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An Analysis of Teachers Who Teach Struggling Students

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COLLEGE OF EDUCATION

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2014

Abstract

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MA, Walden University, 2004

BS, University of the District of Columbia, 1997

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

After many years of reform efforts, educators are still searching for ways to better serve the needs of struggling students. The purpose of this study was to develop a grounded theory (GT) that reflects teachers' perceptions of students' behavior, students' need for support, and students' skill deficiencies. Discovering the ways in which teachers address students' needs could sharpen teacher practices and promote support for struggling students. Guided by Weimer's research on learner-centered teaching, this GT study created a conceptual understanding of classroom experiences from teachers' perspective. Twenty teacher interviews began with the grand tour question, "Talk about teaching struggling students at your high school." A constant comparative analysis was employed to induce and develop the theory of guided differentiation. Three main categories or stages emerged from this GT study, with each stage representing a conceptual rendering of behaviors one can expect when working with struggling students in a similar setting: (1) appraising, which is a process of gathering and assessing student performance; (2) tool-boxing, in which teachers identify and apply strategies and interventions to enhance student learning; and (3) reappraising, where teachers assess the effectiveness of interventions applied in the second stage. This theory can be useful to educators considering how best to work with struggling students by revealing the patterns of behavior among teachers who serve struggling students. Extending guided differentiation through the method of grounded action may also serve to advance this research, as it could provide a useful theory for resolving teacher concerns when assessing student performance or skill deficiencies.

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Dedication

I dedicate this work to my wife Jennifer and my children, Rachel, Skyler, and Jabari. You are the most important people in my life, and I want to do everything I can to make sure that you find peace, knowledge, and happiness in this world. My greatest joy is to have you all in my life. I cannot thank you enough for making me so very proud and happy to know you.

I would also like to dedicate this to my mother Mattie Rankin, who spent many years sacrificing for me so that I could have a chance in life. Your work with my brothers and sisters and me cannot be measured. You taught me the value of hard work and dedication. I think Tagore said it best when he said, “I slept and dreamt that life was joy, I awakened and found that that life was duty, I acted and behold duty was joy” (Tagore, 1961). It has been a joy doing what I call my duty: to help make the world a better place by working for the betterment of people through the field of education.

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All the rest that I failed to mention, I did not fail to think of you, and am grateful for all that you have done to help me in my research.

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Section 1: Introduction and Problem

After many years of reform efforts, educators in America are still searching for ways to meet the unique needs of low-performing students in low-performing schools (Hill & Tyson, 2009; Teasly, 2004). The search for solutions to this problem continues in an era of testing that has put a lot of pressure on teachers, principals, and school districts because of the demands to deliver test scores that meet state and national standards (Ravitch, 2010). The results of this pressure are evident in recent developments in Georgia.

Vogell (2011) explained that the Georgia Bureau of Investigation (GBI) charged three school districts including Fulton, DeKalb, and Douglass Counties with illegally altering test scores. Vogell explained, "Teachers felt that they needed to change scores to make Adequate Yearly Progress (AYP)" (p. 1). To this end, teachers and principals in the accused districts allegedly erased and corrected mistakes, and area superintendents silenced whistle-blowers and rewarded subordinates who met academic goals by any means possible. This scenario exemplifies the desperate measures taken by some teachers and educational leaders to offset their frustration with the lack of success their students are exhibiting in the classroom.

Background of the Study

Struggling learners have been a source of concern for many years (Ginsberg, 2012). Pubs (2009) studied eighth graders in the United States and showed that there is a lot of room for improvement. A 2009 study from the U.S. National Center of Education Statistics (NCES) reported that only 32% of the students were proficient or had mastered all of the reading skills required by the state. The study also provided the proficiency levels for eighth graders in math (32%), writing (33%), science (18%), history (17%), and geography (30%). These numbers illustrate that even after 8 years of the No Child Left Behind Act (NCLB; 2002), teachers are

finding it difficult to attain benchmarks set by the legislation. NCLB is a federal law enacted during the Bush administration to improve student achievement (NCLB 2002).

These problems are also an issue in Maryland, the area of geographic focus for this study. NCLB mandates that states measure the AYP of students. Each state can determine its minimum level of growth required based on standardized tests chosen by state leaders. If a school fails to make AYP for 2 consecutive years, it can be subject to consequences like teacher transfers (NCLB, 2002). Many teachers feel tension because their school leaders evaluate them on how well their students perform on state and national tests (Ravitch, 2010).

