MIDDLE SCHOOL STUDENT PERCEPTION AND UNDERSTANDING OF

DIFFERENTIATED INSTRUCTION: A PHENOMENOLOGICAL STUDY

by

Zoie Hodges Park

Liberty University

A Dissertation Proposal Presented in Partial Fulfillment

of the Requirements for the Degree

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ABSTRACT

Lack of published research on student perception and understanding of differentiated learning hinders educators attempting to diversify learning for individual students. The purpose of this phenomenological study was to investigate the perception and understanding of differentiated instruction of middle school students in a charter middle school in central Florida, as a review of literature reveals limited research conducted from a student perspective. The study will broaden existing educational practices in relation to individualized student differentiated instruction and suggest a relationship between differentiated instruction and student understanding of educational material. The brain-based theories guiding this study are Piaget's theory of cognitive development, Vygotsky's theory of social constructivism, and Gardner's theory of multiple intelligences, as each of them support the necessity for differentiated instruction within the classroom. The participants were selected from a public charter middle school in central Florida. The researcher used a sample size of 10 students to achieve saturation of themes for purposeful sampling to identify middle school students from classrooms where differentiated instruction practices are the documented norm. The researcher used intake surveys, face-to-face interviews, student engagement observations, and reflective notes to collect data and answer three research questions: RQ1. How does the participating middle school student describe his or her perception and understanding of differentiated instruction?; RQ2. Which, if any, specific differentiated practices do students think are best utilized by teachers to enhance individual perception of academic achievement?; RQ3. What changes do students perceive as necessary for successful individualized instruction? The data was organized, analyzed using a phenomenological reductive method, and amalgamated to extract, compare, explore, and reassemble significant segments and themes of collected data. According to the participant research, two themes,

student mindset and *presentation of the material*, were at the forefront of the student discussion; there were two underlying sub-themes which included *life connectedness*, and *small group, project-based work*. The research showed that students are aware of their educational environment and crave an academic environment which allows them to connect with the material through interaction and manipulation. Recommendations for future research include: expanding the participant pool through the inclusion of high school age students; expanding the study to include both area public and private schools; varying the regional areas in which the study was conducted; using the same grade level but expanding to varying middle schools across the country; including teachers and administrators to gauge their understanding and perception of differentiated instruction; broadening the study through quantitative research; and exploring the varied instructional strategies within the classroom to determine effectiveness.

Dedication

The following manuscript is dedicated to my family who has patiently stuck by me through this **<u>very</u>** long adventure. To my husband who has patiently encouraged me even as I have cried, whined, had meltdowns, and repeatedly wanted to quit; to my children who have uncomplainingly sacrificed their mom time as I pursue my "Dr. Mommy" degree; to my best friends who are the ones who gave me the serious kick in the rear when I most needed it; to my students who inspired me to complete my work; and to my parents: thank you for giving me the will to never quit, even when I wanted to. Finally, I dedicate this work, as I do my life to God, as He is the reason I began this amazing journey and He has been walking beside me or carrying me the entire way.

Acknowledgements

I would sincerely like to acknowledge and thank the three women who formed my committee. I could not have asked for a more supportive and amazing team. They definitely pushed me when I was ready to give up the race. They allowed me to cry and talk about giving up with a smile, and they kept pushing me to keep going. I could not have pushed through and gained my second, third, and fourth wind without their help and encouragement.

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List of Abbreviations

Differentiated Instruction (DI)

English Language Arts (ELA)

National Council of Teachers of English (NCTE)

No Child Left Behind Act of 2001 (NCLBA)

Zone of Proximal Development (ZPD)

CHAPTER ONE: INTRODUCTION

Overview

The diverse learning needs of every student are the responsibility of all educators in the United States. Every student must be given the opportunity for success in the world of academia. In the United States, over 30 million students are actively learning, each with a different learning style, various abilities, and differing comprehension levels (National Education Association Research Department, 2006). Research has continually illustrated that every student learns differently, and through individualized learning methods, students can achieve success (George, 2005). Differentiated instruction is a viable solution, which enables educators to provide high-quality instruction to every individual student (Daggett, 2007; Darling-Hammond, 2010). Teaching to the individual student is a time-consuming practice, which is often misunderstood or not used in an effective manner to ensure student learning (Tomlinson, 2000b). The pertinent research on differentiated instruction shows a high rate of success for students; yet it is simply not implemented effectively or routinely, and many times the administrative support is not apparent (Duggar, 2008; Erman, 2006; Robinson, 2004). Much of the research on differentiated instruction has been based on instructional methods, gifted students, at-risk students, learning disabled students, and teacher perceptions (Friend & Pope, 2005; George, 2010; Tomlinson & McTighe, 2006). A study on the acumens and perceptions of the students has not been completed, and as these students are the most important pieces to the puzzle of effective education, this research is justified.

This chapter provides a background on differentiated instruction and individualized instruction. The problem is identified, along with the purpose and significance of the study. The

research questions with supporting rationales, research limitations, and delimitations are outlined, and the research plan is overviewed.

Background

Differentiated instruction has been used in educational settings for centuries, as one-room schoolhouses and private tutors were the driving force in education (Gundlach, 2012). According to Prince (2011), "As a result of the criticism of public schools, the educational community needed new ideas and approaches to instruction to foster more effective teachers that addressed a diverse student population" (p. 6). Differentiated instruction is an adaptation of educational strategies to meet the individual and diverse academic needs of all students for the express purpose of academic achievement (Edwards, Carr, & Siegel, 2006; Rock, Gregg, Ellis, & Gable, 2008).

Due to the growing economic and socially diverse populations within the classroom environment, students are no longer learning in the same manner and are not being reached as comprehensively as in previous years (Prince, 2011). Federal and state legislation, such as the No Child Left Behind Act of 2001, have added pressure to the educational system for students to achieve higher academic standards (U.S. Department of Education, 2007). The content of what is taught, how it is taught, and how it is assessed must meet the needs of the individual student through differentiation to provide higher student achievement scores for federal and state standards (Levy, 2008). Students without the benefit of individualized learning are falling quickly behind educational achievement standards and averages (Tomlinson, 2011).

Research shows all students are unique and should be educated in a way which meets their unique learning style, and with such diverse classroom populations, teachers must communicate instruction in a manner which allows students to connect and find meaning in the

material (Anderson, 2007; Tomlinson, 2004). Much of the research and literature, which exists in the study of differentiated instruction, is based on best practices and evidence-based educational methods which help advance reading and writing strategies within schools (DeFur & Korinek, 2010; Karande, Mahajan, & Kulkarni, 2009; Peters, 2012; Pitcher, Martinez, Dicembre, Fewster, & McCormick, 2010; Scammacca, Roberts, Vaughn, Edmonds, Wexler, Reutebuch, & Torgesen, 2007; Wormeli, 2006). Much research exists on the perception and understanding of the educators implementing the differentiated instruction (Prince, 2011; Tomlinson, 2011; Wormeli, 2006). To understand differentiated instruction, many of the studies do not consider the needs of the students, whether they be advanced, mainstream, or special education; "These studies exclude the needs of advanced learners, who need to be challenged and enriched for the demands of academic rigor and success beyond secondary schooling" (Manning, Stanford, & Reeves, 2010; National Council of Teachers of English, 2008 as cited in Peters, 2012, p. 3).

The reality in today's education is that students are receiving a cookie cutter education designed to treat all students as if they were alike (Tomlinson & Allan, 2000). Extensive research on differentiated instruction has been applied to the academic needs of diverse learners and has focused on "the brain, learning styles and varieties of intelligence, the influence of gender and culture on how we learn, human motivation, and how individuals construct meaning" (Tomlinson & Allan, 2000, p. 50). Piaget's (1972) theory of cognitive development, Vygotsky's (1962) theory of social constructivism, and Gardner's (1993) theory of multiple intelligences frame the study and relate directly to the development of differentiated learning. This research will follow the cognitive development dialogue, social constructivism paradigms, and multiple intelligences and social interactions (Morgan & Smirich, 1980).

The focus of differentiated instruction is intended to enable students to process academics

in a manner which is unique and specific to the individual. This research has been designed to fill the current gap and contribute a valuable voice to the literature: that of the student and his or her perception and understanding of differentiated instruction. The student perspective is missing from the vast majority of research, as much of the research focused solely on the educator perspective. The study will extend existing education on differentiated instructional practices, as educators will understand the student perspective of learning in a manner which individualizes instructions to personalized needs.

<div align="center">**Situation to Self**</div>

I have worked in various school settings for 10 years and perceived, as an instructor and administrator, differentiated instruction to be essential to the success of students. I advocate education as the sum of total experiences which shape the mind, spirit, and life of a person. For me, education is a lifelong pursuit which involves questioning the roots of self-knowledge, and is an integral force in the creation of the total person. I feel it is a process whereby connections are made, horizons are broadened, and lives are impacted. The goal of education and its philosophy is the production of an examined human life which strives for personal, professional, and social excellence. In life, knowledge must be guided by values. I have always been a firm believer in Aristotle's philosophy where "the energy of the mind is the essence of life" (Honeycutt, 2004, p. 84). Humans should never stop learning and thirsting for knowledge.

I have worked as a teacher or administrator in public and private schools for over a decade. Yet, I began my true education in a special education classroom, and while not called to maintain this track as a special education teacher, I learned many valuable lessons. One of the most effective and important tools I took with me when I began in mainstreamed classrooms was the understanding and utilization of differentiated instruction. Once thought to only benefit

special education students, this tool is effective for every student (Tomlinson, 2004). To truly understand differentiation and the students who benefit, I wanted to hear the input of the students: their perceptions and understanding of differentiated instruction.

To Plato, the human soul, before birth, exists in a world of uncorrupted ideas and unadulterated concepts. Plato's epistemology consists of a logical and philosophical progression in which a human being's soul is "reminiscence;" at birth the physical body can recall the infinite knowledge the pure unborn soul possesses (Plato & Bloom, 1968). I closely relate to Plato's understanding of the soul and believe God provides the newborn soul with limitless knowledge.

When looking directly into my views for a classroom, thanks to very influential teachers, I find I have a very eclectic mix of realism, essentialism, and pragmatism. I relate to Plato (380 B.C.), William Chandler Bagley's (1900) teachings of back to basics education, and Dewey's (1904) philosophy that children learn through building on top of previous knowledge.   Although these philosophies may be seen in direct conflict with one another, it is valuable for teachers to understand all schools of thought. Knowledge is rooted in experience, and this knowledge is not simply received; it must be actively explored through a personal environment.

Ontological assumptions, ranging from objective to subjective, allow for varied approaches to differentiated instruction. This study's ontological assumptions combine symbolic discourse and social constructivist views of actuality. Through symbolic discourse, the negotiation of common thematic meaning and norms is defined through social interaction and practices (Morgan & Smirich, 1980). A social constructivist view enables individuals to make sense of reality through every human interaction (Morgan & Smirich, 1980). Middle school students' perceptions and understanding of differentiated instruction result from educational practices structured through negotiation of meanings and norms in a social environment.

Problem Statement

Students today learn in a myriad of ways, with varying intelligence levels, learning differences, and proficiency levels. Because each child learns so differently, a major issue in the educational system is whether the specific learning differences of each student are being met. Differentiated instruction can help educators promote academic achievement in students, and as research has identified, individualized learning strategies can help students be successful (George, 2005). Teachers face a challenge in diverse populations with decreased confidence levels (Ordover, 2012). For continued educational success, the student must take an active role in the learning process and understand the strategies which are most helpful for his or her academic achievement. Many educators understand and implement differentiated instruction within the classroom environment, yet students need to actively understand why these methods are valuable to learning. The problem is that educators need a better understanding of how students comprehend differentiation, how students perceive lessons in regard to differentiated learning, and how these ultimately affect the students' learning process.

Differentiated instruction is the process whereby educators tailor lessons to meet individual student needs, whether it be through differentiated "content, process, products, or the learning environment, the use of ongoing assessment and flexible grouping make this a successful approach to instruction" (Tomlinson, 2000b, para. 1). Through this research, educators may come to better understand how students perceive and understand differentiated instruction within the classroom. Teachers may then more effectively identify unique differentiated methods and strategies, which will allow for individualized academic success through meaningful connections with course content (Prince, 2011).

Purpose Statement

The purpose of this phenomenological study was to investigate the perception and understanding of differentiated instruction of middle school students in a charter middle school in central Florida, as a review of literature reveals limited research conducted from a student perspective. At this stage in the research, differentiated instruction will be generally defined as the level at which the students understand the presentation of materials, within a classroom, to effectively reach all learning styles. Differentiated instruction tailors "instruction to meet individual needs. Whether teachers differentiate content, process, products, or the learning environment, the use of ongoing assessment and flexible grouping makes this a successful approach to instruction" (Tomlinson, 2000b, para. 1).

Significance of the Study

This study sought to contribute a valuable voice to the literature and existing knowledge base; that of the student and his or her perception and understanding of differentiated instruction. The student perspective is missing from much of the current research, which has focused solely on the educator perspective. According to Moustakas (1994), "New perceptions always hold the possibility of contributing knowledge regarding any object" (p. 53). The study will broaden knowledge and understanding of differentiated instructional practices, as educators will better understand the student perspective of learning in a manner which individualizes instructions to personalized needs.

The thick description of perceptions from the sample population of middle school students will provide valuable and useful insights and information for educators to increase awareness and practice of differentiated instruction. As a result, negative educator perception of differentiated instruction could give way to an understanding of its value in academic success.

Therefore, educators will understand the process of differentiation, what direct effect it has on student achievement, and how the students perceive differentiated instruction. Quality instruction is key to the development of academic abilities in all students (Danielson, 2010). Every student has great potential, and differentiated instruction enhances children's ability to reach that potential (Beecher & Sweeny, 2008). Students are more likely to achieve academic success if individualized learning needs are being met through differentiation (Reed, 2009). Furthermore, for differentiated instruction to be successful, educators must accept academic diversity which exists within the classroom and design instruction to meet the individual needs of all students (Tomlinson, 1999).

The results of the study will have significance to society; a student with a higher level of understanding of how individualized learning impacts academic success will increase his or her ability to recognize academic success, the skills needed for higher academic achievement, thereby promoting social change within a school system (Tomlinson & Alan, 2000). The study results will have significance to education and to the location and population being studied, as knowledge of students' perceptions and understanding of differentiated instruction can assist the school or district in providing professional development which could promote the effective use of differentiated instruction for individual students.

Research Questions

The purpose of this phenomenological study was to investigate the perception and understanding of differentiated instruction of middle school students in a charter middle school in central Florida, as a review of literature reveals limited research conducted from a student perspective. The open-ended research questions were designed to discover how the subjects feel and highlight the students' understanding and perception of differentiated instruction (Creswell,

2013). Open-ended questions allowed me to probe deeper into the subjects' understanding of differentiated instruction (Gall et al., 2007). My goal was to discover and highlight emerging positive and negative themes and perceptions from questions about differentiated instruction. The questions connect directly to the phenomenological research design and allow for further understanding of the phenomenon of the perception and understanding of differentiated instruction. Through this qualitative research and research questions, I attempted to delve into the student awareness about the thoughts associated with student understanding of differentiated instruction (Cheek, Onlsow & Cream, 2004).

The proposed research questions allowed me to understand how students perceive differentiated instruction and enabled me to collect, analyze, and report the findings of the study (Creswell, 2013). In asking the following research questions, I analyzed understanding and perception to uncover emerging themes. To best address the purpose of this study, the following research questions were addressed:

RQ1. How does the participating middle school student describe his or her perception and understanding of differentiated instruction? The question was designed to gain a rich description of elements the students perceive that influence the way they learn, how an understanding of differentiated learning changes academic success over time, and how individualized instruction affects their learning environment (Cheek, Onslow, & Cream, 2004; Tomlinson & Allen, 2000).

RQ2. Which, if any, specific differentiated practices do students think are best utilized by teachers to enhance individual perception of academic achievement? The question was designed to gain a description of students' perceptions as they relate directly to differentiated instruction within the classroom and to determine the personal

significance of differentiated instruction to each student. The practice of quality differentiation enables educators to effectively individualize instruction to meet every student's academic needs (Tomlinson, 2001; Tomlinson & Allen, 2000; Tuttle, 2000).

RQ3. What changes do students perceive as necessary for successful individualized instruction? The question was designed to gain a description of elements the students perceive as necessary changes to classroom differentiated instruction to increase individualized academic achievement (Tomlinson & Allen, 2000; Tomlinson, 2000b).

Definitions

1. *At-risk student.* All students who are challenged academically, usually due to a learning disability (Khazanov, 2011).

2. *Brain-Based Learning*. According to Jensen (2000), this type of learning encourages educators "to consider the nature of the brain in your decision- making. By using what we know about the brain, we can make better decisions; and we can teach more learners, more often, with less misses" (p. 6).

3. *Constructivist*. This educational theory focuses on the engagement of students through learning tasks, focused on concepts with which students build knowledge and understanding, based solely on prior knowledge foundations (Brooks & Brooks, 2001).

4. *Cognitive Learning System*. This educational learning system focuses on all educational and academic skill development (Given, 2002).

5. *Cognitive style*. "Cognitive style is usually described as a stable and persistent personality dimension which influences attitudes, values, and social interaction" (Florida State University, n.d., para. 1).

6. *Differentiated instruction (DI)*. Differentiated instruction is an adaptation of educational

strategies to recognize individual knowledge, preferences in learning, and diverse

academic needs of all students for the express purpose of academic achievement and

student growth (Edwards, Carr, & Siegel, 2006; Hall et al., 2003; Rock et al., 2008).

7. *Diversity*. The definition according to the National Council for Accreditation of Teacher

Education (2006) states "differences among groups of people and individuals based on

ethnicity, race, socioeconomic status, gender, exceptionalities, language, religion, sexual

orientation, and geographical area" (para. 3).

8. *Emotional Learning System*. According to Candace Pert (1993), "emotions link the body

and brain and provide the energy that fuels academic achievement as well as personal

health and success" (p. 187).

9. *Instructional Strategy*. Strategies that focus on instruction as it enriches learning (Butler

& McMunn, 2006).

10. *Learning Style*. Through the identification of a student's learning style, educators can

utilize strengths and modify concepts which are challenges (Green, 1999).

11. *Learner variance* - All students have a varied "pace of learning, opportunity to learn,

culture, race, economic support, preferred approach to learning, and interest" (Tomlinson,

2004, p. 519).

12. *Physical Learning System.* This system executes the physical action that the other

systems only contemplate achieving (Given, 2002).

13. *Reflective Learning System*. Personal connection and consideration of personal learning

is involved within this system (Given, 2002).

14. *Social constructivism*. "Social constructivism is based on the social interactions of a

student in the classroom along with a personal critical thinking process" (Powell &

Kalina, 2009, p. 243).

15. *Social Learning System*. An individual's desire to fit in to a social setting or group

(Given, 2002).

16. *Theory of Multiple Intelligences*. "A cognitive model that seeks to describe how

individuals use their intelligences to solve problems and fashion products" (Armstrong,

2009, p. 18).

17. *Zone of Proximal Development (ZPD)*. "The distance between the actual developmental

level as determined by individual problem solving and the level of potential development

as determined through problem solving under adult guidance or in collaboration with

more capable peers" (Vygotsky, 1978, p. 86).

Summary

There has been extensive research conducted, both qualitative and quantitative, on differentiated instruction and teacher perception of differentiated instruction (Anderson, 2007; Beecher & Sweeney, 2008; Duggar, 2008; Edwards et al., 2006; Erman, 2006; George, 2005; Ordover, 2012; Prince, 2011; Robison, 2004). Yet, when I looked for student perceptions and how they perceived differentiated instruction, there was no research. According to Tomlinson (2008), differentiated instruction is necessary to meet the basic individual educational needs of each student, but there is no present research from the student perspective to determine if those needs are being met. This study attempts to address this void of information within the literature.

