for Miss Lindsey and all students in the regular
education classroom.

The assistance, and ‘partnership,’ of math and reading specialists is often sought by Miss
Lindsey. Understanding she couldn’t possibly provide every child with the one-on-one attention
they need as often as possible, Miss Lindsey welcomes the assistance of math and reading
specialists to work with all students in the class. Miss Lindsey utilizes continuous, on-going
assessments and her awareness of students’ needs to assess who may need additional help with a
particular lesson or subject (Participant-Observation Field Notes, No. 3). Miss Lindsey then seeks’
help from math and reading specialists to work closely with individual or small groups of students.
We discussed one particular way Miss Lindsey utilizes school specialists and support staff during
the formal interview. Miss Lindsey explained, “If there is something in math that we’re doing, that
I know they’re going to struggle with, I’ll have our math specialist pre-teach the lesson before I ever
teach it, that way they already have a background of what is going on before I introduce it to the
whole class,” (Formal Teacher Interview).

By utilizing synergistic relationships with school specialists and support staff, Miss Lindsey
demonstrates the tenth hallmark of a differentiated classroom; the teacher seeks specialists’ active
partnership in her classroom. Miss Lindsey welcomes assistance from the special education
teacher, reading specialist, and math specialist to better educate her students and gain an
understanding of how to better meet their individual needs.
Differentiation is Proactive

The eleventh, and final, hallmark of a differentiated classroom as identified by Tomlinson and Eidson (2003) states, “the teacher’s differentiation is largely proactive rather than reactive,” (p. 9). In all classrooms, adjustments will always need to be made during instruction, however, in differentiated classrooms, instructional plans are created and purposefully designed with student differences in mind; it does not rely on last minute changes. Tomlinson and Eidson (2003) state, “effective differentiation rests upon purposeful planning for student variance, with improvisation as needed,” (p. 9). Differentiated instruction must be intentional and proactive.

The intentional and purposeful use of differentiated instruction was a central focus of my data collection. After analyzing the formal teacher interview with Miss Lindsey and participant-observation field notes, it became very evident her use of differentiation is highly proactive (Hallmark #11). Meeting all students’ needs through effective planning and appropriate instruction is not an afterthought in Miss Lindsey’s classroom.

To provide a meaningful differentiated curriculum, I felt one must first understand differentiated instruction. In the formal interview, I asked Miss Lindsey about her professional experiences understanding differentiated instruction. At both the undergraduate and graduate level, Miss Lindsey took classes to learn about differentiated instruction. She also explained how much she has learned about differentiation from discussing and planning with other teachers and trying it in her own classroom. The school at which Miss Lindsey teaches has made a commitment to educating their teachers about differentiated instruction; hosting several professional development workshops on the topic. Miss Lindsey identified differentiated instruction as a successful way to provide an education that is “best for each student.” As a result of her
educational and professional development experiences, Miss Lindsey understands how to differentiated instruction had integrated differentiation into her teaching philosophy and daily planning.

During our formal interview, I asked Miss Lindsey how she would describe the variety of needs presented in the classroom by her students. Having already discussed varying ability levels, I specifically asked about student differences in terms of background, achievement level, and learning style and preference. Miss Lindsey responded, “A lot of the students in my class, they all learn differently. Some of them need hands-on, some of them need to be moving, some of them can just sit down and write and read and do it on their own. There are a lot of different needs that I need to think about when I am planning,” (Formal Teacher Interview). The nature of students’ learning styles and preferences was discussed as a component of planning curriculum to meet all students’ needs. Miss Lindsey expresses the importance of knowing students’ and understanding what their needs are throughout the interview. Her use of this awareness and knowledge in planning a differentiated curriculum supports a proactive attempt at differentiated instruction.

When asked specifically about the intentional use of differentiated instruction in her planning, Miss Lindsey explained her process of planning with student differences in mind (Formal Teacher Interview). General planning is completed as a grade level team, consisting of Miss Lindsey and two other second grade teachers. Miss Lindsey discussed how the team planning session begins by identifying or creating a fifteen to twenty minute mini-lesson to introduce new content to students as a whole class. Then, they plan for a small group activity, providing students with an opportunity to interact and explore the content presented. Although small groups based
on student ability level are most frequently utilized, the goal of every planning session is to meet students’ needs specific to the content presented; meaning groups based on other criteria are also used. Miss Lindsey explained, student groups are always flexible and students are often moved to wherever their needs are met and they are presented with appropriate, yet challenging earning opportunities. The components of the lesson described by Miss Lindsey are represented and apparent in the sample math unit plan she provided (Appendix G). Miss Lindsey’s discussion of intentionally planned differentiation further supports a proactive approach to differentiated instruction, as stated by hallmark eleven.

Also, during the formal interview, I asked Miss Lindsey, “When teaching them do you find yourself unintentionally using it [differentiated instruction] in ways that you hadn’t planned?” (Formal Teacher Interview). Despite the importance of proactive differentiation, teachers must also recognize when students’ needs are not being met during teaching, regardless of planning intentions. As Tomlinson and Eidson (2003) explain, in all classrooms, adjustments will always need to be made during instruction. Miss Lindsey expressed her need to make unplanned changes in lessons by providing a specific spelling example,

As you’re walking around, or just as you’re working with a student you’ll realize that, ‘wow, that’s not working, I either need to make a change immediately, or next time I need to remember to do something different in my planning.’ Sometimes I’ll notice my students aren’t doing well with their spelling words; then we need to make some modifications. So do I give them less words? Maybe I try that for a couple weeks. If that doesn’t work, maybe they need to take a circle test where they have to circle the correct spelling of the word, that type of thing. So sometimes just right on the spot you have to realize that this is not working and make a change (Formal Teacher Interview).

Despite the largely proactive approach to differentiation Miss Lindsey utilizes while planning for student variance and effective instruction; reactive changes are sometimes necessary. Recognizing students’ need and taking the initiative to make necessary changes is also an important part of
differentiation. All differentiation however, should not rely on reactive adjustments, it must also be purposefully and intentionally implemented as demonstrated by Miss Lindsey.

The eleventh, and final, hallmark of a differentiated classroom as identified by Tomlinson and Eidson (2003) states, “the teacher’s differentiation is largely proactive rather than reactive,” (p. 9). After analyzing the formal interview with Miss Lindsey, it became apparent her teaching is largely proactive of differentiation. Miss Lindsey’s educational and professional understanding of differentiated instruction, her awareness of students’ needs, and the way she purposefully implements differentiated instruction into her teaching to address all students’ needs. “Effective differentiation rests upon purposeful planning for student variance, with improvisation as needed,” (Tomlinson and Eidson, 2003, p. 9). Miss Lindsey proved to be providing effective differentiation and utilizing improvisation as needed, supporting the eleventh hallmark; the teacher’s differentiation is largely proactive rather than reactive.

Summary

The purpose of this study was to qualitatively examine effective and attainable instruction methods that utilize differentiated instruction to meet the needs of all students. The research question for the study read: How can a regular education classroom teacher utilize differentiated instruction to meet the diverse needs (student readiness, ability levels, interests and learning styles) of all students simultaneously?

To successfully answer the research question of this study, elements, or hallmarks, of a differentiated classroom were used to assess and analyze the collected data for a better understanding of the use of differentiated instruction within the context of the observed classroom. The eleven hallmarks of a differentiated classroom (Tomlinson and Eidson, 2003)
provided a framework for my data analysis and greatly contributed to my understanding of what a
differentiated classroom looks like. Finally, evidence to support each hallmark, as discussed in this
chapter, illustrated how differentiation was utilized, or implemented, in the observed classroom.
Miss Lindsey, a regular education classroom teacher, implements differentiated instruction by
fulfilling all eleven hallmarks of a differentiated classroom.

Chapter four is composed of a thick description of the classroom setting, and a thorough
analysis of collected data understand the use of differentiated instruction as identified by
Tomlinson and Eidson’s (2003) hallmarks of a differentiated classroom. This chapter serves to
answer the research question based on an analysis of collected data in the form of participant-
observation field notes, interviews with the classroom teacher, and a collection of lesson plans,
assessments, and worksheets utilized in the classroom. The observed classroom was found to be
representative of a differentiated classroom based on the eleven hallmarks (Tomlinson and Eidson,
2003) and several examples of evidence, from the data, was presented to support individual
hallmarks.
CHAPTER V. SUMMARY, CONCLUSIONS AND IMPLICATIONS

Introduction

This study attempted to further current research by observing, analyzing, and synthesizing the use of differentiated instruction in the classroom. The focus of this research is not to produce additional literature expressing the importance of differentiated instruction or teaching strategies and instructional methods for utilizing differentiated instruction. The purpose of this research was to reflect on and analyze the actual implementation of differentiated instruction, by a single classroom teacher, in a regular education classroom. This study aimed to provide a descriptive analysis of what differentiated instruction looks like in use, in hopes of providing future and current educators with a more helpful perspective on differentiated instruction.

