Perceptions about Implementation of Differentiated Instruction

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Abstract

The absence of differentiated instruction in many classrooms stifles success for students who do not learn the same way as their peers. Providing teachers with the knowledge and tools to differentiate in their classrooms may increase test scores and help low achieving students find success, while expanding the learning growth of gifted and talented students. This study was guided by the theoretical frameworks of constructivism and multiple intelligences that suggest that students must connect their learning to prior experiences that support their modes of learning. A case study was used to investigate how teacher participants from an elementary school, a middle school, and a high school successfully differentiate instruction. Data collection included open-ended surveys, interviews with nine participants, and documents. The interviews explored participants' perceptions of how differentiated instruction has influenced their ability to successfully reach the diverse needs of learners in their classrooms.

Data analysis was inductive using hand coding to discover the codes, commonalities, and themes. Key findings included a lack of professional development, time constraints, how differentiated instruction meets the needs of all learners, the difficulties of learning how to initially implement differentiated instruction, and the belief that differentiated instruction is essential for student success. For the purposes of this paper, the findings relative to how differentiated instruction meets the needs of all learners and the belief that differentiated instruction is essential for student success will be discussed. Findings may provide teachers with suggestions about how to successfully differentiate instruction.

Introduction

Tomlinson (2001) introduced differentiated instruction to the world of education as a teaching theory that should vary in content, presentation, and assessment, and meet the needs of all learners in the classroom (Tomlinson). Because of the increasing diversity of today's educational population, it is crucial for student academic success that educators begin to implement and perfect differentiated instruction. Increasing diversity places students with a variety of cultural differences and varying ability levels in an educator's classroom (Moon, 2005). Differentiated instruction paired with constructivist learning theories offers students the opportunity to build upon their prior knowledge while utilizing their own skills, interests, styles, and talents. Educators effectively take each of these components from their students and create lessons that are meaningful for all students and lead them toward academic success. Campbell (2009) stated, "We can differentiate the resources we use, the ways we ask students to interact with the content, and the ways we ask students to demonstrate their learning" (p. 7).

Problem Statement

Differentiated instruction calls for educators to create lessons for all students based upon their readiness, interests, and background knowledge. Currently, many teachers in a southeast school district are not implementing differentiated instruction. The absence of participation is because of many factors such as lack of professional development, lack of time, or considering differentiated instruction to be another educational trend that will quickly pass and be replaced with something new. Researching this problem may provide evidence that there are teachers in the classroom who actively implement differentiated instruction in their classrooms and are successful. Pham (2012) stated, "Equipping students with practical skills and competences

requires teachers to take the role as scholar practitioners who should develop an interdisciplinary understanding to keep up with increased demands in the globalization process" (p. 18). Moreover, differentiated instruction is imperative in the environment of high stakes testing; teachers are required to meet the needs all students and prepare them to reach their full academic potential.   Furthermore, teachers need to understand there is not just one way to differentiate instruction; rather it is about understanding the level of their students and differentiated practices (Logan, 2011, p. 9).

Purpose of the Study

The purpose of this case study was to investigate the perceptions of teachers regarding successful implementation of differentiation. Areas that were investigated include the definition of differentiated instruction, the history of differentiated instruction, strategies of differentiation as used in the classroom, why it should be implemented in the classroom, and the effectiveness of differentiated instruction.

Review of the Literature

Theoretical Framework

The foundation of differentiated instruction is based upon the theory of constructivism. Differentiated instruction is supported by constructivist theorists, including Dewey and Piaget. Dewey explained learning as one making inferences to construct right and wrong through personal experiences (Ultanir, 2012). Piaget proposed that individuals are unable to instantaneously understand and use given knowledge, rather they must construct their own knowledge based on previous experiences (Powell & Kalina, 2009). For students to be successful in the classroom, differentiated instruction must first be based on the student's previous knowledge in order to create a meaningful lesson that will produce success for the

student and the teacher. Meyer (2009) explained that the basic belief of constructivism starts with assuming knowledge is the property of each individual person and is varied depending on that person.

