

TEACHER PERCEPTION ON DIFFERENTIATED INSTRUCTION AND ITS
INFLUENCE ON INSTRUCTIONAL PRACTICE

By

JACQUELYN ANN BURKETT

Bachelor of Science in Early Childhood Education
University of Central Oklahoma
Edmond, Oklahoma
1994

Master of Education in Educational Administration
University of Central Oklahoma
Edmond, Oklahoma
2001

Submitted to the Faculty of the
Graduate College of
Oklahoma State University
in partial fulfillment of
the requirements for
the Degree of
DOCTOR OF PHILOSOPHY
May, 2013

TEACHER PERCEPTION ON DIFFERENTIATED
INSTRUCTION AND ITS INFLUENCE ON
INSTRUCTIONAL PRACTICE

Dissertation Approved:

Dr. David Yellin

Dissertation Adviser

Dr. Alice Giacobbe

Dr. Qiuying Wang

Dr. Guoping Zhao

Jacquelyn Ann Burkett

MAY, 2013

TEACHER PERCEPTION ON DIFFERENTIATED INSTRUCTION AND ITS
INFLUENCE ON INSTRUCTIONAL PRACTICE

Master of Education in Educational Administration

Abstract:

Differentiated Instruction is an approach to teaching which meets the diverse academic needs of students by considering learner readiness, interest and learning style. The approach is grounded in the socio-cultural, multiple intelligence and learning style theories. In addition, differentiation is a research based method for meeting the expectations of No Child Left Behind to raise the achievement of all students. Although current literature describes how to best implement differentiated instruction, there is a lack of research describing teacher perceptions on implementing the approach (Subban, 2006; Hall, Strangman, & Meyer, 2003). Thus, it is helpful to examine how teachers understand and perceive the influence of differentiation on instructional practices. The present study utilized the qualitative method of phenomenology to explore teacher perceptions connected to differentiated instruction and the influence of these on instructional practice. The study interviewed 11 intermediate elementary school teachers using interview questions to promote conversational dialogue. The interview questions afforded teachers opportunities to share their thoughts, feelings, and experiences pertaining to differentiated instruction. Data analysis revealed the following themes: 1.) Differentiated instruction is essential in an effective classroom, 2.) differentiated instruction occurs naturally, 3.) in-service professional development influences differentiated instruction, 4.) early schooling influences differentiated instruction, 5.) pre-service professional development influences differentiated instruction, 6.) differentiated instruction is prevalent and 7.) classroom environment conducive to learning. In addition the study found that teachers used the following differentiated instructional strategies: flexible grouping, tiered lessons, literature circles, and curriculum compacting. Consequently, this study supports differentiated instruction as an approach to learning while highlighting the influence of professional development on teachers' use of differentiated instruction.

TABLE OF CONTENTS

Chapter	Page
I. INTRODUCTON	1
Statement of the Problem.....	5
Nature of the Study	6
Research Question	7
Purpose of the Study	7
Theoretical Framework.....	8
Sociocultural Theory.....	8
Multiple Intelligence Theory	9
Brain-Based Learning	11
Definition of Terms.....	12
Scope, Assumptions, Limitations and Delimitations.....	14
Significance of the Study	15
Summary.....	16
II. REVIEW OF LITERATURE.....	17
Introduction.....	17
Efficacy of Differentiated Instruction.....	18
Related Research Studies.....	24
The Differentiated Instruction Approach.....	29
Learning Environment	31
Teacher Responsibility.....	32
Student Characteristics.....	34
Elements of Differentiated Instruction.....	37
Assessments	38
Flexible Grouping	41
Differentiated Instructional Strategies	42
Curriculum Compacting.....	42
Tiered Assignments	43
Learning Contracts.....	43
Learning Centers.....	44
Literature Circles	44
Summary.....	45
III. METHODOLOGY	46
Introduction.....	46

Research Design and Method	46
Qualitative Method	46
Phenomenology.....	47
Appropriateness of Design.....	47
Research Question	48
Ethical Procedures	49
Population, Setting and Sample	50
Data Collection	52
Validity and Reliability.....	53
Data Analysis	54
The Epoche	54
Phenomenological Reduction	55
Imaginative Variation	56
Synthesis	57
Summary.....	57
 IV. RESULTS	 58
Introduction.....	58
Data Collection Procedures.....	58
Data Analysis	60
Findings	62
Participant Background Information.....	63
Summary.....	82
 V. STUDY OVERVIEW, CONCLUSIONS, and RECOMMENDATIONS.....	 84
Overview of Study	84
Conclusions.....	85
Recommendations.....	95
 REFERENCES	 98
 APPENDICES	 108
Appendix A Institutional Review Board Approval	108
Appendix B Interview Protocol/Questions	109

LIST OF TABLES

Participant Background Information.....63

CHAPTER I

INTRODUCTION TO THE STUDY

Today's student population is rapidly becoming more culturally, linguistically, ethnically, and economically diverse. Educators of today face considerable challenges meeting the requirements of standards-based reform and the needs of all learners in the classroom. Coupled with the rise in student diversity is a disproportionate achievement gap between mainstream and diverse learners. According to *The Nations Report Card* (NAEP, 2008), there is a considerable gap between White and Asian students and African American, Latino and all students from poverty. The report references that by eighth grade there is a 3 year gap, then by 12th grade, poor and minority students are approximately 4 years behind. Urban schools, which serve high numbers of students from diverse populations, face greater disparity (Voltz & Fore, 2006).

In addition to differences between the previously mentioned groups, research reflects there are significant gaps in achievement for students who are disabled. Thurlow, Moen, & Altman, (2006) found that roughly only 30% of students on Individual Education Plans (IEPs) met proficiency levels on state mandated reading and math tests. According to Rock, Greg, Ellis and Gable, (2008) there are more than 6 million children on IEPs, which equates to over 4 million students lacking proficiency in critical subjects.

This academic divide is of great concern to the United States Educational System (USDE, 2002).

In an effort to close the gap, the No Child Left Behind, (NCLB) Act of 2001, called for educators to raise student achievement as measured by mandated standardized tests. Districts and schools face penalties when schools fail to make Average Yearly Progress (AYP). Schools not making AYP for two years in a row are required to construct a plan of improvement, offer tutoring to failing students, and provide the option for students to transfer to another school within that district (NCLB, 2001). Such an accountability system places considerable pressure on teachers in urban schools which are highly populated with disadvantaged racial and ethnic groups and more likely than suburban schools to have failing students (Gamoran, 2007).

Charged with the responsibility of raising student achievement, many states have responded by adopting curriculum standards with the goal of increasing student performance (Stecher, 2003). Thus, teachers are expected to adhere to high stakes accountability standards while effectively meeting the individual needs and strengths of varied learners (McTighe & Brown, 2005). Although the standards comprise the goals established for students, how teachers reach these can vary (Levy, 2008). NCLB also requires teachers to implement scientifically-based instructional strategies although it holds schools responsible for finding and implementing these as it continues to hold high expectations for student achievement (Hyun, 2003). Consequently, there is a need for an effective instructional approach to assist teachers in meeting curricula and standards demands while attending to the learning needs of all students. The differentiated instructional approach is such a framework (Lawrence-Brown, 2004; Tomlinson, 2000b).

Differentiated instruction is regarded as an effective teaching tool to meet the diverse academic needs of learners (Anderson, 2007; Tomlinson, 2004a). Research demonstrates that when students are in responsive classrooms where they are viewed as individuals and their learning is supported, their attitudes and academic success improves (Ryan & Cooper, 2007).

Several researchers have focused on the topic of differentiation (Gregory & Chapman, 2007; Gregory & Kuzmich, 2004; Heacox, 2002). Carol Ann Tomlinson, an expert on differentiation, has written a plethora of articles and books on the approach (Tomlinson, 1999; 2000a; 2001; 2003a; 2003b; Tomlinson & Alan, 2000; Tomlinson & Kalbfleisch, 1998; Tomlinson & Dockerman, 2002). Tomlinson, (2000b) posits that differentiated instruction is a philosophy about teaching and learning based on the following beliefs:

- Students who are the same age differ in their readiness to learn, their interests, styles of learning, their experiences and their life circumstances.
- 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.
- Students will learn best when supportive adults push them slightly beyond where they can work without assistance.
- Students will learn best when they can make a connection between the curriculum and their interests and life experiences.
- Students will learn best when learning opportunities are natural.

- Students are more effective learners when classrooms and schools create a sense of community in which students feel significant and respected.
- The central job of schools is to maximize the capacity of each student (p. 7).

Differentiated instruction challenges the traditional way of teaching. In the differentiated classroom student variance is embraced and student learning is increased by responsive teaching (Tomlinson & Kalbfleisch, 1998; Tomlinson & Allan, 2000). Differentiated instruction is based on the premise that no two students are alike, and therefore should be provided with many opportunities for conceptualizing information and making sense of ideas. Much focus is placed on the student as an individual, not only what he/she needs to be successful but what the student brings to the learning opportunity. Researchers Gregory & Kuzmich (2004) ascertain that differentiated instruction is a philosophy which teachers the world over embrace to meet the diverse learning needs of students. They add that “students don’t all learn the same thing on the same day in the same way” (p. 2). Tomlinson (1999) contends, “teachers in the differentiated classroom do not reach for standardized, mass-produced instruction assumed to be a good fit for all students because they recognize that all students are individuals” (p. 2). Rather, differentiated instruction assists teachers to effectively teach to the content standards while meeting the needs of all learners. Within the model, teachers assume a flexible approach to teaching and modifying curriculum along with how it is presented, instead of expecting students to modify themselves (Hall, Strangman, & Meyer, 2003). The approach encompasses modifying the content, process, product, and learning environment for each learner while

considering the readiness, interest, and learning profile of each individual (Tomlinson, 1999).

Teachers of today's classrooms have similar challenges as did those in one-room schoolhouses of years ago. Teachers contend with how to effectively meet the learning needs of students who range in learning readiness, interests and cultural views and experiences (Tomlinson & Dockerman, 2002). Differentiated instruction is not new as it is based on best practice in education (Heacox, 2002). The approach offers educators an effective model based on the belief that all students can learn, with strategies which can be used discriminatingly and purposefully based on the standards, the content and the needs of the learner.

Statement of the Problem

Growing numbers of nontraditional students are currently being funneled into schools causing teachers to be charged with levels of academic diversity that have been unheard of until recently (VanSciver, 2005). Similarly, Darling-Hammond (1998) claims, "In response to the increasingly complex society and a rapidly changing, technology-based economy, schools are being asked to educate the most diverse student body in our history to higher academic standards than ever before" (p. 7). As is evidenced across the literature, the "one size-fits-all" approach to teaching no longer meets the diverse needs of today's learners. In contrast, differentiated instruction benefits all students by focusing on essential skills and ideas in content areas, responding to individual learner variance, and integrating assessment with instruction (Tomlinson, 1999, 2001; Tomlinson & Kalbfleisch, 1998; Tomlinson & Mc Tighe, Gregory & Chapman, 2007, Heacox, 2002). Within the approach all learners profit from a variety of instructional methods and

scaffolds combined with an appropriate balance of challenging instruction and successful learning opportunities (Lawrence & Brown, 2004). Moreover, the environment in a differentiated classroom is one of high regard for students' diverse abilities (Pettig, 2000; Tobin, 2008; Tomlinson, 1999). Differentiated instruction as a framework has the capability of assisting schools in providing all learners with maximum opportunity to fully succeed in school, thereby meeting the NCLB (2001) requirements.

Although differentiated instruction is widely recommended (Rock, Ellis, Greg & Gable, 2008; Lawrence-Brown, 2004), implementing the approach is complex and not without difficulty (Tomlinson, 1999). Some literature reports the challenges teachers have encountered using differentiated instruction (Tomlinson, 1995; Tomlinson, Moon and Callahan, 1998), and more recent research explores teachers perceptions of the approach (Moon, Callahan, Tomlinson, and Miller, 2002; Affolder, 2003; Robison, 2004; Thompson, 2009). However, most of the literature on differentiated instruction defines the approach, or explains the process and procedures for teaching it. Consequently, the problem is that the approach lacks empirical support (Subban, 2006; Hall, Strangman, & Meyer, 2003; Tomlinson, 1999). As a result, there exists a decided gap in the literature concerning the perception of elementary teachers regarding differentiated instruction and how teacher experience with the approach influences instructional practice. Therefore, a phenomenological study on this topic is warranted and will serve the research community as it decreases the present gap in the literature regarding differentiated instruction.

Nature of the Study

Qualitative methods assist the researcher seeking to gain a deeper understanding of a central phenomenon (Patton, 2002). Using a phenomenological method enables the researcher to gain a clear understanding of the lived or actual experiences of teachers in the differentiated elementary classroom (Moustakas, 1994). As such, this study employed a phenomenological approach with the goal of identifying grade 3,4 & 5 teachers' perceptions of differentiated instruction and illustrating differentiated instructional strategies teachers use to accommodate the diverse learning needs of students. The current study encompasses interviews with 11 elementary school teachers from an eastern Missouri school district.

Research Question

This study was guided by the following research question:

How do upper elementary teachers in grades 3, 4, and 5 perceive the influence of differentiation on instructional practice?

Purpose of Study

The purpose of the present study is to acknowledge and illustrate how teachers perceive the influence of differentiated instruction on teaching practice. This study further supports differentiated instruction as an approach to learning that has the ability to positively impact the varied academic needs of all learners. As teachers are not usually afforded the opportunity to reflect on their experiences regarding teaching, an additional outcome of this study is that it provided teachers with an opportunity to do this. Consequently, teacher perception offers insight into upper elementary teachers' views on differentiated instruction and its influence on instructional practice.

Theoretical Framework

Learners differ in many ways, such as appearance, learning styles, multiple intelligence, previous experience, individual preference and social/emotional development (Gregory & Chapman, 2004). The goal of the differentiated classroom is to meet student needs in each of these areas. Consequently, there are a variety of learning theories which are applicable within differentiated instruction (Garderen & Whittaker, 2006). Differentiated instruction is grounded in the socio-cultural theory, multiple intelligences theory and brain-based learning theory. Each of these will be described.

Socio-cultural Theory

The approach of differentiated instruction is held by the socio-cultural learning theory which is based on the work of Russian psychologist Lev Vygotsky (1962, 1978). The socio-cultural learning theory holds that the previous experiences and culture of the learner are critical because these influence the learning process for each individual. It is the background and culture of the learner that frames how he interprets the world, and what he discovers and attains in the process of learning (Wersch, 1997). Consequently, the individual learner must be studied within a particular social and cultural context, as it is within the context of social relations with others that learning takes place. Therefore, social interaction is essential to the development of cognition (Vygotsky, 1962, Wertsch, 1997).

The Zone of Proximal Development (ZPD) is a central proposition of the socio-cultural learning theory. Vygotsky (1962) posits that the ZPD must be acknowledged in order to gain an understanding of the true relationship between learning and development. The ZPD is the level of development where a learner is capable of solving

problems on his own, versus the level where the learner can only solve a problem with assistance from a more knowing other, usually an adult. During instruction a teacher considers the learners' previous development and nudges the student forward, taking care not to go too far. If the learner is pushed out of his/her comfort level without an appropriate amount of guidance and support, the student will not be able to move forward to the ZPD. Vygotsky (1962) recommends that the teacher remain slightly ahead of the students' actual level of development in order to remain within the ZPD. It is in this range that the learner is able to work independently and where new learning takes place. Consequently, the learning process leads the developmental process and learning occurs. Vygotsky (1962) asserts that pre-testing is essential in order to place students in their proper ZPD range. The readiness element of differentiated instruction is linked to this developmental component (Hall, Strangeman & Meyer, 2003). With an awareness of a students' ZPD, the teacher can assess student readiness levels and differentiate instruction according to student need.

Multiple Intelligence Theory

The multiple intelligences, introduced by Howard Gardner in the 1980's, are tools for learning and problem solving (Campbell, Campbell & Dickenson, 2004). Gardner (1983) defines intelligence as "the existence of one or more basic information processing operations or mechanisms which can deal with specific kinds of input (p. 64). He further adds, "each intelligence must be thought of as its own system with its own rules, each operating according to its own procedures and has its own biological bases".

Differentiated instruction aligns well with Gardner's proposition that intelligence is the foundation on which individuals acquire new knowledge (Gardner, 1983, 1993). Gardner

contends that when individuals solve problems, work through crises, and make things which are valued in their culture, they are being intelligent (Gregory & Kuzmich, 2004). Gardner's multiple intelligence theory is based on the belief that all of the human intelligences should be recognized and nurtured as well as all combinations of these (Armstrong, 1994). Within the approach there are eight intelligence categories: verbal-linguistic, logical-mathematical, visual-spatial, bodily-kinesthetic, musical-rhythmic, interpersonal, intrapersonal, and naturalist, (Gardener, 1993).

Many educators are attracted to the multiple intelligence theory, and there is good reason. More students are successful when viewed through the lens of multiple intelligences as teachers offer them different pathways from which to learn. The approach is "child centered", as teachers start by examining how students learn then work to create curriculum, instruction and assessment accordingly (Hoerr, 2002). According to Armstrong (in Thompson, 2009), "The multiple intelligence theory makes its greatest contribution to education by suggesting that teachers need to expand their repertoire of techniques, tools, and strategies beyond the typical linguistic and logical ones predominantly used in U.S. classrooms" (p.6). Additionally, Hoerr (2002) asserts that teachers who implement the multiple intelligence approach are transformed by the experience as they utilize their talents as teachers and feel "like a professional" (p. 1). Tomlinson urges teachers to develop many various intelligences in their students (1999). However, most teachers only utilize the verbal-linguistic and logical-mathematical intelligence (Armstrong, 1994). Gardner posits that although some individuals may prefer one intelligence category, the intelligences complement each other when they are side by

side (1983). In addition to multiple intelligences, brain research plays an important role in the differentiated classroom.