Through my data collection, I intentionally explored the task and challenges associated with simultaneously meeting the diverse needs, interests, experiences, and ability levels of all students in a classroom. As a result, I was able to gain a better understanding of implementation strategies that utilize differentiated instruction and a sense of confidence, capability, and motivation to meet all students’ needs and abilities through the use of differentiated instruction in my future teaching. Having gained an understanding of differentiated instruction in use, I am now better prepared to create opportunities for better teaching and improved student learning as in my teaching career. Having the ability to successfully reach and teach all of our students in the classroom is vital to creating successful teachers. To effectively teach all students in the classroom, simultaneously, differentiated instruction is necessary and this research is intended to benefit all current and future educators.
This study sought to provide a descriptive analysis of one teacher’s use of differentiated instruction. The research studies analyzed in the review of literature provided me with a comprehensive understanding of what differentiated instruction is and specific teaching strategies that represent differentiated instruction. A criterion for differentiated instruction was formed as a result of previous studies and used to organize the collection and analysis of data in this study, particularly the hallmarks of a differentiated classroom (Tomlinson and Eidson, 2003). This research study resulted in a description of a variety of instruction techniques or activities effectively used to implement flexibility in content, process, and products. This research aimed to present attainable methods that every teacher can use to purposefully and meaningfully reach every student cognizant of individual student readiness, ability, interest, and learning profile.

My purpose in this study was to evaluate one teacher’s use of differentiated instruction through her regular classroom activity in the context of her own classroom over the course of several weeks. I strived to understand how Miss Lindsey believed she was using differentiated instruction, how she intentionally and unintentionally implemented differentiated instruction, and how this coincided with my observations and interpretations of her use of differentiated instruction. This research served as a way for me to learn from Miss Lindsey and understand how she utilizes differentiated instruction in her own classroom and ethnography allowed me to interpret the collected data through my own point of view. I viewed the classroom setting from my own contextualized point of view; allowing me to analyze and synthesize this classroom teacher’s use of differentiated instruction with my own thoughts, experiences, and knowledge of differentiated instruction. Ethnography seemed the ideal qualitative research method for this study; as I learned from another person, observed the happenings of that person or program in
their natural setting, and attempted to understand what was happening in this situation or environment. Ethnography considers the highly contextualized findings of my data collection.

Conclusions

The purpose of this study was to qualitatively examine effective and attainable instruction methods that utilize differentiated instruction to meet the needs of all students. The research question for the study read: How can a regular education classroom teacher utilize differentiated instruction to meet the diverse needs (student readiness, ability levels, interests and learning styles) of all students simultaneously?

To successfully answer the research question of this study hallmarks of a differentiated classroom were used to assess and analyze the collected data for a better understanding of the use of differentiated instruction within the context of the observed classroom. The eleven hallmarks of a differentiated classroom (Tomlinson and Eidson, 2003) provided a framework for my data analysis and greatly contributed to my understanding of what a differentiated classroom looks like. Based on an analysis of collected data and evidence discussed in Chapter IV, the observed classroom was found to be representative of a differentiated classroom based on the eleven hallmarks (Tomlinson and Eidson, 2003). Therefore, I conclude Miss Lindsey utilizes differentiated instruction by fulfilling each hallmark of a differentiated classroom.

Assessment and Instruction

Strong evidence to support a strong link between assessment and instruction (Hallmark #1) was discovered through data analysis. Miss Lindsey tracks students’ individual progress throughout the year through the use of her Data Binder. She also implements continuous and frequent formative assessments to better understand students’ abilities and performance levels
Miss Lindsey incorporates flexible and purposeful assessments into her lesson plans and provides leveled summative assessments, consisting of multiple question formats to ensure every student is challenged to meet their highest potential. Open-ended and flexible projects, such as the Social Studies monument project, are frequent opportunities for students' to convey their knowledge and comprehension in a meaningful and complimentary manner (Anderson, 2007; Broderick et al., 2005; Hall, 2009; Wehrmann, 2000; Lawrence-Brown, 2004; Levy, 2008; and Tomlinson, 2000a). Even assessments completed outside the classroom, like the leveled tic-tac-toe homework charts, support differentiated instruction (Garderen and Whittaker, 2006; Conklin, 2007; and Tomlinson, 1999b). Miss Lindsey’s classroom represents and supports a differentiated curriculum in regards to the first hallmark; there is a strong link between assessment and instruction.

**Clear Learning Goals**

Support for clearly stated learning goals (Hallmark #2) was demonstrated throughout the collected data. Miss Lindsey makes multiple attempts to convey learning goals and unit objectives to students. By visually posting learning goals, beginning each lesson by inviting a student to read the objective aloud, and posting educational objectives on summative tests, Miss Lindsey’s students are surrounded by clearly stated learning goals specific to academic content areas and units. Personal goals for students’ yearly progress are also clearly presented by Miss Lindsey in relation to standardized assessments. Students know what they are expected to learn and why they are learning it. The direct and clear statement of learning goals always allows for a meaningful curriculum. Analysis of the collected data revealed evidence to support Miss Lindsey’s
demonstration of the second hallmark; the teacher is clear about learning goals (Tomlinson and Eidson, 2003; and Tomlinson, 2000c).

Flexible Student Grouping

Miss Lindsey’s classroom supports all aspects of the third hallmark of a differentiated classroom; the teacher groups students flexibly. Students are given multiple opportunities each day to work individually, in small-groups, or through whole-class instruction. Miss Lindsey utilizes assessments to recognize individual students’ need and takes advantage of workshop time to work one-on-one with students; promoting individual growth and progress while remaining students’ work collaboratively at learning stations (Arquette, 2006; Hall, 2009; and Brimfield et al., 2002). A variety of grouping strategies are utilized, ensuring students have “opportunities to interact in meaningful ways with a wide range of peers,” (Tomlinson and Eidson, 2003; Tomlinson, 1999; Tomlinson 2000c; Garderen and Whittaker, 2006; George, 2005; Hall. 2009; Conklin, 2007; and Brimfield et al., 2002). Miss Lindsey ensures flexible student grouping by forming groups based on: similar ability levels, mixed ability levels, similar student interest, various student interest, homogeneous learning styles and preferences, heterogeneous learning styles and preferences; random assignment; and student choice. The interactive and collaborative nature of Miss Lindsey’s classroom represents a significant component of differentiation; flexible student grouping (Hallmark #3).

Flexible Use of Time, Space, and Materials

Miss Lindsey demonstrates a successful representation of hallmark four (flexible use of time, space, and materials) in a number of ways (Tomlinson and Eidson, 2003). Flexible use of time is represented by the additional time students are provided to finish tests and in-class work
Miss Lindsey uses space flexibly by continuously rearranging the classroom to better suit the functionality of a lesson and meet students’ needs; by allowing students to move around the room or presenting opportunities for them to be active during instruction; and by allowing students to choose their location in the room for small group activities (Garderen and Whittaker, 2006; and Tomlinson, 2000c). Finally, Miss Lindsey implements a flexible use of materials by incorporating a number of materials into her instructional activities; providing a variety of materials to suit students’ different learning styles and preferences; and ensuring students understand knowledge can come from a number of materials ( mediums) (Tomlinson, 2000c). The successfulness of Miss Lindsey’s classroom is largely in part of her flexibility with time, space, and materials.

**Students Understand the Nature of the Classroom**

There are many opportunities for students to contribute to the classroom’s operation (i.e., student helpers, establishing classroom rules and guidelines for social interactions, and assisting peers in learning) in Miss Lindsey’s classroom (Tomlinson, 2000c; and Conklin, 2007). Opportunities for the students to be the teacher and their awareness of the use of differentiation in their classroom also contribute to a better understanding of the nature of the classroom and becoming active partners in the success of the room. Miss Lindsey does, indeed, involve her students in understanding the nature of the classroom and making it work for everyone (Hallmark #5).

**Emphasis on Individual Student Growth**

Miss Lindsey emphasized the use of differentiated instruction in her classroom is not meant to single students out and make them feel uncomfortable; they are all able to work at their
level (Formal Teacher Interview). By utilizing individual assessments, providing appropriate
resources to students, and encouraging students to meet individual goals and compete against
themselves by setting challenging goals (Levy, 2008; Garderen and Whittaker, 2006; George, 2005;
Hall, 2009; Wehrmann, 2000; Conklin, 2007; Tomlinson, 1999a; and Tomlinson, 2000c), Miss
Lindsey’s classroom demonstrates the sixth hallmark; the teacher emphasizes individual growth as
central to the success of the classroom (Tomlinson and Eidson, 2003).