Differentiated instruction is based upon the concept that the teacher is a facilitator of information, while students take the primary role of expanding their knowledge through research. Carter (2009) explained that the concept of constructivism is that learners create their own knowledge by themselves and does not necessarily have to be learned through another individual or source. Powell and Kalina (2009) pointed out that students thrive on group projects that allow choice, this allows them to express their own personality. Students convey the need for classroom content to be hands on and meaningful. Additionally, students express interest in working with their peers, rather than individually completing worksheets. Best practices show students flourish in an environment when educators use collaboration and authentic tasks. Sheehy (2002) explained constructivism is best developed when an individual participates in an activity with others.

Federal Mandates/Laws

Although some educators believe that differentiated instruction is a passing fad and relatively new to education, it has been present since the days of the one room schoolhouse (Anderson, 2007). Stanford and Reeves (2009) explained, "After the 2001 No Child Left Behind Act and the 2004 Individuals with Disabilities Education Improvement Act, teachers faced a new diversity of students in their classroom" (p. 3). The No Child Left Behind Act (NCLB) calls for greater accountability in the classroom, via highly qualified teachers. In addition to the Individuals with Disabilities Improvement Act (IDEA) and NCLB, general education teachers are required to become case holders for students placed on Response to Intervention (RTI).

Moreover, Rock, Gregg, Ellis, and Gable (2008) stated, "The Individuals With Disabilities Education Act, stressed the need to educate students with disabilities alongside children who are not disabled" (p. 32). Differentiated instruction is one vehicle used in the classroom to assist educators reach the requirements of these three federal mandates.

Students with disabilities are being held to the same academic standards as their general education peers when it comes to state standardized testing. IDEA provided the expectation that students with disabilities must have access to the general education curriculum and increasing opportunities for participation in inclusion educational settings (Smith, Robb, West, & Tyler, 2010). Differentiated instruction is a tool that can be employed to aid students with disabilities in the inclusion classroom find success and achieve at comparable levels as their general education counterparts. Guilott and Parker (2010) stated IDEA has radically changed the way educators envision their role in educating students with special needs and the approaches used in the classroom. Smith et al. (2010) reported it is imperative for all educators to be well versed in their academic area and meet the learning needs of the exceptionally diverse student body housed in their classrooms.

Definitions of Differentiated Instruction

Differentiated instruction is a means of teaching to all children to help them reach a common goal, regardless of the path they take to get there. Since Tomlinson (2009) introduced and defined differentiated instruction, many others have created their own definitions. King-Shaver (2008) defined differentiated instruction as a deliberate and conscious method of planning and teaching that provides multiple avenues of learning toward clearly defined goals. Wilson (2009) concluded there are two definitions of differentiated instruction: "The development of the simple to the complex tasks, and a difference between individuals that are

otherwise similar in certain respects, such as age or grade" (p. 70). Additionally, Butt and Kausar (2010) stated, "Differentiated instruction is an approach to planning, so that one lesson may be taught to the entire class while meeting the individual needs of each child" (p. 107). Each of these definitions encompasses the importance of reaching all children with respect to their many differences.

Tomlinson's (2001) theory of differentiated instruction is based upon teachers focusing on what is essential in the learning, attending to student differences, teacher/student collaboration regarding learning expectations, and uniting assessment and instruction (Logan, 2011). The definition of differentiated instruction varies between and among users, but the goal is essentially the same. Levy (2008) explained the focus of differentiated instruction is to ensure all students are reaching the same academic goal, but with the tools of differentiated instruction, the process of arriving there is unique for each student. Teachers in heterogeneous classrooms have students who are below grade level, on grade level, and above grade level. Anderson (2007) noted that it is imperative not to exclude any child in a classroom, so a differentiated learning environment must be provided by the teacher. Lauria (2010) concluded in her findings that by using differentiated instruction, educators have the greatest potential to alter the lives of struggling students to become successful students.