Brain-Based Learning

Although brain research is relatively new, it continues to gain attention for having key implications for teaching and learning (Jensen, 2000; Green, 1999). Universally, educators are noticing how the brain works and creates meaning, and how this knowledge impacts what should be happening in classrooms (Gregory & Chapman, 2007). Brain-based learning has important implications for the differentiated classroom (Tomlinson & Edison, 2003). Research on brain-based learning suggests three broad related concepts that highlight the need for the instructional approach (Tomlinson & Kalbeisch, 1998). First, in order for students to learn they must be in an environment conducive to learning (Tomlinson & Kalbeisch, 1998). Tomlinson & Kalbeisch (1998) maintain that students who feel unaccepted, intimidated or unsafe are unlikely to learn. If a student feels threatened or unsafe they will have a flight or fight response where the adrenalin glands become overloaded and the student focuses on self preservation rather than school work. In contrast, the differentiated classroom provides a safe and non-threatening environment that promotes student learning (Tomlinson & Edison, 2003). Second, students need to be challenged at appropriate levels in order for learning to occur. Similar to Vygotsky's ZPD, it is important to challenge the learner just enough, taking care not to over or under challenge students. If the learner is over challenged he/she will become frustrated and unable to learn (Gregory & Chapman, 2007; Tomlinson, 2005). Further, when an assignment is at the right level of difficulty and challenge, the student has the opportunity to enter what Csikszentmihalyi (as cited in Tomlinson, & Allan, 2000; Gregory &

Chapman, 2007) calls a state of “flow.” In this state the learner is fully engaged in the activity, yet at the same time highly detached from the act of doing it (Csikszentmihalyi, 1997). When teachers plan with student readiness in mind and students are highly interested in the task, the state of flow is likely to occur. In addition to the just right level of challenge, feedback is important for student success because it lets the learner know how he is doing and thus reduces anxiety (Jensen, 1998). Consequently, when anxiety is lessened it lowers the pituitary-adrenal stress response which then makes room for new learning to take place (Jensen, 1998; 2006). Third, the brain needs to create its own understanding of ideas and skills by being presented with the whole (the concept) to part (the facts) so the learner can see the relationship between these and thus connect new information to prior knowledge (Tomlinson & Kalbeisch; 1998, Tomlinson, 1999). Building on prior knowledge is critical, as isolated bits of information disconnected to what a learner already knows and makes sense of are resisted by the brain (Green, 1999). Thus, teachers need to construct many opportunities for students to connect the new with the old (Tomlinson, 1999).

The three concepts of brain-based learning can be presented in a variety of ways depending on student levels of readiness, the needs of the teacher, and the nature of the content being taught (Tomlinson & Kalbfleisch, 1998). The socio-cultural, multiple Intelligence and brain-based learning theories provide a lens through which to view the differentiated classroom and a theoretical framework for the proposed study.

Definition of Terms

For the purposes of the study, the following key terms are defined:

Brain-based learning-A learning theory based on the structure and function of the brain, and the notion that everybody learns (Jensen, 1998).

Curriculum compacting-A strategy consisting of three parts that utilizes pre-assessment with the goal of maximizing student learning time (Tomlinson, 1999).

Differentiated instruction or differentiation-An approach to instruction that has as its focus the varying needs of learners based on students' readiness levels, interests, and learning profile (Tomlinson, 1999).

Flexible grouping-Placing students within the same classroom in various types of groups based on varying interest, ability and readiness levels (Tomlinson, 2001).

Learning profile- The way in which a learner prefers to learn or demonstrate mastery of learning, i.e. a preference for learning rather than ability to learn (Sternberg, 1994).

Literature Circles-A form of flexible grouping based on interest and reading level where students choose books to read, read these, then respond with discussion in groups (Daniels, 2002).

Phenomenology- is the study of the "lived experience" of several individuals concerning a concept or phenomenon (Creswell, 1998, p.51).

Readiness level-The level at which a learner is receptive to learning because it is attainable, being neither too easy nor too difficult (Tomlinson, 1999). It is matching the learner's skill level and understanding to a task (Tomlinson, 2001).

Tiered assignments- Tiered assignments or activities that contain the same essential ideas and skills but are presented at differing levels of complexity,

abstractedness and open-endedness in response to student variance in readiness levels (Tomlinson, 1999; Tomlinson & Edison, 2003).

Title I schools-Schools with high percentages of students from low socioeconomic backgrounds determined by the number of students receiving free or reduced lunches. Title I schools receive additional monies to fund programs and services to meet student needs with the goal of raising the achievement gap for students living in disadvantaged homes (NCLB, 2001).

Scope, Limitations, Delimitations and Assumptions

The scope of the present study consisted of teachers utilizing differentiated instruction in an upper elementary school setting. The student population for the study included students from low socio-economic households. Each of the eight schools where the teacher participants taught were from one large suburban school district. One limitation of this study includes the inability to generalize findings from this study to other elementary school settings due to the demographics and size of the sample, participants' differing backgrounds regarding the approach; and the likelihood of obtaining biased information through interviews. A second limitation is that the school district placed great emphasis on teachers' use of differentiated instruction and professional development provided to support this use. While these attributes are positive, they could be out of the ordinary and unlike most public schools, therefore making this study exceptionally difficult to generalize to other teachers and schools. Further, because the district placed much emphasis on teachers' use of differentiated instruction, participants may have been hesitant to speak openly about challenges associated with implementing the approach.

The delimitations of this study are that it is limited to 11 teacher participants and data collected in 8 elementary schools. The study assumed the teacher participants had professional development on differentiated instruction and had actively practiced the approach. Finally, the present study assumed that the teacher participants illustrated their differentiated teaching practices and depicted how differentiation influenced their instructional practice.

Significance of the Study

This study is important because today's classrooms have become more academically diverse. Thus, there is a great need for teachers to teach responsively with a focus on meeting the needs of all learners (Tomlinson, 1999, 2000b). Teachers are responsible for assisting all students in realizing their potential and making school a place where every student can succeed (Johnsen, 2003). Differentiated instruction is one approach that meets the learning needs of all learners (Anderson, 2007; Tomlinson & Kalbfleisch, 1998; Tomlinson, 1995; 2001).

The present study adds to recent scholarly research on differentiated instruction (Thompson, 2009) thereby promoting the approach. In this study teachers described their thoughts and experiences implementing differentiated instruction, and the influence of these on their classroom practice. Gaining knowledge of teachers' perceptions and experiences of implementing the approach can assist the school or district in providing professional development which could further promote teachers effective use of differentiated instruction. Further, reflecting on their thoughts and experiences of differentiating instruction may positively influence teachers' self efficacy with the approach. Teacher efficacy is extremely important in this age of high standards for all

children. When teachers perceive they can teach students in ways that help them meet high standards there is a greater chance that they will (Protheroe, 2008). Lastly, an important outcome of the current study is that the study has implications for social change because the differentiated instructional approach is an instructional strategy that promotes social change within a school system (Tomlinson & Alan, 2000).

Summary

Differentiated instruction assists teachers in planning strategically in order to meet the diverse needs of learners in today's classrooms to achieve specific standards. Rather than a set of tools, differentiation is a belief system which teachers embrace in order to meet the special needs of every student in the classroom (Gregory & Chapman, 2007). Differentiated instruction is grounded in the socio-cultural theory, multiple intelligences theory and brain-based learning theory. Although there is much literature describing the approach, there exists a lack of research concerning teacher perceptions of differentiation on the influence of instructional practices in the elementary classroom. Consequently, there is a need for further research to study the influence of teacher perceptions on differentiated instructional practices. Following is a literature review of pertinent studies related to the topic of differentiation as well as an in depth exploration of the approach.

CHAPTER II

LITERATURE REVIEW

This literature review demonstrates the efficacy of differentiated instruction as it explores research utilizing the approach. Therefore, it gives evidence of differentiated instruction as having the capability to effectively meet the diverse learning needs of all students. In addition, it explores the literature on teacher perception of differentiation, thereby establishing a need for further research on the approach. The topics included in this review are: discussion of the computer search employed for the review, efficacy of differentiated instruction, related research studies, the differentiated instruction approach, and differentiated instructional strategies.

The title search conducted for this study consisted mainly of the EBSCOhost online research database and Proquest, a comprehensive collection of dissertations and theses. Descriptors used to identify articles were differentiated instruction, differentiation, differentiated instructional strategies and teacher perception of differentiated instruction, teacher perceptions using differentiated instruction. Also employed was Google Scholar, a search engine which indexes scholarly literature. The number of articles and journals utilized for the following review consisted of nearly 50 articles and 40 books in addition to 3 dissertations. These were examined in order to

reach an in depth understanding of differentiated instruction as an approach to teaching and learning as well as to explore previous studies on the approach.

Efficacy of Differentiated Instruction

Several studies suggest the efficacy of differentiated instruction. A recent study was conducted to determine the effects of differentiated curriculum and grouping practice on student achievement in mathematics (Tieso, 2005). The purpose was to investigate the effects of whole class, within-class, and between-class grouping practices and differentiated curriculum combined with flexible grouping. The study participants consisted of 31 teachers who taught either 4th or 5th grade gifted students. Students were administered a pre and post test of a curriculum-based assessment of mathematics then placed in groups of high, middle and low subgroups based on prior knowledge. Teachers and students were randomly assigned to different treatment groups, either the comparison group or low, middle or high groups based on prior knowledge. To ensure fidelity teachers were given a binder with scripted lesson plans, color coded by group levels. There were 3 groups: the comparison group, the revision group and the differentiated group.

Teachers in the comparison group taught straight from the textbook and were asked not to add anything to the lesson. The revision group used lessons created by the researcher, who took out any useless or repetitive content. In this group the curriculum unit was improved with the use of graphic organizers, higher level questioning strategies and critical thinking skills. Both the comparison and revision groups were taught in a whole class setting. For the differentiated group students were pre-assessed to determine their strengths and interests and grouped accordingly. The duration of the treatment was

for 3 weeks, or 16 hours. The results of the study show that students in the revision groups had significantly higher posttest scores than the comparison groups.

Consequently, the author posits that even some modifications to a scripted textbook unit benefit students' learning and this can be accomplished in a whole class setting. In the differentiated curriculum group where teachers implemented various learning strategies and students were grouped according to preferences, results were even more significant. The results of this study demonstrate that students receiving differentiated curriculum experienced significantly higher mathematics achievement than those who did not, and that flexible grouping positively influenced learning (Tieso, 2005).

Baumgartner, Lipowski & Rush (2003), conducted a study of differentiated instruction on the reading achievement of elementary and middle school age students. The problem was that the students struggled in reading and lacked motivation to read. The intervention was implemented in grades 2, 3 and 7 in a suburban school district. The students were from predominantly middle class homes and varied in ethnicity. The duration of the study was nineteen weeks and proved very successful.

Conducive to the differentiated approach, several different assessment tools were utilized to determine student need for improvement in reading. These included: teacher made checklists demonstrating students' reading skills, formal reading assessments of phonemic awareness and reading level, and surveys of student attitude toward reading. Two assessments, the checklist and attitude survey were student centered. Students participated in the construction of the checklist by filling out a form telling what they did before, during and after reading. Based on these responses teachers filled out a strategies

checklist as evidence of reading strategies each student used. The attitude survey included open-ended responses for student input.

Teachers were directly involved in several different components put in place with the goal of raising student achievement in reading. These were as follows: using assessment tools to determine student reading level; constructing lesson plans providing task choices for students; scheduling which accommodated for students self-selected reading; mini-lessons on various areas of reading instruction; checklists for documenting reading strategies; and plans for holding flexible reading groups. Teachers administered pretests for reading levels, phonemic awareness, fluency and students' attitudes toward reading in the first week of the study. The phonemic awareness test and running records were used to place students in flexible groups with adjustments made to meet individual student needs. The students' interests and reading levels were also taken into consideration as they were placed in groups. In addition, student schedules were adjusted to allow for a minimum of 60 minutes per week of self-selected reading. To support this activity they were instructed on how to self select a book that best suited their needs. Library visits were built into the class schedule as they were considered an important component of the intervention. To promote students self-selection of books, the librarian visited classrooms regularly with book recommendations.

Midway through the treatment, students were re-administered assessments on phonemic awareness and reading level. Flexible groups were reconfigured and students were placed into new groups according to the data. In these groups the younger students studied phonemic awareness and decoding skills and the older students worked on

comprehension strategies. Post tests were administered at week 19. In addition to the formal assessments, teachers again asked students to record reading behaviors on an open-ended form converted to a checklist of reading strategies used by the students. The attitude survey was also administered again.

The results of the study evidence the effectiveness of using differentiated instruction to promote reading achievement. Flexible grouping with a focus on reading strategies proved successful, especially in the higher grades. The post data showed that all students increased the number of reading comprehension strategies utilized during reading. In phonemic awareness, the number of students who read over 31 words correctly increased for each grade level with third grade showing the greatest increase. As for reading level, posttests revealed the majority of students at each grade level were reading either at or above grade level after the intervention. Lastly, the student reading attitude survey revealed that the majority of students in each grade level increased in their attitude toward reading. Moreover, the survey indicated that student perception regarding their ability as a reader improved. There was also an increase across all three grade levels in the number of students who said they read at home for fun. The authors conclude that the mini-lessons held during small group instruction were likely to have had an impact on student achievement according to the phonemic awareness and grade level assessments (Baumgartner, Lipowski & Rush, 2003).

In the Rockwood school district in St. Louis, Missouri, educators have addressed meeting the diverse needs of all learners with differentiated instruction since 1995 (McAdamis, 2001). Rockwood is a large district with 18 elementary schools and 22,000

students. It holds a student population that is over 80% white with 15% qualifying for free or reduced lunches.

The process of implementing differentiation began with the school board adopting a policy with the goal of providing an equal education for all learners. To begin with, a plan for professional development to arm teachers with new skills to implement the approach was put in place. Next, a group of teachers were trained in differentiated instruction and peer coaching. The group met five times in the first year, where they learned new instructional strategies and constructed appropriate lessons and activities. After trying the strategies with students in their classrooms, they returned to the group to share these experiences. These teachers then became the “critical mass” (p. 49) as they promoted differentiated instruction in each of their schools. In addition to the initial training, the district offered workshops to teachers and administrators that involved ongoing professional development activities. The implementation of differentiation was supported in various ways. Teachers were supported with release work time to develop units and lessons, study groups were conducted, and teachers engaged in action research with a focus on student achievement. Lastly, each school was required to have some staff development focused on differentiated instruction in their school improvement plan.

McAdamis (2001) reported that although several teachers had difficulty with the board policy in the beginning, most schools currently utilize differentiation on a regular basis. As a result of the district implementing differentiated instruction, student achievement across subjects increased significantly.

One elementary school sought to close the achievement gap for all learners by utilizing differentiated instruction across all grade levels (Beecher, Sweeney, 2008). The

process began when the school examined their strengths and weakness in all areas and gave birth to a school mission encompassing the methods of curriculum enrichment and differentiation. An area of concern was the lack of motivation and connection to the school's curriculum within the students. The underlying goal of the change process was to meet the learning needs of their diverse student population. One way the school sought to do this was to promote student engagement by considering their interests and choices in learning. The curriculum for reading, writing, mathematics and social studies was rewritten to include curriculum enrichment and differentiated instruction. Staff development played an important role in the change process and providing teachers with time was an area of focus. Teachers' utilization of differentiation instruction was supported with teacher training, modeling, coaching, and time for planning. Consequently, many positive changes took place that promoted enrichment curriculum and differentiated instruction.

Teachers created new lessons and units to better need students needs across subjects. For example, in the area of reading instruction they replaced basal readers with *Reader's Workshop* by Fountas & Pinnell, (2001). Reading instruction utilized differentiation with the use of flexible grouping, leveled text, and giving students opportunity to choose texts for independent reading. Student engagement in independent reading was supported by the library and included offering students a wide range of genres, topics and reading levels. The result was that student reading achievement increased as their engagement grew, with students checking out many books from the library and joining book clubs. In the area of writing instruction, the school followed Lucy Calkin's 1994 *Writer's Workshop Model* and developed skills groups held with the

teacher one -n-one. Support staff in the school collaborated with the teacher to provide an inclusion model to scaffold the differentiation of writing in the classroom. Further, writing experts also worked with students as they trained teachers in differentiated writing instruction. In mathematics, experts in the subject trained teachers in providing instruction for math concepts. Teachers then developed units and lessons following a scope and sequence, which gave way to a more concept based approach to math instruction. Differentiated instructional strategies included flexible grouping, small group instruction offering open ended problem solving, and interest based math groups.

The school improvement strategies proved very successful. Student engagement in and attitude toward learning increased as did their achievement on state tests. All groups of students improved significantly in reading, writing and mathematics and the gap between diverse socioeconomic groups decreased (Beecher, Sweeney, 2008).

Each of the previously named studies demonstrates the process several schools undertook for change, how they implemented differentiation and the impact on school achievement. The following section adds to the study with research specific to teacher perception.

Related Research Studies

Recent research has examined teacher perceptions regarding differentiated instruction. This section explores several studies on teacher perception which use varying methods and which demonstrate different perspectives of the approach.

A quantitative research study was conducted which examined middle school teachers and students perceptions on the use of differentiation (Moon, Callahan, Tomlinson, Miller, 2002). Nine schools from four school districts in three states

participated. The schools were located in three urban and one suburban district. Altogether there were close to 1,000 students and 80 teachers in the study. Teachers were administered a 13 page questionnaire which gathered information on teacher background, beliefs about classroom issues, curriculum, instruction and assessment practice. The student questionnaire assessed student perceptions of content area classes and was similar to the teacher questionnaire. On the majority of the answers found on the questionnaire both teachers and students reported a lack of individualized instruction. For example, students reported that in a typical day teachers lectured while they worked alone on drills and the same assignments as other students. Similarly, teachers reported they rarely used flexible grouping and their teaching style was not matched to student learning styles. The study revealed a clear lack of individualized instruction. For example, numerous students reported they had never had an individual conference with their teacher. Teachers reported they seldom held independent studies or had students use learning contracts. Students also reported that they were not allowed to forego an assignment even when the teacher had shown them examples of the lesson and they knew the material (Moon, et al. 2002).

Notably, teachers and students did not concur on all responses. To demonstrate, students believed their interests were seldom or never considered regarding the content or how they learned it. In contrast, teachers perceived student interests were addressed although they also claimed they seldom or never offered disabled or advanced learners the opportunity to make choices in their learning (Moon, et al. 2002).