“Respectable” Work and “A Way Up” not “A Way Out”

Hallmark seven; the teacher works to ensure that all students have “respectful” work, and
hallmark eight; the teacher makes sure differentiation is always “a way up,” never “a way out,” were
evident after an analysis of collected data. Every student should feel as though the curriculum in
their classroom is for them; students should not be repeatedly provided with work that is too easy
or too challenging. Miss Lindsey ensures each student has a curriculum complimentary of their
ability level, readiness level, and learning profile. Through the use of leveled work and ability-level
groups, student choice in products, and adequate scaffolding for struggling learners, Miss Lindsey
ensures all students have “respectable” work (Tomlinson, 2000c; Brimfield et al., 2002; Garderen
and Whittaker, 2006; Conklin, 2007; Wehrmann, 2000; Hall, 2009; and George, 2005). Miss
Lindsey also demonstrates support for students’ learning potential by continuously challenging
students with more challenging work; in which she assesses they are competent of completing.

Teacher and Students Have High Expectations

Miss Lindsey is a highly dedicated teacher; always challenging herself to be better and
ensuring her students gain knowledge. Through her encouragement and support of students
(Levy, 2008; and George, 2005), her dedication to her teaching position, and her willingness and
attempt to seek the advice and suggestions of others, Miss Lindsey successfully demonstrates the ninth hallmark; the teacher sets her own sights high, just as she asks her students to set their sights high (Tomlinson and Eidson, 2003; and Broderick et al., 2005).

Teacher Seeks Specialist’s Active Partnership

By utilizing synergistic relationships with school specialists and support staff, Miss Lindsey demonstrates the tenth hallmark of a differentiated classroom; the teacher seeks specialists’ active partnership in her classroom (Tomlinson and Eidson, 2003). Miss Lindsey welcomes assistance from the special education teacher, reading specialist, and math specialist to better educate her students and gain an understanding of how to better meet their individual needs (Tomlinson, 2000c).

Differentiation is Proactive

The eleventh, and final, hallmark of a differentiated classroom as identified by Tomlinson and Eidson (2003) states, “the teacher’s differentiation is largely proactive rather than reactive,” (p. 9). After analyzing the formal interview with Miss Lindsey, it became apparent her teaching is largely proactive of differentiation. Miss Lindsey’s educational and professional understanding of differentiated instruction, her awareness of students’ needs, and the way she purposefully implements differentiated instruction into her teaching to address all students’ needs (Broderick et al., 2005; Hall, 2009; Conklin, 2007; Cox, 2008; and Tomlinson 1999a). “Effective differentiation rests upon purposeful planning for student variance, with improvisation as needed,” (Tomlinson and Eidson, 2003, p. 9). Miss Lindsey proved to be providing effective differentiation and utilizing improvisation as needed, supporting the eleventh hallmark; the teacher’s differentiation is largely proactive rather than reactive.
To conclude, differentiated instruction was implemented in the observed second grade classroom in many ways. Through the many examples and evidentiary situations analyzed, Miss Lindsey utilizes differentiation. Differentiated instruction can be utilized by demonstrating each of the eleven hallmarks of a differentiated classroom (Tomlinson and Eidson, 2003).

Discussion

This research proved to be entirely beneficial in helping me to understand the task, process, and challenges of implementing differentiated instruction. Miss Lindsey proved to be a wonderful teacher, making active attempts to differentiate and create an educational experience effective for all of her students. However, there are several aspects of this classroom and the use of differentiated instruction I would like to discuss.

Typical of many elementary classrooms, Miss Lindsey’s daily class schedule focuses heavily on math and literacy (Appendix F). Only forty-five minutes of the school day is allotted for Social Studies and/or Science. Most days, only one of these two subjects is taught. Fortunately, Miss Lindsey does appear to teach a highly integrated curriculum. Students often study Social Studies or Science content through literacy. However, these two subjects are not assigned objectives when integrated and students may be unaware of an academic standard they are expected to learn. Another positive characteristic of the limited Social Studies and Science curriculum is the tendency to be hands-on, experiential learning experiences. Miss Lindsey maintains a upbeat approach to teaching Social Studies and Science, which is clearly adapted by the students. Despite hands-on learning opportunities, flexible student grouping, and frequent use of open-ended, reflective products, these two subjects are not highly differentiated. This seems an ideal chance to incorporate inquiry-based learning opportunities and independent study projects (Hall, 2009;
Wehrmann, 2000; Conklin, 2007; Tomlinson, 1999a; and Tomlinson, 2000b) in support of a more differentiated curriculum.

The process of implementing differentiated instruction is challenging and requires a significant amount of time and dedication on behalf of educators, however, the success of our students and our careers should be well worth the cost. Many teaching and instructional strategies to implement differentiated instruction have been discussed throughout this research; both in the review of literature and in the data analysis. The use of best practice teaching methods and a contextualized curriculum are essential to creating a classroom supportive of differentiated instruction. Differentiated instruction is considered an effective method for catering to all students and “promotes equity and excellence by focusing on best-practice instruction in mixed ability classrooms,” (Tomlinson, 2000a, p. 25). The power of creating a curriculum with each student’s differences in mind is endless. When all students feel as though they are understood by their learning environment and are given opportunities to relate to the content in real, relevant, and meaningful ways, they are also given opportunities to learn.

Perhaps the strongest concern I’ve developed, as a result of this research, includes the future educational experiences for students in differentiated classrooms. According to Levy (2008), differentiated instruction consists of a variety of teaching strategies designed to meet individual students at their level as they begin the year and move them “forward as far as possible on their educational path” (p. 162). Differentiated instruction is not about getting all students to comprehend the same norm-based standards and end at the same point. Every student in a differentiated classroom strives to make individual growth. At the end of a school year, students are still performing at a variety of levels, possessing a variety of background knowledge and
experience with content, and learning at varying speeds; just as they were at the beginning.

Therefore, it is absolutely imperative that all educators make a commitment to differentiate if students’ needs are to be truly met. Students cannot be acceptably accomplishing individual goals one year and expected to enter the next classroom at the same level with the same background knowledge as their peers. One key challenge of differentiated instruction lies in the need for continuation, from one year to the next, throughout the educational experience of students.

Overall, differentiation is a tremendous amount of work. Both the teacher and the students in a differentiated classroom must work harder; devote more time; put forth more effort; and dedicate themselves to creating an effective learning environment. Although the task of differentiating instruction appears overwhelming, educators must make an active commitment to creating a successful curriculum. It is vital to remain willing to engage in reflective practices and lifelong learning. At some point, we must realize the success and achievement of our students is worth the work differentiating requires.

Implications

It was my hope to produce findings helpful to current teachers, pre-service teachers, and teacher preparation programs. Understanding how to utilize differentiated instruction to meet the diverse needs of students could lead to a more effective curriculum for many students.

For Teachers

As teachers face the challenge of meeting a diverse set of students’ needs in the regular education classroom, a sense of incapability may surface. However, by implementing differentiated instruction as an integral part of their classroom structure, curriculum planning, and teaching philosophy, this task may become attainable. This study attempts to help teachers better
understand teaching strategies and guidelines to support differentiation. By providing a detailed analysis of how one teacher illustrates differentiated instruction in her own classroom, current teachers may gain a more comprehensive understanding of how to do so in their own.

For Pre-Service Teachers and Teacher Preparation Programs

As a pre-service teacher myself, having competed two highly reputable teacher-preparation programs, I am still overwhelmed with the task of meeting all students’ unique needs in the classroom. The pressures of a teacher to design a curriculum supportive of inclusion are tremendous; yet undeniably important for students’ success. In my experiences, differentiated instruction as a theory or concept is highly understood by pre-service teachers and conveyed in teacher preparation programs. However, providing a sense of how to differentiate or illustrating what a differentiated classroom might look like seems to be overlooked.

By conducting this research, I hoped to provide pre-service teachers, as well as teacher preparation programs with a more vivid and applicable sense of differentiated instruction as a means of meeting students’ diverse needs. In addition to the detailed analysis of one teacher’s use of differentiation; I would encourage pre-service teachers to immerse themselves in real classrooms to observe the use of differentiation first-hand. I would also encourage teacher preparation programs to continue making field experiences an essential part to their academic programs and looking for ways to demonstrate differentiation through their own instructors’ curriculum and teaching.

For Future Research

Through the process of this research, I have developed several recommendations for future research. First, future research should involve a continuation of this study or similar ones;
examining the use of differentiated instruction in classrooms. This study intentionally only used one classroom, as it was my goal to provide a detailed description of how differentiation was implemented in this setting. Additional classrooms, grade levels, and teachers should be observed to further understand the implementation of differentiated instruction.