The educational system fills classrooms with children of the same age and has the expectation that children have the tools to comprehend the presented information in the same way as their peers. Tomlinson (2009) explained finding two individuals the same age who learn the same way and on the same timetable is a rarity. The reality in education is that the students learn at different rates and by different methods. Ankrum and Bean (2008) explained that "True differentiation means that the lesson focus will be different for each group" (p. 144). Grand

consensus amongst educators is that differentiated instruction requires teaching students one by one. Evans and Waring (2011) argued differentiated instruction is not teaching to students one by one, rather it requires the educator to understand the strengths and needs of all students in their classrooms.

Effectiveness of Differentiated Instruction

Before differentiated instruction can be implemented, the educator must have some background knowledge, personal and academic, of the students. Ernest et al. (2011) explained pre-assessment is a tool to provide a baseline of a student's specific needs. In addition to the pre-assessment for student needs, successful differentiated instruction calls for educators to perform a self-assessment to reflect what is being done in the classroom to meet the needs of the diverse population (Ernest et al.).

Servilio (2009) conducted research on the effectiveness of using differentiated instruction to motivate students to read. Students in this research study were provided their choice of related reading material, different choices for reflection of reading material, and ways to show a connection to what they read via extended research, creating a song to memorize rules given to George Washington in battle, or drawing a picture and explaining their reasoning. She found, "An average of 83.4% of the students' grades improved in reading, 12.5% remained the same, and 4.1% of the grades decreased" (Servilio, 2009, p. 10). A study by Butler and Van Lowe (2010) compared students who received differentiated instruction in their math class compared to students who did not receive the differentiated instruction section. Students who received differentiated instruction outperformed students in the non-differentiated instruction section on the final culminating assessment. Furthermore, Stanford and Reeves (2009) discussed a research study conducted by Tomlinson, Callahan, and Lelli, which addressed a 4-year period in a low

socioeconomic area and reported positive achievement gains when these teachers addressed student learning preferences through identification, teaching strategies, and nurturing. Finally, Bailey and Williams-Black (2008) concluded, "In return, using differentiated instruction will provide educators with a way for all students to fit within-the-cracks instead of falling-through-the-cracks in order to become successful individuals in today's society" (p. 134).

Al-Lawati and Hunsaker (2007) contended research supports that differentiated instruction has a positive bearing on student achievement. Furthermore, "When assessment is student centered, it can promote learning and even motivation" (Andradre, Huff, & Brooke, 2012, p. 46). In addition, the research of Andradre et, al found when students are included in the creation of the learning process, they set personal goals for learning, participate in self-monitoring of progress, and actively pursue ways to fill in their gaps in learning.

A study conducted by Powers (2008) investigated whether independent study fosters motivation and achievement in gifted students.   The educator in the study taught in a middle school located in Arlington, Virginia. Ten gifted females and 10 gifted males were chosen to participate in this study. The students were chosen from five classes the teacher taught. The teacher felt these students needed to be challenged more than the regular education students they were grouped with in the educational setting. This particular study incorporated research, intervention, and presentation. The data collection included student reflections, surveys/questionnaires, and interviews. All students in the research study stated they would participate in another independent study in the future. Powers (2008) noted, "In response to the post study topic, [students said that it] was important to them and motivated them to continue to participate in the study and to finish the project" (p. 62).

Methodology

Lodico, Spaulding, and Voegtle (2010) explained that a case study approach is often the most widely chosen design used in qualitative approaches. Lodico et al. further explained a case study examines and compares a multitude of cases as a means to gain further insight into a particular issue. A qualitative design with a collective case study approach was used to examine the perceptions of teachers using differentiated instruction. This research design investigated the following research questions:

Guiding/Research Questions

1. What are teachers' perceptions regarding successful implementation of differentiated instruction?

2. How do teachers practice differentiated instruction?

3. What types of professional development do teachers believe are needed to build confidence and provide skills for implementing differentiated instruction successfully in their classrooms?