Using case study method, Affholder (2003) recently investigated the use of differentiated instruction with all learners in general education classrooms. The study was

held in the Blue Valley School District in Kansas. The district began the initiative six years prior and provided support for implementation of differentiated instruction in the manner of: staff development, time and resources, opportunity for collaboration, and shared decision making. Teachers in the study received 15 hours of professional development on differentiated instruction two years prior and the study sought to determine the level of differentiation teachers maintained over time. Data were collected using the Stages of Concern Questionnaire developed by Hall and Hord in 2001 and branching interviews to explore the implementation of differentiated instruction and the factors that supported implementation of the approach. The study explored the perceptions of 26 teachers, 12 administrators, and a school board member using branching interview. From these, 10 teachers of grades K-5 were identified at high levels of use of differentiated instruction, and were administered follow up interviews to gain information on their use of the approach.

In spite of their experience and confidence implementing the approach, all of the teachers expressed concern about using differentiated instruction. One of the greatest concerns teachers held was over the use of time which encompassed several areas. These were: time for lesson planning, preparation, collaborating with others, student contact time and time for instruction. They also expressed the need for support in the manner of ongoing staff development and resources. Data revealed the teachers also had concerns over the practicality of implementing differentiation, classroom management, and organizational issues surrounding the approach.

Regarding the strategies used to support differentiation, data showed the majority of the teachers were using a wide range of differentiated strategies in varying degrees.

These included: flexible grouping, independent projects, varying questions, compacting, interest centers, learning centers, tiered assignments and learning contracts and others. Overall, the study presented the change process in a district and how the differentiated instructional approach is multi-dimensional and complicated, magnifying the need for ongoing staff development and support for teachers as they utilize the approach (Affholder, 2003).

A recent study focused on teachers' decision making processes as they implemented differentiated instruction in the elementary classroom and their perceptions of using the approach (Robison, 2004). The participants in the study were 22 elementary teachers in grades K-3rd and a reading specialist, each with varying years of experience. Data collection included open-ended questionnaire and interviews. Data concerning how teachers make decisions about implementing differentiated instruction revealed that teachers failed to connect to specific research theories relating to the idea of differentiated instruction. For example, none of the teachers mentioned a particular theory, but instead considered intuition to be the largest factor in their decision making process to differentiate instruction. Teachers perceived their practice as reflective in nature, as they often made decisions based on student performance or response during a lesson. They spoke of the importance of having an instructional support team which they met with regularly and discussed differentiated instructional strategies to better support student learning. The teachers also named professional development as a support, specifically for the writing program the school was currently using for differentiating literacy instruction.

The importance of utilizing a variety of instructional strategies was a major consideration for the teachers when deciding to differentiate instruction. Teachers considered student personality, needs, and learning styles as factors for differentiating instruction. They saw the need for a variety of teaching materials within their classroom to address various learning styles and reach varied levels of students. Data revealed that the teachers felt supported with resources and a new reading program that called for small group instruction with leveled text. However, in the area of technology, teachers felt professional development was lacking. All of the teachers voiced the need for classroom assistance during small group instruction when flexible grouping took place. Other strategies employed by the teachers during this time were the use of leveled readers, meaningful learning centers and modified lessons. Additionally, teachers expressed concern over time for planning and reflection. Each believed a common planning time would better support their use of differentiated instruction and allow them to reflect on and adjust lessons (Robison, 2004).

Lastly, a recent phenomenological study was conducted on teacher perceptions of differentiated instruction in the elementary grades (Thompson, 2009). The study sought to identify and illustrate the ways in which teachers perceive the influence of differentiated instruction on teaching practices. The population for the study was 15 elementary teachers ranging in grades kindergarten through fifth grade. Participants were interviewed using in-depth interviews and discussion was analyzed for patterns. Teacher application of Multiple Intelligence was evident in the consideration of learner preference and learning style used as a framework to guide instruction and assessment. Within the data teachers described various aspects of differentiated instruction which they utilized to

promote student success. These were: (a) small group instruction is the most suitable method for differentiating instruction based on ability level, (b) learning centers are the best method for differentiating instruction based on learning style and learning preference, and (c) implementation of differentiation is difficult and time consuming. Generally participants in the study considered differentiated instruction to be an instructional approach that meets a wide range of student needs (Thompson, 2009).

After reading how teachers in the previously mentioned phenomenological study (Thompson, 2009) shared thick, rich accounts of their thoughts and experiences using differentiated instruction, the researcher of the current study became interested in conducting a phenomenological study on teacher perception of differentiated instruction using a different population. In Thompson's (2009) study k-5th grade teachers were studied, and data revealed teachers use small group instruction and learning centers, which are typically found in early childhood classrooms. Consequently, the researcher of the present study was particularly interested in knowing more about teacher perceptions of differentiated instruction in upper elementary classrooms where content area instruction is more weighted. Therefore, the present study attempted to narrow the present gap by exploring teacher perceptions of using differentiated instruction in grades 3-5. Additionally, the current study varied from Thompson's (2009) study with different interview questions and in the area of analysis. This study followed Moustakas (1994) modification of the Steck-Colaizzi-Keen method of analysis of phenomenological data. Further detail on this process will be provided in the Data Analysis section of this study.

The Differentiated Instructional Approach

Differentiated instruction is not new as teachers have differentiated instruction to some extent since teaching began (Levy, 2008). Van Sciver (2005) likens it to being as “American as motherhood, apple pie and baseball” (p. 534). Differentiation is not a strategy but rather a common sense approach to teaching with the goal of meeting the needs of all learners (Tomlinson, 2000a). As an approach it is a way of thinking that provides teachers with a lens through which to view teaching and learning (Tomlinson, 2003). Tomlinson (2004a) defines differentiation as “a learned way of thinking about “being” that honors and contributes to the uniqueness and possibilities of each person in the group, as it honors and contributes to the success of the whole” p. 189. Therefore, differentiated instruction values student diversity and promotes student learning by building on difference (Gregory & Kuzmich, 2004; Tomlinson, 1999). Consequently, student diversity is embraced as teachers using the approach hold the belief that “what we share in common makes us human and how we differ makes us individuals” (Tomlinson, 2001, p. 1).

Although differentiation offers various ways for students to learn, it is not the individualized instruction of the past (Tomlinson, 1999). In the differentiated classroom not all instruction is differentiated or occurs every day. It would be impossible for each student in one classroom to have a different lesson for every subject taught. It does have as its core, a focus on learning which is meaningful for students and that requires teachers to sometimes teach whole class, small group or individually. In the differentiated classroom teachers understand that learners are different and so have diverse learning needs (Tomlinson, 2001). Thus, differentiation has as its focus each students’ individual learning needs and ways of learning. Within the approach teachers provide students with

personalized learning experiences in order for students to gain the knowledge and skills necessary for learning (Chapman and King, 2005). Although there is no one right way to differentiate instruction, there are some principles that guide the approach (Tomlinson, 2001). Consequently, this section explores the following components of differentiated instruction: learning environment, student characteristics, elements of differentiated instruction, assessment, and flexible grouping.

Learning Environment

In differentiated classrooms, teachers create a classroom climate conducive to optimum learning (Chapman & King, 2005). Differentiated teachers view students as individuals to be appreciated and cared for and this is reflected in the positive classroom environment. The first step in creating such an environment involves tending to the physical nature of the classroom. When the classroom feels warm and inviting students are more receptive to learning and there is a sense of community. For example, teachers attend to the layout of furniture, its comfort level, level of sound, temperature and lighting in the classroom, and accommodate student need for these (Burke & Burke-Samide, 2004).

Importantly, teachers who design a healthy classroom environment abandon the traditional role of authoritarian and create a positive atmosphere where students feel safe, secure and free to take risks (Tomlinson, 1999). The differentiated classroom ensures that all students benefit and mutual respect is a given to every student. Consequently, students are encouraged to engage in sharing and questioning with the awareness that they will not be judged (de Anda, 2007). Additionally, differentiated teachers are mindful of student ideas, use positive energy and humor, aim for joyful learning and share themselves with

students (Tomlinson, 1999). In this setting teachers willingly share power with students. For example, students may participate in constructing classroom rules and procedures, contribute to providing solutions to problems, help one another in various ways, and more (Tomlinson, 2001). When a classroom climate is positive and promotes autonomy, student motivation increases and students are likely to self-regulate their learning (Young, 2005).

Lastly, teachers in differentiated classrooms have high expectations for all learners as well as themselves (Tomlinson & Edison, 2003). Consequently, they tend to “teach up” (p. 8) instead of down to students. Differentiated teachers understand that it takes “maximum effort to achieve maximum potential” (p. 8) and they are willing to do whatever it takes to facilitate this level of learning.

Teacher Responsibility

Teachers who differentiate instruction promote a new kind of fairness, one in which fairness no longer equates to treating everyone the same, but instead ensures each student receives what is needed to succeed in learning (Tomlinson, 2001). As such differentiated teachers are aware of students’ varying intellectual, emotional and physical needs and how these influence learning. Teachers in differentiated classrooms balance student needs with required curriculum. Consequently, the differentiated teacher takes responsibility for knowing his or her students, and has a keen awareness of how teaching and learning occur (Tomlinson & Edison, 2003; Tomlinson & McTighe, 2006). The underlying goal of every effort of the differentiated teacher is to ensure that students “grow as much as they possibly can each day, each week and throughout the year” (Tomlinson, 1999, p. 2).

In the differentiated classroom teachers assess students before, during and after learning and adjust assignments accordingly (Tomlinson & McTighe, 2006). Each student is assigned “respectful” (Tomlinson & Edison, 2003, p.8) work based on his/her readiness, interest, and learning profile. All assignments are of equal importance and disabled students are not marginalized by lessons containing rote repetitive drills (Tomlinson & Edison, 2003). In this way all students are engaged in tasks which challenge and engage them (Heacox, 2002).

Differentiation is proactive rather than reactive as teachers meet student variance with purposeful planning that occurs systematically rather than in a reactive manner requiring a plan for each individual student (Tomlinson & Edison, 2003). A variety of instructional methods, activities, materials and resources are used by teachers who know and teach the standards (Tomlinson & McTighe, 2006). Time, space and materials are used flexibly to allow teachers to seek ways to assist students in working effectively and using time flexibly. Additionally, the teacher ensures that students have the proper materials to successfully complete tasks (Tomlinson & Edison, 2003).

Instructional activities in the differentiated classroom are “based on essential topics and concepts, significant processes and skills, and multiple ways to display learning” (Heacox, 2002, p. 1). Further, the teacher ensures that students are provided with a variety of opportunities for working in various instructional formats (Heacox, 2002). To promote student success, the teacher ensures that every student has a clear understanding of what needs to be learned in order to succeed with each lesson (Tomlinson & Edison, 2003).

In addition, differentiated teachers ensure that students understand the workings of the classroom and participate in making it happen for everyone. The differentiated teacher guides students to share responsibility for a classroom where everyone is supported and achievement increases. In this environment, individual growth is essential to the success of the classroom. Students are made aware of this and shown how to compete with themselves instead of others. In this way personal growth is emphasized and students are held responsible for working toward progress to the best of his/her ability (Tomlinson & Edison, 2003).

Student Characteristics

There are three student characteristics that influence the need for teachers to modify curriculum and instruction for learners. These are student readiness, interest, and learning profile. Readiness refers to the level of skill and understanding a student has for a topic and the extent to which he can be challenged with a task and still be successful (Tomlinson, 1999; 2001; 2003). The importance of knowing students level of readiness is reflected in the words of Confucious who said, “to teach them, you must know where they are” (Tomlinson, 2005, p. 8). Differentiating in response to learner readiness involves providing learning opportunities at varying levels of complexity. This can be accomplished by altering the difficulty level of a task, adding or removing teacher or student support, providing additional materials, adding or removing a model for a task and modifying direct instruction during small group (Heacox, 2002; Tomlinson & Edison, 2003). To determine student readiness, assessment must occur in order for teachers to gain awareness about what students already know as well as any misconceptions students may have regarding a topic. Differentiating tasks by readiness

level nudges students to go beyond their comfort level and provides “support in bridging the gap between the known and the unknown” (Tomlinson, 2001, p. 45). Thus, teachers can plan appropriate lessons and assignments which challenge students just enough to promote further learning (Tomlinson & Kalbeisch, 1998).

When differentiating according to student interest, essential skills and material for making meaning from content are linked with topics that fascinate students (Tomlinson, 2001). When learning is exciting and interesting students are more likely to be engaged. In addition, motivation to learn is likely to increase when students are passionate about the topics they study (Tomlinson & Edison, 2003). Tomlinson & Edison, (2003) contend that a smart teacher connects required content to student interests in order to “hook the learner” (p. 10). Further, the authors assert that effective teachers find “cracks in the middle” (p. 10) that afford students opportunity to seek their passions beyond the approved curriculum. Teachers can also assist students in gaining new interests and passions, thereby reviving otherwise “flat curriculum” (p. 10).

The goal of learning profile differentiation is to help students know the ways in which they learn best and give them opportunities to use that particular mode in their learning. In this way, every student can find a good fit for himself in the classroom (Tomlinson, 2001). Responding to student learning profile involves addressing student’s intelligence preference, learning style, gender and culture (Tomlinson, 1999, 2001). Intelligence preference refers to the ways of learning and thinking each of us has that reflects our strengths and weakness within these (Heacox, 2002). Tomlinson referred to intelligence preference as “the sorts of brain-based predispositions we all have for learning”. Gardner’s framework (1983, 1993) refers to these as: verbal linguistic, logical

mathematical, visual spatial, musical rhythmic, bodily kinesthetic, interpersonal, intrapersonal, and naturalistic. Gardner (1993) contends that everyone has at least some of each of the eight intelligences in various combinations and strengths. Both teachers and students benefit from knowing the intelligences. The multiple intelligences are helpful to students from elementary through high school. Students benefit from having an understanding of why they do well with some assignments and not as well in others. In addition, having an understanding of the intelligences assists students in making wise decisions when they are given choices about learning (Heacox, 2002). When students utilize their intelligence preferences to approach learning, the outcome is very positive (Aborn 2006; Campbell, 1997; Tomlinson, 2001). Another preference essential to a student's learning profile is learning style. Learning style reflects individual student preferences for where, when and how students take in and make sense of information (Heacox, 2002). Learning styles encompass the following factors: Environmental elements (sound, light, temperature), social organization (working alone or with others), physical circumstances (degree of movement, time of day), emotional climate (amount of structure, student motivation), and psychological factors (the degree to which a student is analytical, reflective, or impulsive) (Heacox, 2002). Applying learning styles theory in the classroom is critical to student success. Carbo and Hodges (cited in Taylor, 1997) assert that "matching students' learning styles with appropriate instructional strategies improves their ability to concentrate and learn" (p. 48). Consequently, if there is a mismatch between learning styles and instruction, "students feel anxious and even physically ill trying to learn" (Taylor, 1997, p. 45). Effectively differentiating instruction is necessary for success using learning styles. Sternberg (1994) asserts that teachers must

strategically use varied teaching and assessment methodology if they are to reach the different learning styles of students.

Lastly, cultural-influenced and gender preferences also influence how students learn (Heacox, 2002; Tomlinson & Allan, 2000; Tomlinson, 2001). The cultural-influenced preferences include: Perception of time as fixed or flexible, use of expression to convey emotion, whole to part learning vs. part to whole, valuing creativity vs. conformity and more, can influence student learning. Further, learning patterns can also vary from culture to culture (Tomlinson, 2001). Gender patterns can also vary. To illustrate, while males are considered more likely than females to be competitive learners, a teacher could have a classroom with several competitive female learners and few competitive male learners (Tomlinson, 2001). Viewing each student as an individual is the cornerstone of differentiation, thus teachers in the differentiated avoid generalizing groups of students.

Elements of Differentiated Instruction

The elements of differentiated instruction are content, process and product (Tomlinson, 1999; 2001). These are highly interconnected and can be adjusted according to learner readiness, interest, and learning profile. Content is differentiated when teachers focus on the most important concepts and skills while increasing the complexity of learning. Content is usually based on the standards determined by the school or district. It encompasses both what the teacher plans for students to learn, and how the learning will occur (Tomlinson & Allan, 2000). When differentiating content, the teacher strategically selects what is to be taught and what resources to use. This can be accomplished by using a variety of genres, leveled materials, differing instructional materials, offering students

choices, and eliminating unnecessary content (Gregory & Chapman, 2007). The teacher may also move through the content at a faster pace if needed (Heacox, 2002). Organizing instructional content enables students to make connections between their lives and learning which is meaningful and personal (Hoffman, 2003). Typically, what the student learns is constant while the ways in which students gain access to the content is modified.

Process refers to the activities designed to help students make sense of key information, concepts, and essential ideas (Tomlinson, 1999; Tomlinson & Allan, 2000). The activities are modified according to student level of readiness, interest and learner profile. Tomlinson & Edison (2003) ascertain that “Learning has to happen *in* students not *to* them” (p. 11). An effective activity calls for students to use a critical skill to gain understanding of an important idea and is focused on a learning goal (Tomlinson & Allan, 2000). Further, effective activities ask students to “grapple with a skill so they come to own it” and make sense of it themselves (p. 10). Care should be taken to support less-able as well as advanced students (Tomlinson, 1999). Consequently, different amounts of teacher or student support for a task can be provided based on student need. The teacher also supports students by providing them with different options at varying levels of difficulty.

Product refers to a culminating project students use to demonstrate and extend what has been learned at the end of a unit or study (Tomlinson, 1999). Creating a product can be very empowering for students. A quality product requires students to think critically and creatively about what they learned, apply this information, and extend their understanding and skill (Tomlinson & Edison, 2003). Products guide students in moving from “consumers of knowledge to producers with knowledge” (p. 11). Culminating

products vary according to student readiness, interest and learner profile (Tomlinson, 1999) and should be interesting and challenging (Tomlinson & Edison, 2003).

Assessments

Differentiated assessment is an integral component of differentiated instruction (Chapman & King, 2005; Tomlinson, 1999; 2003). Assessment and instruction are closely linked (Tomlinson, 2003) as classroom assessment serves to measure and document learning as well as to promote it (McTighe & O'Connor, 2005). McTighe & O'Connor (2005) assert that well constructed assessment and grading practice has the capacity "to provide the kind of specific, personalized, and timely information needed to guide both learning and teaching" (p. 11). Moreover, Heritage, (2007) claims that pre-assessment and the teaching process are "inseparable" (p. 145).