Additionally, I found it difficult initially to locate literature discussing the effect differentiated instruction has on student performance or academic achievement. Many studies have been done to advocate the success of components of differentiation on student learning (i.e., Multiple Intelligences, Scaffolding/Zone of Proximal Development, Collaborative Learning). There are also case studies describing the successful operation of classrooms utilizing differentiated instruction. Several studies focus on how differentiated has impacted the proficiency and literacy levels of students but neglect to confirm the effect differentiated instruction has on academic performance across the curriculum. There does not seem to be a sufficient amount of supporting research to explain how a school’s or classroom’s performance and academic achievement level was impacted by the use of differentiated instruction. Future research should focus on how the use of differentiation, as a whole, has impacted student performance and academic achievement.

Summary

The purpose of this research was to reflect on and analyze the actual implementation of differentiated instruction, by a single classroom teacher, in a regular education classroom. The purpose of this study was to qualitatively examine effective and attainable instruction methods that utilize differentiated instruction to meet the needs of all students. The research question this study attempted to answer read: How can a regular education classroom teacher utilize
differentiated instruction to meet the diverse needs (student readiness, ability levels, interests, and learning styles) of all students simultaneously?

The qualitative research method ethnography was utilized during this study. A second grade teacher, Miss Lindsey, served as the sole participant for this study. The setting for the collection of data included the charter school in which Miss Lindsey is employed; specifically, her second grade classroom. Data was collected in three forms: participant-observation field notes, a formal interview with the classroom teacher, and a collection of lesson plans and supplemental activities and worksheets representing the planned use of differentiated instruction in the classroom. This data was then analyzed for significant findings using a set of pre-determined assertions: eleven hallmarks of a differentiated classroom (Tomlinson and Eidson, 2003). Evidence to support each hallmark, as discussed in this chapter, illustrated how differentiation was utilized, or implemented, in the observed classroom. The observed, regular education, classroom was found to be representative of a differentiated classroom based on Miss Lindsey's ability to demonstrate and support each of the eleven hallmarks.
REFERENCES


APPENDIX A.

PARTICIPANT RECRUITMENT E-MAIL
[E-mail Recruitment]

Dear ____________________,

I am beginning work on my Masters Thesis for the completion of my degree in Curriculum in Teaching at Bowling Green State University. This thesis study plans to study the use of differentiated instruction in a regular education classroom. The purpose of the study is to analyze and examine effective, attainable instructional activities and teaching methods that support the use of differentiated instruction in an attempt to meet the diverse needs of all students.

I am recruiting you, as a classroom teacher in a regular education classroom, as a possible participant for this research. The research will consist of an interview between the two of us, a collection of several lesson plans and supplemental worksheets/activities, and a series of visits to your classroom so I may observe your use of differentiated instruction in regular classroom teaching and daily teaching.

I have more detailed information regarding the nature of this data collection and the purpose of this study we can discuss before a formal consent to participate is made. In the meantime, do you agree to consider participation in this study?

Thank you for your time and consideration,

Brittany Bettin
reamb@bgsu.edu
APPENDIX B.

FORMAL INFORMATION LETTER FOR RESEARCH STUDY
Informed Consent

For Research Participants: Teacher

This letter is an invitation to participate in a research study. As a graduate student in the School of Teaching and Learning (Curriculum and Teaching) at Bowling Green State University, I am currently conducting research under the supervision of Dr. Huziak-Clark, Dr. Fischer, and Dr. Ballone-Duran on the implementation and use of differentiated instruction in an inclusive, regular education classroom.

Study Overview

This study aims to gather qualitative data in an attempt to better understand implementations strategies utilizing differentiated instruction. The purpose of this study aims to discover how a single classroom teacher can simultaneously meet the needs of all students in a regular education classroom by using attainable, effective teaching strategies implementing differentiated instruction.

The potential benefit of this study provides readers (i.e., practicing classroom teachers, future educators) with a view and an understanding of effective and attainable use of differentiated instruction in a regular education classroom. By understanding how to utilize differentiated instruction in their classrooms; educators will be better equipped to meet the diverse needs of their students and providing opportunities for success in the classroom.

Three forms of data will be collected. An interview with the classroom teacher will be conducted, audio recorded, transcribed, and analyzed. Extensive observation of the teacher’s classroom will be carried out using an observation form. Detailed observation notes will be analyzed and synthesized by the researcher. Finally, the teacher’s lesson plans and samples of worksheets and classroom activities will be collected for exploration of differentiated instruction.

The data source will focus on the teacher’s use of differentiated instruction in his/her classroom and reflect on the attempt to meet diverse student needs, abilities, and profiles. This research will serve as the basis for my masters thesis. I would like to invite you to participate in a survey and in-person interview.

Your Involvement

The interview includes questions about your understanding of and use of differentiated instruction. These questions aim to uncover your use of differentiated instruction in your
planning and instruction. You will be provided with the interview questions in advance. We will arrange this interview at a time that is convenient for you, such as before school and last about 30 minutes. To ensure the accuracy of your input, I would ask your permission to audio record the interview. If you agree to participate, I will also spend numerous hours in your classroom observing your teaching and taking detailed notes explaining your implementation of differentiated instruction. I will visit your classroom twice a week for three weeks in three hour increments. You will also be asked to provide copies of your lesson plans and blank worksheets/activities you use for your students which represent differentiated instruction.

Participation in this research study is entirely voluntary and there are no anticipated risks. Your decision to decline participation will in no way impact your relationship to this institution or your job status. You may decline to answer any of the questions you do not wish to answer. Further, you may decide to withdraw from this study at any time, without any negative consequences, simply by letting me know your decision.

If any of the information collected is used in this thesis, pseudonyms will be implemented to ensure your confidentiality. Your name and the name of your organization will not appear. After the data have been analyzed, if you should be interested in a copy of the thesis, it can be made available to you.

Contact Information

If you have any questions regarding this study, or would like additional information about participation, please contact me at 330.317.0591 or by email at reamb@bgsu.edu. You can also contact my advisor, Dr. Tracy Huziak-Clark by telephone at 419.372.7363.

Thank you in advance for your interest and assistance with this research.

Brittany Bettin
APPENDIX C.

CONSENT LETTER FOR RESEARCH STUDY
CONSENT FORM

I have read the information presented in the information letter about research being conducted by Brittany Bettin, a masters student at Bowling Green State University. I have had an opportunity to ask any questions related to this study, to receive satisfactory answers to my questions, and any additional details I wanted.

I have been informed what information is to be collected and the process of doing so.

I have been informed that I may withdraw my consent at any time without penalty by advising the researcher.

I have also been informed I may contact the Chair, Human Subjects Review Board, Bowling Green State University, (419) 372-7716, if any problems or concerns arise during the course of the study.

I ___________________________________________ give my consent to participate in this research to assist Brittany Bettin in the collection of data for a master’s thesis requirement at Bowling Green State University.

Signature (Participant): ___________________________ Date: ___________________________
APPENDIX D.

Participant-Observation Field Notes Protocol
<table>
<thead>
<tr>
<th>Observation Point of Reference: Use of Differentiated Instruction</th>
<th>Observation Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Flexibility of Content:</strong></td>
<td></td>
</tr>
<tr>
<td>Leveled Work, Differentiating Content for various ability levels, Etc.</td>
<td></td>
</tr>
<tr>
<td><strong>Flexibility of Process:</strong></td>
<td></td>
</tr>
<tr>
<td>Providing multiple ways to complete an activity, Lesson appeals to multiple learning styles and learning preferences, Flexible/Varied grouping techniques, Consideration of student interests/backgrounds, Etc.</td>
<td></td>
</tr>
<tr>
<td><strong>Flexibility of Product:</strong></td>
<td></td>
</tr>
<tr>
<td>Students have choice in their assessment strategy, Multiple products are accepted and encouraged, Assessments and products are varied to meet the diverse needs/preferences of students, Etc.</td>
<td></td>
</tr>
<tr>
<td>OBSERVATION TEACHER</td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Purposefully and Intentionally Implements Differentiated Instruction</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Awareness of Student Needs, Abilities, Interests, Learning Preferences, Backgrounds, Etc.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Uses Multiple Teaching Strategies/Best Practice Methods of Instruction to Support Differentiated Instruction</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Understands the Importance of Meeting ALL Students Needs</td>
<td></td>
</tr>
</tbody>
</table>
Lesson Summary(s):

Specific Teacher Quotes:

Additional Notes:
APPENDIX E.

Formal Teacher Interview Questions
INTERVIEW QUESTIONS
Classroom Teacher

Statement of Purpose:

The purpose of this study is to examine effective and attainable instruction methods that utilize differentiated instruction to meet the diverse needs of all students.