Participants

A purposeful sample of nine participants ranging from elementary to high school were identified through their principals based upon an evaluation model that ranks teachers as needing improvement, proficient, or exemplary, guided by specific indicators for the objective of differentiated instruction. The nine participants included in this study had between 3 and 20 years of teaching experience. Of the nine participants, three were elementary level, three were middle grades level, and the final three were high school level educators. Only one of the nine participants was a male teacher, while the other eight were female. All of the participants were

European American. Participants had various levels of education (i.e., bachelor's degrees, master's degrees, and a specialist degree). The subject areas taught by participants include math, Language Arts, reading, science, social studies, and AP physics.

Data Collection

Data Collection included an open-ended survey used to gain background information about the participants such as level of education, years of teaching experience, number of on level, special education, and gifted students, and what sources they have used to create differentiated instruction lessons in their classrooms. Additionally, participants took part in an interview that included 17 open-ended questions about their feelings and perceptions of how differentiated instruction has influenced their ability to successfully reach the diverse needs of learners in their classrooms. Documents, specifically, teacher lesson plans encompassing their differentiated instruction plans were examined.

Data Analysis

A qualitative study encompasses multiple steps for data analysis. Ratliff (2008) stated analysis can be done simultaneously as the data collection is conducted. All of the interviews were audio taped to provide an exact account of each participant's responses and then transcribed verbatim. Data were analyzed using hand coding to identify emerging themes. Once the data were gathered, the transcriptions were reviewed, and a table was created to compare responses and review the collected documents. Once all documents were coded, similarities were identified, and from the codes, a list of themes emerged. Findings were written in a narrative form that was rich in detail and description. These details provided the reader with an accurate view of the perceptions of the participants regarding differentiated instruction and how it is employed in their classrooms.

Evidence of Quality/Trustworthiness

Based on the works of Guba, Shento (2004) revealed four criteria qualitative researchers should adhere to when addressing trustworthiness in their study. Credibility, transferability, dependability, and confirmability are the four criteria that will ensure the trustworthiness of the study. To achieve credibility, Shento (2004) advised the study should accurately measure what is stated by the researcher. Triangulation of data was achieved with intake surveys, interview protocols, and a collection of documentation. Other methods to enhance trustworthiness included verbatim quotes and reflexivity (examination of biases and bracketed them so that findings were only guided by the collected data).

Findings

A recurring theme that was prevalent during the interviews was that differentiated instruction is essential for student success in the classroom. Themes to be discussed include definitions of differentiated instruction, how and why teachers use differentiated instruction, recognizing obstacles and how to overcome them, aspects to consider when planning, and using assessment to guide differentiated instruction.

Definition of Differentiated Instruction

The participants shared similarities in their definitions of differentiated instruction. Participant 1 stated,

> I think it's just meeting the needs of each individual learner whether it be helping those that are struggling, doing different things to catch them up or the ones that are advanced, giving them things so they're not sitting around bored, letting them do enrichment activities and just learn at a higher level to extend what they already know.

Participant 2 stated, "Meeting the individual need, multiple learning styles of the individual child." Participant 4 elaborated, "I think differentiated instruction is when you present the opportunity for students to learn according to preferences that they use to help maximize their learning benefits." Furthermore, Participant 5 added, "Okay, I believe it's creating different tasks for kids so they can fully grasp concepts in different ways. They don't all have to be taught the same exact instruction at the same time." Finally, Participant 7 concluded, "Teaching to students according to their thought process in the way that they learn."

How and Why Teachers Use Differentiated Instruction

How Teachers Use Differentiated Instruction

All of the participants shared the different approaches to differentiated instruction used within their classrooms. Participant 1 differentiates in her classroom throughout the curriculum. She shared an example of her spelling lesson,

> In spelling I give a pretest every Monday. They are allowed to miss one and if they miss one or none, they get a challenge list and so it's a whole set of different words and each one of those words count as a bonus point. That way, they can't make any less than what they made on their pretest, they can only make better. It's so motivating. The kids love Monday. They love getting that pretest. I have a lot of kids who make it their goal to get the challenge list every single week.