Classroom assessments fit into three categories. These are pre-assessment, formative and summative assessment (McTighe & O'Connor, 2005; Moon, 2005; Levy, 2008). During pre-assessment, teachers determine student need in order to plan instruction. To accomplish this, formal and informal pre-assessments are used with the goal of gathering data to determine students' instructional baselines. Key to this process is finding the appropriate level of challenge which will promote optimum learning for each student. For example if a student already knows the material, critical teaching and learning time is wasted due to repetition of prior learning (Heritage, 2007).

The next category is formative assessment, which plays an essential role in effective teaching. Formative assessment is not new, as it has been around as long as teachers have taught (Garesis, 2007). The intention of formative assessment is to check student progress during instruction, and includes any myriad of ways a teacher might

determine “what students are getting, and what they are not getting” (p. 18) for the function of teaching and learning (Garesis, 2007).

Formative assessment can be used to construct student groups, adjust the pace of instruction, or alter the way in which content and materials are presented to students (Moon, 2005). Fisher & Frey (2007) recommend that teachers utilize a variety of assessments to check for student understanding. These include the use of “oral language, questioning, writing, projects and performances, tests and school wide approaches” (p.2). Orsmond, Merry and Callaghan (2004) suggest student peer collaboration as a means of formative assessment and Leung and Mohan (2004) address peer discussion as an alternative to standard assessment. Other examples of formative assessment are “ungraded quizzes, oral questioning, teacher observations, draft work, think alouds, student constructed concept maps, learning logs and portfolio reviews” (McTighe & O’Connor, 2005, p. 12). Consequently, teachers who utilize formative assessment make adjustments during instruction to better assist student understanding and integration of new knowledge (Moon, 2005; Garesis, 2007).

The last assessment category addressed is summative. Summative assessments typically occur at the end of a lesson or unit and are used to evaluate instruction (Moon, 2005). Student level of mastery is obtained which can also function as pre-assessment for a new unit as it provides information regarding student readiness. Summative data also serves as information to stakeholders, i.e. parents, students or administrators on the effectiveness of instruction, for example in the form of grades. Examples of summative assessment include paper and pencil tests and performance assessments.

Assessment is a valuable tool which teachers can utilize to inform instruction and promote student learning. Pre-assessment and ongoing assessments are tools which play a critical role in the differentiated classroom. Consistent, effective assessment drives instruction which “maximizes teaching time, streamlines instruction, and facilitates learning for all students” (Brimijon, Marquissee & Tomlinson, 2003, p. 73).

Flexible Grouping

Flexible grouping is central to differentiated instruction (Heacox, 2002). A differentiated teacher is keenly aware that a whole group lesson may not be adequate for all learners and plans with flexible grouping in mind. Flexible grouping allows teachers to meet student needs and build on big ideas or concepts introduced in whole group format (Gregory & Kuzmich, 2004; Tobin, 2007; Tomlinson, 2001).

The goal of flexible grouping is to provide an optimum match between students’ instructional and individual needs. For example, groups may be formed when some students need further instruction or more time while others may need advanced instruction or different content (Heacox, 2002). Using pre-assessment data as a guide teachers can group students according to the following, “information sources available, tasks, student interests, skill or ability level of students, learning styles and multiple intelligences, thinking skills and process or product desired” (Gregory & Kuzmich, 2004, p. 124).

It is important to note that flexible grouping is not tracking, where learners are grouped according to ability and remain in groups indefinitely, sometimes from year to year (Heacox, 2002; Banks & Banks, 2007; Neito, 2000). In order to avoid tracking, differentiated instruction experts advise that ability grouping be kept brief allowing

students to move fluidly in and out of groups (Lawrence-Brown, 2004; Gregory & Kuzmich, 2004). Heacox, (2002) suggests the use of interest or learner preference groups to avoid putting students in ability groups on a regular basis. There are numerous strategies that support differentiating by interest, for example, literature circles (Tomlinson, 2001). Although grouping by ability is sometimes necessary, meeting student needs by grouping them according to variables other than ability allows learner needs to be met while students become “involved, engaged and confident” (Heacox, 2002, p. 85).

Differentiated Instructional Strategies

Curriculum Compacting

Curriculum compacting is an instructional strategy specifically designed to allow advanced learners to make best use of their learning time (Tomlinson, 2001, Heacox, 2002). Its purpose is to avoid ineffective use of student learning time if some or all of the content being considered is already mastered. Compacting consists of three stages. In stage one, student knowledge and skill level is assessed to establish existing knowledge in the concept or skills under consideration (Tomlinson, 1999, 2001). Stage two is planning instruction based on assessment data. The plan reflects the extent of mastery and demonstrates how gaps in learning will be filled. For example, a student may need extra practice that can be accomplished as homework or to join peers for a portion of a lesson (Tomlinson, 1999, 2001). In the third stage, teacher and student create investigations or activities that are meaningful and challenging to the student. The teacher and student collaborate on all of the necessary elements of the study, which can be a different subject from the compacted or mastered one (Tomlinson, 1999, 2001). Tomlinson, (2001) adds

that record keeping for compacting is beneficial in the following ways: the student is held accountable for learning, parents are informed as to the advantages of compacting, and students become aware of their individual learning profiles. Heacox (2002) provides a blank template of a compacting form teachers can use with gifted students (p. 142). The author advises scheduling a conference with parents to go over the specifics of the new study.

Tiered Assignments

Tiered assignments are constructed according to student readiness level, build on prior knowledge and are at varying levels of difficulty while the instructional concept remains the same (Tomlinson, 1999, 2001; Heacox, 2002). Tiered assignments can also be based on student interest or learner profile (Tomlinson, 1999). In order for tiered assignments to be meaningful and impact learning, they must add “depth and breadth” (p. 91), to students’ understanding of critical questions (Heacox, 2002). Journaling writing can also be tiered as writing prompts can be offered at varying levels of difficulty within the same classroom (Tomlinson & Edison, 2003). With the use of tiered assignments, students are less likely to be over challenged or bored with an assignment thereby promoting student learning (Tomlinson, 2001).

Learning Contracts

Learning contracts allow the student to work at a slightly independent level under the direction of the teacher. The teacher and student share responsibility as they negotiate the terms of the learning event. This gives the student opportunity for choice in what is learned, the conditions of learning, and how information will be conveyed within the boundaries defined by the teacher. Learning contracts make clear what the student is

expected to learn, ensures the student uses the skills in context, names conditions during the duration of the contract, puts positive and negative consequences in place for the boundaries of the work, makes clear the criteria for work to be successfully completed, and is signed by teacher and student (Tomlinson, 1999).

Learning Centers

A learning center is an area of the classroom that holds learning materials and activities designed to teach, reinforce, or extend students understandings of specific concepts and skills (Tomlinson & Edison, 2003). The centers may be portable or stationary and stand alone, as compared to learning stations which are designed to work together. For example, learning stations might have math concepts that build on one another as students rotate through them. In comparison, a classroom might have learning centers from each content area which are unrelated. In addition to learning centers there are interest centers. Interest centers are designed to give students opportunity to explore content based on their particular interests. Regardless of the type of center that is provided, it should contain materials and activities that address a broad range of reading level, learning profiles and student interests (Tomlinson, 1999).

Literature Circles

Literature circles are an excellent strategy for the differentiated classroom (Tomlinson, 2001) because they offer students opportunity to demonstrate interest in several areas (Daniels, 2002). Students can choose the books they are interested in reading based on the topic they want to know more about. They can also participate in putting a schedule in place for reading and sharing in response to what's been read, as well as choosing what role they wish to play in group discussions (Daniels, 2002).

Although student participation is essential in literature circles, the teacher plays a critical role in the success of the strategy (Yellin, Jones & Devries, 2008).

During the process of conducting literature circles, student progress is monitored by the teacher and products are gathered as student success is determined. Although literature groups are worthwhile, preparing students to participate in them requires time and patience (Yellin, Jones & Devries, 2008). Because the texts chosen for literature circles should be on students independent reading level (Tompkins, 2010), this strategy lends itself to the role student readiness plays in differentiated instruction.

Summary

This chapter demonstrates the value of differentiated instruction as an approach to learning which assists teachers in meeting the diverse academic needs of all learners (Tomlinson, Heaxox). Studies having success with the approach are described and others highlighting teachers perceptions of differentiated instruction are included. Established is the need for more research on differentiation, particularly regarding teachers' perceptions of the approach and its influence on instructional practice. Additionally, differentiated instruction was explored as a philosophy to teaching and learning and Carol Ann Tomlinson is acknowledged as a prominent researcher on the topic. There are numerous strategies applicable to differentiated instruction, which were described in order to further highlight the approach. The following chapter will describe the research design for this study and elaborate on the different components employed within the design.

CHAPTER III

METHODOLOGY

This chapter elaborates on the research design for the current phenomenological study and its appropriateness. The objective was to explore the perceptions and lived experiences of upper elementary teachers utilizing differentiated instruction as an approach to teaching. This was accomplished by examining themes and patterns extracted from the qualitative data related to teachers' perceptions and experiences on differentiated instruction. Additionally it includes the research question, population, setting and sample, ethical procedures and data collection. Following is a discussion of the analysis procedures utilized by the study and the chapter concludes with a summary.

Research Design and Method

Qualitative Method

Qualitative research is exploratory and provides a researcher several methods for collecting data (Denzin & Lincoln, 2005). Data collected in qualitative research are usually in text form with data analysis consisting of analyzing themes with the goal of finding broader meaning. This process allows themes to come into view, which lead to greater understanding of the phenomenon being explored (Denzin & Lincoln, 2005).

The central phenomenon the present study explored is the influence of differentiated instruction on teachers' instructional practices using qualitative methods. Qualitative methods assist the researcher seeking to gain a deeper understanding of a central phenomenon (Denzin & Lincoln, 2005; Patton, 2002). Further, the "qualitative inquiry method provides opportunities to achieve empathy and give the researcher an empirical basis for describing the perspective of others" (Patton, 2002, p. 53).

Phenomenology

The current study utilizes the phenomenological approach to explore teacher perception of differentiated instruction. Because phenomenology seeks to illuminate meaning as it is lived in everyday existence it is appropriate for this study (van Manen, 1990; Patton, 2002). Van Manen (1990) views phenomenology as "the systematic attempt to uncover and describe the structures, the internal meaning structures, of lived experiences" (p. 10). In this study, the researcher sought to "capture and describe" how teachers experience differentiated instruction, "how they perceive it, describe it, feel about it, judge it, remember it, make sense of it and talk about it with others" (Patton, 2002, p. 104). Narrative data were necessary in order to fully explore teachers' perceptions of their experiences with differentiated instruction. Using the phenomenological approach assisted the researcher in gaining a clear understanding of the "lived experiences" of teachers in the differentiated upper elementary classroom (Patton, 2002, p. 104).

Appropriateness of Design

The focus of this study was to illuminate the "essence of the shared experience" of differentiating instruction in the upper elementary classroom using in-depth interviews

(Patton, 2002, p. 106). Therefore, this study utilized a phenomenological approach to gain understanding of the implications of teachers' experiences with differentiated instruction and how these are linked to teachers' perceptions in the upper elementary classroom. Using a phenomenological research design was most appropriate for the current research study due to the interviews needed to collect teacher experiences using differentiated instruction. The design facilitated the gathering of data concerning teacher perceptions which assisted the study in exploring teachers' experiences using differentiated instruction. Consequently, the phenomenological research design is the most appropriate method for achieving the goals of this study.

Research Question

Creswell (1998) posits that qualitative questions are to be “open-ended, evolving, and nondirectional” and should begin with the words “what” or “how” (p. 99). In phenomenological research, the researcher “arrives at a topic and question that have both social meaning and personal significance” (Moustakas, 1994, p. 104). The goal of the current study was to explore the influence of differentiation on upper elementary teachers' instructional practices. The narrative data that the current research study gathered provide the literature with examples of how to implement differentiated instruction in the upper elementary grades. It also provides schools with insight of how upper elementary teachers feel about implementing the approach and its influence on their classroom practice. Therefore, the following research question guides the proposed study:

How do grade 3, 4 & 5 teachers perceive and illustrate the influence of differentiation on instructional practices in the upper elementary classroom?

Ethical Procedures

Ethical standards were maintained throughout the study in a variety of ways. Before any steps were taken to conduct research, approval to conduct the study was granted from the Oklahoma State University Institutional Review Board (IRB Application #ED1211). In addition, permission to conduct the study was also requested from the school district in question, and was established following an application process. Teachers teaching within the school district in grades appropriate for the study were then contacted by the researcher via e-mail, using an approved letter of interest. Only teachers demonstrating interest in the study were contacted a second time to set interview appointments.

Prior to participating in the study participants were asked to sign an approved informed consent form (see Appendix B) provided by the researcher (Creswell, 1998, Moustakas, 1994). The consent letter explained the purpose of the study including that there were no known risks and assured participants of the opportunity to withdraw from the study at any time without repercussion. Before agreeing to participation by signing the form teachers were given the opportunity to ask questions regarding the study.

Because the goal of this phenomenological study is to seek knowledge that makes possible the understanding of teacher's experiences with differentiated instruction, data were collected using interviews. As researcher perception is an inherent bias of phenomenology, the epoche was utilized by the study prior to conducting interviews (Moustakas, 1994). Epoche is accomplished by "setting aside predilections, prejudices, predispositions, and allowing things, events, and people to enter anew into consciousness" (Moustakas, 1994, p. 85). Patton (2002) explains that suspending

judgment is essential in phenomenological discovery and requires the researcher to lay aside any personal opinions in order to view the experience as it really is.

To maintain anonymity participants' names were replaced with a number (Creswell, 1998). Throughout the study all records were kept confidential, remaining in a location accessible only to the researcher, and informed consent forms were kept separate from the interview transcriptions.

Population, Setting and Sample

As the participants in a phenomenological study need to have experienced the phenomenon being explored (Creswell, 1998), a goal of the study was to interview teachers currently implementing differentiated instruction in their classrooms. Further, Creswell (2005) asserts that purposeful sampling, which is the intended selection of persons in a particular subgroup who share defining characteristics, is utilized in qualitative research. Patton (2002) explains how using purposive sampling allows a researcher to choose "information rich cases" which illuminates the research question being explored (p. 230). Thus a district in central Oklahoma was initially chosen for the study in which the researcher believed differentiated instruction was used in the elementary schools.

This belief was based on conversation with two principals in the school district who stated that teachers in the district implemented differentiated instruction. However, when two educators from the potential research sites were interviewed, it was discovered that the teachers were not fully utilizing differentiated instruction. Because the study required participants who were utilizing the approach, the researcher sought to locate another school district in which to conduct the study. Based upon the literature and

information gathered from a school district's web site, there was strong evidence to suggest that teachers in a large district in eastern Missouri fully utilized differentiated instruction in their classrooms. Thus, a school district in eastern Missouri was contacted as a potential site for the present study.

The school district serves 19 elementary schools, 6 middle schools and 4 high schools spanning 9 municipalities. It holds separate campuses for Gifted, Early Childhood and Alternative High School Education. There is currently an enrollment of approximately 22,200 students. More than 2/3 of the district's teachers are certified with advanced degrees and 100% of its teachers are highly qualified. Lastly, the district has a graduation rate of 94.9% and a dropout rate of 1%.

As the present study sought to discover the perceptions of teachers in the upper elementary grades, teachers utilizing differentiated instruction in grades 3, 4 & 5 were chosen as potential participants. This was with the assumption that each had received professional development in differentiated instruction, which is a requirement of their school district. Because effective classroom management is essential in the differentiated classroom (Tomlinson, 2001) and new teachers may not be fully actualized in this area, an additional requirement of the study was that each teacher participant had taught at least 3 years. Consequently, participants in the study met the following criteria: a). voluntary involvement; b). use of differentiated instruction; c). grade level taught; and d). teaching experience.

Lastly, the sample in the current study consisted of 11 teacher participants, 10 of whom were female and 1 male. As was previously discussed, participants in this study taught in a district which requires its teachers to use differentiated instruction, therefore

the sample was purposive. Small samples are an attribute of qualitative research studies (Patton, 2002) and Creswell recommends that 10 participants are included in a phenomenological study (1998; pp. 65 & 113). Patton (2002) claims that the number of participants in a study should be based on what the study seeks to learn, why it seeks the information, how the information will be utilized, and what resources including time, that the study has. Further, Patton (2002) argues that rather than focus on the amount of participants in a sample, purposive samples should be judged on whether or not they support the research projects purpose and rationale. Additionally, Patton (2002) asserts that “the validity, meaningfulness and insights” are an outcome of the depth of information gained in qualitative research rather than from the size of the sample (p. 245). Therefore, the purposive sample of 11 participants in this research study was appropriate for meeting the needs of the study as it explored teacher perceptions using differentiated instruction.

Data Collection

In qualitative research, semi-structured interviews are usually the sole source of data collected (Di-Cicco-Bloom & Crabtree, 2006). The interview is an extremely important and notable aspect of data collection in phenomenology (Pitney & Parker, 2009). To gain insight into upper elementary teachers’ perspectives of using differentiated instruction, this phenomenological study utilized in-depth interviews (Creswell, 1998; van Manen 1990; Moustakas, 1994; Denzin & Lincoln, 2000). Interviews provide a means to “find out from people those things we cannot directly observe” (Patton, 2002, p. 339). Because “The phenomenological interview involves an informal, interactive process and utilizes open-ended comments and questions,”

participants in the current study were asked open ended questions concerning their experiences with differentiated instruction (Moustakas, 1994, p.114). As was mentioned previously, the interview questions used in the current phenomenological study were modified from Thompson's (2009) study. Although the interview questions were prepared in advance they served as a starting point for participants to elaborate more fully on teacher experiences with differentiated instruction (Moustakas, 1994). Participants were invited to elaborate with the use of probing questions such as "You mentioned such and such, can you tell me more about that?" as these prompted discussion, thus allowing for a deeper understanding of participants views. Therefore, this interview process was most appropriate as it facilitated rich, narrative data necessary for answering the research question (Moustakas, 1994; Patton; 2002).