Chapter Two will provide a broad literature review of differentiated instruction which includes: an in-depth look at the theoretical framework for differentiated instruction (DI), the history of differentiated instruction, DI in curriculum, the advantages of DI, and the current perceptions of DI. The research methodology is discussed within Chapter Three. The data is

present in Chapter Four and includes collection, analysis, and findings. Chapter Five

summarizes the research and imparts findings, conclusions, and recommendations found in the

research.

CHAPTER TWO: LITERATURE REVIEW

Overview

The rapid change in classroom diversity in the past 30 years has placed educators in the difficult role of not only educating students, but of expertly identifying their diverse academic needs and providing said students with instructional support to ensure academic success (Orfield & Kurlaender, 2001). All students learn differently, and with differentiated instruction, educators may provide students more solid connections with the curriculum content (Prince, 2011). With continual high educational demands, provided through ever changing laws on educators, differentiated instruction allows for a more comprehensive approach to meeting the needs of the diverse student populations within school systems; "Differentiated instruction is not a single strategy, but rather an approach to instruction that incorporates a variety of strategies" (Ordover, 2012; Watts-Taffe, Laster, Broach, Marinak, McDonald-Connor, & Walker-Dalhouse, 2012, p. 304).. This model of education, while not new, has come to the forefront of the educational world and gained increasing interest and support (Anderson, 2007; Gardener & Whittaker, 2006; Tomlinson, 1999). Tomlinson (2005), as one of the leading experts in the field of differentiated instruction, defines it as a "philosophy of teaching that is based on the premise that students learn well when their teachers accommodate the differences in their readiness levels, interest and learning profiles" (pp. 262-269). This chapter discusses the theoretical framework as the basis for differentiated instruction, the historical context and origins of differentiated instruction, the various effective strategies for the use of differentiated instruction, and the challenges educators and students face with differentiated instruction.

Theoretical Framework

Assorted student driven theories make up the differentiated learning approach, to satisfy students' and educators' need for individualized education (Levy, 2008). Fisher and Rose (2001) state "research has proved the argument that individuals do not learn the same way" (p. 6). Various renowned theorists have investigated multiple instructional methods and strategies students utilize within education (Brooks, 2004). According to Edwards, Carr, and Siegel (2001), the "principles of differentiated instruction reflect research findings of Vygotsky and other educational innovators, such as Howard Gardner (multiple intelligences)…" (p. 582). Present day educational systems have been profoundly influenced by well-known theorists who explored various methods learners use to achieve academic success (Brooks, 2004). While many contributed to the development of differentiated instruction and learning, some of the renowned theorists which allowed for its evolution include: Piaget's (1972) theory of cognitive development, Vygotsky's (1962) theory of social constructivism, and Gardner's (1993) theory of multiple intelligences. Each of these provide a selection of tools which enable students to develop innate intellectual proficiency when exposed to a supportive learning environment (Richards-Usher, 2013).

Piaget

Differentiated instruction is meeting the individual needs of each child and thus focusing on the knowledge he or she brings into a learning environment. Piaget's theory of cognitive development lays the essential groundwork for cognitive learning processes of students (Lui & Chen, 2010). Piaget proposed cognitive development is an ongoing process with consecutive stages, beginning in infancy and continuing into young adulthood (Hirtle, 1996). Each stage of development allows for a child to master varying mental operations (Hirtle, 1996). Also, Piaget

proposed all children utilize their daily environment as valuable tools for learning (Lui & Chen, 2010). Within Piaget's theory there are three essential aspects for the growth of intelligence, construction, content, and function (Awwad, 2013).

According to Awwad (2013), to best understand Piaget's theory on cognitive growth, one must first understand his concept of knowledge: "Piaget assumes that knowledge is structures or mental construct and these structures and compositions are the rules for dealing with information or events, so through them events are organized in a positive way and cognitive growth" (p. 107). Every aspect of a child's life contributes to his or her development, and Piaget believes each of the child's experiences add to the cognitive method of learning. Behavioral patterns, learned observations, social development and interaction, and perceptions are routinely transferred from one child to another and from authority figures; "The cognitive growth of the child requires activities with the environment and exercise action within it, the cognitive upgrade construction gets when a child is stimuli in the environment" (Awwad, 2013, p. 110).

Piaget uses a biological background to frame his theory, "repeatedly referring to his intellectual roots in Immanuel Kant's, C. H. Waddington's, and Henri Bergson's thoughts, as well as focusing on evolutionism and structuralism" (Alves, 2014, p. 24). Thus, basing his theory on the use of five basic ideologies: "reason is rooted in action; it stands on two 'a priori' mechanisms, adaptation and organization; reason is 'pure' and non-temporal; structuralism is an independent concept" (Alves, 2014, p. 24). Piaget believed that the developmental process of reasoning relies heavily on the occurrences of cognitive variances. These conflicts will enable cognitive imbalance which will force the development of rapid knowledge assimilation (Alves, 2014). Through these assimilations, cognitive processes are reorganized into natural and effortless thoughts.

While Piaget did not have a rigid belief about pedagogy, the various issues within the educational system fascinated him immensely. He proposed that through active education children would be directed through the processes of experimentation, invention, and creativity to produce a collective educational transformation (Stoltz, Piske, de Freitas, D'Aroz, & Machado, 2015). Piaget states in an interview with Bringuier (1978), "Whereas for me education consists of producing creators, even if there are not many, even if the creations of one are limited in relation to those of the other. But the need exists to produce nonconformist inventors and innovators" (p. 183). Cognitive development, for Piaget, must be present within the creative processes of educational development. This is a collaborative and beneficial process which occurs between the body, and the setting creates a cognitive structure that controls the connections (Stoltz et al., 2015; Piaget, 2003). These cognitive structures are a result of "organic maturation, as a condition of that which the body is capable of; experience with physical objects; social experience and the self-regulating balancing process which coordinates the remaining factors" (Piaget as cited in Stoltz et al., 2015, p. 65). Thus, a student must be connected to education through the physical, social and emotional in a manner that develops autonomy and independent cognitive formation (Piaget, 2000).

Yet there are internal limitations which are built through environmental interactions (Piaget 1974a, 1974b). This self-regulating process allows for learning to focus on the understanding of an educational tool or object and not solely on the mechanisms (Gruber & Vonèche, 1995). Through this rationalization and clarification, a student is enabled to create or rebuild complex thought patterns and ideas which allow for a more flexible and independent interaction with the world (Gruber & Vonèche, 1995). It is noted in Piaget's theory that the timeframe during which human cognition is at its apex is sandwiched between birth and eighteen

months (Vonèche & Stoltz, 2007). As the child grows thought processes will develop and rebuild, thus allowing for conceptual and active representation within reality. According to Piaget (1978), symbolic play, which is the pinnacle of childhood, allows for imaginative creations which are the needs of the child constructed reality. Piaget noted that to develop new ideas on a concept, thoughts must first flow freely without intervention of formal education (Bringuier, 1978). According to Stoltz et al. (2015), "the construction of the new, creative imagination and rationale maintain a relationship of interdependence in cognitive development and are related to openings (possible) and closings (necessary)" (p. 66). Piaget's rationale and logic allows for a shift from "undifferentiation to differentiation and later integration of different points of view" (Stoltz et al., 2015, p. 66). Creativity allows for the construction of both intelligence and reality created through direct interaction with individual environment (Stoltz et al., 2015).

This theory of cognitive development is essential to differentiated instruction, as it allows students to assimilate lessons through varied means of instruction and adjust perceptions and newly acquired information (Awwad, 2013; Tomlinson, 2000a). Using varied educational teaching techniques and fully recognized interactions within the classroom, students can more fully develop thought patterns and social interactions (Awwad, 2013; Lui & Chen, 2010). Piaget believes the cognitive development process is a direct result of a student or child interacting directly with the environment and the variety of experiences provided within said environment. Thus, through the interactions, a child will develop a new thinking pattern and will adjust his or her perception to accommodate the newly acquired information (Awwad, 2013). Piaget's theory of cognitive development states that child development precedes the learning processes.

Vygotsky took this theory one step further and proposed that social learning precedes development (Tice, 1997).

Vygotsky

According to the social constructivism theory developed by Vygotsky (1962/2007), the teacher acts as a mediator who designs instruction which will directly connect the knowledge a student already understands to what the student needs to learn (Tharp & Gallimore, 1988). By utilizing interaction of social group learning, the Zone of Proximal Development (ZPD), which is the distance between a student's aptitude to perform a task when guided by an adult and/or with peer collaboration and his or her ability to independently solve the problem, is essential to differentiated learning process (Lui & Chen, 2010). Vygotsky (1978) states, "any function in the child's cultural development appears twice, or in two planes. First it appears on the social plane, and then on the psychological plane" (p. 163). Vygotsky's (1978) two-plane approach to social constructivism proposes a complete and well-developed educational experience through the knowledge a student garners and interactions within an educational environment (Prince, 2011). Imagination serves as an essential connection throughout early childhood to perception and memorization (Vygotsky, 1978).

Vygotsky believes the key and fundamental role of social interaction is to advance the process of cognitive development (Grendler, 2012). The theory of social constructivism proposed by Vygotsky specifically promotes learning contexts in which the student plays an active role in the learning process, and the experience is maintained as reciprocal between students and teacher, also referred to as the "More Knowledgeable Other" (Churcher, Downs, & Tewksbury, 2014). According to Churcher et al. (2014), the More Knowledgeable Other is anyone who has a better understanding than the learner. The More Knowledgeable Other has a

responsibility to students, and Vygotsky believes when students do not understand a concept they will memorize and mimic the adult or expert. The educator is initially responsible for a child's intellectual growth, but eventually the responsibility is one the child will grasp, and through internal reflection will ultimately be able to forward his or her own intellectual development independently (Rollins, 2011).

Throughout Vygotsky's theories of cognitive development, a continual interactive process conducted through individual partnerships will allow for spontaneous and conceptual structures to advance (Alves, 2014). Through the constant interaction, the processes become organized in a manner reliant upon each other to enable the abstract to become concrete and vice versa (Alves, 2014). The concrete situations a student engages with allow for subsequent concepts to manifest continually (Damazio, 2000). Children are constantly and spontaneously making connections with multiple concepts, which when structured on an individual basis by an educator will allow for consequent and continuous intellectual enhancement (Vygotsky, Luria, & Leontiev, 1944/2001). Through this growth pattern, children are enabled with purposeful choices and an innate internal justification for said choices (Alves, 2014). Educators or More Knowledgeable Others introduce multiple concepts to students daily (Castorina, Ferreiro, Lerner, & de Oliveria, 1990; Churcher et al., 2014).

Imagination and creativity are essential to Vygotsky's theory and the connection of concepts such as planning and achieving (Stoltz et al, 2015). According to Stoltz et al. (2015), "Vygotsky understands imagination and creativity as being intrinsically related to the development of the superior psychological functions proper to mankind" (p. 67). Imagination and creativity are innate and inherent human characteristics which allow for the communication of cognizance through thoughts, actions, language, and expression of higher order subjectivity

(Piske, 2013; Stoltz et al., 2015; Vygotsky, 2010). Vygotsky recognizes that creative imaginative play and varied understanding of concepts through social interaction enable constructive cognitive development (John-Steiner, Connery, & Marjanovic-Shane, 2010). The development of imagination and creativity occurs very early in childhood, and the nurturing of said abilities is reliant upon the vibrancy and variety of lived experiences through sensory acclimation (Oliveira & Stoltz, 2010; Vygotsky, 2008). Childhood games are the basis of imagination and enable the development of thought processes which help an adolescent differentiate between concrete and abstract (Vygotsky, 1994). According to Vygotsky (1994), "the movement from the concrete through the abstract to the construction of a new form of a concrete image, is the path which describes imagination in the adolescent age (p. 283). As children move into adolescence, fantasy is focused in a creative manner to develop concrete expressions into new images, which can then assimilate into the concepts of abstraction (Vygotsky, 1994). Thus, fantasy allows adolescents to effectively develop a stable and rich emotional wellbeing which may be used to cope with the rigors of life; "Adolescents find in fantasy a means expressing their rich emotional life and their impulses. The unexpressed parts of adolescents' lives are expressed in creative images" (Stoltz et al., 2015, p. 67; Vygotsky, 1994). Vygotsky communicates that all people, especially innovators, are a product of an environment which allowed for creativity to permeate childhood and the social atmosphere (Stoltz & Piske, 2012). This development enables and defines the higher order character of psychological utilities, thus allowing for the internalization of psychic activities which establish necessary human connections (Stoltz et al., 2015; Vygotsky, 2001). Creativity lies in the center of social and cultural experiences and is connected to consciousness through the emotional bonds which are first internalized and then culminate in a lived experience (Stoltz, 2010).

Once an individual has produced an emotional connection to a social setting, creating a zone of proximal development, education can occur within the environment (Stoltz & Piske, 2012). A symbiotic social educational process takes place between students and teachers and is essential to the cognitive growth of the child (Vygotsky, 1978). This continual interaction with others ultimately allows for intellectual expansion to take place in the zone of proximal development (Nyikos & Hashimoto, 1997). By adapting lessons and using differentiation to correspond with student needs, educators can utilize the zone of proximal development (Burris, 2011). The zone of proximal development allows for the continuous psychosocial transformation and is "the modification of the functional structure of consciousness is what constitutes the central and fundamental content of the whole process of psychological development" (Vygotsky, 1943/2007, p. 285). Within Vygotsky's theory, an educator should not focus on the educational performance of the student, but instead on the progress and understanding of individual students as they exchange concepts through multiple and practical interactions (Alves, 2014).

Vygotsky believes that dynamic relationships, social interactions, and cultural influences will help each child develop cognitively (Berger, 2005). He also believes all students, when provided the proper instruction, motivation, and learning tools could be successful within an educational setting (Lauricella, Barr, & Calvert, 2014). Differentiated instruction allows for educators to provide a rich and motivating learning environment, which can easily be tailored to meet the needs of each student. According to Morelock and Morrison (1998), educators strive to accommodate the individual student abilities by allowing for open dialogue and pushing students out of a set comfort zone. Differentiated instruction utilized many of the tools Vygotsky proposes as a basis for individualized student instruction, yet Gardner's theory of multiple

intelligences allowed for a more thorough understanding of a child's needs in relation to intelligence.

Gardner

The educational system present today was transformed by Gardner's theory of multiple intelligences. This theory not only allowed for learning and achievement expansions within the classroom, but it also offered a unique perspective into the cognitive skills of students (Armstrong, 2009). In regard to intelligence preferences, Gardner's theory of multiple intelligences is a predominant theory in respect to differentiated instruction. According to Brualdi (1998), "Gardner defines intelligence as 'the capacity to solve problems or to fashion products that are valued in one or more cultural settings'" (as cited by Gardner & Hatch, 1989, p. 26). Gardener's (1993) theory of multiple intelligences allows for a broadened perspective of a solitary unit of intelligence into an expansion of eight intelligences. The eight intelligences include bodily kinesthetic, intrapersonal, interpersonal, linguistic, logical-mathematical, naturalist, and musical (Prince, 2011). According to Gardner (2003), intelligence has three connotations: everyone has at least eight or nine intelligences; it makes each person unique as no two humans are completely intellectually identical; it determines how a person completes a task; and what his or her goals are for completing said task. Gardner's (1993) theory contends every individual has eight intelligences, but they may vary in strength and combinations.

Gardner's theory suggests cultural influences play a large part in the development of the intelligences (Brualdi, 1998). Understanding each student's ability through strengths and weaknesses allows for a more thorough individualized differentiated learning plan for each student. This theory proposes that intelligences are essential to produce a functioning member of society, and when teachers broaden lessons to encompass a range of talents and skills students

will ultimately be more successful (Brualdi, 1998). Gardner's view of multiple intelligences has become widely welcomed in the educational community to address the various needs and potential of the individual student.

Gardner's theory of multiple intelligences is a key element in the learning and problem-solving skills students must possess to be successful in an educational setting (Campbell, Campbell & Dickenson, 2004). According to Gardner (1983) intelligence is "the existence of one or more basic information processing operations or mechanisms which can deal with specific kinds of input" (p. 64) and must be recognized as an independent system with independent rules. The intelligence categories within Gardner's theory are essential to development and should be cultivated as such (Armstrong, 2009). Educators who focus on multiple intelligences and differentiated instruction allow for student-centered curriculum and instruction; these same educators find higher success rates within students (Hoerr, 2000). These same educators utilize multiple intelligences and differentiation to expand and transform educational talents and experiences (Hoerr, 2000; Tomlinson, 1999). When both the educator and student understand multiple intelligences, and utilize it within a classroom, every individual is provided a variety of choices within the confines of education; when students tap into the intelligence preferences the outcome is highly successful (Aborn, 2006; Campbell, 1997; Heacox, 2002; Tomlinson, 2001a).

Many of the ideologies of differentiated instruction are based on Gardner's theory. According to Kapusnick and Hauslein (2001), "Gardner (1991, 1993) asserted that students learn better and more easily when teachers use a variety of delivery methods, providing students with learning experiences that maximize their strengths" (p. 156). Thus, the theory enables active and engaged learning within a diverse student population with varying intelligence levels. Gardner (1991, 1993) expanded the potential of a student beyond an IQ score and focused on the strategic

learning focused lessons, from various levels of educators, to enhance the learning style of the individual students (Armstrong, 2009). Through this student driven education, students possess the ability to not only grow but to excel (Richards-Usher, 2013). The theory advocates various practices, approaches, methods, and processes to assist the educational professional in achieving differentiated instruction lessons for individual student achievement and learning styles in mind (Armstrong, 2009; McCoy & Radar, 2007). Educators are accountable for the positive instruction of multiple intelligences and differentiation to ensure the complete success of students on multiple levels (Richards-Usher, 2013). Differentiation is a combination of the natural learning system of the brain, varied learning styles, and multiple intelligences; "Multiple intelligences and various styles are embedded within the learning system framework: learning systems are necessary for the construction of both, but neither is comprehensive enough to encompass the systems" (Given, 2002, p. 11). Educators within today's educational system are exposed to multiple natural learning systems, which demand active and engaging learning processes with direct student involvement (Richard-Usher, 2013).

Use of multiple intelligences theory in a classroom setting allows students to routinely participate in higher order thinking, class wide discussions, collaborative group work, and social interactions with fellow students (Iyer, 2006). Multiple intelligences lends itself to differentiated instruction and provides a solid foundation for the acquisition of new knowledge (Gardner, 1993). When individual students work through problems, contribute to society, and navigate through crises, the level of intelligence increases (Gregory & Kuzmichm, 2004). By the individualization of the instruction through differentiation students and teachers are expanding academic interactions and producing a more successful learning environment and end educational product.

Related Literature

History of Differentiated Instruction

America has a multiculturalism of nationalities and ethnic backgrounds, and the

classrooms across the nation have felt the impact of the varied learning differences. At times,

these differences not only represent varied learning skills within a single classroom, but also a

wide range of cognitive skills. Much of the American educational system has turned to

differentiated instruction to put emphasis on individual learning needs (Huebner, 2010).   Every

student has diverse needs in relation to education, and it is the educator's responsibility to

individualize instruction within the classroom. With the introduction of federal legislation, such

as the No Child Left Behind Act of 2001 (NCLBA), new demands from both state and federal

governments have been introduced into educational institutions. This legislation increased the

awareness for individual student success, and thus the need for differentiated instruction within

the classroom (Beecher & Sweeny, 2008). The NCLBA was created due to the concerns of law

makers with the achievement gaps among students from varied cultures, economic statuses,

languages, and ethnicity (Cronin, Kingsbury, McCall, & Bowe, 2005). The NCLBA measured

academic achievement and school effectiveness through the application of high-stakes testing

(NCLBA, 2001). These increased demands now force teachers and administrators to maintain

high academic achievement standards for all students (U.S. Department of Education, 2007).