Critical Questions:

1. How would you describe the main characteristics of differentiated instruction?
2. Do you use differentiated instruction in your classroom?
3. Do you strive to meet the needs of all your students simultaneously in every lesson?

Interview Questions:

1. How would you describe the variety of needs (background, achievement level, learning styles, culturally, linguistically, etc.) presented in your classroom by your students?
2. Is there a similar academic performance level among the majority of your students?
3. Do any students in your class present unique needs that you must accommodate to? Do you have a teaching assistant or special education teacher to help with this?
4. How familiar are you with differentiated instruction? Have you completed any formal training, taken and classes, or attended and meetings/workshops about differentiated instruction?
5. Do you feel this instruction method is an effective way to support inclusion in the classroom?
6. What aspects of differentiated instruction do you use? (i.e., small group work, various assessments, tiered lessons, etc.)
7. When planning your lessons, how do you intentionally use differentiated instruction to meet the needs of all students?
8. When teaching your lessons, do you unintentionally use differentiated instruction that will meet the needs of all students? If so, how?
9. There are three main aspects to differentiated instruction: flexibility of content, process, and product. Do you attempt to differentiated instruction according to each of these aspects? How?
10. Are there other ways (besides differentiated instruction) that you attempt to create an environment where all students are equally engaged?
11. If a teacher is faced with the challenge of effectively engaging all of his/her students simultaneously, what techniques might you suggest they try?
APPENDIX F.

Daily Classroom Schedule
<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:55</td>
<td>Morning Activities</td>
</tr>
<tr>
<td>8:15</td>
<td>Extended Response</td>
</tr>
<tr>
<td>8:45</td>
<td>Calendar</td>
</tr>
<tr>
<td>9:00</td>
<td>Restroom Break</td>
</tr>
<tr>
<td>9:10</td>
<td>Math Journal/Timed Test</td>
</tr>
<tr>
<td>9:20</td>
<td>Math</td>
</tr>
<tr>
<td>10:05</td>
<td>Phonics/Vocab/Spelling</td>
</tr>
<tr>
<td>10:25</td>
<td>Reading</td>
</tr>
<tr>
<td>11:15</td>
<td>Lunch</td>
</tr>
<tr>
<td>11:40</td>
<td>Restroom Break</td>
</tr>
<tr>
<td>11:50</td>
<td>Read Aloud Chapter Book</td>
</tr>
<tr>
<td>12:00</td>
<td>Recess</td>
</tr>
<tr>
<td>12:15</td>
<td>Language Arts</td>
</tr>
<tr>
<td>12:45</td>
<td>Workshop (Stations)</td>
</tr>
<tr>
<td>1:15</td>
<td>Handwriting/Journal</td>
</tr>
<tr>
<td>1:45</td>
<td>Science/Social Studies</td>
</tr>
<tr>
<td>2:30</td>
<td>Pack-up/End of the Day Routine</td>
</tr>
<tr>
<td>2:40</td>
<td>Specials</td>
</tr>
<tr>
<td>3:10</td>
<td>Dismissal</td>
</tr>
</tbody>
</table>
APPENDIX G.

Math Unit Plan
### Math Unit Plans

**Teacher:** Maurer/McConnell/Simon  
**Grade:** 2nd

**Measurement Topic:** Probability  
**Educational Objective:**
- Predicting and recording results of simple probability experiments  
- Describing events as likely, unlikely, or impossible

<table>
<thead>
<tr>
<th>Week of:</th>
<th></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Date</th>
<th>Mini Lesson-Whole Group</th>
<th>Opportunity Group 1</th>
<th>Opportunity Group 2</th>
<th>Opportunity Group 3</th>
<th>Vocabulary</th>
<th>Assessment</th>
<th>Instructional Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day 1</td>
<td>Chapter 5 Lesson 1 Complete more and less likely activity with markers or other objects. Compass 20249 Lab pg. 97</td>
<td>B: More Likely and Less likely outcomes activity</td>
<td>B: More Likely and Less likely outcomes activity</td>
<td>Write their own activity using four (2) items and write their own questions and answers.</td>
<td>More likely Less Likely Outcomes Certain Uncertain Tally Impossible possible</td>
<td>AsO AdO</td>
<td>I can predict and record results of simple probability experiments.</td>
</tr>
<tr>
<td>Day 2</td>
<td>Review more and less likely</td>
<td>Probability pups game discussion after game and use whiteboards for responses.</td>
<td>Probability pups game discussion after game and use whiteboards for responses.</td>
<td>Spinning for Gold Activity</td>
<td>More likely Less Likely Outcomes Certain Uncertain Tally Impossible possible</td>
<td>AsO AdO ScO</td>
<td>I can predict and record results of simple probability experiments.</td>
</tr>
<tr>
<td>Day 3</td>
<td>Introduce certain, mostly likely, least likely, possible, impossible with compass 20149</td>
<td>Jumpin’ Jelly Beans! Probability p. 131-132 “Math Skills Workout”</td>
<td>Bags of Beans</td>
<td>Bags of Beans</td>
<td>More likely Less Likely Outcomes Certain Uncertain Tally Impossible possible</td>
<td>AsO</td>
<td>I can describe events as likely, unlikely, or impossible</td>
</tr>
</tbody>
</table>

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127
<table>
<thead>
<tr>
<th>Day 4</th>
<th>Review Day</th>
<th>Pondering Animals with charts</th>
<th>What's the outcome</th>
<th>Spin to Win</th>
<th>More likely Outcomes Certain Uncertain Tally Impossible possible</th>
<th>ScO</th>
<th>AsO</th>
<th>I can describe events as likely, unlikely, or impossible</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Assessment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Key:
Adjustment Opportunity: AdO
Direct Instruction: DI
Assessment Opportunity: AsO
Grouping/Differentiation: G/D
Scoring Opportunity: ScO
Reteaching: R
I can describe events as likely, unlikely, or impossible
I can predict and record results of simple probability experiments.
APPENDIX H.

Sample Summative Assessment for Reading:

Low Level
1. Whose point of view is the story being told by?
   o a. Papa
   o b. James
   o c. Lettie

2. What is the author’s purpose in A Place Called Freedom?
   o a. to explain where Indiana is
   o b. to show how to find directions
   o c. to tell about a family who were once slaves

3. What is the author’s purpose of the following sentence?
   “Papa told stories that made the shadows dance.”
   o a. to persuade
   o b. to inform
   o c. to entertain

4. Tell what the author’s purpose of the following sentence is.
   “Hearing about our settlement, black people arrived from all
   over the South.”
   ____________________________________________________________

5. What was the main reason so many slaves went to Indiana in the
   story?
   ____________________________________________________________

6. What object did Papa compare the Big Dipper to?
   ____________________________________________________________
7. Which of the following events happened first in the story?
   o a. The family followed the Big Dipper.
   o b. The Starmans named their settlement Freedom.
   o c. The master of the house freed James' family.

8. Which of the following events happened last in the story?
   o a. The family followed the Big Dipper.
   o b. The Starmans named their settlement Freedom.
   o c. A Quaker family took the Starmans into their home in Indiana

9. What is a plantation mostly like?
   o a. a hospital
   o b. a bed
   o c. a large farm

10. What would be a synonym for sturdy be?
    o a. weak
    o b. strong
    o c. small
APPENDIX I.

Sample Summative Assessment for Reading:

Middle Level
1. Whose point of view is the story being told by?
   o a. Papa
   o b. James
   o c. Lettie

2. What is the author’s purpose in *A Place Called Freedom*?
   o a. to explain where Indiana is
   o b. to show how to find directions
   o c. to tell about a family who were once slaves

3. What is the author’s purpose of the following sentence?
   “Papa told stories that made the shadows dance.”
   o a. to persuade
   o b. to inform
   o c. to entertain

4. Tell what the author’s purpose of the following sentence is.
   “A fisherman with a face as wrinkled as an old boot carried us over the water in his boat.”

5. Tell what the author’s purpose of the following sentence is.
   “Hearing about our settlement, black people arrived from all over the South.”
6. What was the main reason so many slaves went to Indiana in the story?

7. What object did Papa compare the Big Dipper to?

8. Number the following events from the story in proper order from 1-4.
   ____ The family began to follow the Big Dipper.
   ____ A Quaker family took the Starmans into their home in Indiana.
   ____ The master of the house freed James’ family in the Spring of 1832.
   ____ The Starmans named their settlement Freedom.

9. This sentence is from the reading selection.
   “Down in Tennessee, on the **plantation**, where I was born, Mama worked in the big house and Papa worked in the fields.”

   A **plantation** is most like what in this sentence?
   - a. a hospital
   - b. a bed
   - c. a large farm

10. This sentence is from the reading selection.
    “Before winter, Paper and Mama built us a **sturdy** cabin.”

   What would be a synonym for **sturdy** in this sentence?
   - a. weak
   - b. strong
   - c. small
APPENDIX J.