Participant 2 stated that she uses assessment to guide her differentiated instruction. The assessment result aids her in placing students into groups accordingly. She uses this information to group them according to their levels in literacy and math. Participant 2 elaborated by stating, "To me when you differentiate, you don't make a group at the beginning of the year and stick with it all year. We all grow and learn at different paces and you have to continue to

differentiate them there." Participant 4 said that he cannot differentiate by product or assessment because he teaches an Advanced Placement course with a rigorous curriculum. He further stated, "I like to help students learn strategic devices to help incorporate new material into their own existing framework so that they can relate new material to previous experiences, previous experiences that are unique to each student." The remainder of the participants used a variety of strategies including grouping, choice menus, and graphic organizers.

Why Teachers Use Differentiated Instruction

The participants shared why they differentiated their instruction. The consensus of the group was each student is different and their successes are achieved through a variety of approaches. Participant 8 stated, "You've got to meet them where they are, and everybody's in a different spot." Participants 7 and 3 agreed that students learn different and differentiated instruction helps to engage all learners. Participant 6 differentiates for personal reasons; she stated,

> I have a son who's special ed and one that is gifted. I saw the struggles that that they
> both had uniquely with their education, so one of the reasons why I went into education
> was I knew that everyone deserved that individual learning environment. That's why I
> differentiate.

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Recognizing Obstacles and How to Overcome Them

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The participants shared many obstacles of implementing differentiated instruction. These obstacles included such topics as fear of losing control of the students, learning different ways to teach, trying to do all subjects at once, too many ideas at once, and the time in which it takes to implement differentiated instruction. Participant 1 stated in order to maintain classroom control she took the time to teach her students how to actively work within their cooperative groups and

assigned each student a specific job to ensure they were on task while she was working with other students. Participant 2 shared that collaboration with other educators was the key to successfully differentiating in her classroom. Collaboration provided her with a variety of different teaching tools. Participant 5 stated she overcame her obstacle when she realized differentiated instruction did not have to be done with every student, every day; it was a tool to be used when needed. Finally, Participant 9 stated overcoming her obstacle meant including bigger differentiated instruction projects with smaller collaborative assignments along the way—not trying to do everything all at once.

Aspects to Consider When Planning

Participant 1 shared that she considers time. At some point throughout the day, she has three different teachers with her in the classroom. She stated when she is going to differentiate a more difficult lesson that will take more time, she utilizes the extra teachers within her room to help with implementation. Participant 2, a kindergarten teacher, has multiple adults with her in the classroom at all times. Teaching styles are aspects she considers when planning her lessons. She stated, "If we're all three doing the exact same format and same learning styles, then we're not meeting their needs that way." The different approaches to teaching in her classroom range from using white boards, computer support, kinesthetics, songs, and verbal. Participant 5 shared the same aspect of time as Participant 1. She explained that she considers the length of the class period compared to the amount of material that she needs to teach on each specific day. She stated,

> I guess I try to think about where we are in the lesson and if the lesson can even be
> differentiated because sometimes, you know, you just have to stand up there and teach

them how to do the math and the next day you have to say, okay, stop and make sure we all understand this.

Finally, Participant 7 responded that she takes into consideration all children and whether or not they have the ability to learn in a general setting. All teachers' main aspect of consideration was their students: providing enough time, using teaching styles that will reach each student, and considering the learning capacity of each student within their classrooms.

Using Assessment to Guide Differentiated Instruction

Assessment is one of the pieces that drives differentiated instruction. Assessment in a variety of forms provides information about where each student is concerning the chosen topic. Participant 3 agreed that assessment is used to guide instruction. She explained, "If you don't look at the data, then you can't make sure that your children are succeeding or know what they know and what they don't know." Participant 6 shared assessment guides her instruction 100% of the time. She explained that every two weeks she compiles and examines data reports to make sure her learning environment and student grouping are appropriate. She supported that statement with, "I know a lot of high school teachers don't use seating charts, but I think by having that seating chart, I set up that differentiation model from day and with data as my background." Participant 7 stated, "I definitely use assessments to gauge whether or not something was taught and whether or not something needs to be re-taught in a different manner." Participant 9 echoed the other participants regarding student understanding. She explained, "I don't move on until we get it. If this kid gets it, that kid moves on. If this kid doesn't, we keep working on that concept."