According to the National Education Association Research Department (2006), 30 million

students, with varying abilities, learning styles, and comprehension levels are educated in the

United States each year. The educators responsible for these students understand that each

student is a unique individual who learns very differently, and individualized instruction methods

have been shown, through extensive research, to contribute to overall student success (George,

2005). According to Schumm and Vaughn (1991), in the past, educators have felt inadequately prepared to teach a multitude of students with varied learning needs. Yet, at the turn of the twenty-first century, a new concept emerged that enabled educators, through a variety of instructional techniques, to increase student learning (Blozowich, 2001). This form of educational differentiation required ongoing professional development and exchange of effective practices by educational professionals, and included methods to increase learning (Blozowich, 2001).

Differentiated instruction occurs when educational methods are adapted for academic achievement (Edwards & Siegel, 2006). The first defined differentiated instruction actually began during the 1600's, as private tutoring and one-room schoolhouses were commonplace for educational settings (Gundlach, 2012). Many times, the classrooms only contained a single educator who was responsible for numerous students who had a wide range of grade and academic levels, and learning types (Gundlach, 2012). Across the country there was no standardized curriculum, only grade level expectations which varied by teacher. These rudimentary levels of achievement were the basic curriculum popular throughout the United States. It was not until 1889 that this approach to curriculum was changed by a man named Preston Search, who "worked to make it possible for students to work at their own pace without fear of retention or failure. Search pushed his teachers to build an environment where students could be successful, each at their individual pace" (Gundlach, 2012, para. 3). Differentiated instruction was successfully defined by Preston Search through his innovative approach to education.

The one-room schoolhouse was the norm until the early 20th century when a new-tiered educational system was created (Spring, 2008). The public school educational system began to

expand during the late 19th century and early 20th century. This expansion unfortunately

sacrificed the use of individualized instruction, as the main purpose of education now is to

efficiently prepare children for the industrial revolution (Ordover, 2012). Individualized

instruction was only used theoretically throughout the 1900's. It was not until the 21st century

that the term differentiated instruction was utilized within the educational community (Aldridge,

2010). According to Prince (2011), it was "a result of the criticism of public schools, the

educational community needed new ideas and approaches to instruction to foster more effective

teachers that addressed a diverse student population" (p. 6). With more diversity within the

classrooms, educators have come to understand that all students learn in very different manners,

and teaching students as though they are all the same is not effective practice (Prince, 2011).

Differentiated Instruction

Differentiated instruction allows educators to tailor instruction to individual student

needs. Teachers can use various content, processes, products, educational environments,

assessments, or classroom grouping to provide students with appropriate and successful

differentiated instruction (Tomlinson, 2000b). Differentiated instruction must be used in a

proper manner to cater to students' individual strengths, thus allowing no changes in the

curriculum or how the curriculum is used in the classroom (Aldridge, 2010). Using

differentiated instruction in all classrooms allows educators to give "all students to access the

same classroom curriculum by providing entry points, learning tasks, and outcomes tailored to

students' learning needs" (Watts-Taffe et. al., 2012, p. 304). A differentiated classroom gives

each student a veritable road map to course individual success. In this type of classroom

students are held to a high academic standard, celebrate individual success, initiate flexibility

through a varied range of educator-taught instructional strategies, master critical content through

self-driven lessons, and utilize a common-sense approach to curriculum (Tomlinson, 1999).

Differentiated classrooms use engaging instruction and common sense to connect students to the

transparent and compelling curriculum. Curriculum is more easily aligned within the classroom

setting and with classroom lessons by utilizing the various techniques contained within

differentiated instruction (Parsons et al., 2013). The use of differentiated instruction in the

classroom allows educators to focus on students in a manner which considers diverse learning

styles, and cultural, ethnical, and socioeconomic differences (Huebner, 2010): thus, allowing for

the effective education of students with varying abilities in the same classroom setting (Hall,

2002).

According to Bush (2006), "differentiated instruction is simply an honest and mindful

approach to teaching our diverse student populations. It acknowledges individual differences

and seeks to make learning meaningful for all students" (p. 45). With differentiated instruction,

educators can determine various methods and strategies to provide the most effectual educational

learning environment for all students. Within an effective learning environment, differentiated

instruction is successful when students comprehend the learned material, can make connections

to a prior knowledge base, and categorize the material. The fact that students' comprehension

and reaction to material and stimuli may differ has been confirmed through brain research, and if

used in a correct and creative manner, differentiated instruction may be used within the

curriculum to inspire individual student imagination (Bush, 2006; Given 2002).

Children are unique individuals with varied history, personal design, and aptitude for

learning within an educational environment (Cooper, 2009). Even students of the same gender

and age do not learn in the same manner (Tomlinson, 2001). The individualism of the students

ensures varied learning styles, educational proficiencies, readiness to learn, and lived

experiences. Therefore, an educational system which is differentiated will provide a way for students to more readily acquire content and process ideas in a productive learning environment (Tomlinson, 2001). It is essential educators understand, respect, and respond to the unique differences which make a distinction of one child's learning needs from another (Cooper, 2009). When an individual and comprehensive student-learning plan is developed by an educator, the students' capacity to learn needs to be considered for successful differentiated instruction to take place (Anderson, 2007). While research has shown that more comprehensive learning is taking place when lessons are taught in fifteen various forms rather than one or two methods, various myths and prejudices still surround differentiated instruction (Wormeli, 2005). Through the utilization of the various teaching differentiated instruction methods, student achievement and comprehension will improve base line testing steadily (Tanner, Bottoms, Feagin, & Bearman, 2003). These differentiated instructional methods should attempt to meet the individual student learning needs and styles (Orfield, 2001). With the utilization of differentiated classrooms, students are encouraged to use social knowledge and skills to effectively learn in a manner most effective for the individual. This diverse learning format endorses the development of positive self-esteem in all students, which further promotes a successful learning environment to the individual (George, Renzulli, & Reis, 1997).

Many educators hold on to an educational belief system which does not allow for a willingness to change or experiment, thus not giving differentiated instruction a chance to effectively become common practice within their classroom settings (Tomlinson, 2004). Many educators do not extensively practice differentiated instruction even though it offers an extensive potential for academic growth in both education professionals and students (Tomlinson, 2004). The more common practice is for educators to use micro-differentiation, which allows for minor

adjustments in lessons for student learning accommodations without altering the content, process or products which would completely compensate for all varieties of student learning variances (Prince, 2011; Tomlinson, 1995). Many times, educators negatively affect the use of differentiation due to the negative perception of additional workload and minor achievement levels (Prince, 2011). Differentiated learning within the classroom is only effective if implemented across the curriculum (Prince, 2011).

The Perception of Differentiated Instruction

Students are required to master high-stakes testing concepts and skills taught within the educational system, regardless of individual experiences or cognitive ability (Richards-Usher, 2013). According to Cooper (2009), "a child is an individual with a unique history, ability to learn, and personal style of doing so. Teachers must respect the differences which distinguish one child from another and respond positively to each one's learning needs" (p. 285). Differentiation that is successfully accomplished will offer a more thorough understanding of each student's capacity for learning and education, and allow for a teacher to create a meaningful and comprehensive personal learning plan (Anderson, 2007). What many educators fail to realize is when they focus on the negative myths and connotations of differentiated instruction they are not allowing the students to learn in a more comprehensive manner (Wormeli, 2005). Subject matter taught in 15 ways versus only one is more thorough and enables learning in a more complex way (Wormeli, 2005). In this type of learning environment students are encouraged to take charge of the learning process through choice of material (Tomlinson, 1999). Through much of the research provided in the academic community, baseline testing will improve if educators use a variety of instructional techniques and methods for academic achievement (Tanner et al., 2003).

Many teachers in modern day society are stuck in a traditional pen and paper educational system and are unfortunately unwilling to change and allow differentiation take place within learning environments (Tomlinson, 2004). Many times, attention deficit disorder was incorrectly blamed for lack of student learning in the classroom; however, experts are now realizing this myth about education is obsolete and incorrect (Tomlinson, 2001). Through research educators are beginning to understand that students' varying background and interests influence the learning a student values as meaningful (Tomlinson, 2001). Many teachers express an interest in differentiated instruction but are unsure of the implementation, leadership, and management of the strategy (Robison, 2004). For differentiated instruction to be incorporated successfully, educators must have support and collaboration from fellow educators and administrative teams (Robison, 2004). According to Tomlinson (2001), "few teachers automatically know how to lead a classroom that responds to the daunting reality of learner variance" (p. 17). The barrier effective differentiated instruction faces is the educator's lack of understanding and professional development, which allows for successful implementation (Prince, 2011).

According to Tomlinson (2004), due to lack of in-depth training, educators feel uncomfortable, have low proficiency skills, and ineffectively initiate differentiated instruction. Bush (2006) states, "The challenge to many educators is to acknowledge those preferences different from one's own" (p. 45). When educators lack in-depth training, it ultimately leads to low skill proficiency and less effectiveness (Tomlinson, 2004). This lack of training leaves educators unsure of the effort necessary to ensure successful differentiated instruction. Numerous teachers tend to use micro-differentiation within classrooms; this allows for minor changes to lessons to accommodate for learning, but does not change any content, processes or products that truly allocate for all the student learning variances within the classroom (Prince

2011; Tomlinson, 1995). Differentiated instruction many times carries a negative connotation, as educators worry that an additional workload will lead to unsuccessful outcomes (Prince, 2011). Classrooms become ineffective if teachers refuse to use the full measures of differentiated instruction in the curriculum and learning environment (Prince, 2011).

Whether it is due to a lack of professional development or a fear of additional work, many teachers simply do not utilize differentiated instruction effectively or extensively even though it offers extensive rewards for a student's academic growth (Tomlinson, 2004). While many educators fear the use of differentiated instruction in the classroom will make students more challenging to direct, experts point out that while complex, the result of differentiation within a classroom environment allows for more successful student learning (Tomlinson, 2001). Differentiated classrooms are complex to manage, yet according to Tomlinson (2001) educators found invigoration and satisfaction with the successful implementation. Many times, educators found that time and resources were employed more creatively and with more flexibility when using differentiation, which enabled more in-depth collaboration within the classroom (Tuttle, 2000). Educators motivate students through connection to the material which is uniquely personal and enjoyable, thus perpetuating eager engagement in future activities (Baines & Slutsky, 2009). Through the differentiated learning methods and strategies educators are wholly engaging students in the learning process, and thus enabling teachers to successfully fulfill their obligation to student achievement.

Advantages of Differentiated Instruction

In classrooms without differentiated instructional methods and lessons, below average students were less likely to actively engage in the learning process, and thus received a lower quality of education (Edwards, Carr, & Siegel, 2001). The successful differentiated instructional

process within the classroom will indicate a reflective and responsive educator (Fattig & Taylor, 2008). According to the leading differentiated instruction expert, Tomlinson (2001), "Differentiated instruction is based on the premise that instructional approaches should vary and be adapted in relation to individual and diverse students in the classrooms" (as cited in Hall et al., 2003). With differentiated instruction educators can provide methods in which all students, who learn very differently, can make a lasting connection to the educational content being taught (Prince, 2011). According to Watts-Taffe et al., (2012), "Differentiated instruction is not a single strategy, but rather an approach to instruction that incorporated a variety of strategies" (p. 304). Educators use a wide variety of strategies and methods, such as becoming partners with students, modification of curriculum to accommodate individual needs of students, or embodying common sense, to support individual differentiated learning (Affholder, 2003; Tomlinson, 1999).

Baumgartner, Lipowski, and Rush (2003) present research that suggests differentiated instruction as one of the more effectual educational strategies to educate diverse learning populations. Students can meet the academic demands being placed on them through the tailored individualization of differentiated instruction: "Whether teachers differentiate content, process, products, or the learning environment, the use of ongoing assessment and flexible grouping makes this a successful approach to instruction" (Tomlinson, 2000b, para. 1). Correctly used differentiation allows educators to cater the instruction to meet the needs of all students without having to change curriculum designs (Aldridge, 2010). With differentiated instruction educators are enabled to provide "all students to access the same classroom curriculum by providing entry points, learning tasks, and outcomes tailored to students' learning needs" (Watts-Taffe et. al., 2012, p. 304). By utilizing the multiple techniques available within differentiation, instructors can individually help students while aligning with the school curriculum (Parson et al., 2013).

Teaching through differentiated instruction methods enables teachers and administrators to provide a thorough and effective educational environment for all students (Bush, 2006). According to Bush (2006), "Differentiated instruction is simply an honest and mindful approach to teaching our diverse student population. It acknowledges individual differences and seeks to make learning meaningful for all students" (p. 45). When differentiation is effective, students can decode the lessons and information they are receiving, make connections with prior knowledge they already possess, and then categorize the data to complete the learning process and make the knowledge permanent (Bush, 2006). Creativity and imagination is a basic principle within differentiated learning, and through enjoyment students are learning material, not simply memorizing facts (Bush, 2006). When teachers are considering differentiation, they must utilize a variety of instructional stratagems, as well as a varied level of individual student needs, personality characteristics, and mixed learning styles (Tomlinson, 1999).

According to Parsons et al. (2013), an educator who effectively institutes differentiated instruction "carefully plans instruction to differentiate for the variety of learners in their classrooms but also provide moment-by moment adaptations to meet specific needs that become clear during instruction – needs that were not or could not be anticipated" (p. 98). By utilizing this teaching method and various differentiated learning techniques, educators are enabled to constantly evaluate and assess their personal teaching methods and strategies, thus allowing them to make multiple adjustments for multiple students (Parsons et al., 2013). Educators must also consider individual student personality and need when constructing differentiation which is effective for academic achievement (Burkett, 2013). Teachers need to feel supported through professional development to enhance differentiated instruction; professional learning

communities within the curriculum also allow educators to share resources and ideas with which to best differentiate (Robison, 2004).

Differentiation in Curriculum Development

Within a designed curriculum, differentiated instruction can be a valuable educational strategy, and it allows educators to implement effective and individualized lessons (Bush, 2006). According to Bush (2006), effective differentiated instruction should be designed to focus on the learner and meet each student's individual needs, which include educational style, educational motivation and educational abilities. Balanced differentiated curriculum will focus on the educational environment provided to the students, content which drives the curriculum, the processes in which learning is achieved, and the outcome of the learning process (Bush, 2006). An educational curriculum development team must answer three valuable and essential questions when looking to base curriculum on differentiated instruction: "what is worthwhile learning-content; how the instruction is the best delivered-process; and what is the evidence that demonstrates a learning-product? The differentiation is planned according to the student's readiness, interests, and learning profile" (Bush, 2006, p. 44). Standardized test analysis, summative, and formative assessments can help educators determine if differentiated instruction within the curriculum is effective and successful (Bush, 2006). When curriculum focus is on the most effective activities and strategies it empowers students to develop content knowledge, learning skills, and academic attitudes (Bush, 2006). The leading expert of differentiated instruction, Tomlinson (1999), suggests leaders within the educational community first develop a substantial insight of differentiation methods and practices. School leaders must demonstrate commitment to differentiation through robust professional development and continued support of faculty while implementing DI practices within the classroom. The educational curriculum

change is most effective and not as challenged when it is implemented at a district and school wide level (Tomlinson, 1999).

Research encourages differentiated curriculum that is designed with the student in mind. This type of curriculum will not only connect students to educational materials through real life, but will also increase academic motivation through positive and individualized instruction (Guild, 2001; Hall, 2002; Strong, Silver, & Perini, 2001). Differentiation within the curriculum allows for educators to adapt to individual learning styles, thus providing educational support for America's diverse population (Edward, Carr, & Siegel, 2006). Many educators understand that with the variety of learners within each classroom, implementation of differentiated instruction more readily meets the individual learning styles (Tomlinson, 1999). The individualized nature of differentiation lends itself to successful accommodations for heterogeneous classrooms with varied learners (Tomlinson, 2000a). Through development of comprehensive differentiated curriculum, educators recognize the importance of accommodating the individual learning styles of each student and the benefit the curriculum can provide for academic achievement (Tomlinson, 2000). In curriculum and classrooms where differentiated instruction was utilized, the individual academic needs of the students were more quickly sustained (Ayers, 2008). Within these learning rich environments, differentiated instruction ensures students understand their unique learning style to the material in a way that promotes readiness, student interest, and a preferred learning method (Tomlinson, 2004b).

To effectively modify and develop curriculum for successful differentiated instruction, those educators developing the plan must understand the student readiness, student interest, and student learning profiles of the individuals within the environment (Tomlinson, 1999; 2001; 2003). A student's readiness signifies the level of skill and knowledge of a topic and the level of

challenge which is acceptable for achievement (Tomlinson, 2003). To differentiate curriculum for student readiness, an educator must provide varying levels of complexity and difficulty, with the autonomy to modify the instruction provided (Heacox, 2002; Tomlinson & Edison, 2003). The teacher must utilize assessments to ensure the curriculum is at a level that enables students to reach beyond a comfort zone which provides adequate support to bridge any learning gaps with integration of new knowledge (Tomlinson, 2001). This understanding allows for the individualization of lessons which are challenging, promote learning, and connect student interest to the topic of the lesson (Tomlinson, 2001; Tomlinson & Kalbfleisch, 1998). Research has shown when students are engaged and interested in the lesson, motivation and achievement will steadily increase (Tomlinson & Edison, 2003).

When an educator is focusing on utilizing differentiated instruction within planned curriculum, best individualized practices call for the categorization of groups into "group orientation, cognitive style, learning environment, and intelligence preference" (Bush, 2006, p. 45). These four groups allow for a comprehensive and a thorough educational experience for the individual students in the classroom. In addition to these groups, the emotional state of the learner will influence focus of the student and what is actually learned. Thus, it is essential for educators to not just focus on curriculum and motivation, but also on the emotional well-being of the student (Given, 2002). For differentiated instruction to be effective for students, a successful educator must combine all its elements, methods, and strategies in a meticulous manner to promote successful individualized learning (Sharabi, 2009).

Individualized Learning Strategies

While individualized instruction is essential for differentiated instruction, not all the instruction occurring in the classroom daily will be differentiated (Tomlinson, 1999).

Differentiated instruction, at its core, is focused on individualized learning which may be provided through whole class, small group, or individualized instruction. The educator within a differentiated classroom recognizes and promotes the variation within multiple learners, and appreciates each student has distinct learning requirements (Tomlinson, 2001). Differentiation focuses on the learning needs of each individual student, and allows the educator to design experiences to allow increase a student's knowledge and learning skills (Chapman and King, 2005). According to the leading expert of differentiated learning, Tomlinson (2001), there is no single or right way to differentiate instruction. Success of a differentiated classroom lies in flexibility, such as a learning environment which promotes student-centered learning and abandons an educator's authoritarian role. Within this environment, students can take risks, feel self-assured, feel encouraged by the teacher and fellow students, and feel a mutual respect is shared by all (Tomlinson, 1999). Judgment does not have a place within a differentiated classroom; educators within this environment must focus on positivity, the joy of learning, and building a sense of rapport with the students to encourage them (De Anda, 2007; Tomlinson, 1999). Within differentiated classrooms, educators do not relinquish power, but rather share it with the students and allow them to participate in the construction of a student-centered environment (Tomlinson, 2001). When students have a say in the creation of ideas such as class rules and procedures or solving problems, the climate within the schoolroom is more likely to be positive, promote student autonomy and motivation, and allow for increased self-regulation and achievement (Tomlinson, 2001; Young, 2005). Educators who utilize effective differentiation within the learning environment most times have high expectations for students and teach students in a manner which stretches them and expects them to reach higher for goals instead of

down; these same educators do whatever is necessary to enable learning and expect "Maximum effort to achieve maximum potential" (Tomlinson & Edison, 2003, p. 8).