Validity and Reliability

Groenwald (2004) explains that using a validity check is an effective way to ensure validity. In the current study interviewees were provided opportunity to verify the accuracy of interview transcriptions through member checking (Creswell, 1998; 2003; Lincoln & Guba, 1985; Moustakas, 1994). Consequently, in this study one participant corrected an error they had made and others either confirmed accuracy or did not respond to the request for verification of accuracy. Moreover, according to Worthen, Borg & White, (1993) validity is the degree to which a measure accomplishes the use for which it is intended. Similarly, Creswell, (2005) contends that an instrument has reliability if multiple use of the instrument yields similar and consistent results. The interview questions for this study are most appropriate for the goals of the current research study as they have been shown to adequately gather data regarding participants' experiences with

differentiated instruction. In addition, researcher bias was avoided during the interviews as the researcher listened openly and used non-directive prompts (DiCocco-Bloom & Crabtree, 2006). Reliability of the current study is ensured in several ways. First, an interview protocol was used to ensure participants were asked the same questions. Second, the wording of the interview questions was clear and explicit so participants could understand what was being asked (Creswell, 2005). Third, participants chose the time and place where they wished to be interviewed, so they were less likely to be anxious, unfocused, or have any other issues that could interfere with their participation. Fourth, participant credibility was considered at the beginning of each interview. Participants were asked about years teaching in general and in the district because of the extensive professional development the district requires in differentiated instruction. Additionally, interviews were audio recorded and transcribed using transcription software in order that no data would be misconstrued or lost. All data and documents pertinent to this study will be stored in a safe and sound location for 3 years.

Data Analysis

In order to explore the phenomenon of teachers' experience using differentiated instruction, the current research study utilized Mousakas' (1994) modification of the Stevick-Colaizzi-Keen method of phenomenological analysis. In this section the components of this approach for phenomenological data analysis are described as well as how the study utilized these. The steps to Mousatakas' (1994) phenomenological data analysis are the Epoche, Phenomenological reduction, Imaginative Variation and Synthesis.

The Epoche

The first step in the phenomenological method is the Epoche (Moustakas, 1994, Patton, 2002). Epoche is the setting aside of “everyday understandings, judgments, and knowings” of the central phenomenon (Moustakas, 1994, p. 33). This process assisted the researcher in becoming aware of any prejudices or pre-conceived notions toward differentiation, thus allowing the phenomenon to be seen from a fresh, new perspective (Patton, 2002). Moustakas (1994) asserts that by practicing the epoche process a researcher becomes more receptive and open to knowing a phenomenon. Prior to analyzing data the researcher spent time in reflective-meditation (Moustakas, 1994, p. 89) and thus became more open to what the data had to offer.

Phenomenological Reduction

The next step in Moustaka’s Stevick-Colaizzi-Keen modified method is reduction (1994). Reduction involves several procedures and begins as bracketing takes place. Bracketing occurs as the researcher places a mental boundary around the focus of the research so that it remains the focal point in the researchers mind. In the current study the researcher bracketed the topic of differentiated instruction and the research question which asked about teachers’ experiences with the approach. The next aspect of reduction is horizontalization (Moustakas, 1994). In this stage of reduction, all phrases within the data are treated equally as the relevance of each is fully considered.

This stage requires that the data be read and reread yet again. Moustakas (1994) advises holding the data at various angles, to see it one way, then another while connecting each view with ones “conscious experience” (p. 93) and to repeat the process until the parts are joined as a whole. It is through this process that “things become clearer and clearer as they are considered again and again” (Moustakas, 1994, p. 93).

Consequently, in this study, transcribed interview data was read 5 times until the researcher gained an overall understanding of participants' perceptions of differentiated instruction. The next part of horizontalization (Moustakas, 1994) involves the construction of themes and textural descriptions, or what Moustakas describes as "clustering the horizons into themes" (p. 97). To accomplish this, a list of the attributes of the experience is constructed which is used to develop themes. In this process, redundant or overlapping statements were discarded and what remained were meaningful units. The units were then used to determine patterns and themes extracted from the literature on differentiated instruction. Next, these were synthesized into textural descriptions of participants' experiences with differentiated instruction for each participant and quotes were utilized as examples to support the analysis. In contrast to Thompson's (2009) study where a matrix was utilized to organize participant's answers to interview questions, the current study used a separate Word document for each question.

Imaginative Variation

In this phase of phenomenological research methodology, the researcher expands his or her imagination in order to view the phenomenon from differing perspectives (Moustakas, 1994). In this reflective process the researcher imagines all of the varying ways the object or event can manifest that are linked to the essence and meaning of the experience. The goal is to create structural descriptions of the experience or the hows and whys of the phenomenon. In other words, as Moustakas (1994) questions, "How did the experience of the phenomenon come to be what it is?" In further effort to develop a structural description of the phenomenon, examples that illustrate structural themes are sought. Consequently, the textural descriptions of teachers' experiences of differentiated

instruction were taken into consideration during reflection by the researcher and a description of the structures of the experience was created. This led to the findings portion of chapter 5 of this study.

Synthesis

To complete the phenomenological data analysis approach, synthesis is conducted (Moustakas, 1994). This step involves constructing a synthesis of the textural-structural descriptions in order to “develop a synthesis of the meanings and essences of the experience” (Mousakas, 1994, p. 181). Therefore, in this phenomenological study, a synthesis of participants’ experiences with differentiated instruction was constructed. This information resulted in the implications and recommendations for future research located in the current study.

Summary

Chapter 3 developed a conceptual framework for the current study which included addressing the ways in which the qualitative method was most appropriate. Additionally, the importance of using a phenomenological approach to methodology to explore participants’ experiences of differentiated instruction was explained. Described were the population of 3, 4 & 5 grade teachers, the school district in which they teach, and the sample size. Also illustrated were the components of Moustakas’ (1994) phenomenological research method, and how each step was utilized by this study. The following chapter will elaborate on data collection and analysis by describing in detail the process followed in preparation to conduct the study, collection of the data, and the organization, analysis and synthesis of the data (Moustakas, 1994). Consequently, findings pertinent to the study’s research question will be discussed.

CHAPTER IV

RESULTS

The phenomenological method involves studying how people describe and experience things (Patton, 2002). The purpose of this qualitative phenomenological study was to explore the perceptions, feelings and lived experiences of teachers currently experiencing differentiated instruction. Information was collected from 11 participants teaching in grade 3, 4 and 5 in an urban school district in eastern Missouri. The question that guided this study was: *How do grade 3, 4 & 5 teachers perceive and illustrate the influence of differentiation on instructional practices in the upper elementary classroom?* This chapter contains the following sections: data collection procedures, data analysis procedures, findings, and summary.

Data Collection Procedures

With the goal of procuring at least 10 interview participants, the study invited teachers in grades 3, 4, & 5 in 19 elementary schools from one school district, to interview. Initially, in order to determine interest, a letter was sent to potential participants via e-mail (see Appendix A). Of the 215 teachers contacted, 12 responded. Consequently, the potential participants were then provided further information about the study. Of the 12 who initially volunteered to participate, one later declined the offer

leaving 11 participants. In order to not intrude on the school day, the study invited participants to interview at a convenient time outside of the school day. From this solicitation 6 participants volunteered to interview in the same 3 day time frame. Thus the researcher conducted an out of state trip for the purpose of collecting data. Of the six participants interviewed, five chose to interview at a centrally located hotel and one preferred their home.

Therefore, 6 in person interviews were initially conducted for this study. Following the first trip, attempts were made to set appointments for a second trip to collect data for the remaining interviews, with the same options offered. However, responses by potential participants revealed that only 2 were available for interview in the same two day time frame. The scattered availability of participants necessitated that at least 4 more interviews were needed and making several more out of state trips was not feasible for the researcher. Thus, in an effort to meet the requirements of the study to interview at least 10 teachers fully implementing differentiated instruction, the remaining interviews were conducted over the telephone. Altogether 11 participants were interviewed, with interviews lasting from 25 to 70 minutes, or an average of 45 minutes.

The interviews took place in the months of March and April, 2012. Both in person and telephone interview participants signed a consent form. The in person interviewees signed the form in the researcher's presence prior to the interview. The telephone interviewees received a copy of the consent form in the mail, then signed and returned it to the researcher via a self-addressed, stamped envelope. The same interview protocol, adapted from a previous study, (Thompson, 2009) was used in both types of interviews (see Appendix B). The protocol served as a starting point for the interview with probing

questions used to generate further discussion regarding participants' perceptions on differentiated instruction. All interviews were recorded using a digital voice recorder, with the telephone placed on speaker phone during the recording of the phone interviews. Following each interview the data was transferred from the voice recorder to a digital voice editor on the researcher's personal computer. The data remains on the computer in a locked home office and is password protected. Additionally the consent forms which are in hard copy are also held in the same office in a locked file cabinet.

Data Analysis

The purpose of this phenomenological study was to explore upper elementary teacher perceptions on differentiated instruction and the ways in which these influence their instructional practice in the classroom. Data was analyzed to determine themes and patterns viewed as links between ideas (Holloway & Wheeler, 2002).

Data from each of the eleven participants were organized, coded, and analyzed using Moustakas' version of the Stevick-Colaizzi-Keen method of data analysis, as previously described in Chapter 3 (Moustakas, 1994). The aim was to provide thick, rich descriptions of participants' "lived experiences" using differentiated instruction in the classroom (Patton, 2002, p. 102). The goal of the analysis was to find common themes in the interview transcriptions which would fully describe these experiences (Moustakas, 1994). Through the practice of reflection the researcher was able to set aside any biases regarding differentiated instruction prior to data analysis. Further, bracketing (Moustakas, 1994) was exercised in order to keep the researcher focused on the research question. These practices allowed the researcher to create an environment conducive to effectively analyzing the data for this study (Moustakas, 1994).

Prior to the data analysis process the interview data was transferred from a voice editor to a Microsoft Word document utilizing digital transcription software. The researcher transcribed the interviews without outside assistance because this “offers another point of transition between data collection and analysis as part of data management and preparation” (Patton, 2002, p. 441). After the 11 interview transcriptions were complete Member Checking (Lincoln & Guba, 1985) was utilized, as the researcher sent letters to participants via e-mail. In the letter participants were asked to make any needed corrections or additions that might further explain their experiences with differentiated instruction (Moustakas, 1994). One participant corrected an error, 8 participants agreed that the data was correct and the remaining 2 participants failed to respond.

The transcripts were then printed out in hard copy in order to allow the researcher to read them easily. All of the transcripts were read through three times before any manipulation occurred. Next, relevant phrases were highlighted and the transcriptions were reread to check for any missed phrases or words. The transcripts were then set aside for a day then highlighted again, further reducing the data into meaningful units significant to the research question and central phenomenon (Moustakas, 1994; Giorgi, 2008). On a fourth reading notes were made in the margins of the transcription then the hardcopy transcriptions were read for a fifth time. Next the researcher highlighted copies of the transcripts stored on a computer using Micro Soft Word text highlighter and reread these. The transcriptions were read by the researcher a total of 6 times. The units for each interview question were then cut and pasted onto a Microsoft Word document entitled with each interview question. Unlike Thompson’s (2009) phenomenological study, the

present study did not use a matrix to organize data as the researcher did not find this necessary. Lastly, common themes between participants' responses were explored in relation to the research question.

Findings

Data analysis for this study involved exploring detailed verbatim transcripts to determine central themes found within participants' responses to the interview questions. To support the analysis, quotes derived from discussion were utilized to demonstrate participants' accounts of their experiences of differentiated instruction. Numerous answers participants provided crossed a boundary of answering one question with that of another. The results of the raw data analysis, in addition to central themes and subthemes, are offered in the remaining portion of this chapter.

The first three interview questions sought to gather information regarding how long participants had been teaching, how long they had taught in the current district, and how long they had utilized differentiated instruction as an approach to teaching. The data analysis pertaining to these questions are reported on the following page.

Table 1

Participant Background Information

	Years Teaching	Years in Current District	Years Using DI
Elise	4-11	4-11	4-11
Laura	4-11	4-11	4-11
Betsy	4-11	4-11	4-11
Ginger	4-11	4-11	4-11
Jenna	20+	11-19	11-19
Toni	4-11	4-11	4-11
Becca	4-11	4-11	4-11
Sally	4-11	4-11	4-11
Michelle	4-11	4-11	4-11
Chris	11-19	11-19	11-19
Mary Ann	20+	20+	20+

Of the 11 participants, all had been teaching for at least 5 years. Most participants had taught at the same school throughout their teaching career. The majority of participants had been using differentiated instruction since they began teaching in the district. One exception was Jenna, who said her first year was spent “figuring out the curriculum and adjusting.” Two participants had experience with the approach prior to working in the current district. Since all participants had taught a minimum of five years,

it appeared that each participant would have classroom management under control to the extent which is necessary to successfully implement differentiated instruction (Tomlinson, 2001).

In addition, because the district offers professional development in differentiated instruction to entry year teachers, each would have previously experienced this. Further, those who had experience with differentiated instruction prior to teaching in the current district would have even more experience using differentiated instruction.

The purpose of the fourth interview question was to gain an understanding of participant's perceptions of differentiated instruction. Participants were asked, "How do you feel about using differentiated instruction in your classroom?" Themes found within the data regarding question number four were: *Differentiated instruction is essential* and *differentiated instruction occurs naturally*. The first theme addressed is *differentiated instruction is essential*. In general there was a mutual feeling among participants that differentiated instruction was an essential approach to teaching that assisted teachers in meeting varying student needs. Sharing on its importance, Jenna responded, "For your higher kids it gives them that challenge and the opportunity to explore and boost their learning, and it supports struggling learners as well." In their discussion of its value, numerous participants expressed the viewpoint that teachers have a responsibility to differentiate instruction. Sally stated, "I just don't think it is right to walk into a classroom and not differentiate based on interest, ability, and background." Expressing her views, Jenna said:

I can't imagine where you sit and every one learns the same thing the entire day, and if the student doesn't get it, they don't get it. And if they do have it already, they just sit there bored out of their minds.

She explained further, "If you can't differentiate instruction in your classroom to the different learning styles and the different learners, then I think you fail some students."

Jenna concluded, "It's how you reach them and the only answer is to differentiated instruction. Similarly, Chris declared, "Differentiated instruction is really about meeting the needs of all your learners. Any teacher in any classroom, in any school in America, no matter what grade they teach is going to have students on a spectrum of ability level."

He explained further, "Because no two children learn at the same time at the same pace and all kids have the right to instruction based on these, using differentiated instruction is a must." Echoing Chris, Elise said, "You just can't teach to the general population."

Lastly, Sally demonstrated the extent to which she believes the approach is essential by sharing that she would leave the profession if she could not differentiate instruction.

The second theme for question four is *differentiated instruction occurs naturally*.

A number of participants found that differentiated instruction occurred naturally in their classrooms. Elise was of the viewpoint that the approach had become second nature to her and other teachers who had used the approach over time. Like Elise, Ginger shared, "It is not hard for me because I have done it so much. I just continue to do it." Laura also said that using the approach is a natural process for her and one that is often based on student need. She said, "There is not necessarily a method to my madness, sometimes I anticipate struggles, sometimes it just happens." In a similar vein, Jenna believes that although a teacher might create differentiated lesson plans, "...it's the small things you

do that really make it powerful for the kids.” Like the others, Mary Ann shared, “I don’t really think about it a lot.”

The next interview question the study addresses is number 5. The purpose of the fifth interview question was to gain understanding of the influence of teachers’ personal experiences with differentiated instruction. Participants were asked, “What personal experiences, if any, have you had that influence your use of differentiated instruction?” The theme found within the data for question number five was *early schooling experiences*. The theme was a result of the majority of teachers sharing on early schooling experiences as influential on their use of differentiated instruction. Subthemes found within the theme were *negative experiences* and *positive experiences*. The first subtheme addressed is *negative experiences*. Several participants responded with negative experiences that influence their use of differentiated instruction. For example, Ginger, Jenna and Toni were struggling learners as young students who had negative experiences at school. Ginger recalled being pulled out of the regular classroom for reading intervention and being made fun of by peers. Jenna shared that she too was a slow learner as a child, and that she had “...some really rough teachers, like if you didn’t get it you were just out there.” Like Ginger, Jenna was singled out and humiliated by a teacher for being a slow learner. Toni attested that she too experienced a teacher who marginalized students. Each participant shared that these negative experiences influence their effort to provide students with a positive classroom environment where all learners are valued and supported. In addition, Ginger shared that her experiences remind her to keep small group instruction fun for students so they will want to participate in them. Toni’s experiences also influence her use of small groups. She shared about attending a parochial school

where communication between teacher and student was minimal. She exclaimed, “Everyone learned the same and you sat in a row, the teacher read to you, and if you didn’t understand anything, you were out of luck!” Toni added that in this environment teacher directed whole group instruction was the only avenue students were offered for learning. As a result of this experience, she found that she is reminded of the value of having conversation with her students and conducting small group instruction.

The second subtheme addressed is *positive experiences*. Some participants had positive experiences that influence their use of differentiated instruction. To demonstrate, Becca explained that as a young student she attended a gifted class where “students were given opportunity to express themselves and be creative instead of being in a cookie cutter classroom.” As a result of this and other positive learning experiences she provides students with choices and celebrates learner diversity. Sally also had positive experiences as a young student. She responded, “I had teachers knew who I was as a person, who knew my interests, asked me questions, wanted to know what I did outside of school. And then they used those experiences to tie into my learning to make it more meaningful.” She explained that these experiences influence her use of interest inventories to determine how her students learn best and what they want to learn about.

The next interview question the study addresses is question number 6. The purpose of the sixth interview question was to gain understanding of the influence of teacher’s professional experiences with differentiated instruction. Participants were asked, “What professional experiences have you had with differentiated instruction that influence your classroom practice?” Themes found within the data for the sixth interview question were: *Pre-service professional development supports differentiated*

instruction, in-service professional development supports differentiated instruction and other experiences support differentiated instruction. Subthemes found within the theme of *pre-service professional development* are *field experience* and *course content*.

Subthemes found within the theme of *in-service professional development supports differentiated instruction* are *district workshops* and *professional learning communities*.

The subthemes found within *other professional experience supports differentiated instruction* are: *Substitute teaching*, and *national board certification*.