Sample Summative Assessment for Reading:

Challenge Level
Unit 6: Lesson 2- Challenge Test
A Place Called Freedom

1. Whose point of view is the story being told by?
   - a. Papa
   - b. James
   - c. Lettie

2. What is the author’s purpose in A Place Called Freedom?
   - a. to explain where Indiana is
   - b. to show how to find directions
   - c. to tell about a family who were once slaves

3. What is the author’s purpose of the following sentence?
   “Papa told stories that made the shadows dance.”
   - a. to persuade
   - b. to inform
   - c. to entertain

4. Tell what the author’s purpose of the following sentence is and explain why.
   “Hearing about our settlement, black people arrived from all over the South.”

5. Tell what the author’s purpose of the following sentence is and explain why.
   “A fisherman with a face as wrinkled as an old boot carried us over the water in his boat.”
6. What was the main reason so many slaves went to Indiana in the story?

________________________________________________________________________

7. What object did Papa compare the Big Dipper to?

________________________________________________________________________

8. Number the following events from the story in proper order from 1-5.
   ____ Papa went home to Tennessee and brought more people back to Indiana.
   ____ The family began to follow the Big Dipper.
   ____ A Quaker family took the Starmans into their home in Indiana.
   ____ The master of the house freed James’ family in the Spring of 1832.
   ____ The Starmans named their settlement Freedom.

9. This sentence is from the reading selection.
   “Down in Tennessee, on the plantatión, where I was born, Mama worked in the big house and Papa worked in the fields.”

   A plantatión is most like what in this sentence?
   o a. a hospital
   o b. a bed
   o c. a large farm

10. This sentence is from the reading selection.
    “Before winter, Paper and Mama built us a sturdy cabin.”

    What would be a synonym for sturdy in this sentence?
    o a. weak
    o b. strong
    o c. small
APPENDIX K.

Tic-Tac-Toe Homework Board
Tic-Tac-Toe Homework

Name: ____________________________  Week of: May 3rd

Note: If you do not get a bag book sent home, then use another story. Sometimes I do not have parent volunteers to trade in books so books do not get passed back. **Definitions:**

Obtuse angle ❏

<table>
<thead>
<tr>
<th>Math</th>
<th>A</th>
<th>Math</th>
<th>B</th>
<th>Math</th>
<th>C</th>
<th>Reading</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete the attached sheet.</td>
<td>Draw 9 pictures using obtuse, acute, and right angles.</td>
<td>Use the study guide to study for your math test on Thursday.</td>
<td>Use the main characters of the story, the setting, problem, 2 events, and a solution of the story</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Reading</th>
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<th>Math</th>
<th>F</th>
<th>Math</th>
<th>G</th>
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<th>H</th>
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<tbody>
<tr>
<td>Write the main idea of your story</td>
<td>Use the study guide to study for your math test on Thursday.</td>
<td>Draw 9 pictures using obtuse, acute, and right angles.</td>
<td>Complete attached sheet.</td>
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<table>
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<th>J</th>
<th>Reading</th>
<th>K</th>
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<tbody>
<tr>
<td>Draw 9 pictures using obtuse, acute, and right angles.</td>
<td>Complete attached sheet.</td>
<td>Draw a picture about your story and write 5 sentences describing your picture.</td>
<td>Use the study guide to study for your math test on Thursday.</td>
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<th>Reading</th>
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<th>Math</th>
<th>O</th>
<th>Math</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use the study guide to study for your math test on Thursday.</td>
<td>Make a list of 10 contractions and 10 plural nouns.</td>
<td>Complete attached sheet.</td>
<td>Draw 9 pictures using obtuse, acute, and right angles.</td>
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</tbody>
</table>
APPENDIX L.

Sample Summative Assessment for Math
Name: ____________________________  Grade: 2
# ___ Date: ______________________  Measurement Topic: Multiplication and Division

Educational Objective:
- Represent multiplication in multiple ways: repeated addition, arrays, area models, tables, patterns

**Directions:** Use each drawing to complete a multiplication sentence. **Circle each intersection.** Write its sentence, and find its product.

1.  
   __________
   __________
   __________
   __________
   ___ X ___ = ___

2.  
   __________
   __________
   __________
   __________
   ___ X ___ = ___

3.  
   __________
   __________
   __________
   __________
   ___ X ___ = ___

4.  
   __________
   __________
   __________
   __________
   ___ X ___ = ___

5.  
   __________
   __________
   __________
   __________
   ___ X ___ = ___

6.  
   __________
   __________
   __________
   __________
   ___ X ___ = ___

7. \((8+8+8+8+8+8)\)  8. \((4+4+4+4+4+4)\)  9. \((9+9+9)\)
   ___ X ___ = ___  ___ X ___ = ___  ___ X ___ = ___

10. \((7+7+7+7)\)  11. \((5+5+5+5+5+5)\)  12. \((1+1+1+1+1+1)\)
    ___ X ___ = ___  ___ X ___ = ___  ___ X ___ = ___

Educational Objective:
- Represent multiplication in multiple ways: repeated addition, arrays, area models, tables, patterns

**Directions:** Use each repeated addition sentence to write a multiplication sentence. Then find its product.

7. \((8+8+8+8+8+8+8)\)  8. \((4+4+4+4+4+4+4)\)  9. \((9+9+9)\)
   ___ X ___ = ___  ___ X ___ = ___  ___ X ___ = ___

10. \((7+7+7+7)\)  11. \((5+5+5+5+5+5)\)  12. \((1+1+1+1+1+1)\)
    ___ X ___ = ___  ___ X ___ = ___  ___ X ___ = ___
Educational Objective:
- Represent multiplication in multiple ways: repeated addition, arrays, area models, tables, patterns

Directions: Use each array to write a multiplication sentence and find its product.

15.  
\[
\begin{array}{c}
\star \star \star \star \\
\star \star \star \star \\
\star \star \star \star \\
\end{array}
\]
\[\_ \times \_ = \_\]

16.  
\[
\begin{array}{c}
\heartsuit \heartsuit \heartsuit \heartsuit \\
\heartsuit \heartsuit \heartsuit \heartsuit \\
\heartsuit \heartsuit \heartsuit \heartsuit \\
\end{array}
\]
\[\_ \times \_ = \_\]

17.  
\[
\begin{array}{c}
\times \times \times \times \\
\times \times \times \times \\
\end{array}
\]
\[\_ \times \_ = \_\]

18.  
\[
\begin{array}{c}
\bigplus \bigplus \bigplus \bigplus \\
\bigplus \bigplus \bigplus \bigplus \\
\bigplus \bigplus \bigplus \bigplus \\
\bigplus \bigplus \bigplus \bigplus \\
\bigplus \bigplus \bigplus \bigplus \\
\end{array}
\]
\[\_ \times \_ = \_\]

Educational Objective:
- Multiply numbers up to 5x5

19.  
\[3.0 \quad \begin{array}{c}
4 \times 4
\end{array}\]

20.  
\[3 \times 5\]

21.  
\[2 \times 8\]

22.  
\[4.0 \quad \begin{array}{c}
30 \times 4
\end{array}\]

23.  
\[25 \times 6\]
APPENDIX M.

Reader's Theatre Text for

Low Level Ability Group
Animals, Animals

Levels: E, H, and K

Word Count: 458

Adapted by Jan Mader from a Reading A-Z Multilevel book

Images: Public domain/courtesy of Francis Morgan

Story Summary:

You may have seen a hippo in a zoo, but did you know that it has no hair? Animals, Animals is about some of the many fascinating animals in our world. Each page describes interesting facts and brings the wonderful world of animals to the reader. Detailed pictures enhance the text.

<table>
<thead>
<tr>
<th>Level E</th>
<th>Level H</th>
<th>Level K</th>
</tr>
</thead>
<tbody>
<tr>
<td>Narrator 1</td>
<td>Student 2</td>
<td>Mrs. Cook</td>
</tr>
<tr>
<td>Student 2</td>
<td>Student 3</td>
<td>Narrator 2</td>
</tr>
<tr>
<td></td>
<td>Student 4</td>
<td>Narrator 3</td>
</tr>
</tbody>
</table>

Using the Scripts:

- Each role is assigned a reading level according to the syntactic and semantic difficulty encountered in the matching level of the multilevel book set. Feel free to divide roles further to include more readers in a group.
- Discuss vocabulary and encourage readers to practice their lines to promote fluent delivery of the script.
- Have readers highlight their lines on the scripts, and encourage them to follow along as everyone reads, paying special attention to the roles associated with icons similar to their own.