Differentiated instruction is proactive and aims to reach student divergence through targeted systematic planning (Tomlinson & Edison, 2003). For effectiveness, educators use an assortment of techniques, activities, ideas, and resources with a flexibility which allows for accommodating adjustments when necessary (Tomlinson & McTighe, 2006). According to Tomlinson (1999), "the students' experiences, culture, gender, genetic codes and neurological wiring, all affect how and what they learn" (p. 10). The key objective of differentiated instruction is individualized learning, which allows for student connection with educational material and real-world experiences (Tomlinson, 2001a). These individualized needs are easily and quickly met through the utilization of differentiated instruction within the classroom (Tomlinson, 1999). Successful academic achievement can be quantifiable when differentiation is used within classrooms in innovative, inspiring, and motivating ways. When educators utilize methods and strategies to properly lead a differentiated environment, students are enabled to process information at a much higher rate and real-world connections are made to the academic material (Tomlinson, 2001a). According to Tomlinson (1999), the philosophy of differentiated instruction is defined as the education and learning processes which work for multiple students, with individually distinctive learning types, in the same schoolroom. Individualized learning does not require a student to modify learning to fit into the curriculum, but allows for the instruction to conform to the individual needs of the student to maximize academic development and achievement (Hall, 2002). Though differentiation methods are not always the easiest to practice, both researchers and educators recognize this type of instruction is essential for the accommodation of mixed ability students within diverse classrooms (Richards-Usher, 2013).

Educators who take time to appreciate individual students and their complexity; will have a better understanding of how to best differentiate lessons and will ultimately reap the rewards when student achievement is on an incline (Tomlinson, 2001). While research has reported every student comprehends and learns in a different manner and at a different rate, differentiation specialists recognize most students differ through readiness for material, student interest, and individual learning profiles (Tomlinson, 2001). Maximum learning potential and achievement can be directly related to educators who actively engage students in differentiated instructional practices within the educational environment (Tomlinson, 2001). Educators who link students' life experiences directly to curriculum enable students to become more engaged and allow the lessons to become more meaningful. This connection allows for all students to cultivate a passion for the material and connect said passion to ability, thus safeguarding students from a perception or the reality of failure (Brown, 2004). Effective educational leaders are sensitive to each student's instructional needs and provide an opportunity for productivity and successful learning (Brown, 2004).

Huebner (2010) encourages education professionals to use fellow colleagues as invaluable learning communities to help with differentiation, to become well-versed in methods and practices of differentiation, and to develop classroom practices which fit differentiation. Huebner (2010) recognized "there is no one-size-fits-all model of differentiated instruction" (p. 79), and educators must build individualized methods unique to each classroom. As educators learn successful differentiated instructional methods and strategies there is a shift in effective instruction to accommodate individual learning styles and needs (Valiande & Koutselini, 2009). To effectively build differentiated techniques and methods within the classroom, educators must also be cognizant of how the brain functions (Jensen, 2000).

According to Given (2002), the natural learning systems within the brain are emotion, socialization, cognitive reason, physical reaction, and reflection. Each of these systems must be considered if differentiation is to be successful for a diversity of individual learning styles. Educators must develop differentiated lessons which engage the learning systems of the brain to realistically advocate diversity and individual needs (Given, 2002). For effective learning, the environment must be safe and provide students with emotional security, small group learning must provide a social setting, cognitive learning must focus on academic proficiency development, challenging academics must be in place for physical learning, and self-reflection must be in place to ensure reflective learning (Given, 2002). A brain-based approach to education and differentiated learning encourages better decisions and accelerates individual learning (Jensen, 2000). All brain-based learning must meet the emotional, social, cognitive, physical, and reflective needs of a student for effective and thorough academic achievement to be accomplished (Given, 2002). When the educational environment is safe, the student potential for growth and learning is expanded.

Research has highlighted the link between the body and the brain through a naturally emotional learning system. Through this link and environmental stability an individual is enabled to process information at a higher rate (Pert, 1997). Students must feel a sense of security within a learning environment to maintain the ability to explore and learn (Affholder, 2003). Affholder (2003) states, "Teachers also create a positive classroom climate and a supportive classroom community with shared values, a sense of membership, supportive interpersonal relationships, active participation, and respect for self and others" (p. 10). Effective differentiated instruction and learning processes will only be produced within an environment in which students feel safe and have the freedom to explore, thus producing

academic success. This environment should provide a space for concentration and the physical set up of the room should provide a positive setting in which educators may influence successful student achievement (Burke & Burke-Samide, 2004). The educational environment needs to adapt "for sound preferences, lighting needs, and temperature controls" (Burke & Burke-Samide, 2004, p. 238). The correct environment is essential for classroom management and motivation, and allows for students to develop a routine and social orientation for success (Tomlinson, 1999). The differentiated classroom environment can enable an educator to continuously and quickly modify fundamental content, processes, and strategies for effective education. Educators can promptly and proactively react to differences in student readiness, student interest, and individual learning needs (Tomlinson, 2001).

Group orientation is a key element when organizing a class into flexible groups and various classroom patterns. At the center of differentiated instruction is flexible groups (Heacox, 2002). Group sizes should vary and adhere to "student profiles and curricular and instructional demands, including same-age, multi-age, skill-based, interest-based, and learning-styles based groups" (Affholder, 2003, p. 9). Varying group sizes allows for learning techniques to be effectively and completely introduced to each student within the learning environment. The goal of flexible groups is to allow educators to meet the needs of individual students and build on large concepts in a group format (Tomlinson, 2001). Research on differentiation has reported that "students in small within-classroom learning groups (generally three to four in size) achieved significantly more than students not learning in small groups" (Brighton, Brimijoin, Callahan, Conover, Hertberg, Moon, Reynolds, & Tomlinson, 2003, p. 132). These students also tended to show a stronger positive approach to learning and enabled educators to address student learning variances (Brighton et al., 2003). According to Connor, Morrison, Fishman, Giuliani,

Luck, Underwood, and Schatschneider (2011), "Correlational evidence suggests that instruction provided in small groups may be up to four times as effective as instruction delivered to the entire class" (p. 193). This increased learning within small groups may be due to the educators' flexibility and adjustments to learning strategies which will enhance achievement (Connor et al., 2011). The educators' realization and adjustments allow for a clear understanding of the individual student's cognitive ability or style.

The evaluation and recognition of a student's cognitive style is very important to the best practices of differentiated instruction. "*Cognitive style* is less about the decisions that individuals actually make and more about the processes used to make them. Individuals vary in predictable ways . . . they differ in the way in which they gather and process information" (Scholl, 2001, para. 1). Cognitive style is introduced within a student as an ability to process, obtain, scrutinize, classify, and store information; yet this process also allows said student to recover the information later to formulate answers and solve problems (Scholl, 2001). Cognitive style creates a bridge connecting cognition and a student's personality; "Cognitive style is usually described as a stable and persistent personality dimension which influences attitudes, values, and social interaction" (Florida State University, n.d., para. 1; Sternberg & Grigorenko, 1997). Thus, when educators share personal experiences and opinions with students they are allowing the students to connect the curriculum and learning experience directly to the material being presented in a manner that enhances cognitive style (Affholder, 2003). According to Affholder (2003), ". . . the teacher models the behaviors necessary for self-directed learning, such as questioning, goal setting, inquiry, and research; and the teacher orchestrates the learning opportunities so that the students can gradually take more responsibility for decisions about their

own learning" (p. 10). This modeling behavior allows the student to connect in a personal manner and connect with the curriculum in a more individualized positive manner.

Differentiation allows for educators to create learning profiles for students which enable positive ways in which to promote students' self-confidence and promote self-motivation (Tomlinson, 2001). When education responds to each student's learning profile, learning style, intelligence penchant, and individual needs, effective differentiated instruction is actively taking place in the classroom (Tomlinson, 1999, 2001). All the various and individualized pieces must fall into place for differentiated instruction to have a positive effect. According to Tomlinson and McTighe (2006), "when students feel affirmation, affiliation, a sense of contribution, growing autonomy, accomplishment, and shared responsibility for the welfare of the group, the 'climate' for learning is good" (p. 18). Hence, in educational environments where differentiated instruction is utilized, the product of the enhanced curriculum and individualized lesson plans is a positive academic achievement success rate (Tomlinson, 1999).

Robert J. Marzano (2009), utilizes a system that comprehensively enables teachers to differentiate instruction while maintaining effective instruction in all subjects and grades. Marzano's method allows for the establishment and communication of goals, tracking of student progress, student interaction with knowledge, development of effective lessons, and communication with students. Each of these tools enable the teacher to tailor lessons to meet students' needs and ultimately enhance student achievement (Marzano, 2009). According to Marzano (2009), "A key component of differentiated instruction involves paying attention to student interests and learning profiles. Based on an understanding of these components, a teacher can make decisions about how both individual and group interests might be incorporated…" (p. 259). Differentiated instruction individualizes education for students, and

through the Marzano method students are engaged "in self-designed authentic tasks…self-monitoring, self-evaluation, and self-regulation" (Marzano, 2009, p. 143). Educators using the Marzano method allow students to utilize differentiation with a student-driven focus; students are the leaders in the educational process, and the teacher is simply a guide utilizing various tools with which to influence correct educational direction.

Summary

The literature reviewed within this chapter reports many proven and effective strategies which may be implemented when using differentiated instruction as a learning tool and educational tool. Differentiated instruction is deeply rooted in historical and various theoretical frameworks and has been proven to increase student learning. The literature reveals advantages and teacher perceptions associated with differentiated instruction. I sought to review much of the literature associated with differentiated instruction to determine that this type of learning is highly beneficial for all students. The research shows the theory behind differentiated learning, and by using this teaching method student academic success can be increased. Additional research is needed to understand what the students think about the way they are learning within a classroom when differentiated instruction is utilized.

CHAPTER THREE: METHODS

Overview

The purpose of this phenomenological research was to investigate the perception and understanding of differentiated instruction on 10-15 middle school students in a public charter school. By using a phenomenological approach, student experiences were investigated, which gave the students a voice (Creswell, 2007). With over 30 million students in the United States, it is essential for educators to promote academic success through differentiated instruction (George, 2005; National Education Association Research Department, 2006). Students must become active participants throughout the educational process. Through the extension of knowledge on existing research, this study will fill a deficit in the literature and enable educators better understand students' perceptions and understanding so they can effectively involve students in differentiated learning.

This chapter identifies the research methodology, concise rationale for the research approach outlined by qualitative research theory, and an accounting of the design implementation, grounded in qualitative, transcendental, phenomenological research methodology. It also details the participants and sampling methods used. The chapter also explores my role in this study, the collection procedures, and all the instruments utilized (Hamill & Sinclair, 2010). Finally, it addresses data analysis, trustworthiness, and ethical considerations.

Design

To investigate the perception and understanding of differentiated instruction of 10-15 middle school students in a public charter school, the study is qualitative in nature and structured in a phenomenological research design. According to McDuffie and Scruggs (2008), qualitative research is best used to provide data feedback on perceptions, beliefs, and experiences of a

group. Through this qualitative research design, an understanding of the unique perceptions and attitudes that middle school students in a Visage Charter public school have in respect to differentiated education was acquired. Creswell (2013) noted that qualitative research is best utilized when faced with research that is undetermined and "fundamentally interpretive" (p. 182). Denzin and Lincoln (2005) state:

> Qualitative research is multimethod in its focus, involving an interpretative, naturalistic approach to its subject matter. This means that qualitative researchers study things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of meanings people bring to them (p. 2).

This study was selected to acquire students' firsthand perceptions and understanding of differentiated instruction (Clark, 2009). The students were enabled to describe perceptions and understanding, in their own voices, in relation to differentiated instruction. The students' voices were captured so educators will better understand how they feel and think, thus enabling a rich description from the student point of view.

Phenomenology

This research is presented in a transcendental phenomenological research design, as it was attempting to better discover the lived experiences of students regarding differentiated instruction, in their own voices. According to Husserl (1970) a phenomenological research approach enables "the researcher to develop an unprejudiced view of the world and explore their rational interconnections" (p. 43). It was necessary to ascertain the student understanding and perception of differentiated instruction throughout this study, and the phenomenological research design will allow for an in-depth study to describe, analyze and interpret the understanding and use of differentiation in instruction by the participants.

A phenomenological research design was the best option for this study, and the researcher used the data collection methods of interview, observation, and detailed researcher notes for the phenomenon of differentiated instruction. It was a necessity to gain student understanding and perception of differentiated instruction throughout the research, and a phenomenological research design allowed an in-depth look at description, analysis, and interpretations of the phenomenon of differentiation. Phenomenological research is most effective and useful when looking at the life experiences of a group of individuals or culture (Moustakas, 1994; Ostergaard, Dahlin, & Hugo, 2008). When research attempts to understand a phenomenon and its relationship to the particular people who are living the experience, a phenomenological study works the best (Akerlind, 2005; Giacomini, 2000; Kvale & Brinkman, 2009). This type of research allows for exploration of experiences which transform a group of individuals' experienced consciousness, and find a greater comprehension of the experience (Patton, 2002).

A transcendental design allowed for the investigation of phenomenon as viewed by the middle school students and focused on their experiences and descriptions (Moustakas, 1994). Researcher prejudgment, presumption, interference, and interaction (bracketing/epoche) were both minimized and eliminated through open observation and listening, both uninfluenced by personal experiences. The challenge was to accurately describe and understand meaning without personal assumptions. Consciousness creates meaning when objects appear and mingle with nature. According to Moustakas (1994), "What appears in consciousness is an absolute reality while what appears to the world is a product of learning" (p. 30).

The meaning of the phenomenon of differentiated instruction to the middle school students is in the act of experiencing it. Acts are intentional experiences, and through

combination with outward appearances, they manifest in a participant's mind to create memory and meaning (Moustakas, 1994). The students' described perceptions and understanding are the primary source of knowledge and make up the concrete act of perception, thus allowing a full-bodied presence. This research focuses wholly on the descriptions of experiences, not rationalizations or personal analysis (Moustakas, 1994).

Moustakas (1994) focuses on seven steps to ensure that phenomenological research creates a synthesis of collected data. The researcher must first focus on recognizing the value of the qualitative design as a method to study human experiences and then pinpoint focus on the entire experience and not simply small parts of the research. Next the researcher must attempt to explore the experience and not focus so heavily on the explanations of the research. The data must be collected "through first-person accounts in informal and formal conversations and interviews" (Moustakas, 1994, p. 21). The researcher must be able to understand the human behavior and all the data collected for an in-depth investigation and attempt to devise research questions that are reflective of his or her personal commitment to the project. Lastly, the researcher must be able to view the "experience and behavior as an integrated and inseparable relationship of subject and object and of parts and whole" (Moustakas, 1994, p. 21). By achieving all these steps, the research will become a well-rounded phenomenological research project.

Research Questions

RQ1. How does the participating middle school student describe his or her perception and understanding of differentiated instruction?

RQ2. Which, if any, specific differentiated practices do students think are best utilized by teachers to enhance individual perception of academic achievement?

RQ3. What changes do students perceive as necessary for successful individualized

instruction?

Setting

The participants were selected from a public charter middle school in central Florida.

Pseudonyms were in place for the school, the school system, and the student participants to

preserve confidentiality.   The school was chosen for its unique curriculum, which highlights and

utilizes differentiated instruction daily, proximity, and my current employment status as a teacher

in Visage Charter Middle School. The Visage Charter school system educates approximately

3,500 students in 4 schools. The demographic makeup consists of 76.5% Caucasian, 11.5%

Hispanic, 4.5% Asian, 3.7% African American, 3.1% Multi-racial, and .5% American Indian.

Visage Charter Middle School is one of four schools within this system. The school has

approximately 750 students enrolled. The economic demographic is diverse as an estimated

26.4% of Visage Charter School students receive free lunch, and an additional 8.7% receive

reduced lunch.

The charter school is a Florida not-for-profit organization and is labeled as a "Charter

School in the Workplace," a public school of choice designed to target the specific student

population. The target student population in the instance of Visage Charter School is children of

employees of the sponsor company to the fastest growing single-site development in the country.

All students enrolled in the school are registered through a workplace boundary rather than

geographic boundary, and adhere to the same core values prized within the sponsor company.

This unique symbiotic relationship creates strong ties not only with company and employee, but

with parent and school.

The school system dedicates time to develop individual students and nurture productive

lifelong learners and utilizes curriculum which is custom tailored to the differentiated needs of the individual student. Identification of learning styles and development of strategies that highlight individual educational needs of each student are built into the curriculum. The educators utilize Marzano's (2009) "Art and Science of Teaching" in daily lessons and curriculum. This curriculum enhances differentiated learning for students and allows educators a more complex understanding of various tools which make differentiation integration seamless.

Researcher Bias

As the researcher, a direct and ongoing contact with education and with students, could have impacted data analysis, viewpoints, and conclusions. As a classroom teacher and former administrator, I have worked and still work with students directly and indirectly. I have been part of planning curriculum which allows for hearty differentiated instruction, and I have initiated differentiated instruction directly within my classroom.

To refrain from assumptions and judgment as the researcher, the epoche process was used as outlined in Moustakas (1994). This process enabled previous experiences with the phenomenon to be set aside and the commitment to an open and receptive study put into place. Being in a classroom environment enables an educator to easily make assumptions about what students feel or know; in an effort to ensure the research remained impartial, a position of impartiality was adopted and suspension of prior beliefs was engaged. Setting aside presuppositions enabled the discovery and the understanding of the described experiences, to reflect on student perceptions, to remain flexible, and utilize the open-ended questions which guide the research (Moustakas, 1994).

Through lived experiences it can become hard for a person to become an impartial researcher. To best provide impartiality it was essential to separate past and present knowledge

and experiences through the bracketing and epoche processes. Moustakas (1994) defines bracketing as an ongoing process with which the researcher develops objectivity and uses a non-judgmental attitude toward the student subjects. Suppositions about differentiated instruction were identified, consciously set aside, and continually revisited during the collection of data to expand an evolving comprehension of the students' perceptions and understanding (Moustakas, 1994). Epoche enabled a garnered balance between current awareness and experiences with differentiated instruction and the students' perceptions and understanding of differentiated instruction (Gearing, 2004). According to Gearing (2004), past experiences and units of meaning must be separate and then reintegrated for synthesis in analysis of collected data (see Figure 3.1).
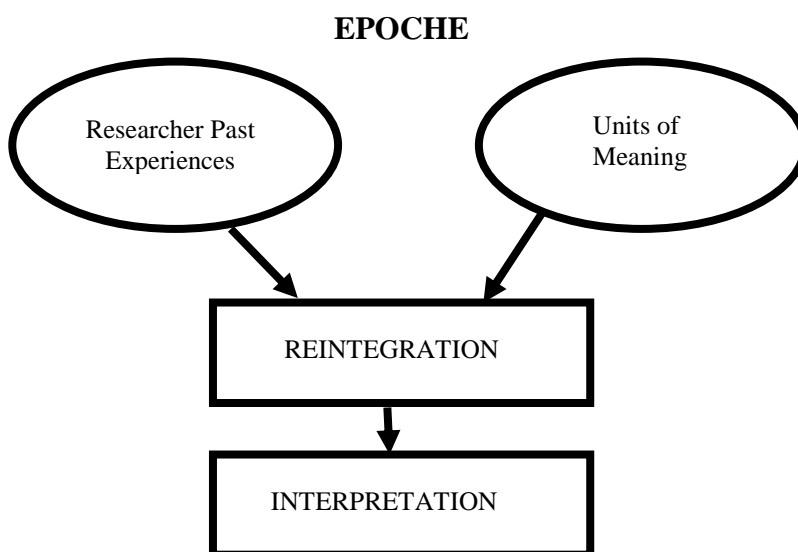
EPOCHE

Figure 3.1. Epoche process, adapted from "Bracketing in research: A typology."