Pre-service professional development supports differentiated instruction is the first theme addressed. Several participants found that their pre-service professional development experiences influenced their use of differentiated instruction. Participants responded on a variety of experiences in their teaching courses. To posit, Ginger shared about a field experience where she taught in multiage elementary classrooms using differentiated instruction. She said she implemented differentiated instruction with workshop based curriculum and found it especially effective. She added, “You simply cannot teach fourth and fifth grade multiage without differentiating instruction.” Others had influential field experience as well. For example, Elise shared that during a teacher observation she witnessed a lack of learning and poor student behavior because differentiated instruction was missing. However, she believed the experience was still of value. Elise exclaimed, “I learned from the experience because I learned what not to do!” She added that when she taught the same students using differentiated instruction, student behavior improved greatly. She explained that the field experience was an “eye opener” for her and that it really demonstrated to her the value of differentiating instruction. Chris

responded that his college courses in his bachelor and PH. D. programs influence his use of the approach.

Other participants addressed the content they received in their pre-service courses. To demonstrate, Chris shared that differentiated instruction was a strand running through all of his college classes. He said that it was, “A piece of the conversation in every class.” Chris discovered that the foundation gained in his undergraduate course work highly influenced his understanding and use of differentiated instruction. He said, “It became the knowledge base for everything I did.” Similarly, Becca responded that the approach was a strong component of every lesson plan she was required to write in her teaching courses. In her explanation, she said her instructors asked students, “What are you doing with the high learners, the middle learners, the low learners? How are you changing things?” Becca claimed these experiences highly influence the way she teaches in her classroom today. She declared, “That’s just how teaching is to me, it wouldn’t make sense to do anything else.”

The second theme within question six is *in-service professional development supports differentiated instruction*. The majority referenced professional experience with differentiated instruction as district mandated new teacher professional development of which differentiated instruction is a component. Participants described the program as the following: The first year offered teachers support with classroom management, the second year addressed assessment, and in the third year teachers were provided with professional development on differentiated instruction. In her explanation of the program, Michelle called it a “Differentiation academy” as she shared that it began with “Here’s what it is, here’s what it looks like.” She explained further that within the model teachers

were required to submit differentiated lesson plans that incorporate a variety of intelligences every month until the end of the three year program when it culminated with a book study. All participants describing the program said they had a mentor who worked closely with them throughout the program, and whose knowledge and support they considered invaluable. According to Michelle, “A coach came in and worked closely with you, talked with you, helped you design lessons with scaffolding and differentiation in mind, all based on Carol Tomlinson’s research and various books. Jenna called the mentor she had “A professional development representative.” After describing a process similar to Michelle, she concluded her discussion with, “For me, it was just so great to be able to meet and work with someone like that who actually came in my room to support me in differentiation!” Laura also described positive experiences with a mentor, who she said guided her to differentiate instruction in science, a subject area she considered herself weak in.

Other participants referred to workshops on differentiated instruction offered by the district over the summer. To illustrate, Chris shared that the district offers workshops every summer where teachers are encouraged to sign up and that they receive a stipend for attending. He said, “Most of the workshops offer differentiated instruction of some form or another.” In addition, he shared that his building let school out on Fridays after half a day of instruction so teachers could attend professional development for the rest of the day. Chris said, “Most of the time it is building led and encompasses one form of differentiated instruction or another.” He then added, “The focus is typically on technology and assessment, two integral components of differentiated instruction.”

Additionally, Michelle said she attended summer classes offered to general education teachers on the topic of differentiating instruction in special education classrooms. She said that although she is a regular classroom teacher, she wanted to take the classes so she could better meet the needs of her struggling students. She said, “It’s about looking at things differently, so I can take a little bit from each place and try to put it into action.” She explained further that differentiation is a part of her evaluation and she tries to gather as much information as she can on the approach. MaryAnn also shared that she had taken numerous summer workshops on differentiated instruction. For example, she attended a summer workshop on differentiated writing instruction which she claimed changed the way she will always teach writing. She said she had also attended a “...phenomenal two day conference on a variety of differentiated instructional strategies, such as differentiation, cooperative learning, brain research and more.” In addition, MaryAnn shared that she had presented on the approach in her district as well as at various surrounding colleges. To sum, she said, “I have a lot of knowledge on differentiation due to my professional development experiences.”

In addition to workshop opportunities, a few participants considered professional learning communities an influence on their use of differentiated instruction. Describing what her team did in their professional learning communities, Jenna said they begin with the results of a common assessment and discuss students who are struggling based on the data. She said their goal is to determine how to adjust their instruction to meet the students’ needs. As a result of the planning that occurs in the professional learning community, one day a week students are grouped based on need and teachers teach across the grade level. To do this teachers pull students from each classroom to receive

instruction from one a fellow teacher. Jenna referred to this as, “Taking down the walls.” She added that the principals at her building sit in on every grade level meeting, which she feels is very helpful. Jenna concluded, “In the last 3 years we have really grown so much in our professional learning communities, and it is definitely a team effort to help our kids.” Betsy also mentioned professional learning communities, sharing that in her school teachers are required to meet in teams at least once a week, for an hour. She finds this very helpful because she and others bring in a variety of work samples during this time. Like Jenna’s team, they focus on students who struggle and seek to find ways to help the students better succeed. Betsy said that by asking, “What are these kids struggling with and how can we help them with it? And by just talking it out with each other is such a huge resource.” Similar to Jenna’s comments, Betsy said:

The professional learning community at Stonebridge is a very powerful tool, being able to meet together as a team once a week to talk about our kids. Just to ask each other and ask how are you differentiating here? And, oh, that’ll work, or no, that’s not going to work for me - just utilizing each other makes such a difference.

Toni also shared about the importance of professional learning communities. She explained that her team’s instruction for struggling students has been more effective since they began attending professional learning communities because previously consistency in strategy instruction was lacking. Lastly, Toni shared that she believed the collaboration between teachers at her school had a positive effect on students who recognize that they work together for student success.

The third theme found within question 6 is *other professional experience supports differentiated instruction*. Under this theme, substitute teaching and National Board certification influenced differentiated instruction. Ginger shared about serving a long term substitute position in classrooms with highly diverse student populations, where she taught gifted instruction. She believes it was then that she began to develop a foundation for differentiated instruction. Additionally, two participants who had recently taken their National Board examination considered it an influence. To demonstrate, Chris shared that for his examination he created a differentiated lesson that offered students a variety of roles based on their independent learning level and that also contributed to the success of the group. The next interview question the study addresses is number 7.

The purpose of the seventh interview question was to gain understanding of the ways in which participants' experiences with differentiated instruction influenced their classroom practice. Participants were asked, "In what ways, if any, have your experiences with differentiated instruction influenced your classroom practice?" The theme found within the data for the seventh interview question was *differentiated instruction is prevalent*. Subthemes found within the theme were: *multiple intelligences, a student centered classroom, classroom management, flexible grouping, tiered lessons, literature circles, assessment guides instruction and curriculum compacting*.

The theme found under question seven is *differentiated instruction is prevalent*. The theme demonstrates the finding that the majority of participants found that differentiated instruction was an integral component of their classroom instruction. For example, Laura declared, "Differentiated instruction is the backbone of everything we do. It drives instruction. ...it's in everything." Similarly, Elise said:

It shapes my instruction *every* day. Every time I am plan something I want to make sure I am meeting the needs of all three of those levels. I am constantly searching for ways to challenge my students and to help my struggling learners. Similarly, Michelle said she strives to differentiate instruction every day in multiple ways. Reiterating others, Becca said, “Differentiated instruction influences most of my school day.” Jenna shared on the extent the approach has on her classroom practice:

Differentiated instruction influences how I organize my classroom, plan lessons and implement instruction. I organize my classroom to eliminate disruptions and tier my lesson planning to reach all learners. It also impacts that I give pretests to see where learners are and then plan around their skill levels to eliminate disruptions and tier lessons to reach all learners.

The first subtheme for the theme is *multiple intelligences*. Four participants shared on the importance of applying multiple intelligences to the classroom. For example, Ginger shared that she always keeps the multiple intelligences in mind when offering students projects. She offered, “I love using the multiple intelligences, I think they are a big piece of differentiation.” Similarly, Michelle shared about the variety of products she offered students to demonstrate mastery. She explained, “We are very much about Voice and Choice in my classroom. They can’t always have a choice, but if there’s a way they can, I certainly make sure they get it.” Becca also shared on offering students choices. Describing a recent social studies project her class did, she said, “The kids got to decide what they were going to learn about, how they were going to learn it, and how they wanted to present it.” She added, “Right there, the kids were differentiating themselves, just by level of interest.” MaryAnn attested that she uses learning inventories because,

“This gives me a heads up in what they are interested in, how they learn best, whether its kinesthetically, visually, auditory, by teaching topics they are more passionate about.” She elaborated, “In this way I can get a profile of what they are interested in and hit those areas and incorporate those things into their learning.” She added that for academics she strives to teach them the same objectives but with multiple opportunity in a variety of ways. One participant shared that she articulated to students how she used the multiple intelligences to group them. Becca said she told her students, “I group you according to how you think. This group over here, you like to look at things, this group over here, you need to hear it and this group over here you need to write stuff down.”

The second subtheme is *a student centered classroom*. A number of participants addressed meeting the needs of all learners with differentiated instruction. For example, Toni said, “By differentiating what and how I teach, my instruction is so much more tailored to my students’ needs and what they need to do to fix their problems and misunderstandings.” Additionally, Becca said, “I feel like it is essential to meet my students varying needs...I constantly fine tune my instruction so that I am meeting the needs of each kid in my classroom.” She also shared how she met students’ needs by adjusting the pace of instruction.

A few participants shared how they allowed students to use high interest text for reading instruction. To demonstrate, Elise and Sally described experiences where they let students choose texts beyond their independent reading level with positive results. Elise said the experience was meaningful to her because it showed her what can happen when a teacher is willing to “Give the power away to the kids.” Students were also

allowed to track their progress and set their own goals. Sharing on these experiences, Michelle said:

I ask them, how will we know when you have met your goals? So they track it, we go back and look at it together and have this conversation...how are we going to get there, what do we need to change? Thus they become aware of what they need to be successful, of how they learn, why they learn, what prevents them from learning.

Similarly, Toni shared that students at her school were very involved in their learning. She said they often filled out bar graphs where they tracked their progress in reading and math. Toni also shared that she included students in making a scoring guide to assess their learning. She said she asks them if there is anything missing or if they see anything they feel is unfair about the assessment. Toni concluded by saying that her students were very bright and capable of taking ownership of their learning.

Classroom management is the third subtheme addressed. Some participants shared on the importance of modeling procedures and expectations the first few weeks of school to support differentiated instruction. To demonstrate, Jenna said, “It is so important to set those protocols and procedures early on in the year for differentiation, so the transitions are seamless. To me this is really important.” To illustrate, Ginger shared how she utilized differentiated instruction through workshop based curriculum and that during that time:

Students know exactly what it is that they need to do. They work independently at their own pace and those who finish their work first know they need to move on to the next thing and exactly what it is that they need to move on to.

Toni said that her students were so good at following classroom procedures that her classroom “ran on autopilot.”

The fourth subtheme discussed is *flexible grouping*. Several participants addressed the importance of flexibility in grouping. According to Becca, grouping in her classroom occurred by interest, ability, IQ, or “...sometimes it’s completely random. It depends on the intention of the lesson that day.” She also shared that grouping in her room is so flexible that students don’t realize they are being grouped. Some participants sharing on grouping explained that flexibility is maintained as students are grouped based on ability as well as interest. In addition, groups changed frequently based on student need. To demonstrate, Chris described flexible grouping in the following, “...sometimes I will keep one or two kids for the next group because I feel like they need to hear it again. Some days I move groups around more than other times.” Ginger referred to the importance of flexibility in grouping in this way:

You have your low group and your middle group and yes it’s good to group by ability, but I also think it’s important to group them by interest because the lower kids will learn from the higher kids and also so they won’t always feel tracked, you know, different.

Laura shared how she used flexible grouping with literature study groups to build a community of learners. She explained that students are allowed to ask group members if they can join a group. She added that with a diverse student population it is especially important to her that students learn to trust one another and feel safe. She shared, “I want them to feel invested and to want to be a part of the dynamics instead of being on the outskirts just waiting to move again and I think flexible grouping helps with that.”

Tiered Lessons is the fifth subtheme addressed. Tiering was referred to by the majority of participants. Participants shared on tiering in math and reading and across grade level. To demonstrate, Becca said she tiered math lessons and activities for all levels of learners. She explained how she used more hands on activities with her lower groups and that they usually remained in groups longer than her other students. In reading, Chris said he implemented guided reading groups with leveled readers from his school's basal reading program. Ginger expressed her thoughts on using leveled texts for guided reading:

I usually level my groups because some of my higher learners get bored if they have to read a book that's low for them, and some of my other learners are obviously going to have a harder time comprehending text that's too hard for them.

Jenna also shared on tiered reading. She described how she typically had grade level students reading from a basal reader, struggling readers using leveled books in guided reading groups and advanced students who tested out of the basal after two days.

Participants found tiering across grade level an effective way to differentiate instruction. For example, Becca shared that in her building each grade level taught math at the same time so students who needed differentiated math instruction left their assigned classroom and received tiered math instruction from another teacher. Betsy said last year was the first time her grade level team had ability grouped across grade level for math. She added, "It was the best year I have had for differentiating...it really showed us what a difference leveling across grade level can make for meeting the needs of all

students.” Additionally, Chris shared that his team grouped students by ability across grade level in math and reading and that it had been effective.

Literature circles are the sixth subtheme found within the theme. Some participants shared that they utilized literature circles and one found them especially influential. Laura shared that in previous years she held literature circles with her high readers, but this year she also implemented them with struggling readers. Explaining the process, she said that implementing literature circles has given her opportunity to “...really stretch my students as readers and it has been fun for them because of the rich vocabulary exposure and high interest books they are reading.” Laura attested that there has been more growth in her students’ reading since she began implementing literature circles. Lastly, she said, “What I love about literature circles is that *they* love them.”

The seventh subtheme addressed for question seven is *assessment guides instruction*. The majority of participants discussed the importance of assessment and how it guides instruction in math and reading. Several participants mentioned using pretests to guide math instruction and others discussed reading assessment. For example, Jenna, Elise and Toni said they use pretest data to plan instruction for skills taught in reading, and assess weekly to monitor reading progress. Elise shared that she and fellow teachers collect standardized text data at the end of the year, then use it to form instruction based on students’ ability level the following year.

Various modes of assessment were mentioned. Two participants said that informal assessment data and anecdotal records contributed to their use of curriculum compacting (Tomlinson, 2001; Heacox, 2002) to meet the needs of gifted students. Some participants responded on using rubrics as an assessment tool and one referred to

assessing during small group instruction. Toni shared that the advantage of teaching in small groups is that “I can assess students right then and there, and as a result, adjust my instruction on the spot.” Computer software was also utilized for assessment. For example, Jenna described a computer program that offers grade level assessments in the form of games. At this site, she creates custom assessments that her team uses to place students in instructional groups based on reading skill level. Also mentioned were the Star Reading Program and Aims Web for gathering various types of data on student reading.

Others talked about modifying assessments to meet learners’ needs. For example, Michelle said that in order to avoid frustration for her struggling readers, she modifies their assessments in a variety of ways. Articulating her philosophy of differentiating assessment, she said, “Do I care that you can actually circle the correct answer on that test? Or do I care that you understand the concept?”

The eighth and final theme addressed for question seven is *curriculum compacting*. Participants utilized the strategy in reading and math. In reading, several participants shared that when students demonstrated mastery prior to their teaching a basal story or literature unit, they removed those students from the lesson and assigned them advanced lessons. This was typically in the form of independent reading. Teachers then gave students a slip which they referred to as “exit slips.” In addition, students were often tested out after two days of reading the story. Curriculum compacting was also utilized in math. To demonstrate, MaryAnn shared that prior to teaching a chapter in math she pretested students, identified those who were advanced, and assigned them

higher level math material which was usually in the form of a packet. The next interview question the study addresses is number 8.

The purpose of the eighth interview question was to gather any information about participants' experiences with differentiated instruction that were not addressed in the previous interview questions. Participants were asked, "What other experiences with differentiated instruction would you like to describe?" The theme found within the data for question number eight was: *A classroom environment conducive to learning*. Within the theme, the subtheme of *high expectations* was revealed. A classroom conducive to learning demonstrates how some participants described the physical and emotional make up of their classrooms. For example, Chris purposefully set up his tables and work centers to allow students to easily navigate between whole and small group settings in addition to working independently and with partners. One participant shared about displaying student work as a way to provide student ownership in the classroom. Ginger said she purposefully displayed student work in her classroom so students would feel proud of themselves and their learning. She also said she liked to teach with music and that she wanted learning in her classroom to be fun whenever it could be. Referring to the emotional climate in her class, Jenna said she tries to create a warm environment where students feel free to make mistakes. She shared that she wants her students to realize that, "We are all learning together, we all learn at different levels and we are all here for the same reason." Jenna said that her students call themselves a family. The teacher explained that this is because they recognize each other's strengths and weaknesses and they accept and honor these. Jenna also makes her classroom a fun place to be. She said she likes to show silly videos to students because she believes this allows them to see her

as a person who likes to have fun, not just as a teacher. Jenna said that she wants her students to know that she enjoys coming to work and being with them. She concluded, “To me, differentiation is how they get me, how they get my time. Without it, I don’t think they would feel as valued.”

The subtheme of *high expectations* was found within the theme. High expectations also contribute to a classroom environment where learning is promoted. Several participants shared how their high expectations positively influenced student performance. To posit, Betsy shared an experience that demonstrated to her what a team of committed teachers can do when they push a student to succeed. She had a student who struggled greatly in math and who could not use grade level curriculum. She and 7 other teachers worked with the student for explicit one-on-one tutoring where they held high expectations. The end result was that the student reached grade level benchmarks. Betsy’s closing words regarding this experience were, “It can be done if you differentiate correctly and work hard, communicate with other people and believe in the kid, it can happen.” Similarly, Laura shared about an experience where she held high expectations for a student who eventually became successful in reading because of her support. Maintaining her belief that he was capable, she put him in a group with high readers who challenged him, and he responded by working harder and becoming a better reader. Ginger said she strives to challenge her students daily. She shared that the biggest lesson she has learned as a teacher is to “Never underestimate kids, keep your expectations high. You never know what they are capable of doing unless you let them do it and try.” Laura added, “But first you have to believe in them.”