Vocabulary:

High-frequency words: are, can, have, many, of, other, they

Content words: camel(s), elephant(s), elk, fox, giraffe(s), hippopotamus, kangaroos, leopard(s), polar bears, zebras

Assessment

Monitor students to determine if they can:

- consistently read their lines with appropriate rate and accuracy
- consistently read their lines with appropriate expression, including pause, inflection, and intonation
- follow along silently and listen for spoken cues

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Cast of Characters:

<table>
<thead>
<tr>
<th>Parts</th>
<th>Parts</th>
<th>Parts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Narrator 1</td>
<td>Student 2</td>
<td>Mrs. Cook</td>
</tr>
<tr>
<td>Student 1</td>
<td>Student 3</td>
<td>Narrator 2</td>
</tr>
<tr>
<td></td>
<td>Student 4</td>
<td>Narrator 3</td>
</tr>
</tbody>
</table>

**Narrator 1:**
Do you want to learn about animals?
Mrs. Cook’s class can tell you a lot.
Let’s listen!

**Mrs. Cook:**
What mammal is in the deer family?
Look at some pictures on the wall to help you.

**Student 1:**
Elk are in the deer family.

**Student 2:**
They have huge antlers.
They can run really fast and are good swimmers, too!
Narrator 1:
Mrs. Cook nodded yes and gave a thumbs up.

Mrs. Cook:
What animal has a very long neck?
Hint: It can eat from the tallest trees!

Student 3:
A giraffe has a long neck.
It has spots all over its body and horns on its head!

Student 4:
Some giraffes live in the woods.
I know they live somewhere else, too.

Mrs. Cook:
You are right!
Some giraffes live on savannas.
Now let’s talk about the largest land animal alive.
What is it?

Student 3:
An elephant of course!
It has a long trunk.
It has ivory tusks, too.
Narrator 2:
Mrs. Cook said that wild elephants live in grasslands.
She said they also live in forests.

Mrs. Cook:
Let’s talk about snow leopards.
Tell me what you know!

Student 4:
Snow leopards live on cold mountains.
They have thick fur.
They eat wild goats and sheep.
They hunt for other animals, too.

Student 1:
Can we talk about camels now?
Look at the picture of this one.

Student 2:
It has a long winter coat, and its hump
stands straight up!
Camels live in hot and cold deserts.
Student 3:
When they are well fed their humps stand up.
When they have not eaten their humps fall over
to one side.

Narrator 3:
Mrs. Cook asked her class to tell her about a mammal
that was like a dog.
She told them it lived in a burrow.

Student 1:
It’s a fox!

Student 2:
Dogs like to be together, but foxes like to hunt alone.
They eat small animals and insects.
They eat fruit and eggs, too.

Mrs. Cook:
Tell me about a mammal that is like a horse.

Student 4:
Zebras have black and white stripes and manes that
stand straight up on their necks!
Zebras live in grasslands.
Narrator 2:
Mrs. Cook began to ask about kangaroos.

Student 4:
Kangaroos hop with their strong back legs.

Student 2:
The mother kangaroo carries her babies in her pouch!
Kangaroos like to eat grass and other plants.

Narrator 3:
Mrs. Cook held up a picture of a hippopotamus.

Student 3:
Hippos have almost no hair on their bodies.
They like to eat grass.
They eat water plants, too.

Student 4:
A hippo can breathe and see when it is in the water.
It sticks its eyes and nose out!
Hippos spend a lot of time in the water.

Mrs. Cook:
Who can tell me about polar bears?
Student 1:
Polar bears live in cold places.
They have very thick fur to stay warm.

Student 2:
Polar bears eat seals, walruses, birds, and fish.

Mrs. Cook
You are all super kids!
What would you like to read about when we go to the library?

All: Animals! Animals!
APPENDIX N.

Reader's Theatre Text for

Middle Level Ability Group
A Reader’s Theater Script

Adapted by Kitty Higgins

Word Count: 685

Cast:
Henny Penny
Cocky Locky
Ducky Lucky
Goosey Loosey
Turkey Lurkey
Foxy Loxy
Narrator: Sets the scene

Henny Penny:
What a beautiful day it is. I think I’ll scratch for worms in the yard. That nice shady spot under the giant oak tree sure looks nice.

Narrator:
An acorn falls from the giant oak tree and bonks Henny Penny on the head.

Henny Penny:
Owie! Ouch! What was that? Who’s there?

Narrator:
Henny Penny does not see the fallen acorn on the ground. It has rolled under a nearby bush. Nor does she see anyone around, so she looks up towards the sky to see what has fallen on her head.

Henny Penny:
Oh! No! The sky must be falling, I must find something sturdy to cover my head and go and warn the town.
**Narrator:**
Henny Penny rushes to warn the townspeople. On the way, she finds an old rusty pot that has been thrown in the yard and puts it on her head like a hat.

**Cocky Locky:**
For goodness sake, what’s all the fuss about? Where are you going in such a hurry, Henny Penny?

**Henny Penny:**
The sky is falling and a piece has hit me right on my noggin. Find something sturdy to cover your head, and come with me to tell the townsfolk.

**Narrator:**
Cocky Locky finds an old, cracked teacup and puts it on like a baseball cap.

**Ducky Lucky:**
Well, if that isn’t the silliest looking hat I’ve ever seen, Cocky Locky! Now you really don’t need a comb! Get it? A comb, like the one on your head? Ha Ha!

**Cocky Locky:**
This wasn’t my idea! It was that old Henny Penny who thinks the sky is falling. She told me to cover my head and join her in warning the town.

**Ducky Lucky:**
Henny Penny does have a big lump on the top of her head. Why else would she have that lump? I’m not taking any chances.
Narrator:
Ducky Lucky is quick to find an old copper pot by the side of the road and he hurriedly secures it to his head.

Henny Penny:
Come on everyone, keep your heads covered, and we will go into town to warn everyone.

Goosey Loosey:
Hey, what’s going on? A parade? Can I come?

Narrator:
Goosey Loosey empties the water from a wooden pail and puts it on her head like a bonnet.

Turkey Lurkey:
What is this I hear about the sky falling? And where are you guys going?

Henny Penny:
Quick, Turkey Lurkey, the sky is falling, cover your head and come with us to warn everyone.

Narrator:
Turkey Lurkey finds a crumpled paper bag and puts it on his head. It’s too big and he keeps having to push it back up.

Turkey Lurkey:
This better not be a joke!
Ducky Lucky:
That bag isn’t going to keep the sky from hitting your head, it’s too flimsy.

Narrator:
Turkey Lurkey looks around for a better hat.

Turkey Lurkey:
This old boot should do the trick.

Narrator:
Turkey Lurkey turns the boot upside down and places it on his head. Everyone is so busy covering their heads and looking up in the sky that they don’t notice that Foxy Loxy has sauntered out onto the road.

Foxy Loxy:
Well, well, what do we have here?

Henny Penny:
We haven’t time for you right now, Foxy Loxy, the sky is falling, and we must go warn the town. They’re in danger.

Foxy Loxy:
Why don’t you all come with me, and I will show you a shortcut to the town.

Ducky Lucky:
It’s not a bad idea, guys. If we go the regular way we may not arrive in time, and the sky will fall, and we’ll all have knots on our noodles.
Turkey Lurkey:
   All right, but no tricks, Foxy Loxy.

Narrator:
   They aren’t on the path long when...  

Foxy Loxy:
   You all must be thirsty, let’s stop and have a drink!
   My den is just off this path.

All the barn animals:
   You tricked us!

Narrator:
   Just then Foxy Loxy lunges at the barnyard animals.
   They all turn and run as fast as they can back to the
   farm—pots, pans, pails, and sacks flying everywhere.

Henny Penny:
   Whew! That was close!

Narrator:
   They all sit down to rest in a shady spot under a
   giant oak tree.

Turkey Lurkey:
   Hey! What’s this? It’s an acorn! I’ll bet this is what
   hit you on the head.

Henny Penny:
   Oh, my! You’re probably right, I’m so sorry. But at
   least we are all safe!
APPENDIX O.

Reader’s Theatre Text for

High Level Ability Group
ALADDIN AND THE MAGIC LAMP LEVEL R

A Reader’s Theater Script
A tale from the Arabian Nights
Adapted by Jeffrey B. Fuerst
Word Count: 1074

Characters:
Narrator 1
Narrator 2
Aladdin
Mother
Aballa
Princess
Blue Genie
Green Genie

Narrator 1:
This story takes place long ago in a desert kingdom in Persia. A clever, but lazy boy named Aladdin spent his time playing games in the marketplace when he should have been in school.

Narrator 2:
One day in the marketplace, a stranger approached Aladdin.

Aballa:
Aladdin! I am your long-lost uncle! I know it has been hard on you and your poor mother since your father passed away. I have come to help. Let me show you a secret place filled with the treasures of a thousand genies.