Participants

The sample size for this research was 10 students chosen through purposeful sampling. According to Creswell (2013), this type of sampling is used as a "decision as to whom to select as participants for the study, the specific type of sampling strategy, and the size of the sampling

to be studied" (p. 155). To research a homogeneous group of middle school students and understand their experience with and perception of the phenomenon of differentiated instruction, purposeful sampling was the most suitable. The eighth grade English Language Arts teachers at Visage Charter Middle School gave a 10-question survey to their classes, and once complete the surveys were returned to the researcher. From this convenient purposeful sample, 10 students who indicated recognition of differentiated instruction were chosen for a face-to-face interview. It was the intention to choose 10-15 representative students, but additional students may have been added until saturation of themes occurred. These students were as representative as possible, with a goal of thematic saturation. According to Mason (2010), thematic saturation occurs when new interviews fail to contribute new themes, data becomes redundant, and typically occurs in qualitative studies.

Procedures

After a successful proposal defense, the application for the research approval from Liberty University's Institutional Review Board (IRB) was submitted (See Appendix A). Once IRB permission was granted, the application for research was submitted to Visage Charter School system (see Appendix G) and the principal of Visage Charter Middle School (See Appendix F). Once these general permissions were granted, letters were sent to the parents of the middle school students in the eighth grade explaining the study, and a consent form was attached for parents to return (see Appendixes E & J). When consent forms were returned, the initial participation intake 10-question *Likert* scale survey was distributed to students (See Appendix B). Then 10 middle school students were chosen from the survey responses, using 40 as the highest possible score. A 10-question interview was then conducted with each of the ten participating students (See Appendix C). Creswell (2013) recommends transcribing and

recording data for accuracy. The researcher kept detailed descriptive and reflective notes during the research process. The participating students were observed briefly within a selected academic course, which utilizes differentiation instruction. Observation notes were compiled using the observation protocol sheet (See Appendix H).

The researcher then collected all the data through interviews and observations. Once collected, the researcher recorded, transcribed, coded, and then categorized all data to identify common themes. The researcher organized the survey, interview, and observations to facilitate the emergence of common themes. To produce quality, accurate, and insightful analysis, all analyzed data used triangulation, member checks, and detailed coding. The findings of the research were interpreted and reported. The researcher described the findings in relation to the literature, practices, and implications of the data, with suggestions for future research given.

The confidentiality of identities of all participating agencies and students, through the use of pseudonyms, will be kept strictly confidential. The researcher maintained an identity key to match the pseudonyms, and this is kept in a secure location. All the procedures and transcribed notations were provided to participants before the study commenced. Only the researcher will have access to the secured location in which all the collected data is stored. After three years from the completion of the study have passed, the data will be destroyed.

The Researcher's Role

The researcher is currently employed by Visage Charter Schools and works at Visage Charter Middle School as a seventh grade English Language Arts teacher. Duties and responsibilities include all manner of preparation of lessons and the education of the 135 students in English Language Arts classes. The researcher has been employed at Visage Charter Middle School has since August of 2016 and was teaching grade eight the previous year in a different

school system. Before reentering the classroom, the researcher worked in administration for five

years and was an English teacher for grades six through 12. The researcher also served in a

special education classroom setting for students with emotional issues and actively advocates for

differentiated instruction and has witnessed the positive effects it can bring in special education

and general education students. Students may not have been 100% transparent and truthful while

providing data because of the researcher's employment at Visage Charter Middle School, yet

none of the participants were current students. To maintain confidentiality and maintain IRB

requirements, the role of an impartial participant was emphasized, IRB regulations governing

research followed, and the epoche process outlined by Moustakas (1994) utilized.

It is essential for the researcher to relay all the facts and data in an impartial and

nonjudgmental manner (Hatch, 2002). It was the researcher's intention to attempt to remove

personal experience and bias from the research and provide *epoche* as described by Husserl "as

an exclusion of the external world in favor of a concentration on the intrinsic features of our

mental life" (Lewis & Staehler, 2010; Lubcke, 1999, p. 8). The researcher maintained a

reflective journal throughout the research process to increase credibility and remove personal

inflections from the research (Ortlipp, 2008).

Data Collection

Triangulation data was collected through face-to-face episodic interviews with students,

classroom observations, and descriptive and reflective notes. According to Creswell (2013), data

triangulation is when "researchers make use of multiple and different sources, methods,

investigators, and theories to provide corroborating evidence" (p. 251). By utilizing

triangulation within the research, research findings were validated (Creswell, 2013; Moustakas,

1994). The data sequence began with a simple participant 10-question intake survey to

determine the 10-15 participants who had a basic recognition of differentiated instruction. Once the participants were chosen, an episodic interview was conducted. According to Durrant and Dorius (2007), open-ended questions are highly effective when gathering data in narrative form. The interviews were digitally recorded and transcribed by the researcher, and they averaged about thirty minutes in length. The use of digital video equipment allowed assessment and notation of the nonverbal cues and language of the participants. This allowed for analysis of what the participants are saying; detailed notes allowed visual communication cues of the information to be conveyed into meaning. Observations were completed to view the students' interaction within the classroom environment and how they interact with the differentiated lessons. The student observations were transcribed. This allowed the researcher to watch verbal queues and note nonverbal communication as well as verbal communiqué. Lastly, to provide "a logical, systematic, and coherent resource for carrying out the analysis and synthesis" the researcher provided descriptive and reflective notes (Moustakas, 1994, p. 47). The notes consisted of a full and detailed description of the research process and the conscious experience (Moustakas, 1994). The data collection sequence has a simple and logical order to best gather the data needed to complete the research. Both the survey and the interview questions were specifically designed to address the guiding questions presented in the research study.

Peer Review

To ensure the validity of the research, a panel of educational experts were asked to review the survey and interview questions. Since 1665, peer review has been "an inherent component of scholarly research and communication" (Murphy, 2016, p. 51). Peer review was used to improve the excellence, clarity, and reproducibility of a research study (Murphy, 2016). The panel of experts comprised two division level administrators and two teachers, from a

different school system, who specialize in differentiated instruction. Each of the panel members has an extensive background with differentiated instruction and has received extensive training in differentiated instruction. The panel was asked to review the survey questions and interview questions for bias, intelligibility, ambiguity, and direct connection to the research questions. The panel reviewed both sets of questions for clarity and understandability for the grade level and noted omissions, additions, and changes. The researcher gained permission from the group to transcribe verbal answers and comments, thus allowing for clarity and comprehensive understanding of recommended changes.

Numerous changes occurred with the panel of expert consultation in mind. The changes addressed dealt with clarity of questions, elaboration of questions, and the order with which the questions were delivered. There were some suggestions on the wording of questions as some redundancy occurred in the original questions. Changes to the questions were made based on their recommendations, and subsequently resubmitted to them for further review. The panel discussion was highly effective as it helped to clarify any ineffectual questions and warranted the transparency of interview questions. Final modifications to the questions were made before data collection and interviews began.

Intake Survey

Gall et al. (2007) states that a "survey is a method of data collection using questionnaires or interviews to collect data from a sample that has been selected to represent the population to which the findings of the data analysis can be generalized" (p. 230). For the purposes of this research, a survey was developed to determine the candidates for participation in the face-to-face interview process. Once the survey was developed, the content validity was determined through a panel of experts who have agreed to determine the validity and reliability of the questions.

According to Froman (2006), "the review process helps to insure quality and accuracy of knowledge generated and disseminated in our profession" (p. 253).

The surveys were given to the eighth grade English Language Arts (ELA) teachers on a predetermined date and distributed to students in a sealed manila envelope. The ELA teachers administered the 10-question surveys to students in their classes. Once the class periods had completed the surveys, each was returned to the envelope and collected by the researcher from the ELA teachers. The surveys were calculated, and the students with the highest scores were chosen to participate in the final phase of the research.

The study focused on 10-15 students who have a simple recognition of differentiated instruction, and the survey responses provided these representatives from the eighth grade. The survey was developed for the intention of purposive sampling and to gather data on student recognition of differentiated learning theory, practice, and perceived academic success. This survey was designed with a participant construct interview in mind. The 10 questions consisted of a simple 4-point Likert scale: *1= I don't understand, 2= I somewhat understand, 3= I understand, 4= I thoroughly understand*. These questions are "used to learn how informants structure their physical and social world. The result is a set of category systems used by the participants" (Gall et al., 2007, p. 244). The survey was very loosely based on Tomlinson's (2000) questionnaire from *Teacher/Peer Reflection on Differentiation Instrument*. The survey questions are also based on various other previous research studies and modified to fit the purpose of determining student perceptions of differentiated instruction.

Interviews

Interviews are a key element for data collection in a phenomenological, qualitative research study (Creswell, 2013; Kvale & Brinkmann, 2009). Patton (2002) believes that through

the interview process, researchers can better understand the perspective of each participant: "In phenomenology the goal is to describe things as they are, not as the participant typically interprets things based on past experience . . . the meaning or essence of the phenomenon must be understood first from the unique experience of the individual" (Gall et al., 2007, p. 496). The format I utilized is an episodic interview structure with open-ended questions, which allowed me to ask structured questions, yet probe deeper into understanding with questions (Gall et al., 2007). Even though interviews provide essential data for a phenomenological study, the interviews can become biased if the researcher is not careful (Gall et al., 2007). Thus, it is essential for the questions to be peer reviewed. The 10 interview questions (Appendix C) were assessed by the panel of experts during an organized meeting to determine their face validity.

The students involved in the research were interviewed to gain a better understanding of their perception and understanding of differentiated instruction. Once the participants were chosen and the questions were evaluated, consent was gained from parents of the students and the personal face-to-face interviews with each student were conducted. The questions were asked in an episodic manner, yet were open-ended to allow for additional questions should the need arise. Creswell (2013) recommends the use of "adequate recording procedures when conducting one-on-one or focus group interviews" (p. 164). Each of the interviews lasted approximately 20 to 30 minutes in a classroom at Visage Charter Middle School, and they were recorded by a digital camcorder. As the participants answered each question, the researcher utilized a backup voice recording device and took notes. The details of the interview were clearly defined in the previously mentioned consent form signed by parents of the participants. This process allowed for answers and understanding of RQ1: How does the participating middle school student describe his or her perception and understanding of differentiated instruction?,

answered in interview questions one, two, three, and six; RQ2: Which, if any, specific

differentiated practices do students think are best utilized by teachers to enhance individual

perception of academic achievement?, answered in the interview questions four, five, eight and

seven; and RQ3: What changes do students perceive as necessary for successful individualized

instruction?, answered in interview questions number nine and ten.

Observations

Creswell (2013) states the use of observations is a key element to collect valuable data

for a qualitative study, and observation "is the act of noting a phenomenon in the field setting

through the five senses of the observer, often with an instrument, and recording it for scientific

purposes" (p. 166). For the purposes of this research, observation was used to gauge the

participant's interaction in classes and differentiation. It helped the researcher to gain an insight

on the subjective data the students provided in the interview process and allowed students to be

viewed in their natural environment (Creswell, 2013; Gall et al., 2007). Qualitative research is

about reaching the root of a specific phenomenon by discovering what is essential to each

participant (Rubin & Rubin, 2005). According to Anderson, Herr, and Nihlen (1994),

observations allow a researcher to "demystify what is actually going on as opposed to what one

might hope or assume is happening" (p. 129). For the purposes of this research, observations

allowed for verification that the students are participating in the differentiated lesson plans and

assisted in reaching triangulation. Marzano's Art of Science of Teaching outlines the

observation protocol used to ensure an unbiased method with which to watch the students. This

method is intended to observe teachers within the classroom, but was modified to fit the needs of

the researcher for student observation. A more thorough insight was gained into the student's

perceived academic success through differentiated instruction by observing how they interact

during the lesson.

Completed observations occurred in a single class period of 45 minutes within an English Language Arts class. A meeting was held with the eighth grade English Language Arts teachers, and confirmation of class periods for observation of the participants in the research was provided. The researcher entered the classroom and sat at the back with a vantage point to view lessons in progress and how the students would interact with the material. The focus was on student engagement within the differentiated learning environment. An observation protocol sheet (see Appendix H) is a tool that allowed for systematic observations and personally noted reflections (Creswell, 2013). Observation notes include: the physical classroom layout, student interactions, interpersonal interactions, lesson interruptions, the objective of the lesson, differentiated methods used within the environment, and the student utilization of differentiation. Descriptive and reflective notes were recorded and organized on the observation protocol sheet. To maintain the authentic behavior of the research participants, no interactions between the researcher and the student participants occurred during observed classes, as to try to disseminate genuine student interaction with the instructional material.   The teachers were made aware that the observation was intended to study the students within the learning environment and not the quality of the curriculum material.

Researcher Field Notes

Descriptive and reflective notes were used to validate triangulation. According to Moustakas (1994), "Husserl (1931) defined reflection as a process through which the 'stream of experience with all of its manifold events (phases of experience, intentionality) can be grasped and analyzed in the light of its own evidence'" (Husserl, 1931 as cited by Moustakas, 1994, p. 47). By utilizing the reflective process, the researcher enables others to understand the full

description of conscious experience which will take place during the research (Moustakas, 1994).

This "textural description . . . includes thoughts, feelings, examples, ideas, situations that portray

what comprises an experience" (p. 47). The confirmation of subjectivity is attained through

constant and repetitive examination of the phenomenon (Moustakas, 1994).

The descriptive information of the research notes should include a verbal portrait "of the

research participants, reconstruction of dialogue, description of physical setting, accounts of

particular events, and descriptions of the observer's behavior" (Gall, Gall, & Borg, 2007, p. 281).

The reflective information should be directly related to the data collection, ethical considerations,

observer emotions, and understandings of the phenomenon as it emerges from the collected

information (Gall et al., 2007). The notations should be highly detailed and not be ambiguous or

simplified. If needed, the notes should provide visual details and provide in-depth description of

the research (Gall et al., 2007). The notes provide clarity and a purposeful direction of the data

coding process. According to Glaser and Strauss (1967), thoughts and observations were

organized into various categories to include observational, methodological, theoretical, and

personal. The descriptions within the reflective notes were unintentional, unstructured, and an

open way of expressing events. The descriptions were prepared from the beginning of the data

collection process through the completion of the research. The notations for this research were

recorded, maintained, and organized, by the researcher, on the observation protocol sheet (see

Appendix H).

Data Analysis

To logically and systematically analyze the data, Husserl's (1913) approach of

transcendental phenomenology was used, which was formulated by Moustakas (1994). This

approach enabled the establishment of *epoche*, and discarded any "prejudgments regarding the

phenomenon being investigated" (Moustakas, 1994, p. 22). According to Creswell (2013), epoche, also known as bracketing, will enable a researcher to ignore any preconceived ideas he or she may have on a phenomenon and look at it with a new perspective: "In the Epoche, the everyday understandings, judgments, and knowing are set aside, and phenomena are revisited, freshly, naively, in a wide-open sense, from the vantage point of a pure or transcendental ego" (Moustakas, 1994, p. 33). The researcher utilized a research journal to maintain impartiality.

This research was not intended to evaluate efficacy of differentiated learning in the classrooms observed. The face-to-face interviews, observations, and reflective notes are to provide data on the perceptions and understanding middle school students feel in respect to differentiated instruction. The research data provided insight into the pedagogy and methodology for future differentiated instructional curriculum design and further enhance academic environments. The collected data was categorized, scrutinized, and synthesized by the researcher to facilitate the identification and exploration of meaningful and recurrent themes (Krathwohl & Smith, 2005).

The data from the initial intake survey was scored and used to identify ten participants. The intake survey had a maximum score of 40, and the ten research participants were selected from the highest scores, moving to the lowest. The information collected from the face-to-face interviews and classroom observations was initially recorded during the research, and then the data was transcribed and coded, using a phenomenological reduction, to categorize emerging themes. According to Creswell (2013), "The process of coding involves aggregating the text or visual data into small categories of information, seeking evidence for the code from different databases being used in the study, and then assigning a label to the code" (p. 184). The data was coded manually and maintained on a spreadsheet; also, once transcripts were transcribed the

material was manually highlighted for common wording and themes. All participant identities

were strictly confidential using pseudonyms, and to provide clarity, every research procedure

was disclosed to the participants. The data was secured in a safe location, which is accessible

only by the researcher and will be held for three years before being destroyed.

     Using the phenomenological reductive approach, study and analysis steps include

transcription by the researcher, followed by bracketing and phenomenological reduction,

assessment of gathered interview information, review of the data for a sense of the whole,

delineating units of general meaning, delineating units of meaning relevant to the research

questions, and verifying units of relevant meaning. Once the data was collected and verified for

units of relevant meaning, the researcher eliminated any redundancies and clustered the units of

relevant meaning to determine relevant themes. Using a written summary for each interview, the

researcher determined themes from clusters of meaning, used a member-check to confirm precise

transcription and modify themes and interview summaries. Lastly, the researcher identified

common and unique themes for all interviews, contextualized themes, and wrote a thorough and

complete synthesized summary (Hycner, 1985). To ensure accurate interpretations of the

students' perceptions and understanding of differentiated instruction, the researcher viewed and

listened to the interview recordings numerous times and reviewed the transcribed notes

numerous times to ensure accuracy. To provide thorough and complete accuracy, the recordings

were used to identify intonations, emphases, and pauses. All of the collected data was rigorously

reviewed to ensure the researcher captured the elicit meaning of the participants in reference to

differentiated instruction. Descriptive and reflective notes were then used to record researcher

impressions, as to not bias the data and interfere with the bracketing of interpretations (Hycner,

1985).

The students' express meaning was crystallized and condensed, and the literal words were used to stay true to the data collected (Hycner, 1985). As a result, units of general meaning, to include words, phrases, non-verbal, and para-linguistic communications, were addressed. The data which illuminated the research questions were noted as relevant to the units of meaning were highlighted, and information immaterial to the phenomenon was discarded (Hycner, 1985). To provide the research with reliability and validity, the units of relevant meaning were verified through member checking with the participants (Lincoln & Guba, 1985). All participants were emailed a detailed transcribed copy of their interview and asked to respond if corrections or changes needed to be made. None of the students responded with any changes or corrections.

Following the unit of relevant meaning verification, the compiled lists were reviewed and redundancies were removed. The researcher was looking for the number of times a word, phrase, or meaning was mentioned, how it was stated, and the use of any non-verbal cues, to determine redundancies (Hycner, 1985). The transcribed interviews were read and highlighted to reduce the data into meaningful units which were important to the research questions and central phenomenon (Moustakas, 1994). Bracketing was used on the list of non-redundant units of relevant meaning to cluster common themes. The common themes were closely examined to the central essence and reviewed vigorously to ensure the themes. Once all common themes and variations were noted, a phenomenological viewpoint was needed to extract essences and recognition of existential distinctions (Hycner, 1985). A final composite summary of all captured data was written.

Phenomenological Reduction

All the information and data from the transcribed interviews, observations, and the researcher field notes was individually analyzed, triangulated, and synthesized to create a summary of data. Using the phenomenological reductive approach, study and analysis steps include transcription by the researcher, followed by bracketing and phenomenological reduction, assessment of gathered interview information, review of the data for a sense of the whole, delineating units of general meaning, delineating units of meaning relevant to the research questions, and verifying units of relevant meaning. Once the data was collected and verified for units of relevant meaning, the researcher eliminated any redundancies and clustered the units of relevant meaning to determine relevant themes. With a written summary for each interview, the themes were determined from clusters of meaning, a member-check was used to confirm precise transcription, and the modifications of themes and interview summaries were made. Lastly, the researcher identified common and unique themes for all interviews, contextualized themes, and wrote a thorough and complete synthesized summary (Hycner, 1985).

For the purposes of this phenomenological study, the primary resource of data for research was individual interviews with the participants. The interviews were recorded and then transcribed to capture a word-for-word transcript. Notes were also added to the transcription to provide a detailed account of significant non-verbal and para-linguistic communication queues (Hycner, 1985). To assess for emergent themes and meanings, the researcher approached the recordings and transcripts with the epoche process in mind. The units of general meaning were uncovered with bracketing and phenomenological reduction.