Summary

Chapter 4 described the data collection procedure and provided a detailed description of the data analysis conducted on this study. The results were drawn from in-depth interviews conducted with 11 participants and included verbatim quotes to support the analysis. Analysis of interview dialogue revealed 8 thematic groups and 17 subthemes which facilitate understanding of upper elementary teacher's perception and implementation of differentiated instruction. Participants considered differentiated instruction an instructional approach essential for meeting students' needs that occurs naturally over time. Both personal and professional experiences were found to influence use of differentiated instruction. Described were aspects of the approach utilized to promote student learning in upper elementary classrooms. Chapter 5 provides a summary, further conclusion and recommendations based on the results of the data and the literature review.

CHAPTER V

STUDY OVERVIEW, CONCLUSIONS AND RECOMMENDATIONS

Differentiated instruction is an effective instructional approach to assist teachers in meeting curricula and standards demands while attending to the learning needs of all students (Lawrence-Brown 2004; Tomlinson, 2000b). Although the approach is highly regarded (Rock, Gregg, Ellis, & Gable, 2008; Heacox, 2002; Tomlinson, 1999), and studies demonstrate its efficacy (Baumgartner, Lipowski & Rush , 2003; McAdamis, 2001; Beecher, Sweeney, Tieso, 2005), a review of the literature revealed a gap regarding teacher perceptions of the approach and how these influence instructional practice in the upper elementary classroom.

Thus, the purpose of this qualitative phenomenological study was to explore teacher perception on differentiated instruction through the lived experiences of 11 teachers of students in grades 3 to 5. Because teachers new to the district receive professional development on differentiated instruction, a requirement of the study was that participants had taught at least 3 years in the school district in order to ensure experiences on the approach. Participants received an explanation of the study and demonstrated agreement to participate by signing a consent form. Open interview questions were developed (see Appendix B) to allow participants to describe their

experiences and provide perspectives on differentiated instruction. Interviews were conducted at a central location off school property to avoid disrupting school hours. To ensure accuracy, interviews were recorded using a digital voice recorder and member checking was utilized as participants were sent transcripts and then asked to read and verify for accuracy (Moustakas, 1994). Additionally, interviews were transcribed using transcription software in order that no data would be misconstrued or lost. Discourse constructed from participant interviews was used to explore the research question: *How do upper elementary teachers in grades 3, 4, and 5 perceive the influence of differentiation on instructional practice?* Data analysis included reading the transcripts numerous times then highlighting meaningful statements and discarding those deemed irrelevant to the study. Consequently, what remained were meaningful units which were then coded into themes highlighting participant's experience and perspectives on differentiated instruction. Therefore, subthemes were subsequently drawn from some of the themes. The seven themes were: (a) differentiated instruction is essential in an effective classroom, (b) differentiated instruction occurs naturally, (c) early schooling experiences influences differentiated instruction, (d) pre-service professional development supports differentiated instruction, (e) in-service professional development supports differentiated instruction, (f) differentiated instruction is prevalent, and (g) classroom environment conducive to learning.

Conclusions

The first theme of *differentiated instruction is essential in an effective classroom*, demonstrated that all participants felt strongly that differentiated instruction was a valuable and necessary approach to teaching and learning. Teachers realize that

implementing differentiated instruction enables classrooms to meet the needs of all learners. It is a teacher's responsibility to differentiate instruction and to do anything less is unacceptable. The theme is aligned with Carol Tomlinson's (2005) view that teachers are increasingly aware that they need to teach differently to reach the growing population of diverse learners.

The second theme addressed is *differentiated instruction occurs naturally*. This theme demonstrates that teachers in 3-5th grade classrooms fail to plan consistently for differentiated instruction and instead implement the approach as needed. Several participants in this study considered themselves differentiated instructional experts who did not need to write specific lesson plans to guide their use of the approach. As research asserts that teachers either differentiate instruction by planning in a proactive manner or they respond reactively to student need (Tomlinson & Edison, 2003; Tomlinson, 2005), this theme supports the research.

The third theme addressed is *in-service professional development*. Subthemes found within the theme were *district workshops* and *professional learning communities*. Chapter 4 revealed that *in-service professional development* was a critical influence in the use of differentiated instruction. The district required participants to attend professional development on differentiated instruction as new hires and ongoing thereafter. The new teacher professional development program was a three year process which addressed classroom management in year one, assessment in year two and differentiated instruction in year three. Tomlinson (2005) asserted that professional development should inform, involve application and collaboration, and support teachers. During this time teachers

were supported by a professional mentor as they applied differentiated instructional strategies in the classroom, addressed difficulties and planned for further instruction. Similar to this study, in Beecher & Sweeney, (2008) teachers' implementation of differentiated instruction was supported with teacher training, modeling, coaching and time for planning which resulted in positive changes regarding differentiated instruction. Tomlinson (2005) claimed that professional development leaders play a critical role in ensuring that today's classrooms respond appropriately to current student need. All participants spoke highly of the program in general and especially the opportunity to share and receive feedback from a knowledgeable professional.

The first subtheme found within the theme was *district workshops*. It was found that in addition to the "Differentiation Academy" new teachers attended, seasoned teachers attended workshops on differentiated instruction throughout the year and in summer months. Tomlinson (2005) recommended that professional development on differentiated instruction evolve on a continuum in order to provide sustained support throughout teachers' careers. In other literature, Tomlinson (2000) urged schools to provide experienced teachers of differentiated instruction with more advanced levels of staff development. Therefore, this finding is in keeping with the recommendation found in the literature. All participants found the time well spent and were grateful to the district for the ongoing support of differentiated instruction. For example, Michelle exclaimed, "Stonebridge is fabulous. The district that I teach has been absolutely phenomenal for helping us continue with the differentiated model."

The second subtheme found within the theme is *professional learning communities*. Differentiated instruction is a complex approach to teaching learning. In

order for successful implementation of the approach, teachers need support (Tomlinson, 2005). Teachers valued the opportunity to discuss, share and plan together during professional learning communities. For example, Jenna declared, “It’s so nice to collaborate with other people. I mean, let’s be honest, sometimes you just get so much information you don’t even know what to do with it all. So many different strategies...”

As a result of the collaboration that took place during this time, teachers grew as differentiated teachers. Pettig (2000) stated that teachers should collaborate as they work through the difficulties of implementing differentiated instruction. The author claimed, “The very act of discussing ideas is as critical to the learning process as it is to students’ learning.” Some teachers shared that they had recently tried grouping across grade level for the first time and that it had worked well because of the communication and support they received from one another during professional learning community.

The fourth theme addressed is *differentiated instruction is prevalent*. The majority of participants reported that differentiated instruction is common in grade 3-5 classrooms. To demonstrate, Laura declared:

We differentiate in every single subject as best as we can, and as often as we can.

The two easiest for me are reading and math but there are still ways to do it in English, Science and Social Studies.

Differentiated instruction influenced the overall organization, lesson planning, day to day instruction, and use of pretests prior to teaching units or lessons. Several participants shared that utilizing the approach assisted them in meeting the needs of advanced and struggling learners. The findings within this theme are in contrast to the

research which asserted that teachers do not usually differentiate instruction for English language learners, disabled students or advanced students (Tomlinson, 2005).

There were eight subthemes found within the theme of *differentiated instruction is prevalent*. The first subtheme is *multiple intelligences*. Several participants shared on experiences involving the application of the Multiple Intelligences (Howard Gardner; 1983; 1993). Learning profile is a student characteristic in the differentiated classroom (Tomlinson, 2001; Tomlinson & Edison, 2003; Heacox, 2002) that includes the Multiple Intelligences (Armstrong, 2007; Howard Gardner; 1983; 1993). The Multiple Intelligences support differentiated instruction as a, “a student-centered model that allows students to use their strengths to demonstrate what they have learned.” (Hoerr , 2000, p. 5) Four participants offered students’ choice of products to demonstrate mastery of learning. One participant referred to the use of learning inventories to create student profiles and several others referenced the application of student choice in process based learning. Participants understood and applied the theory of the Multiple Intelligences. The outcome of this study supports the research as learner preference and learning style are utilized as a framework for the differentiated instruction classroom (Armstrong, 1994, 2007; Howard Gardner; 1983; 1993).

The second subtheme is *a student centered classroom*. Within this theme the literature review as reported in chapter two of this study is supported in several ways. First, it was revealed that teachers in grades 3-5 meet the needs of academically diverse students by regularly tailoring instruction (Tomlinson, 1999; 2000). This was evidenced as numerous participants shared on the ways in which they differentiated content and delivery of instruction for learners. In addition, assessment was modified as a way to

meet varied student learning. For example, Michelle said that in order to avoid frustration for her struggling readers, she modifies their assessments in a variety of ways.

Articulating her philosophy of meeting the needs of all learners, she said, “Do I care that you can actually circle the correct answer on that test? Or do I care that you understand the concept?” Second, Interest is a student characteristic found in the differentiated classroom (Tomlinson, 2001; Tomlinson & Edison, 2003; Heacox, 2002) which was evident within this subtheme. Data found in chapter 4 reveal that several teachers offered students choices in a variety of ways which included instruction and materials. In addition, a few participants mentioned that they found student motivation and engagement increased when students were offered choices based on interest. Thus, this subtheme also supports the literature that increased motivation is an outcome of the differentiated classroom (Tomlinson, 2001, Tomlinson & Edison, 2003). Third, another essential idea of differentiated instruction is that students take responsibility for their learning (Pettig, 2000; Tomlinson & Edison, 2003). Within this subtheme it was found that some teachers held students responsible for their learning as they encouraged them to track their own progress, set their own goals for learning and create scoring guides to assess learning. Therefore, the idea that students can and should take responsibility for their learning as referenced in the literature (Pettig, 2000; Tomlinson & Edison, 2003) was further supported by this study.

The third subtheme is *classroom management*. Within this theme it was found that teachers in the differentiated classroom understand the importance of classroom procedures and routines to promote differentiated instruction. According to Tomlinson & Imbeau (2010) procedures and routines in the differentiated classroom should be

presented in a “structured, predictable and efficient manner (p. 99)”. Some participants shared how they worked to implement procedures and routines to allow for a smoothly run classroom (Tomlinson, 2001; Tomlinson & Imbeau, 2010; Pettig, 2000).

Additionally, two teachers noted that differentiated instruction kept students motivated and engaged in learning, which decreased student misbehavior.

The fourth subtheme is *flexible grouping*. Several participants addressed the importance of flexibility in grouping. Flexible grouping is a hallmark of the differentiated classroom (Tomlinson & Edison, 2003). Teachers grouped students in a variety of ways and these changed frequently based on student need and the intention of the lesson. Grouping occurred most commonly in the subjects of reading and math. Four participants shared on the use of flexible grouping for guided reading and three others referred to literature study groups. During literature study groups students were assigned individual roles which ensured that all had equal opportunity to contribute to the group (Daniels, 2002). The literature posits that grouping should be flexible, for example a student might attend leveled reading groups two days a week and interest groups on other days (Tomlinson & Imbeau, 2010). It also asserted that the use of student grouping is a one way teachers create a sense of community (Tomlinson & Imbeau, 2010). Teachers in this study grouped students in a variety of ways and one teacher shared that she placed great emphasis on using grouping to create a shared community in her classroom. Therefore, these findings further support the literature on the use of flexible grouping as an important element of the differentiated classroom (Tomlinson, 2001; Heacox, 2002; Tomlinson & Imbeau, 2010; Tomlinson & Edison, 2003).

The fifth subtheme is *tiered lessons*. The majority of participants shared on tiering across grade level. The following process was described: Assessment data was used to determine group placement, students were grouped accordingly then they received instruction based on their level of learning. As a result, teachers often taught multiple groups from various classrooms. Consequently, students in the third grade might receive math instruction in fifth grade and so on. Some participants shared that it was typical to instruct 3-4 groups in one hour. At times students left the building to receive tiered lessons. For example, gifted students attended a special program offered by the district once a week at a different building. In addition, one participant shared that she had two students who left the elementary school to receive math instruction at a middle school in the district. A few participants shared that when the advanced students were gone they utilized the time to focus on struggling learners. All participants spoke highly of the process for tiering across grade level and found it an effective way to differentiate instruction. Tiering is an essential component of the differentiated classroom (Tomlinson, 1999, 2001; Heacox, 2002). This study builds on the notion prefaced in previous literature review which demonstrates that students respond more favorably when instruction is tailored to their learning needs.

The sixth subtheme is *literature circles*. Several participants shared that they utilized literature circles for reading instruction. Literature circles are recommended in the differentiated literature (Tomlinson, 1999; 2001). One of the advantages of utilizing literature circles is that they offer students the opportunity to gather and discuss commonly read books. Literature circles empower students as they respond to literature in a variety of ways such as talking, writing, acting and creating art (Schlick Noe &

Johnson, 1999). The strategy had a positive impact on the classroom as teachers found it promoted learning for both advanced and disabled students. Additionally, Jenna , Ginger and Chris shared on the creative ways students had responded to literature groups. For example, Jenna’s class created a scene and wrote scripts from the novel, *The Bridge to Terabithia*. The current study adds to the review which recommended literature groups as an effective strategy in the differentiated reading classroom.

The seventh subtheme is *assessment guides instruction*. All participants referred to assessment as an integral tool for guiding instruction in reading and math. Both summative and formative assessments were utilized to group students and tier instruction. Assessment was commonly used to benchmark students prior to teaching a unit or when a unit culminated (Tomlinson, 1999). In reading students were placed in leveled reading groups according to assessment data then progress monitored as needed. Computer software was also utilized to assess learning in reading, and students were grouped according to the data. As was reported in chapter two of this study, readiness is a student characteristic that requires matching students’ skills with their levels of understanding (Tomlinson, 1999, Tomlinson, 2001; Tomlinson & Edison, 2003). Teachers in this study focused on student readiness as they widely used assessment to guide instruction rather than to simply categorize students (Tomlinson, 2001). Consequently, this study further supports the literature that student readiness is a critical element of differentiated instruction (Tomlinson, 1999, Tomlinson, 2001; Tomlinson & Edison, 2003).

The eighth subtheme is *curriculum compacting*. A few teachers utilized curriculum compacting in reading and math classrooms as a strategy for differentiated instruction to meet the needs of advanced learners. During curriculum compacting

students were exited out of grade level instruction and received advanced instruction. For example in reading students read more challenging texts, and in math they received packets of advanced materials. As reported in chapter two of the current study, curriculum compacting is an effective differentiated instructional strategy which assists teachers in meeting the learning needs of advanced students (Tomlinson, 2001, Heacox, 2002). By utilizing curriculum compacting, participants met students varied learning needs and critical learning time was optimized (Tomlinson, 2001; Heacox, 2002; Gregory & Chapman, 2007). Therefore, this study adds to the literature on curriculum compacting as a differentiated instructional strategy which supports student learning.

The fifth theme addressed is *classroom environment conducive to learning*. A few participants shared on the ways in which their classroom environment promoted student success. The first step in creating a positive learning environment is to tend to the physical set up of the classroom (Burke & Burke-Samide, 2004). One teacher described the purposeful ways he set up the furniture and work areas in his classroom so students could move around the room with ease. Other teachers shared on a variety of ways they created a classroom environment to promote student learning. Student work was displayed to build students' self esteem and create ownership in the classroom. Two teachers shared how they purposefully made learning fun for students. Tomlinson (2001) urged teachers to use positive energy and humor in the differentiated classroom. Gregory & Chapman (2001) suggest that teachers use music to enhance classroom climate and that humor in the classroom raises students' ability to learn. Jenna shared how she interjects humor in her classroom, "...and things are funny and we sit and laugh at the dumbest things, really just laughing at silly things." Ginger shared that her students tell

her they love her classroom because of the singing, dancing and fun projects they get to do. Teachers in the current study utilized strategies recommended in the literature and consistently worked to create a sense of community in the classroom.

The subtheme of *high expectations* was found within the theme. High expectations also contribute to a classroom environment that promotes learning (Tomlinson, 1999; Tomlinson & Edison, 2003). As Gregory & Chapman (2007) maintain, “Effective teachers believe that there is potential in each learner and commit to finding the key that will unlock that potential (p. 9).” Several participants described experiences where their high expectations and belief that all students are capable influenced student learning. This finding supports the literature that maintaining high expectations is a component of the differentiated classroom (Tomlinson, 1999; Tomlinson & Edison, 2003).

Recommendations

Meeting the learning needs of academically diverse students is a priority in today’s schools (Palmer, 2005). Schools grapple with meeting state standards as required by NCLB and teachers often teach to the test as a result (Smyth, 2008). Differentiated instruction assists schools in teaching responsibly by addressing student variance in readiness, interests and preferences with the goal of raising student achievement (Tomlinson, 2005; Levy, 2008). Given the need for differentiated instruction in today’s schools, the results of this study are important.

The purpose of the current study was to explore teacher perceptions on differentiated instruction and the ways these influence classroom practice. The results of this study indicated that teachers understood the benefits of differentiated instruction to

maximize student learning (Tomlinson, 2005) and they took responsibility for implementing the approach. In contrast to the previous literature review (Robison, 2004; Thompson, 2009) the study also revealed that teachers applied theory and practice to the differentiated classroom through the application of the Multiple Intelligences (Armstrong, 1994, 2007; Howard Gardner, 1983, 1993). The results of this study further demonstrated that teachers placed importance on student readiness and used assessment to guide instruction (Tomlinson, 1999; 2001).

Consequently, teachers strategically differentiated instruction by flexibly grouping students across grade level in addition to the regular classroom. A future study to consider would be to explore in depth teachers use of flexible grouping across grade level, for example how groups are constructed and managed and the influence these have on student achievement. It would be beneficial to know how students perceive the process as well.

Results of the study also revealed that teachers utilized the following differentiated instructional strategies: tiered lessons, literature circles and curriculum compacting. A suggested study would be to explore differentiated instructional strategies teachers use by observing and examining lesson plans in addition to teacher interview.

Additionally, the results show that new teachers were supported with professional development to support differentiated instruction that occurred over three years. It began with classroom management, then assessment and eventually differentiated instruction. Teachers were also supported by a professional mentor as they implemented differentiated instruction. Given the immediate need for differentiated instruction in classrooms, a future study could explore professional development on differentiated

instruction that lasted less than three years. Further, given budget constraints schools have today and the cost of paying a professional expert, the same future study could train teachers as leaders of differentiated instruction who could mentor fellow teachers new to implementing the approach.