Aladdin:
Yes! We’re going to be rich. Let’s surprise Mom.
Narrator 1:
Aladdin and his uncle walked miles through the desert.
At sunset, they reached a rocky area far from the city.

Narrator 2:
The uncle waved his hand, saying magic words. A huge door with a large, iron ring in its center rose from the ground.

Aladdin:
Awesome!

Aballa:
I am a magician. But only a brave child can go through this magic door. At the bottom of the stairs you will find an old brass lamp. Put out its flame. Then bring it back to me.

Aladdin:
No problem, Uncle.

Aballa:
But do not touch anything else along the way. That will anger the genies. The cave will close on you.

Aladdin:
*That* could be a problem. . .

Aballa:
Wear my magic ring. It will protect you.

Narrator 1:
Aladdin went down the long, winding staircase, passing chests of gold and silver. Finally, he found the lamp.
Narrator 2:
On the way back, hunger struck Aladdin. He picked a shiny jewel-like fruit hanging from one of the underground trees. Immediately, the stairs began to shake.

Aladdin:
Uncle, help!

Aballa:
You foolish boy. Hurry and throw me the lamp. Hurry!

Aladdin:
This lamp? Since it means more to you than my safety, I think I will keep it!

Aballa:
You are a bigger fool than I thought.

Narrator 2:
With another wave of his hand, Aballa vanished. The door disappeared! Aladdin was trapped in a cold, dark cave.

Aladdin:
Now I’ve done it. If I ever get out of here, I promise to make something of myself.

Narrator 1:
Aladdin rubbed his hands to stay warm. As he did so, he rubbed the magic ring. A blue beam of light shot forth, turning into a little blue Genie.

Blue Genie:
I am the Genie of the Ring. What do you wish from me?
Aladdin:
Get me out of here!

Narrator 2:
In a bright blue flash, Aladdin was freed from the cave. He walked many miles back home carrying the lamp.

Narrator 1:
Aladdin’s mother was very happy to see her son alive. But she was sad to learn that Uncle Aballa was an evil magician who tried to trick her son.

Mother:
Now we have nothing to eat and no money.

Aladdin:
We have this old lamp. Maybe if I polish it, we can sell it.

Narrator 2:
Aladdin rubbed the lamp. A cloud of green smoke filled the room. When it cleared, a large green Genie stood in front of Aladdin and his mother.

Green Genie:
I am the Genie of the Lamp. Your wish is my command.

Aladdin:
Wow! You’re bigger than the Blue Genie.

Green Genie:
I work out. Whenever I get out of the lamp, that is.

Mother:
I wish for food and clothing.
Aladdin:
And a palace. You deserve the best, Ma!

Green Genie:
Alakazam! You are now as rich as a prince, with the most amazing palace in the land.

Mother:
A prince! Now all you need is a princess.

Aladdin:
No way, I’m not getting married.

Mother:
Bosh! And you’re going to have lots of children.

Narrator 1:
As it turns out, Aladdin’s mother was right. Aladdin fell in love with the King’s daughter. She fell in love with Aladdin, too. When the King saw Aladdin’s amazing palace, he agreed to a royal wedding.

Narrator 2:
What a wedding it was! It lasted 40 days. News of the amazing party and palace traveled to where Aballa was hiding.

Aballa:
Only the Genie of the Lamp could have created such a palace. That foolish Aladdin must have escaped with the magic lamp. But I will get it back.

Narrator 1:
Aballa returned to town disguised as a lamp seller.
Narrator 2
One day, while Aladdin and the King were out hunting and the Princess was home in the palace, a lamp seller arrived at the palace.

Aballa:
Trade in your old lamps for new ones! One-day-only sale!

Princess:
Aladdin loves lamps. I’ll trade this old brass lamp for a shiny new one.

Aballa:
Excellent choice.

Narrator 1:
The Princess didn’t know the secret of Aladdin’s lamp and she traded it to the evil magician.

Narrator 2
Before you could say, “Abracadabra,” Aballa rubbed the magic lamp and the Green Genie appeared.

Green Genie:
Yes, master. . . Hey, you’re not Aladdin.

Aballa:
But I am your master. I order you to send this amazing palace back to my country, along with me and the Princess.

Green Genie:
I’ll do it, but I won’t like it. Alakazam!

Princess:
No!
Narrator 1:
When the cloud of green smoke cleared, the palace, the princess, the lamp, and Aballa were gone.

Narrator 2:
When Aladdin comes back from hunting and found out what had happened, he cried to his mother.

Mother:
Rub away those tears, my son. You will find the Princess and save her.

Aladdin:
Yes, Mother.

Narrator 2:
Aladdin rubbed away his tears. By chance, he also rubbed his magic ring, which he had forgotten all about.

Blue Genie:
You called for me, Master?

Aladdin:
I did? I did! Yes. I wish for you to bring the Princess back to me.

Blue Genie:
If only I could. I am not powerful enough to break the spell of the Genie of the Lamp.

Aladdin:
He is buff.
Blue Genie:
But I can take you to the Princess. Shazam!

Narrator 1:
A blue light flashed, whisking Aladdin away to the evil magician’s land.

Narrator 2:
While Aballa slept, Aladdin met the Princess outside the amazing palace. Together, they made a plan to get rid of the evil magician.

Aladdin:
First, you must pretend to love him.

Princess:
Yuck!

Aladdin:
Then kiss him.

Princess:
Double yuck.

Aladdin:
Then agree to marry him.

Princess:
I can’t do that!

Aladdin:
You won’t have to. When it is time to drink a toast to celebrate the marriage, give him this. It is filled with sleeping powder.
Princess:
That I *can* do!

Narrator 2:
Aladdin’s plan worked perfectly.

Aballa: *(snoring loudly)*

**ZZZZ!**

Narrator 2:
While Aballa slept, the Princess grabbed the lamp. Aladdin called up the Green Genie.

**Green Genie:** *(at first, unhappy, then seeing that it is Aladdin, not Aballa, he is happy)*

Your wish is my command – and pleasure! Alakazam, zam, zam!

Narrator 2:
Aladdin, the Princess, the lamp, and the Palace returned to their home. The evil magician was banished to a foreign country — so far away there were no maps. Now, he really is “long lost.”

Narrator 1
And just as Aladdin’s Mother predicted, Aladdin and the Princess had lots of grandchildren for her to kiss and hug.

**Aladdin, Princess, Mother**
And we lived happily ever after!
APPENDIX P.

Spelling Worksheet for

Low Level
Directions: Use the words in the “Word Bank” to complete the sentences.

Word Bank: trail, pail, wait, cane, say, fake, safe, stay, way, snake, flake, stain, plain, stray, trace

1. They used a __________ to pick up sand on the beach.

2. I can’t _______ for the birthday party!

3. He used a __________ to help him walk.

4. Will you help me ________ the alphabet?

5. She walked the __________ through the forest.

1. Which ________ is quicker to get to the store?

2. The scary __________ hissed at me.

3. Please __________ in your basement during a tornado.

4. Something that is not real is __________.

5. It is not __________ to talk to strangers.

1. I like my ice cream __________ with nothing on it.

2. There was a __________ cat roaming around in my front yard.

3. I got a __________ on my shirt when I dropped food on it.

4. I saw only one __________ of snow falling from the sky.

5. Will you help me __________ the picture onto the paper?
APPENDIX Q.

Spelling Worksheet for

Middle Level
Name: ____________________________  #  Date: ____________________________

Unit 3 Week 1 Spelling Word Preview

Across
3. not having a pattern
6. a path marked through a forest
8. to wander from a group
9. a path; street
10. a spot
11. not real

Down
1. a walking stick
2. free from harm
3. a round container with a handle
4. a small, thin piece
5. bring to a stop
7. to copy by following over the lines
8. to express in words
9. to stay in a place
10. reptile with no legs

Across
stain trail stray
plain fake way

Down
pail safe stay
flake wait say
cane trace snake
APPENDIX R.

Spelling Worksheet for

Challenge Level
Name: __________________________ Date: __________________________

Unit 3 Week 2 Challenge Spelling Preview

Across
2. to stretch out
4. a pointed piece of metal for knitting
7. to force out a loud breath
8. a drink made from roasted seeds
9. to talk

Down
1. the wife of a king
3. to escape by accident
5. gloomy
6. to make happy
7. to yell out

please   coffee
scream   sneeze
reach    queen
dreary    speak
leaking   needle

Directions: Write a sentence for each of the following spelling words. Draw a box around the word.

1. happy: __________________________________________________________

2. dream: __________________________________________________________

3. these: __________________________________________________________

4. steal: __________________________________________________________

5. treat: __________________________________________________________