Phenomenological reduction requires the researcher to be consciously open to see the phenomenon and ignore any presuppositions (Keen, 1975). To ensure accurate interpretations of

the students' perceptions and understanding of differentiated instruction, the researcher viewed and listened to the interview recordings numerous times and reviewed the transcribed notes numerous times to ensure accuracy. To provide thorough and complete accuracy, the recordings were used to identify intonations, emphases, and pauses. All the collected data was rigorously reviewed to ensure the researcher captured the elicit meaning of the participants about differentiated instruction. Descriptive and reflective notes were then used to record researcher impressions, as to not bias the data and interfere with the bracketing of interpretations (Hycner, 1985).

The students' express meaning was crystallized and condensed, and the literal words were used to stay true to the data collected (Hycner, 1985). As a result, units of general meaning, to include words, phrases, non-verbal, and para-linguistic communications, were addressed. The researcher noted and highlighted the data which illuminated the research questions as relevant to the units of meaning, and information immaterial to the phenomenon was discarded (Hycner, 1985). To provide the research with reliability, the units of relevant meaning were verified with the participants.

Following the unit of relevant meaning verification, the compiled lists were reviewed and redundancies were removed. The researcher was looking for the number of times a word, phrase, or meaning was mentioned, how it was stated, and the use of any non-verbal cues, to determine redundancies (Hycner, 1985). Bracketing was used on the list of non-redundant units of relevant meaning to cluster common themes. According to Hycner (1985) common themes emerge when a thorough and rigorous examination of all units of relevant meaning. The common themes were closely examined to the central essence and reviewed vigorously to ensure

the themes. Each interview was used to create a written summary, which provided the context

for the emerging themes (Hycner, 1985).

Ellenberger (1970) states, "whatever the method used for phenomenological analysis the

aim of the investigator is the reconstruction of the inner world of experience of the subject" (p.

116). The researcher completed a member-check to ensure the validity of the data provided.

Following the validity check, previously listed analysis steps were repeated, and the data was

reviewed and modified as needed (Hycner, 1985). Once all common themes and variations were

noted, a phenomenological viewpoint was needed to extract essences and recognition of

existential distinctions (Hycner, 1985). A final composite summary of all captured data was

written. The researchers' summary describes, in detail, the phenomenon as experienced through

their perceptions and understanding of differentiated instruction. This research will expand on

the phenomenological reductive analysis to incorporate Moustakas' (1994) outlined analysis

steps (See Table 3.1).

Table 3.1

Phenomenological Reductive Steps within Moustakas Data-analysis Procedures

Phenomenological Reductive	Moustakas
1. Interview transcription	
2. Bracketing & phenomenological reduction	
3. Review data for a sense of the whole	
4. Delineate units of general meaning	a. Listing a preliminary grouping
5. Delineate units of meaning of relevant to research question	b. Reduction and elimination
6. Verify units of relevant meaning	
7. Eliminate redundancies	
8. Cluster units of relevant meaning	c. Clustering and placing in common themes the invariant constituents
9. Determine themes from clusters of meaning	
10. Write a summary for each interview	

11. Member check summary and theme	d. Identification of invariant constituents and themes by validation
12. Modify themes and summaries	e. Construct individual structural descriptions
13. Identify general and unique themes	f. Construct individual structural descriptions
14. Contextualize themes	g. Construct textural-structural description of meanings and essences
15. Write a composite summary	

Note. According to Moustakas (1994), phenomenological reductive analysis is consistent with the "Understanding the nature, meanings, and essences of epoche, phenomenological reduction, imaginative variation, and syntheses is necessary to conduct phenomenological research" (p. 101).

Horizonalization

Horizonalization involves analyzing the data and highlighting "significant statements, sentences, or quotes that provide an understanding of how the participants experienced the phenomenon" (Creswell, 2013, p. 82). Every statement made was treated with having the same or equal value (Moustakas, 1994). Transcription of all interview and observation notes were completed and analyzed. Then the most reoccurring statements were pulled from the data to create cluster themes (Creswell, 2013). Horizonalization allowed the researcher to gauge the student perception and understanding of differentiated learning and the common themes which appear through the collected data.

Clustering Data

This step in the data analysis focused on turning the significant statements within the data into themes. The themes were used to describe what the research participants experienced (Creswell, 2013). All the notes were read and reread to highlight significant sentences so that data themes could be produced. This process allowed for a better understanding of the bigger picture on a narrower focus (Moustakas, 1994). To accomplish this, the researcher manually coded a list of attributes was constructed on a Word document to develop the reoccurring

themes. Redundant and overlapping statements were removed, and the data remaining was organized into meaningful units. These units were then used to establish emerging patterns and themes. The information was then synthesized into textural and detailed descriptions of participants' experience in relation to differentiated instruction. To accomplish a fully realized phenomenological data analysis, synthesis of the material was performed (Moustakas, 1944). Participant quotes were employed to support the data analysis and "develop a synthesis of the meanings and essences of the experience" (Moustakas, 1994, p. 181). The final product of this synthesis resulted in both implications and recommendations for future research studies.

Textural and Structural Description

The interview process provided a way to better understand thought processes and "find out from people those things we cannot directly observe" (Patton, 2002, p. 339). Through this process, the themes within the research emerged and were then used to write a description of the experiences (Creswell, 2013). This description was written using the collaborative phenomenon. This process allowed me to focus more thoroughly on the common experience. A textural-structural description was written for each participant to best grasp the meaning and a thorough understanding of the data (Moustakas, 1994).

Essential, Invariant Structure

The textural and structural descriptions were used to provide the "essence" of the phenomenon (Creswell, 2013): "Primarily this passage focuses on the common experiences of the participants" (Creswell, 2013, p. 82). This process allowed for focus on the common experience of the group phenomenon.

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Trustworthiness

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The external validity was determined through Peer Review Member Checks. This process

allows participants and/or the panel of experts with the opportunity to review transcripts of interviews and check them for errors. This process also allowed for increased reliability and objectivity because it allowed participants to clarify any mistakes in the transcriptions of interviews and perceptions. According to Gall et al. (2007), member checks are necessary to "ensure representation of the emic perspective . . . which involves having research participants review statements in the report for accuracy and completeness" (p. 475). Students read through the typed transcripts and were able ask questions of the researcher. To confirm the quality of the data, participants were asked to approve the typed transcripts, and all data was securely stored. Availability of the data will be provided to the participants if requested. According to Lincoln and Guba (1985), it is essential that the research provide trustworthiness to ensure the findings of the data reliable and "worth paying attention to" (p. 290).

Credibility

Peer review of the research is a way to ensure the credibility of the data (Creswell, 2013). The panel of experts provided this by analyzing the survey and interview questions. The data from the peer review findings will be summarized in Chapter Four. By allowing for peer review the researcher ensured the integrity of the work and allowed my peers to promote objectivity (Lincoln & Guba, 1985). Persistent communication and observation of the participants with the researcher ensured witnessed interaction with the differentiated instruction on an academic level. The immersion into understanding is an important piece to develop credible data. The data maintained credibility through a detailed record keeping process and through coding of the information (Saldaña, 2013).

Dependability and Conformability

Triangulation of the data will "make use of multiple and different sources, methods,

investigators, and theories to provide corroborating evidence" (Creswell, 2013, p. 251). By validating data through multiple instruments, the strength of the evidence is such that it will increase the legitimacy of the research. The researcher maintained meticulous and detailed records throughout the study, which enabled dependability. In addition, all the data, information, correspondence, transcripts, and additional research documents have been maintained in hard copy and digital copy to enable an audit trail for the research duplication.

To maintain confirmability, the researcher utilized epoche to set preconceived ideas and perceptions aside. Confirmability is required to ensure the data provided is that of the participant's and is unbiased by the researcher (Shenton, 2004). To provide epoche the interviews were transcribed with care, accuracy, and an unbiased voice.

Transferability

Creswell (2013) states that triangulation is the way a researcher uses various source materials, theories, and methods to bring forth a common "theme or perspective" (p. 251). Triangulation is a way for the researcher to validate the data and findings of the research through multiple sources (Sokolowski, 2000). Throughout this study various research methods were used to provide the research with triangulation, to include interviews, observations, and descriptive field notes. It is essential to provide a well-rounded and complete embodiment of the phenomenon the research attempts to analyze (Creswell, 2013). To provide rich analysis and a deeper understanding of the participant's perceptions, all the interviews were transcribed by the researcher with the utmost care and descriptive information (Seidman, 2006). Transferability was measurable through thick, vivid research descriptions, which may include but were not limited to participants, setting, data collection, and analysis procedures. This allowed the readers

to compare the conclusions of my research to additional populations (Saldaña, 2013). Lincoln and Guba (1985), describe thick description as a means with which to achieve external validity.

Ethical Considerations

To ensure confidentiality, all ethical standards of IRB were maintained through strict adherence to guidelines. The following are ethical considerations for the research: The researcher maintains the integrity of the study; completing the research in the school the researcher is employed could be an issue due to potential interaction outside the study. Further considerations have been taken into account such as giving all participants pseudonyms, data collection stored on password protected technology and stored in a home safe, and signed and dated consent forms. The participation in the study was completely voluntary and at any time participants have the right to withdraw from the research. As the research was focused on minors, permission was obtained through an informed parental consent form and student assent form, which was approved by through IRB, the school system, and the principal of the school. Anonymity was maintained due to the researcher being the only person to handle the raw data.

Summary

The purpose of this research was to investigate the perception and understanding of differentiated instruction of 10 middle school students in a charter public middle school. After approval from Liberty University's IRB and final written authorization from Visage Charter Schools, and the principal of Visage Charter Middle School, the research moved forward. A 10-question survey for purposive sampling was developed and was reviewed by a panel of experts to validate the instrument. Peers from the educational system reviewed the 10-questions used to interview 10 students to collect and analyze data.

To validate and prove the reliability of the study, peer review member checks and the

epoche process outlined by Moustakas (1994) were used. A panel of peer experts reviewed the interview questions and made recommendations for changes necessary. Student participant interviews were conducted, and sessions digitally recorded. Once students had been observed within an academic classroom, which utilizes differentiation, all the data was collected and transcribed verbatim. A phenomenological reduction method and Moustakas' (1994) data analysis procedures were used to ensure a clear and thorough grasp of the common themes within the data. Finally, the data was summarized, and all data was secured when completed.

CHAPTER FOUR: FINDINGS

Overview

The utilization of a phenomenological method is present in research to accurately study the personal descriptions and experiences of participants (Patton, 2002). The purpose of this qualitative phenomenological study was to investigate the perception and understanding of differentiated instruction of middle school students in a charter middle school in central Florida, as a review of literature revealed limited research conducted from a student perspective. Informative data was collected from 10 eighth grade participants who attended the school, and data was thematically coded using a phenomenological reductive approach to analyze the data. The research questions which guided the study were: RQ1: How did the participating middle school student describe his or her perception and understanding of differentiated instruction?; RQ2: Which, if any, specific differentiated practices did students think are best utilized by teachers to enhance individual perception of academic achievement?; RQ3: What changes did students perceive as necessary for successful individualized instruction? This chapter provides details about the participants, data collection and analysis procedures, results, and summary.

Participants

The sample size for this research was 10 students chosen through purposeful sampling. According to Creswell (2013), this type of sampling is used as a "decision as to whom to select as participants for the study, the specific type of sampling strategy, and the size of the sampling to be studied" (p. 155). Purposeful sampling was used to research a homogeneous group of middle school students and understand their experience with and perception of differentiated instruction. From this convenient purposeful sample, 10 eighth grade students indicated a recognition of differentiated instruction through a 10-question survey, which was issued by the

teacher during their English Language Arts class at Visage Charter Middle School, and they were chosen for a face-to-face interview. These students were as representative of the school population as possible, with a goal of thematic saturation. According to Mason (2010), thematic saturation occurs when new interviews fail to contribute new themes, data becomes redundant, and typically occurs in qualitative studies.

Bree

Bree is a 13-year old Caucasian female in her first year at the Visage Charter Middle School. She is representative of the 76.5% of the Caucasian students in Visage Charter Middle School. She was very shy during the interview, but had definitive answers when asked questions. Bree shared she is considering a career as a Marine or in the Coast Guard and finds Science and Math fascinating and very relevant to those career fields. After the first two questions, Bree shared information more freely and easily elaborated on material when asked by the researcher.

Kasey

Kasey was interviewed late in the school day, which was unique, as the majority of the other interviews occurred mid-day. She is a 14-year old Caucasian female who has been at Visage Charter Schools all her educational career. She is representative of the 76.5% of the Caucasian students in Visage Charter Middle School. Kasey was very outgoing, with a constantly genuine smile and was eager to answer questions. She had no hesitations about elaborating her experiences with differentiated instruction and within the classroom environment. She expressed she is in the gifted program and excels at projects and tests given in her classes.

Kelly

Kelly is a 15-year old Caucasian female in her third year at the Visage Charter Middle School. She is representative of the 76.5% of the Caucasian students in Visage Charter Middle School. She was reserved during the interview and routinely hid behind her sweatshirt sleeves. Kelly expressed she is an "average student" who "doesn't like school a lot." In the beginning of the interview she was visibly uncomfortable and talked very quietly when answering questions. She gave thorough answers to questions but did not elaborate on answers.

Jason

Jason was one of two males interviewed for this study. He is a 13-year old Caucasian male and is representative of the 76.5% of the Caucasian students in Visage Charter Middle School. He has been in the Charter School for 5 years and was very subdued at the beginning of the interview. Jason's demeanor changed when he talked about a project he enjoyed during the school year, and he became animated. He considers himself a good student and intelligent, but expressed out of all the classes in his schedule he truly loved drama class and drama productions.

Joan

Joan is a 13-year old female who represents the 4.5% Asian population at the Visage Charter Middle School. She has spent the last five years in the Visage Charter School system. She was shy and serious during the interview, yet had definitive and well thought out answers when asked questions. She provided information openly and after thought easily elaborated on responses. Joan provided some very insightful comments and expressed she is looking forward to moving to the high school during the next school year; she also spoke in detail about her expectations for the high school curriculum.

Josie

Josie has been at the Visage Charter School since she was 3 years old in the preschool program. She represents a demographic of 3.1% Multi-racial background and is 14 years old. Josie was outgoing and happy to answer questions. She had no problems articulating her experience as a Visage Charter School student and the curriculum she has received this school year. She knew her learning style and was familiar with individualized learning.

Leigha

Leigha represented the African American population (3.7%) within the school. She has been attending the charter school for five years, yet expressed she will not be attending the high school next year. She was a quiet yet thoughtful young lady who paused and thought through each response before she answered the questions. Her responses were very articulate.

Maddie

Maddie is a 14-year old Caucasian female who has been at Visage Charter Schools all her educational career. She is representative of the 76.5% of the Caucasian students in Visage Charter Middle School. Maddie has a serious but outgoing demeanor and was eager to answer questions. She had no reservations answering interview questions and providing detailed experiences about her education. She expressed she enjoys learning and understands which way she learns best.

Marcus

Marcus was the first of the participants to be interviewed. He is a 14-year old Caucasian male. He is representative of the 76.5% of the Caucasian students in Visage Charter Middle School. He has been in the Charter School for 3 years and defines himself as a realist, and "someone who looks for all of the possible scenarios of every situation." He began the interview

process somewhat reserved, but provided detailed insights into his experience with differentiated instruction. He needed constant and continuous questioning during the interview process to fully elaborate and express his opinions.

Mary

Mary was interviewed early in the school day, which was different than the majority of the other interviews which occurred mid-day. She is a 14-year old Hispanic female who has been at Visage Charter Schools all her educational career. She is representative of the 11.5% of Hispanic students in Visage Charter Middle School. Mary was very outgoing and eager to answer questions. She had no reservations asking for a question to be repeated and elaborating in detail about her experiences with differentiated instruction. She expressed she likes school and enjoys projects in her classes the most.

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Results

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The population of this study included 10 Visage Charter Middle School students. Eight of the ten participants were female, and the ethnic demographic was aligned as closely as possible to the school system demographics. Student responses to an episodic interview using 10 open-ended questions about their lived experiences with differentiated instruction and learning, classroom observations of the participating students to note interaction with the curriculum, and the researchers richly detailed field notes provided the research data for analysis. Gay and Airasian (2003) deduced that data analysis allows a researcher to structure meaning from the data. The data analysis encompassed extracting common themes from the collective participants' interview responses, the classroom observations of the involved students, and the researcher's field notes. Data analysis and common themes are all discussed and presented below.

Theme Development

While historically the implementation and success of differentiated instruction and similar educational initiatives are reliant on the teachers' ability to successfully put them into practice, student achievement lies with the student and his or her understanding of individual learning (Knight, 2009). As previously noted, this study was focused on the perception and understanding of 10 eighth grade students at Visage Charter Middle School in regard to differentiated learning and instruction. Two major themes and two sub-themes related to the three research questions emerged through the manual manipulation of the interview data. The first theme which appeared was *student mindset* with the sub-theme of *life-connectedness*. Participants shared their understanding and perceptions through their lived experiences of differentiated instruction. The second theme which emerged was *presentation of material* with a sub-theme of *small group, project-based work*. The students provided reflections derived from the research questions through the interview process. The themes and sub-themes are reflective of the research questions:

RQ1. How does the participating middle school student describe his or her perception and understanding of differentiated instruction?

RQ2. Which, if any, specific differentiated practices do students think are best utilized by teachers to enhance individual perception of academic achievement?

RQ3. What changes do students perceive as necessary for successful individualized instruction?

Student Mindset

The student mindset emerged as a key factor and theme in the research. Students expressed different definition variations for the terms differentiation and differentiated

instruction, yet each student understood and could identify the way they learned best and the value of the material presented in a manner which connects directly to them. Each student recognized the value of differentiated instruction and felt it was valuable to learning. Students emphasized the benefit of learning in multiple modalities within a classroom environment. The participants recognized if they were not engaged in the material, safe in their environment, or articulating the material, the curriculum did not remain with them for long periods of time. The students' direct interaction with the material directly determined the retention of the information. Researcher observations revealed student interest was more prevalent in lessons with increased student engagement. According to Sousa and Tomlinson (2011), cognitive neuroscience supports a connection between interest and motivation; the greater the interest and motivation to learn, the higher the academic achievement. The participants also recognized that each time instruction was provided in a differentiated way, they managed the material with more ease. Tomlinson (2009) stated that differentiated instruction within the classroom enables students to learn at varying cognitive and skill levels. Student participants expressed that the curriculum and lessons must be connected directly to their life in a relatable and constructive manner.

Life-connectedness

A sub-theme which reoccurred throughout the research was *life-connectedness*. Students routinely referred to the fact that they must feel a connection with the material to their life and learning processes. This connection included trusting the educators and feeling safety within the school environment. Students referred to being "misplaced" within a classroom, which is a hindrance to life-connectedness. Sousa and Tomlinson (2011) discovered that student perception of self, such as self-esteem or self-concept, will positively or negatively affect individual learning. Students with a positive perception of self will achieve higher, while students with a

negative outlook will achieve lower; every child will avoid an environment in which they repetitiously fail (Sousa & Tomlinson, 2011). Students are more likely to connect with material that is presented in a manner which engages them and with which they can be successful. According to participants, students who feel like they do not belong in a particular class or are "misplaced" struggle to connect with material because they do not always feel safe within the environment and have no connection with many of the students in the classroom. This negative impact will hinder student success and academic achievement. The students interviewed conveyed that the wanted to excel in classes and became frustrated when they could not grasp material or were not interested in material. Participants expressed that they felt more confident, accomplished, and positive when the material was connected to their life in a manner which complemented a unique learning style.

To thoroughly connect with the material and understand the material being presented students must communicate the material in a manner which provides a deeper or integrated understanding. Participants expressed that in a classroom with a positive educator or message they felt more self-confident, exhibited positive behavior during class, and attained a higher grade in the class. Differentiated curriculum provides students with the individualized resources the individual needs to be successful in class (Tomlinson, 1999, 2004, 2005). According to Subban (2006), "Research supports the view that curricula should be designed to engage students, it should have the ability to connect to their lives and positively influence their levels of motivation" (p. 941). Participants felt motivation when the material was matched to needs, interests, and varied styles of learning.