In the literature review of this study it was revealed that a lack of planning time challenged teachers to implement differentiated instruction (Robison, 2004; Thompson, 2009). In contrast, the results of this study show that professional learning communities provided teachers with a common planning time they considered efficient for planning and collaborating on how to best differentiate instruction. Further research on the influence of professional learning communities to support teachers' utilization of differentiated instruction would benefit schools seeking to maximize teacher leadership and increase differentiated instruction. Finally, because the results of this study are limited to teachers in grades 3-5, another consideration would be to replicate this study with middle or high school participants.

REFERENCES

- Aborn, M. (2006). An intelligent use for belief. *Education*, 127(1), 83-85.
- Affolder, L. P. (2003). *Differentiating instruction in inclusive elementary classrooms* (Doctoral Dissertation, University of Kansas), *Dissertation Abstract International*, 64(09), 3141A. (UMI No. 3107298)
- Anderson, K. M. (2007). Tips for teaching: Differentiating instruction to include all students. *Preventing School Failure*, 51(3), 49-54.
- Armstrong, T. (1994). *Multiple intelligences in the classroom*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Banks, J. A., & Banks C. A. M. (2007). *Multicultural education: Issues and perspectives* (6th Ed.). Hoboken, NJ: John Wiley & Sons.
- Beecher, M., & Sweeney, S. M. (2008). Closing the achievement gap with curriculum enrichment and differentiation: One school's story. *Journal of Advanced Academics*, 19(3), 502-530.
- Brimijoin, K., Marquissee, E., & Tomlinson, C. A. (2003). Using data to differentiate instruction. *Educational Leadership*.
- Bumgartner, T., Lipowski, M. B., & Rush, C. (2003). Increasing reading achievement of primary and middle school students. (Masters Theses, Saint Xavier University) Skylight Professional Development Field Based Masters Program.
- Burke, K., & Burke-Samide, B. (2004). Required changes in the classroom environment:

- It's a matter of design. *The Clearing House*, 77(6), 236-239.
- Campbell, L. (1997). How teachers interpret MI theory. *Educational Leadership*, 55(1), 14-19.
- Campbell, C., Campbell B. & Dickenson, D. (2004). *Teaching and learning through multiple intelligences* (3rd ed.). Boston: Pearson.
- Chapman, C., & King, R. (2005). *Differentiated assessment strategies*. Thousand Oaks, CA: Corwin Press.
- Csikszentmihalyi, M. (1997). *Finding flow in everyday life*. New York, NY: Basic Books.
- Creswell, J. W. (1998). *Qualitative inquiry and research design: Choosing among five traditions*. Thousand Oaks, CA: Sage Publications.
- Creswell, J. W. (2005). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. (2nd ed.). Upper Saddle River, NJ: Pearson.
- Creswell, J. W., & Clark, V. L. P. (2007). *Designing and conducting mixed methods approaches*. Thousand Oaks, CA: Sage Publications.
- Daniels, H. (2002). *Literature circles: Voice and choice in book clubs & reading groups*. Portland, Maine: Stenhouse Publishers.
- Darling-Hammond, L. (1998). Teachers and teaching: Testing policy hypotheses from a national a commission report. *Educational Researcher*, (27)1, 5-15.
- De Anda, D. (2007). Reflections on introducing students to multicultural populations and diversity content. *Journal of Ethnic & Cultural Diversity in Social Work*, 16(3/4), 143-158.
- DiCicco-Bloom, B., & Crabtree, B. F. (2006). The qualitative research interview. *Medical Education*, 40(4), 314-321.

- Denzen, N.K., & Lincoln, Y.S. (2005). *The Sage handbook of qualitative research*, (3rd ed.) Thousand Oaks, CA: Sage Publications.
- Fisher, D., & Frey, N. (2007). *Checking for understanding: Formative assessment techniques for your classroom*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Fountas, I. C., & Pinnell, G. S., (2001). *Guiding readers and writers, grades 3-6: Teaching comprehension, genre and content literacy*. Westport, CT: Heineman Publishers.
- Gamoran, A., & Weinstein, M. (1995). Differentiation and opportunity in restructured schools. Madison, WI: Center on Organization and Restructuring of Schools (ERIC Document NO. ED 386 828)
- Gardener, H. (1983). *Frames of mind: The theory of multiple intelligences*. New York: Basic Books.
- Gardener, H. (1993). *Multiple intelligences: The theory in practice*. New York: Basic Books.
- Garderen, D. V., & Whittaker, C. (2006). Planning differentiated, multicultural instruction for secondary inclusive classrooms. *Teaching Exceptional Children* 38(3), 12-20. 12-20.
- Garesis, C. R. (2007). Reclaiming an important teacher competency: The lost art of formative assessment. *Journal of Personnel Evaluation and Education*, 20, 17-20.
- George, P. S. (2005). A rationale for differentiating instruction in the regular classroom. *Theory into Practice*, 44(3), 185-193.
- Giorgi, A. (2008). Concerning a serious misunderstanding of the essence of the

- phenomenological method in psychology. *Journal of Phenomenological Psychology*. 39, 33-58.
- Green, F. (1999). Brain and learning research: Implications for meeting the needs of diverse learners. *Education*, 119, 682-694.
- Gregory G. H., & Chapman, C. (2007). *Differentiated instructional strategies: One size doesn't fit all* (2nd ed.). Thousand Oaks, CA: Corwin Press.
- Gregory, G. H., & Kuzmichm L. (2004). *Data driven differentiation in the standards-based classroom*. Thousand Oaks, CA: Corwin Press.
- Hall, T. Strangman, N., & Meyer, A. (2003). Differentiated instruction and implications for UDL implementation. Wakefield, MA: National Center on Assessing the General Curriculum. Retrieved July 13, 2011, from http://www.cast.org/publications/ncac/ncac_diffinstructudl.html
- Heacox, D. (2002). *Differentiating instruction in the regular classroom: How to reach and teach all learners, grades 3-12*. Minneapolis, MN: Free Spirit Publishing.
- Heritage, M. (2007). Formative assessment: What do teachers need to know and do? *Phi Delta Kappan*, 89, 140-145.
- Hoerr, T. (2002). Applying MI in schools. Retrieved July 30, 2011, from <http://education.jhu.edu/newhorizons.org/strategies/topics/mi/hoerr2.htm>
- Hoffman, J. (2003). Multiage teachers' beliefs and practices. *Journal of Research in Childhood Education*, 18(1), 5-17. Retrieved on August 20, 2011 from <http://www.freepatentsonline.com>
- Holloway, I., & Wheeler, S. (2002) *Qualitative research in nursing and healthcare*. West Sussex, United Kingdom: Blackwell Publishing.

- Hyun, E. (2003). What does the No Child Left Behind Act mean to early childhood teacher educators?: A call for a collective professional rejoinder. *Early Childhood Education Journal*, 31(2), 119-125.
- Jensen, E. (1998). *Teaching with the brain in mind*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Johnsen, S. (2003). Adapting instruction with heterogeneous groups. *Gifted Child Today*, 26(3), 5-6.
- Lawrence Brown, D. H. (2004). Differentiated instruction: Inclusive strategies for standards-based learning that benefit the whole class. *American Secondary Education* 32(3), 34-62.
- Levy, H. M. (2008). Meeting the needs of all students through differentiated instruction: Helping every child reach and exceed standards. *The Clearing House*, 81(4), 161-164.
- Lincoln, Y. S., & Guba, E.G. (1985). *Naturalistic inquiry*. Beverly Hill, CA: Sage.
- McAdamis, S. (2001, Spring). Individual instruction: Teachers tailor their instruction to meet a variety of student needs. *National Staff Development Council*, 48-50.
- McBride, B. (2004). Data-Driven Instructional Methods: 'One strategy fits all' doesn't work in real classrooms. *The Journal*, 31(11), 38-39.
- McTighe, J., & Brown, J. L. (2005). Differentiated instruction and educational standards: Is détente possible? *Theory Into Practice*, 44(3), 234-244.
- McTighe, J., & O'Connor, K. (2005). Seven practices for effective learning. *Educational Leadership*, 63(3), 10-17.
- Moon, T. R. (2005). The role of assessment in differentiation. *Theory in Practice*, 44(3),

226-233.

Moon, T. R., Callahan, C. M., Tomlinson, C. A., & Miller, E. M. (2002). *Middle School Classrooms: Teachers Reported Practices* (RM02164) Storrs, CT: The National Research Center on the Gifted and Talented University of Connecticut. Retrieved on July 2, 2011 from

<http://www.gifted.uconn.edu/nrcgt/reports/rm02164/rm02164.pdf>

Mousakas, C. (1994). *Phenomenological research methods*. Thousand Oaks, CA: Sage Publications.

National Assessment of Educational Progress, (2008). *The nations report card*, 2008.

Retrieved July 20, 2011 from, [www.http://eric.ed.gov](http://eric.ed.gov)

Neito, L. (2000). Placing equity front and center: Some thoughts on transforming teacher education for a new century. *Journal of Teacher Education* 51(3), 180-187.

No Child Left Behind Act of 2001, Pub. L. No. 107-110, 115 stat. 1425-2094. Retrieved July 3, 2011, from <http://www2.ed.gov/policy/elsec/leg/esea02/index.html>

Orsmond, P., Merry, S., & Callaghan, A. (2004). Implementation of a formative assessment model incorporating peer and self-assessment. *Innovations in Education and Teaching International*, 41(3), 273-290.

Palmer, R. J. (2005). Meeting diverse needs. *Kappa Delta Pi Record*, 41(2), 54-55.

Patton, M. Q. (2002). *Qualitative research and evaluation methods*, (3rd ed.). Thousand Oaks, CA: Sage Publications.

Pettig, K. (2000). On the road to differentiated practice. *Educational Leadership* 58(1), 14-18.

Pitney W.A., & J. Parker, (2009). *Qualitative research in physical activity and the health*

pro. Champaign, IL: Human Kinetics.

Protheroe, N. (2008). Teacher efficacy: What does it matter? *Principal*, 42-45. Retrieved

July 16, 2011, from www.naesp.org/resources/1/Principal/2008/M-Jp42.pdf

Rock, M., Gregg, M., Ellis, E., & Gable, R. (2008). Reach: A framework for

differentiating instruction, *Preventing School Failure* 52(2), 31-41.

Robison, (2004). *Teacher decision-making in utilizing differentiated instruction*

(Marywood University) *Disseratation Abstract International* 65(7), 2496A (UMI

No. 3139003).

Ryan, K., & Cooper, J. (2007). *Those who can, teach*. Boston:MA Wadsworth Cenage

Learning.

Smyth, T. S. (2008). Who is No Child Left Behind leaving behind? *The Clearing House*,

81(3), 133-138.

Sternberg, R. J. (1994). Allowing for thinking styles. *Educational Leadership*, 52(3), 36-

40.

Stetcher, B., Hamilton L. M., & Gonzalez, G. (2003). *Working smarter to leave no child*

behind: Practical insights for school leaders. Retrieved July, 14, 2010 from

www.rand.org/pubs/white_papers/NP138/WP138.pdf

Subban, P. (2006). Differentiated instruction: A research basis. *International Education*

Journal, 7(7), 935-947.

Taylor, M. (1997). Learning Styles, *Inquiry* 1(1), 45-48.

Tieso, C. (2005). Curriculum: Broad brushstrokes or paint-by-numbers? *The Teacher*

Educator, 36(3), 199-213.

Tobin, R. (2008). Conundrums in the differentiated classroom. *Reading Improvement*

45(4), 159-169.

Thurlow, M., Moen, R., & Altman, J. (2006). *Annual performance reports: 2003-2004 state assessment*. Minneapolis: University of Minnesota, National Center on Educational Outcomes.

Thompson, V. (2009). *Impact of differentiation on instructional practices in the elementary classroom* (Doctoral Dissertation, Walden University). Retrieved July 2, 2010 from Proquest Research Database.

Tobin, (2007). Differentiating in the language arts: Flexible options to support all students. *Canadian Children* 32(2) 11-18.

Tomlinson, C. A. (1995). Deciding to differentiate instruction in the middle school: One school's journey. *Gifted Child Quarterly*, 39(2), 77-114.

Tomlinson, C. (2004b). Differentiation in diverse settings. *School Administrator*, 61(7), 28-35. Retrieved July 12, 2011 from EBSCOhost.

Tomlinson, C. A. (2000a). Differentiating instruction: Can it work? *The Education Digest*, 65(5), 25-31.

Tomlinson, C. A. (2001). *How to differentiate instruction in mixed-ability classrooms* (2nd ed.). Alexandria, VA: Association for Supervision and Curriculum Development.

Tomlinson, C. A. (2000b). Reconcilable differences? Standards-based teaching and differentiation. *Educational Leadership*, 58(1), 6-11.

Tomlinson, C. A. (2004a). Sharing responsibility for differentiating instruction. *Roeper Review*, 26(4), 188-190.

Tomlinson, C. A. (1999). *The differentiated classroom: Responding to the needs of all*

- learners*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Tomlinson, C. A. (2008). The goals of differentiation. *Educational Leadership* 66(3), 26-30.
- Tomlinson, C. A. (2005). Traveling the road to differentiation in staff development. *National Development Council*, 26(4), 8-12.
- Tomlinson, C. A., & Allan, S. (2000). *Leadership for differentiating schools & classrooms*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Tomlinson, C. A., & Dockerman, D. (2002). Different learners different lessons. *Instructor*, 112(2), 21-25.
- Tomlinson, C. A., & Edison, C. C. (2003). *Differentiation in practice: A resource guide for differentiating curriculum grades K-5*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Tomlinson, C. A., & Imbeau, M. (2010). *Leading and managing a differentiated classroom*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Tomlinson, C. A., & Kalbfleisch, M. L. (1998). Teach me, teach my brain: A call for differentiated classrooms. *Educational Leadership*, 56(3), 52-55.
- Tomlinson, C. A., & McTighe, J. (2006). *Integrating differentiated instruction and understanding by design*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Tomlinson, C. A., Moon, T. R., and Callahan, C. M. (1998). How well are we addressing

- academic diversity in the middle school? *Middle School Journal*, 29(3), 3-11.
- Tompkins, G. E. (2006). *Literacy for the 21st century: A balanced approach*. Upper Saddle River, New Jersey: Pearson.
- United States Department of Education. *Strategic plan (2002-2007)*. Retrieved July 17, 2011 from, <http://www2.ed.gov/about/reports/strat/plan2003-007/plan.pdf>
- Van Manen, M. (1990). *Researching lived experience*. Albany, NY: State University of New York Press.
- VanSciver, J. H. (2005). Motherhood, applie pie, and differentiated instruction. *Phi Delta Kappan*, 534-535.
- Voltz, D., & Fore, C. (2006). Urban special education in the context of standards-based reform. *Remedial and Special Education*, 27, 329-336.
- Vygotsky, L. S. (1962). *Thought and language*. Cambridge, MA: The M.I.T. Press.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.
- Wertsch, J. V. (1997). *Vygotsky and the formation of the mind*. Cambridge, MA: Harvard University Press.
- Worthen, B. R., Borg, W. R., and White, K. R. (1993). *Measurement and evaluation in the school*. NY: Longman.
- Yellin, D., Blake Jones, M., & Devries, B., A. (2008). *Integrating the language arts*. Scottsdale, AR: Holcomb Hathaway.
- Young, M. R. (2005). The motivational effects of the classroom environment in facilitating self- regulated learning. *Journal of Marketing Education*, 27(1), 25-40.

APPENDICES

APPENDIX A

Oklahoma State University Institutional Review Board

Date: Tuesday, March 13, 2012
IRB Application No ED1211
Proposal Title: Teacher Perception of Differentiated Instruction

Reviewed and Processed as: Expedited

Status Recommended by Reviewer(s): Approved Protocol Expires: 3/12/2013

Principal Investigator(s):

Jacquelyn Burkett

David Yellin

The IRB application referenced above has been approved. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

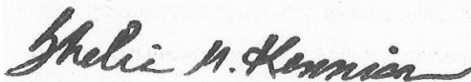
The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval.
2. Submit a request for continuation if the study extends beyond the approval period of one calendar year. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of this research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the authority to inspect research records associated with this protocol at any time. If you have questions about the IRB procedures or need any assistance from the Board, please contact Beth McTernan in 219 Cordell North (phone: 405-744-5700, beth.mcternan@okstate.edu).

Sincerely,



Shelia Kennison, Chair
Institutional Review Board

APPENDIX B

Interview Questions

1. How many years have you been teaching?
2. How long have you taught in XXX?
3. How many years have you been using differentiated instruction?
4. How do you feel about using differentiated instruction in your classroom?
5. What personal experiences, if any, have you had that influence your use of differentiated instruction?
6. What professional experiences have you had with differentiated instruction that you would like to share about?
7. In what ways, if any have your experiences with differentiated instruction influenced your classroom practice?
8. What other experiences with differentiated instruction would you would like to describe?

VITA
Jacquelyn Ann Burkett

Candidate for the Degree of

Doctor of Philosophy/Education

Thesis: TEACHER PERCEPTION OF DIFFERENTIATED INSTRUCTION AND
ITS INFLUENCE ON INSTRUCTIONAL PRACTICE

Major Field: Education, Professional Educational Studies

Biographical: Jacquelyn Burkett has lived in Bethany and Edmond, OK. She now works at the State Department of Education in Oklahoma City, OK and lives in Edmond, Oklahoma.

Education:

Completed the requirements for the Doctor of Philosophy in Education at Oklahoma State University, Stillwater, Oklahoma in May, 2013.

Completed the requirements for the Master of Education in Educational Administration at the University of Central Oklahoma, Edmond, Oklahoma in December, 2001.

Completed the requirements for Bachelor of Science in Education in Early Childhood Education at the University of Central Oklahoma, Edmond, Oklahoma in December, 1994.

Experience:

School Support/School Improvement Specialist, State Department of Oklahoma, Oklahoma City, OK, February, 2013 to present.

Graduate Assistant, Literacy/Elementary Ed., School of Teaching and Curriculum Leadership, College of Education, Oklahoma State University, Stillwater, OK, 2007-2011.

Elementary School Teacher, Putnam City School District, Oklahoma City, OK, 1998-2006.

Professional Affiliations:

International Reading Association
National Reading Conference
Oklahoma Reading Association