Findings Conclusion

Findings from this study indicated that teachers strongly believe that differentiated instruction is essential for student success in the classroom. Concepts discussed included definitions of differentiated instruction, how and why teachers use differentiated instruction, recognizing obstacles and how to overcome them, aspects to consider when planning, and using assessment to guide differentiated instruction.

The purpose of this case study was to examine the perceptions of teachers implementing differentiated instruction within their classrooms. The findings showed that teachers perceive successful implementation of differentiated instruction as something that does take time to incorporate within the classroom, but practice and diligence make it possible. In addition, each of the teachers was passionate about the use of differentiated instruction not only within their classrooms, but felt differentiated instruction should be practiced in all classrooms. Furthermore, many ideas such as choice boards, cooperative grouping, connection strategies, and enrichment activities were shared regarding differentiated instructional practices. Finally, the participants relayed the need for more direct professional development opportunities for differentiated instruction which addresses classroom management, implementation processes, hands on sessions to create differentiated lessons and plans, and strategies that have been proven to work in classrooms across the curriculum. Educating teachers about how to differentiate instruction in classrooms is significant, as one of this study's goals was to develop and implement a professional development opportunity that includes cross curricular strategies and time to create real lessons that can be actively used within the classroom.

Implications for Social Change

The community that the North East School District encompasses includes school board members, students, parents, faculty, and staff. This study has the potential to have significant implications for social change. First and foremost, students will reap the most benefits, academically, of teachers changing the delivery of traditional instruction to delivering instruction using differentiated instruction. Differentiated instruction can instill a new excitement and passion for learning to all students. Being on the receiving end of differentiated instruction, low-level learners will find consistent success within the classroom. On-level learners will be challenged to exceed beyond basic expectations and may find themselves more excited about learning than they were in the past. Gifted students will no longer be left to learn on their own to stagnate at their current level; differentiated instruction will provide enrichment opportunities to further accelerate their learning. In addition to the students, teachers may also benefit from the study. The new approach to teaching will yield higher test scores on state standardized tests and have more engaged students in their classrooms. Finally, implementing differentiated instruction throughout the county may further accelerate our student outcomes and continue to make us academic leaders within the state of Georgia and the nation.

The outcomes of this study can also reach beyond this South East School District. The professional development opportunity can serve as a prototype for other counties in the state and the nation. In addition, the teachers in this county may be able to share these learned best practices with new teachers entering the field of education. Achieving social change at a larger level is possible if other school districts implement and practice differentiated instruction as modeled by this South East School District. Therefore, this project could not only benefit and impact the selected school district but also other school systems in the nation.

Implications, Applications, and Directions for Future Research

Differentiated instruction is a tool used in classrooms to help all students find success. De Jesus (2012) stated, "To meet the needs of a diverse student population, teachers should differentiate instruction" (p. 5). Although literature addresses implementing differentiated instruction and perceptions of teachers, there is a lack of literature concerning creating professional development sessions. The information learned while conducting this study provided the knowledge that all students would benefit from differentiated instruction. In addition, although many teachers are familiar with the term differentiated instruction, the concept of application is still a mystery to many teachers. While the teachers within this study were actively engaged in implementing differentiated instruction, they faced many obstacles along the way and had to learn to overcome them on their own. Providing a professional development for all of the teachers would help in taking away the mystery of differentiated instruction and provide a clear understanding of the concept.

In the future, the created plan for differentiated instruction can help new teachers effectively devise lesson plans including differentiated instruction. Differentiated instruction allows for a student centered classroom. Within this student centered classroom, the needs and differences of the students are acknowledged and lesson plans are based on each child's readiness, interests, and learning styles (King-Shaver & Hunt, 2003). The application of a differentiated instruction professional development model will provide teachers with a myriad of differentiated instruction tools to increase student success. Recommendations for future research include perceptions of struggling students before and after differentiated instruction. While the literature available addresses the perceptions of teachers, success can also be measured by feedback from students.

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