Presentation of Material

The second theme from the research was *presentation of material*. Research has found when students are provided with a stimulating educational environment, the intensity of their brain development and intelligence level is drastically impacted (Sousa & Tomlinson, 2011). Participants expressed repeatedly that learning preferences and styles were important to the integration of the knowledge, thus the way the material is presented to them was a key element. Students favored a learned versus a memorized relationship with material and preferred material that was given to them in a manner which allowed them to physically manipulate, interact with, and share with classmates. Active participation with the curriculum was essential for the students to engage with the material, and students expressed this was most evident with project-based learning. According to brain-based learning and differentiated instructional learning research, there is no singularly correct method of learning in which to attain academic achievement; positive student success was directly linked to a differentiated student-led environment (King-Shaver & Hunter, 2011; Tomlinson, 2001, 2009). Students spoke to classes being student driven and the teacher being more of a mentor figure than a lecturer. Many of the students interviewed felt that teacher lectures were boring and necessary occasionally when introducing an important concept to the class. The participants' views support brain-based learning research, which supports the development of distinct learning inclinations and differentiated instruction (Sousa & Tomlinson, 2011).

Small group, project-based work

The final sub-theme which was apparent in the research was *small group, project-based work*. Students expressed an enjoyment when working cooperatively and when completing project-based formative and summative assessments. Flexible grouping is an important tool

when differentiating instruction, but educators must be utilizing a variety of group assignment

techniques (Sousa & Tomlinson, 2011). Students preferred project-based learning, especially

when in small groups and expressed they learned material more effectively through this format.

According to Subban (2006), "activities and discussions that are built around students' concerns

and their life experiences allow the curriculum to become more meaningful to students" (p. 941).

Small group, project-based learning allows for all learners, even the ones struggling, to

communicate interests and passions and feel like an active and valued part of their education

(Subban, 2006). Using small group, project-based learning allows educators to design

curriculum and create lessons which support various educational styles (Tomlinson, 2001a).

Research Question Responses

The qualitative data was gathered and categorized to observe the connections and

repetitions which emerged from participant responses. The student participants individually and

collectively contributed to the formation of the themes and sub-themes as they provided

anecdotes of their understanding and perceptions in reference to differentiated instruction and

learning. To support the central themes from the research data analysis, which was gained

through exploration of interview transcripts, various participant comments and quotations were

utilized to expound their perceptions and understanding of differentiated learning. Participant

singular responses at times answered more than a singular interview question, providing for

multiple thematic groupings and cross-connected sub-themes.

Research Question 1

The first research question states: how did the participating middle school student

describe his or her perception and understanding of differentiated instruction? The first theme

which emerged from this question was *student mindset*. The thematic sub-group for this question was *life connectedness*.

Interview questions number 1 and 2 sought to gather general information about whether the participants understood the terms differentiated learning and instruction and what they could explain about the terms. The first of the two questions asked what the students knew about the terms, and the second question asked if they could explain a meaning. Of the ten participants only two of the students did not have a thorough grasp of the term differentiated learning, and many of the students simplified their explanation of the term; Joan defined the terms as "differentiated instruction is learning in diverse ways and while being taught different ways." Many of the students explained differentiated learning as "the different styles of learning" (Jason) or "the different individual way we learn" (Kelly).

The third interview question was a two-part question designed to find out if the students knew their individual learning style and if they recognized when or if teachers presented material in a manner which allowed them to individualize and internalize the instruction. Each of the students knew the way they learned best. The ten students all recognized that they did not learn in one specific way, but learned in a combination of ways. According to Josie, she is an "auditory and visual. I work best when I can see material and hear it also. It is hard for me to understand material when it is being given both at the same time because I don't multitask well, but I learn best this way." Eighty percent of the students interviewed all expressed they needed a project of some sort to solidify the learned material or to help them discover the meaning behind the material. Bree stated, "Hands on learning, so physically doing something helps me to better understand and learn." Each of the 10 students understood the ways in which their teachers

delivered materials to them, and felt that a good job was done by the large majority of the teachers through comprehensive media presentations which included notes.

Interview question six related directly to student perception of the differentiated learning in the classroom being effective in a manner which is beneficial to the students outside the classroom. The student response was split, as some of them felt they were not able to relate the material to their outside lives. The students who did feel like they could relate material directly to their lives spoke directly of Math and needing this for everyday life. Kasey felt she barely related her current studies to her life: "sometimes I can use the basic and complicated math, but I think using the more complicated skills do not." One instance in which the participants did connect to their individual lives to the material was in relation to the recent presidential election and how it affected their lives. Joan explained "during the election . . . we were talking about the process and had a lot of debates, and it helped me to realize I needed to think about the world and my views in a political format." Observations of classroom highlighted that *life connectedness* was lacking as many of the participants were easily distracted by peers and were disengaged during the lesson.

Research Question 2

The second research question queried: which, if any, specific differentiated practices did students think are best utilized by teachers to enhance individual perception of academic achievement? *Presentation of material* was the first theme which emerged from this question. The sub-theme grouping which developed was *small group, project-based work*. The students again spoke about the sub-theme of *life connectedness* in which they spoke of misplacement and classroom safety.

Interview questions number 4 and 5 allowed for the students to explain how the teachers

presented the material in multiple ways and what activities or lessons allowed the students to best understand the presented information. According to Kasey, "In classes we use models that can be flipped or used, notes written on the board for visual . . . and hearing the teacher give instructions would help you be able to do the problem." The students interviewed easily recalled the material, thus indicating they had learned the material and not memorized it. The students expressed that they were given the material and encouraged to relate the material to classmates in an encouraged individualized format. Marcus was of the viewpoint that materials were shown to the students in "many different ways that we find interesting in learning and if they (the teachers) do that then one of us will spark, and we'll set a spark that will help others learn." Many of the participants expressed similar, if not almost identical, viewpoints in relation to the way they best understood the material presented. A student driven classroom format was highlighted in many of the responses.

Participant responses to interview question number 8 focused on the student need and understanding of small group work and projects. The majority of the students felt through small group work they accomplished more and could critically solve problems better through debates and peer support. Leigha responded, "Through group labs I am a lot more open minded and am not quick to make fast judgments. I listen to my teammates and am willing to see their side during a project." The students felt like they were encouraged to think critically when approaching new tasks, especially the sciences and projects. Maddie demonstrated the extent to which she thinks small group work and projects are essential through sharing her experience about the Holocaust unit which was covered in her English Language Arts class: "as we were reading we had to do some background research and we each had different things on different people . . . so we were adding facts to the fiction and that tied into the book." Each of the

students relayed responses about how they gained a deeper understanding of the material through small group work and projects. Through actively manipulating the curriculum in some manner the students made a connection and were actively learning the material.

Interview question number 7 surveyed the student for the safety and security they felt within the classroom, also gauging whether they understood the reasoning behind a safe classroom and school environment. The students had a great deal of information to share about their ideas of safety in the school environment and why they thought it was essential. In some months before the interview process the middle school had been at the center of an incident which included a plot by a few students to do bodily harm to others during school hours. According to the students, this incident did have an impact on their learning during the third quarter of the school year. Mary explained her position on safety in the school, "the recent school incident made me uncomfortable, but I know they (administrators) will take care of it. It still scared me because what if another student wouldn't have told it could have been a very different outcome." Marcus elaborated on Mary's position by stating, "I am a realist, I think of everything in the worst-case scenario. If someone was to shoot up the school basically it would be very simple. I feel like I am always looking over my shoulder." The students all expressed that they were affected in some way by the incident and would have liked to have been reassured by administration. The students also understood the reasoning behind having a safe and secure learning environment. Some felt that when they had a sense of security, their absorption of material was at a higher rate, for instance Jason stated, "being in a class I feel comfortable in is important because my brain needs to relax and focus to really absorb the material."

Some of the participants focused on being "misplaced" in classes under question number 7. Six of the girls spoke about being put into a class which was below their intelligence level and

drive. According to the girls this type of placement caused them to become frustrated and uncomfortable. Maddie was eloquent and elaborative in her response: "Most students here are intelligent and gifted. We pride ourselves on education and striving for success. So, when we are put into classes that doesn't depend on education level it's kind of shocking because some of the kids don't care about their education." The students recognized it wasn't a physical security and safety issue, but it was one that triggered the personal insecurities of a teenage girl. Leigha states, ". . . when I am misplaced in a class I have that insecure feeling, not as in security, but in a way that affects me personally." The girls expressed that they also felt that same insecurity when placed in a male dominant class.

Research Question 3

The third research question probed: what changes did students perceive as necessary for successful individualized instruction? *Student mindset* again emerged as a theme and had a crossover sub-thematic connection to *life connectedness*. The sub-theme of *small group, project-based work* came up again and the students spoke to "busy work."

The students provided a variety of answers to interview question 9. The question was probing for a determination if the students felt they could accurately and clearly articulate what they had learned in classes, and if they were provided ample opportunity for this to occur. The students were split in their responses, as some of them felt like they were given ample opportunity to share what they had learned and some of them felt as if they were not given this same opportunity in classes. In specialty classes, which some of the students defined as "student driven," such as Drama, Art and Music/Band, students expressed they were routinely asked to perform to show they had achieved a full understanding of the lessons or skills. According to Kelly, ". . . in dance we get to show what we learned in different performances, like in Arts in

the Park for middle school and the end of the year concert." During the classroom observation, the students were given time to share their group experiences in a way to articulate material, yet some of them felt as if they are not given the chance to express their knowledge articulation. Josie stated, "Sometimes I feel like I am not able to express what I learned and how I learned it. In history in particular I do not get enough opportunity to say – Hey I learned that in history class." Through many of the interview statements, the students linked their articulation of knowledge directly to their life experiences, thus connecting the thematic unit of *life connectedness*.

The final interview question sought the answer the questions about how the students felt about their learning environment in relation to learning everything they want to in class. Eight of the ten students felt they were getting the knowledge that they needed from their classes. Two of the students responded at times they felt like they were getting too much information and would see a repeat of material in the next school year. The common theme though was the students were not satisfied with the level and frequency of meaningful projects offered to them in classes. They felt like some of the material was given to them as busy work and felt a mild level of frustration. They shared concerns about tests and testing, and the need to replace them with projects, as many of them felt that when they tested they simply memorized the knowledge and then within a few days ceased to remember said material. Leigha articulated this by stating, "To some of us it feels like the same lessons over and over. They (teachers) need to change it up sometimes to make it fresh. Give us projects that matter." Bree also expressed this type of thinking "When we go over material I did in a project, I remember the material. I do not like taking tests, they don't really measure what I know about a subject, but what I don't know." During the observation in one classroom, no frustration was observed from the students

completing a project. They were engaged and actively participating in the assigned project; each student observed contributing knowledge.

Summary

The purpose of differentiated instruction is to cater to the needs of individual students in a manner that will meet their learning style, pique their interest, and focus on their strengths (Levy, 2008). The purpose of this qualitative phenomenological study was to investigate the perception and understanding of differentiated instruction of middle school students in a central Florida charter middle school, as a review of literature revealed limited research conducted from a student perspective. Informative data was collected from 10 eighth grade participants who attended the school, and data was thematically coded using a phenomenological reductive approach to analyze the data. This chapter provided detailed descriptions about the participants, data collection and analysis procedures, and interview results. The participating students provided detailed responses about personal attitudes, perceptions, understanding, and experiences with differentiated instruction. Classroom observations and researcher field notes offered additional data for the analysis. Chapter 4 encompassed a full description of the data analysis and thematic results. The discoveries for research question 1, which focuses on the student description of his or her perception and understanding of differentiated instruction, included a thematic focus of *student mindset*, with a sub theme of *life connectedness*. The results for the second research question, that focused on the differentiated practices students thought were best utilized by teachers to enhance individual perception of academic achievement, included the themes *presentation of material*, sub-theme of *small group, project-based work*. The results for research question number 3, what changes did students perceive as necessary for

successful individualized instruction, included a thematic focus of *student mindset* and sub-

themes of *life connectedness* and of *small group, project-based work*.

CHAPTER FIVE: CONCLUSION

Overview

Differentiated instruction within an educational environment is essential to providing students with individualized learning curriculum which provides them a rich educational experience (Baumgartner, et al., Rock, et al., 2008; Tomlinson, 2000b). The purpose of this phenomenological study was to investigate the perception and understanding of differentiated instruction of middle school students in a central Florida charter middle school, as a review of literature reveals limited research conducted from a student perspective. Chapter 5 provides a summary of the findings, a discussion about implications of the findings based on the Chapter 2 literature review, the implications of the research, an outline of delimitations and limitations, and recommendations for future research study.

Summary of Findings

It is essential for educators to understand the individual needs of students when they are planning curriculum which is both significant and engaging. Students must have input into their educational process for individual success, and this can be achieved through effective differentiated instructional techniques (Tomlinson, 2000a). Differentiated instruction enables the educators and students to develop a profound and long-lasting connection and understanding of the curriculum (Tomlinson, 2000b). This research study focused on student perception and understanding of differentiated instruction. Tomlinson (2000b) focused on individualized instruction to help students navigate standards-based educational focus. Students recognized the value of differentiated instruction in the classroom and appreciate an individualized educational approach, as many felt they have more input and direct engagement with the learning

environment. Many of the participants interviewed were students who genuinely wanted a say in their personal educational process.

Emergent Themes

Concentrated analyses of the qualitative data, which was collected through interviews, and observations, was categorized to assess emerging similarities and patterns. The research focused on the participants' responses and the number of instances references where made to a specific subject or theme. Based on the three research questions: RQ1: how did the participating middle school student describe his or her perception and understanding of differentiated instruction?, RQ2: which, if any, specific differentiated practices did students think are best utilized by teachers to enhance individual perception of academic achievement?, and RQ3: what changes did students perceive as necessary for successful individualized instruction, various themes and sub-themes emerged?, two thematic groups and two sub-themes emerged from the research findings.

Research Question One Thematic Groupings

The first research question states: how did the participating middle school student describe his or her perception and understanding of differentiated instruction? The first theme which emerged from this question was *student mindset*. The majority of the students understood differentiated instruction and learning in a simplified manner. All the participating students understood how they learned best and how to put this into practice in their lives. The students were not always engaged with the material, especially material they found had no relevance to their lives outside of school. The sub-theme group found within *student mindset* was *life connectedness*. Student participants did recognize the teachers who differentiated material within the classroom and appreciated the attempt to connect material to their lives. Yet, half of

the students did not feel the curriculum satisfied the term *life connectedness*. This connection

with the material presented as a very important factor to students when it related to fully

engaging with the material and remembering the lessons for a length of time.

Research Question Two Thematic Groupings

The second research question queried: what, if any, specific differentiated practices did

students think are best utilized by teachers to enhance individual perception of academic

achievement? *Presentation of material* was the first theme which emerged from this question.

The students interviewed easily recalled some of the material they had covered during the school

year, thus indicating they had learned the material and not memorized it. The students expressed

that they were given the material and encouraged to relate the material to classmates in an

encouraged individualized format. The sub-thematic grouping was *small group, project-based*

work. A majority of the students preferred small group work and projects to assess learning of

material. They felt when challenged with the task of creating a project they were pushed into an

assessment which allowed individualized drive of the material. The sub-theme which reemerged

from the interview questions for this research question was that of *life connectedness* in which

the students spoke of safety and "misplacement." The students recognized the need for a safe

and secure environment to allow for complete immersion into the curriculum, yet due to an event

which happened during the school year, some of the students had a period of unease. They

expressed a need for administration to inform them of potential threats, but felt confident

administration handled the situation efficiently and effectively. Lastly, the majority of female

participants specifically focused on being misplaced in classes and how this caused frustration

and a self-confidence. According to the girls this type of placement caused them to become

frustrated and uncomfortable. The students recognized it wasn't a physical security and safety issue, but it was one that triggered the personal insecurities of a teenage girl.

Research Question Three Thematic Groupings

The third research question probed: what changes did students perceive as necessary for successful individualized instruction? *Student mindset* emerged as a reoccurring theme from this question and had a crossover sub-thematic correlation to *life connectedness*. Many students felt that in specialty classes which provided performance-based assessments the ability to effectively communicate what was learned was present. While some students did not feel in core classes they were given as much opportunity, the observations completed by the researcher showed ample opportunity for students to articulate learned lessons. During many of the interviews participants readily linked articulation of knowledge directly to *life connectedness*. The final sub-theme which emerged from the interview for this research question was that of *small group, project-based work*. Throughout the interview process, the students each expressed a dissatisfaction with the frequency and intensity level of projects given throughout the school year. Many felt at times simple projects were given as busy work, and did not help their educational and curricula needs.

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Discussion

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The school systems across the United States are striving to meet the challenging academic needs of the diverse student population (Palmer, 2005). Schools must now balance NCLB laws and meet the ever-growing requirements of state standardized tests, which leaves teachers teaching to a test and not necessarily for the enjoyment of the subject (Smyth, 2008). Differentiated learning allows teachers to focus on the individual needs of a very diverse student population and raise student achievement through the focus on student differences, student

readiness, student interests, and student preferences (Tomlinson, 2005; Levy, 2008; Edwards, Carr, & Siegel, 2006). Based on the literature reviewed in Chapter 2 and the findings of this study, the research confirms the necessity to differentiate instruction for students. Much of the research completed thus far about differentiated instruction was based on teacher and administrative perception and understanding; no research could be found in which students were asked for understanding of how they were taught and if a variety of teaching methods made a difference to the learning environment. The student is the center of the learning environment, and if the student does not willingly participate in the learning process, the success of the student is low.

Implications

Theoretical Implications

The research conducted confirmed the theoretical literature reviewed in Chapter 2. Students interviewed authenticated Piaget's theory of cognitive development, Vygotsky's social constructivism theory, and Gardner's theory of multiple intelligences. Students recognized their individual learning profile which included these theoretical frameworks for differentiated instruction (Heacox, 2002; Tomlinson, 2001; Tomlinson & Edison, 2003).

Differentiated instruction is meeting the individual needs of each child and thus focusing on the knowledge he or she brings into a learning environment. Piaget's theory of cognitive development lays the essential groundwork for cognitive learning processes of students (Lui & Chen, 2010). He proposed that through active education children would be directed through the processes of experimentation, invention, and creativity to produce a collective educational transformation (Stoltz, Piske, de Freitas, D'Aroz, & Machado, 2015). Students repeatedly reported and supported this theory as they explained assimilation through a variety of

instructional methods within the classroom environment (Awwad, 2013; Tomlinson, 2001a).

Piaget believed the cognitive development process is a direct result of a student or child

interacting directly with the environment and the variety of experiences provided within said

environment. Students confirmed this was the case in their educational experience at Visage

Charter Middle School.

   According to the social constructivism theory developed by Vygotsky (1962/2007), the

teacher acts as a mediator who designs instruction which will directly connect the knowledge a

student already understands directly to what the student needs to learn (Tharp & Gallimore,

1988). Imagination and creativity are essential to Vygotsky's theory and the connection of

concepts such as planning and achieving (Stoltz et al, 2015). Imagination and creativity are

innate and inherent human characteristics which allow for the communication of cognizance

through thoughts, actions, language, and expression of higher order subjectivity (Piske, 2013;

Stoltz et al., 2015; Vygotsky, 2010). The research participants were clear in their passion for

more project-based assessments within the classroom and learning environment, thus upholding

Vygotsky's theory.

   Lastly, Gardner's theory of multiple intelligences was supported as the students knew and

understood their strengths and weaknesses within the classroom environment. This theory not

only allowed for learning and achievement expansions within the classroom, but it also offered

"a student-centered model that allows students to use their strengths to demonstrate what they

have learned" (Hoerr, 2000, p. 5; Armstrong, 2009). Understanding each student's ability

through strengths and weaknesses allows for a more thorough individualized differentiated

learning plan for each student. This theory proposes that all the intelligences are essential to

produce a functioning member of society, and when teachers broaden lessons to encompass a

range of talents and skills students will ultimately be more successful (Brualdi, 1998). Gardner's view of multiple intelligences has become widely welcomed in the educational community to address the various needs and potential of the individual student.

Empirical Implications

According to Sousa and Tomlinson (2011), multiple research studies in cognitive neuroscience maintain a connection between high student involvement and interest to elevated levels of student motivation. Student self-esteem or self-concept has an impact on students learning, and students routinely avoid situations in which may cause a lack of success or failure (Sousa & Tomlinson, 2011). Current research supports differentiated instruction as an effective tool to reach all students and individualize instruction (Tomlinson, 2009). Medical research on the brain also supports differentiated instruction, as each brain and person are unique and form individual learning preferences; this was noted with the students interviewed for this research, as each knew their learning profile and the manner in which they achieved higher order thinking (Sousa & Tomlinson, 2011). Also, curriculum identified by the students as meaningful and connected to daily life is liable to be designated to the long-term memory for subsequent recovery (Sousa & Tomlinson, 2011). It is essential for educators understand the individual needs of each student and ensure students make connections with the curriculum through differentiated instruction (Sousa & Tomlinson, 2011).

Children are unique individuals with varied history, personal design, and aptitude for learning within an educational environment (Cooper, 2009). Even students of the same gender and age do not learn in the same manner (Tomlinson, 2001). This was evident during the research process, as many of the female participants spoke about being misplaced within classrooms below their academic abilities. The individualism of the students ensures varied

learning styles, educational proficiencies, readiness to learn, and lived experiences. Educators can achieve a level of individualism through innovative lesson plans and a high quality of expertise. Educators motivate students through connection to the material which is uniquely personal and enjoyable, thus perpetuating eager engagement in future activities (Baines & Slutsky, 2009). The participants within this research confirmed this and spoke about teachers who had a passion for their subject. The students were given an opportunity to share their perceptions and understanding of how it best suits them within the classroom.

Practical Implications

The educational system within the United States has cycled through multiple legislative directives, various pedagogical trends, and increased recognition of individual student needs. The burden of educators to encompass each student's individual needs, while continually increasing achievement results on standardized tests, has led to the development of educational tools such as differentiated instruction. The results of the research are intended to give educators an insight to the student perceptions and understanding of differentiated learning. The research will enable administrators and teachers to implement differentiated instruction within curriculum and classrooms with more effective focus and student-driven emphasis. Administration could potentially plan a concentrated professional development plan to support the implementation and practice of differentiation in the classroom. Teachers implementing micro-differentiation may alter lesson plans to include a full differentiated learning plan into daily practices. Through the "voice" of the students, teachers could utilize differentiated instruction in a manner which best individualizes instruction for each student. When implemented correctly and managed with a systematic precision, student achievement can be monitored through progression checkpoints. Through the current research, educators may also gain a better understanding of differentiated

instruction and what the effect practice of DI means to students. The students positively recognized the use of differentiated instruction within the classroom and felt it was most effective in a small group setting. Through participant comments and research observations the implication is that students value learning in a manner which best appeals to their learning style but are not given multiple opportunities to support and articulate the knowledge they have attained.

Delimitations and Limitations

Limitations are the potential weaknesses within a study and relate directly to design, methodology, analysis, participants, and delimitations, which are the choices I made to limit or define the boundaries of the research (Moustakas, 1994). The limitations and delimitations of this study are interconnected, defined, and discussed below.

Delimitations

The study was delimited to encompass only a small sampling of middle school students. The criteria for this study defines the target population as middle school students with a minimal to higher perception and understanding of differentiated learning. The students were enrolled in classes which utilize differentiated instruction daily as part of curriculum, to gain descriptions from participants on current experiences of the phenomena of the research.

Limitations

A potential limitation of the study stems from the use of only one public charter middle school; this may have limited the generalization of findings due to the school demographics and sample size. Self-reporting of the students was a potential limitation; they may have felt the need to embellish or not be forthcoming with completely truthful data. The students may have felt intimidated by an authority figure, who works within the school or may have felt the

researcher expected a certain answer, which skews data (Creswell, 2013). Differentiated

instruction is built into the daily curriculum at Visage Charter Middle School through Marzano's

model of teaching effectiveness; the curriculum is student-centered and utilizes differentiated

instruction in lessons; it may not be the norm for most schools, thus potentially hindering the

generalization of data. The Visage Charter Middle School population is predominately

Caucasian and may not be representative of the entire student population of the school or

Summer county district; also, the sampling of students is small and may not have been

representative of the larger population within the county. Of the ten participants only two were

male, which could be misrepresentative of the school and county populations. Lastly, the focus

of research was not on the quality of differentiated instruction observed in the classrooms or

being taught to the students; it was on the student understanding and perception of the direct

differentiated instruction.

<center>**Recommendations for Future Research**</center>

The purpose of this phenomenological study was to investigate the perception and

understanding of differentiated instruction of middle school students in a central Florida charter

middle school. Given the findings of this research, several recommendations for future research

are proposed below.

1. It is proposed that further research be conducted on additional grade levels
   within the same school system to include high school age students. The
   perceptions and understanding of older students may mirror those of students
   in the middle school.

2. Future research could include additional schools to encompass charter, public,
   and private schools. This would allow for an all-encompassing research

which would focus on student understanding and perception of differentiated instruction in all types of schools.

3. Further studies could be conducted in various regions of the United States, as students' needs in different regions may vary widely. Students in rural and inner-city schools may have very different insights, perceptions, and understanding of differentiated learning than students in central Florida.

4. Future research should be conducted on the same grade level outside of the Visage school system. The perceptions and understanding of the same age students may mirror or diverge from those of students in the middle school.

5. It is proposed that further research be conducted on additional grade levels outside of the Visage school system, to include high school age students. The perceptions and understanding of older students may mirror those of students in the middle school.

6. A study could be performed at the same or similar school to include teachers and administrators. This research could gauge perceptions, attitudes, and understanding of the staff within the school and gauge the level of implementation in respect to differentiated instruction.

7. A quantitative study of a larger population of both middle school and high school students would be beneficial to determine understanding and perception of differentiated instruction on a grander scale.

8. Lastly, future research could be conducted to explore the varied differentiated instructional strategies teachers used within the school system and the effectiveness of said strategies.

Summary

According to Tomlinson (2001), "What we share makes us human. How we differ makes us individuals. In a classroom with little or no differentiated instruction, only student similarities seem to take center stage" (p. 1). Every student should be viewed and educated as an individual, not in a cookie cutter fashion. The purpose of this phenomenological study was to investigate the perception and understanding of differentiated instruction of middle school students in a central Florida charter middle school, as a review of literature reveals limited research conducted from a student perspective. Chapter 5 provided a summary of the findings, a discussion about implications of the findings based on the Chapter 2 literature review, the implications of the research, an outline of delimitations and limitations, and recommendations for future research study.

Students recognize differentiation in the classroom, even if they are unable to give it a specific name. They feel the same pressure of government mandated tests as the educators feel. When misplaced in classrooms based on test scores, they feel out-of-place and insecure. Students know when their teacher is engaged and knowledgeable in the subject being taught. Students recognize when engagement in the classroom is connected to their lives and when they are learning material and not simply memorizing. Tomlinson (2001), the leading expert on differentiated instruction says, "In a differentiated classroom, commonalities are acknowledged and built upon, and student differences become important elements in teaching and learning as well…students have multiple options for taking in information, making sense of ideas, and expressing what they learn" (p. 1). Educators must start looking to the future and creating lessons and curriculum which focuses more heavily on individual, student-centered learning rather than on high test scores. This researcher was personally given the privilege of a teacher

who differentiated her classroom instruction in the 90's; this differentiation produced a stronger

individual and educator due to the valuable lessons learned both during class and through

allowing student-driven education. Students recognize they learn differently and crave projects

in which they can express their individuality. The educational system must listen to their needs

and adjust accordingly to provide the future with the best education possible.

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APPENDIX A. IRB APPROVAL LETTER

LIBERTY UNIVERSITY.
INSTITUTIONAL REVIEW BOARD

April 6, 2017

Zoie Hodges Park
IRB Approval 2587.040617: Middle School Student Perception and Understanding of
Differentiated Instruction: A Phenomenological Study

Dear Zoie Hodges Park,

We are pleased to inform you that your study has been approved by the Liberty University IRB. This approval is extended to you for one year from the date provided above with your protocol number. If data collection proceeds past one year, or if you make changes in the methodology as it pertains to human subjects, you must submit an appropriate update form to the IRB. The forms for these cases were attached to your approval email.

Thank you for your cooperation with the IRB, and we wish you well with your research project.

Sincerely,

G. Michele Baker, MA, CIP
Administrative Chair of Institutional Research
The Graduate School

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UNIVERSITY.
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APPENDIX B. INTAKE SURVEY

Student Name: _____   *Student Grade:* _____

Please answer the following questions by circling the appropriate number

1= I don't understand, 2= I somewhat understand, 3= I understand, 4= I thoroughly understand

1. Have you ever heard the terms *differentiated instruction* or *differentiated learning*?
    1   2   3   4

2. Do you understand what the term *differentiated instruction* means?
    1   2   3   4

3. Do you understand how you learn best (example: hearing lesson, seeing lesson, hands-on lessons, etc.)?
    1   2   3   4

4. Do you feel your teachers' present material in multiple ways to help you learn better?
    1   2   3   4

5. Do the activities in your classes allow you to fully understand the material presented?
    1   2   3   4

6.   Are you able to relate the material presented in class, to your life outside of school?
    1   2   3   4

7. Do you feel safe and secure within your classroom environment?
    1   2   3   4

8. Are you routinely provided opportunities to critically solve problems, basing solutions on real world problems?
    1   2   3   4

9. Are you provided with the opportunity to clearly express what you have learned in the classroom?
    1   2   3   4

10. Do you feel you are learning everything you expect to learn in class?
    1   2   3   4

Thank you for your participation

APPENDIX C. INTERVIEW QUESTIONS

1. What do you know about the terms differentiated instruction or differentiated learning?

2. Can you explain what the term differentiated instruction means?

3. Explain how you learn best (example: orally, visually, kinesthetically, etc.) and do you understand the way these are presented in the classroom?

4. Explain how or if your teacher's present material in multiple ways to help you learn better?

5. In class, what activities/lessons allow you to fully understand the materials presented? Please explain these activities or lessons to me in detail.

6.   Are you able to relate the material presented in class, to your life outside of school? Can you explain it to me?

7. Do you feel safe and secure within your classroom environment? Why do you think this might be important for your learning?

8. Are you routinely provided opportunities to critically solve problems basing solutions on real world problems? How might this help you learn?

9. Explain how or if you feel like you are or are not provided with the opportunity to clearly articulate what you have learned in the classroom?

10. How do you feel about your learning environment; are you learning everything you expect to learn in class? Explain.

Parent/Guardian Consent Form

Middle School Student Perception and Understanding of Differentiated Instruction: A
Phenomenological study
Zoie Hodges Park
Liberty University
School of Education

Your child/student is invited to be in a research study of middle school student understanding and perception of differentiated instruction. This study is being conducted in an effort to discover if students understand the ways in which they are being taught lessons, and if they realize that different methods are being used during instruction. Your child/student was selected as a possible participant because he or she is currently enrolled in middle school. I ask that you read this form and ask any questions you may have before agreeing to allow him or her to be in the study.

Mrs. Zoie H. Park, a doctoral candidate in the School of Education at Liberty University, is conducting this study.

Background Information:

The purpose of this study is to discover if students understand the ways in which they are being taught lessons, and if they realize that different individual methods are being used during instruction.

Procedures:

If you agree to allow your child/student to be in this study, I would ask him or her to do the following things:

1.) Complete a ten question intake survey.
2.) Sit with me for a simple 30 minute interview to answer 10 questions.
3.) Allow for the interview session to be video and audio recorded for research purposes only. This material will not be shared and will remain strictly confidential.
4.) Be present for a single class period observation to better understand the student's interaction with the lesson.
5.) Allow for the observation session to be video and audio recorded for research purposes only. This material will not be shared and will remain strictly confidential.

Risks and Benefits of being in the Study:

The risks involved in this study are minimal, and are no more than the participant would encounter in everyday life.

The benefits to participation are indirect for the students. Participants will not receive direct benefits from taking the survey and participating in the interview and observation, but the results may allow for improvement in educational methods used within a classroom setting.

Compensation:

Your child/student will receive no compensation for taking part in this study.

Confidentiality:

The records of this study will be kept private. The data will be collected with confidentiality in mind. While I will know the identities of the subjects, pseudonyms will be used, and their name will not be shared within the research. In any sort of report I might publish, I will not include any information that will make it possible to identify a subject. Research records will be stored securely and only the

researcher will have access to the records. Availability of the data will be provided to the participants if requested. All participant identities will be strictly confidential, and to provide clarity I will disclose every research procedure to the participants. The data will be secured in a safe and secure location, which is accessible only by the researcher, and will be held for seven years before being destroyed. I will be the only individual with access to the video and audio recordings, and they will only be used for the educational purposes of this study.

Voluntary Nature of the Study:
Participation in this study is voluntary. Your decision whether or not to allow your child/student to participate will not affect his or her current or future relations with Liberty University or The Villages Charter Middle School. If you decide to allow your child/student to participate, he or she is free to not answer any question or withdraw at any time without affecting those relationships.

How to Withdraw from the Study:
If your child/student chooses to withdraw from the study, you or he/she should contact the researcher at the email address included in the next paragraph. Should your child/student choose to withdraw, data collected from him or her, will be destroyed immediately and will not be included in this study.

Contacts and Questions:
The researcher conducting this study is Zoie H. Park. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact her at ▮▮▮▮▮▮▮▮▮. You may also contact the research's faculty advisor, Dr. Christy Hill at ▮▮▮▮▮▮▮.

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the Institutional Review Board, 1971 University Blvd, Carter 134, Lynchburg, VA 24515 or email at irb@liberty.edu.

Please notify the researcher if you would like a copy of this information to keep for your records.

Statement of Consent:
I have read and understood the above information. I have asked questions and have received answers. I consent to allow my child/student to participate in the study.

(NOTE: DO NOT AGREE TO ALLOW YOUR CHILD/STUDENT TO PARTICIPATE UNLESS IRB
APPROVAL INFORMATION WITH CURRENT DATES HAS BEEN
ADDED TO THIS DOCUMENT.)

☐ The researcher has my permission to audio-record/video-record my child/student as part of his or her participation in this study.

Signature of parent or guardian: _____ Date: _____

Signature of Investigator: _____ Date: _____

APPENDIX E. SCHOOL ADMINISTRATOR CONSENT FORM

March 1, 2017

Dr. ██████████
Principal
Visage Charter Middle School
████████████████████

Dear Dr. ████,

As a doctoral candidate in the School of Education at Liberty University, I am conducting research as part of the requirements for a doctorate in education with an emphasis in curriculum and instruction. The title of my research project is Middle School Student Perception and Understanding of Differentiated Instruction: A Phenomenological Study, and the purpose of my research is to discover if middle school students understand the ways in which they are being taught lessons, and if they realize that different individual methods are being used during instruction.

I am writing to request your permission to conduct my research in/at Visage Charter Middle School. Participants will be asked to complete a survey and complete a short interview with me. The data will be used to determine if students understand the differentiation methods which are being used in classrooms, and provide educators with a better understanding of student needs. Participants and their parents will be presented with informed consent information prior to participating. Taking part in this study is completely voluntary, and participants are welcome to discontinue participation at any time.

Thank you for considering my request. If you choose to grant permission, please provide a signed statement on approved letterhead indicating your approval.

Sincerely,

Zoie H. Park
Doctoral Candidate at Liberty University

APPENDIX F. SCHOOL ADMINISTRATOR CONSENT FORM

March 1, 2017

Dr. ███████████

Director of Education

Visage Charter School

███████████████

Dear Dr. ███████,

As a doctoral candidate in the School of Education at Liberty University, I am conducting research as part of the requirements for a doctorate in education with an emphasis in curriculum and instruction. The title of my research project is Middle School Student Perception and Understanding of Differentiated Instruction: A Phenomenological Study, and the purpose of my research is to discover if middle school students understand the ways in which they are being taught lessons, and if they realize that different individual methods are being used during instruction.

I am writing to request your permission to conduct my research in/at Visage Charter Middle School. Participants will be asked to complete a survey and complete a short interview with me. The data will be used to determine if students understand the differentiation methods which are being used in classrooms, and provide educators with a better understanding of student needs. Participants and their parents will be presented with informed consent information prior to participating. Taking part in this study is completely voluntary, and participants are welcome to discontinue participation at any time.

Thank you for considering my request. If you choose to grant permission, please provide a signed statement on approved letterhead indicating your approval.

Sincerely,

Zoie H. Park

Doctoral Candidate at Liberty University

APPENDIX G. OBSERVATION PROTOCOL FORM

Student:
Teacher:
Subject:
Date:
Lesson Objective:

Descriptive Notes:	Reflective Notes

APPENDIX H. ASSENT OF CHILD TO PARTICIPATE IN A RESEARCH STUDY

What is the name of the study and who is doing the study?
Middle School Student Perception and Understanding of Differentiated Instruction; Mrs. Zoie Park

Why are we doing this study?
I am interested in studying whether middle school students understand the way they are being taught, the different methods used, and if they feel that this makes a difference in their learning.

Why are we asking you to be in this study?
You are being asked to be in this research study because it is important for educators to understand if the way they are teaching material is important to you and your classroom environment.

If you agree, what will happen?
If you are in this study, you will meet individually with Mrs. Park for a simple interview in which she asks you a series of questions and records your answers. Your interview will be put into written words and the answers will be studied by Mrs. Park. Mrs. Park will also observe you during one of your English Language Arts classes.

Do you have to be in this study?
No, you do not have to be in this study. If you want to be in this study, then tell the researcher. If you don't want to, it's OK to say no. The researcher will not be angry. You can say yes now and change your mind later. It's up to you.

Do you have any questions?
You can ask questions any time. You can ask now. You can ask later. You can talk to the researcher. If you do not understand something, please ask the researcher to explain it to you again.

Signing your name below means that you want to be in the study.

_____
Signature of Child   Date

Mrs. Zoie Park, Doctoral Candidate
██████████████████████████

Dr. Christy Hill, Faculty Advisor
████████████████

Liberty University Institutional Review Board,
1971 University Blvd, Green Hall Suite 1887, Lynchburg, VA 24515
or email at irb@liberty.edu.

APPENDIX I. LETTER TO PARENTS ABOUT PARTICIPATION IN A RESEARCH STUDY

March, 2, 2017

Visage Charter Middle School Parents

Dear Middle School Student Parent:

As a graduate student in the School of Education at Liberty University, I am conducting research as part of the requirements for a doctoral degree in curriculum and instruction. The purpose of my research is to discover if students understand the ways in which they are being taught lessons, and if they realize that different individual methods are being used during instruction, and I am writing to invite your child to participate in my study.

If your child is an eighth grade student at Visage Charter Middle School, and you are willing to allow your child to participate, he/she will be asked to complete a ten question intake survey, participate in a short recorded interview with the researcher, and be filmed during a classroom observation. It should take approximately one week for your child to complete the above listed procedures. Your child's participation will be completely anonymous, and no personal, identifying information will be required.

For your child to participate, please complete and return the attached consent document to the researcher/school. This document will need to be returned one week before the research is to begin. The consent document contains additional information about my research. By signing this document and returning it to me (in care of the school), you are indicating that your child will be allowed to participate in the study.

Sincerely,

Zoie Hodges Park
English Language Arts Teacher
Doctoral Candidate