According to the NCLB, all children must read at grade level by 2014. Data showed that, contrary to its name, NCLB has left many students behind (James, 2009). According to one study, NCLB has not had a significant impact on improving reading or math achievement across the country (Peterson & Llaudet, 2006). The verdict is also still out for the Race to the Top (RTTT) initiative, President Obama's incentive program designed to improve education (Obama, 2009).

RTTT is a $4.35 billion United States Department of Education grant competition created to spur innovation and reforms in state and local district K-12 education. It allows states to opt out of some provisions of NCLB if they show that they have raised standards. The president's goal is to find new strategies to help struggling learners and the educators who teach them. RTTT and NCLB each deal with student improvement, but while RTTT provides incentives for schools to change, NCLB mandates improvements.

The potential for low-achieving students to perform at higher levels is evident when one looks at schools with students who have made significant improvements in their achievement levels. The Knowledge is Power Program in Washington, DC, Baltimore, and Texas, the

Armistead School in Connecticut, the North Star Academy in New Jersey, the Edward Brook School in Massachusetts, and the Hobart School in California are all examples of schools whose students have significantly improved their levels of achievement (Ginsberg, 2012). These schools use a system that works with parents, students, and teachers in a way that focuses on accountability and responsibility for all stakeholders (Ross, McDonald, Alberg, & McSparrin-Gallagher, 2007).

According to NCLB (2002), school district leaders must determine what successful schools are doing that works and apply those strategies to their own schools. NCLB places a special emphasis on implementing educational programs and practices that clearly demonstrate their effectiveness through rigorous scientific research (NCLB, 2002). U.S. Department of Education guidelines (Coalition of Evidence-Based Policy) explained that schools must prove that programs are effective in at least two schools using regular classroom teachers, and that the programs are scientifically based and subject to rigorous testing (NCLB, 2002). Programs that can demonstrate such effectiveness are eligible to receive federal funding.

Federally funded programs like Head Start are designed to prepare students for kindergarten (Zigler & Styfco, 1995). This program is one example of an initiative that that has proven to be effective (Zigler & Styfco, 1995). The Reading First program, another example of a federally funded educational initiative, helps reading teachers in the early grades strengthen old skills and gain new instructional techniques that scientifically-based research has shown to be effective.

Researchers have identified a number of issues that perpetuate the high numbers of students with low levels of academic achievement. These issues include high teacher turnover (Wyse, Kessler, & Schneider, 2008), low parental involvement (Stormont & Thomas, 2013),

poor students study skills (Seluk, Sahin & Acikgok, 2011), insufficient teacher preparation (Brown et al., 2010), and a need for curriculum reform (Ravitch, 2010). Schools with high teacher turnover or low parental involvement tend to have lower-performing students.

With all of the challenges that confront low-performing students, Gambill, Moss, and Vescogni (2008); Flowers and Flowers (2008); and Shindler (2009) argued that if students learned good study skills and organizational strategies, they would achieve at higher levels. Still other researchers have posited that the solution to improving students' academic performance is the development of alternative educational options like a national curriculum, charter schools, and privatization (Ravitch, 2010). Several scholars have also asserted that school districts that do not have an adequate plan for preparing and supporting new teachers tend to have more students who underperform (Boyd, Grossman, Lankford, Loeb, & Wyckoff, 2007; Darling-Hammond & Friedlaender, 2008).

Despite existing research and scholarly opinion, ultimately, teachers often determine for themselves the best approach to take to educate their students (Katzenmeyer & Moller, 2001). Teachers in urban metropolises often face the biggest challenges in their efforts to improve student achievement for their largely minority and poor students who attend underfunded and low-performing schools (Cumming, 2012; Parson, 2013). In this pressure-filled environment, urban teachers must find new and effective ways to improve learning and help their students meet national benchmarks, despite the myriad challenges they face. The continued issue of low student achievement and the increased scrutiny teachers must endure highlight the need for a deeper understanding of what educators who teach struggling students are doing to improve achievement.

Grounded Theory Study and Social Change

Using grounded theory and the constant comparative analysis method of inquiry, this study inductively generated a theory that addressed the main concerns of the teacher-participants who were educating low-achieving students. This study has implications for social change, as I explored what teachers can expect when serving the needs of struggling learners. Classic grounded theory (GT) methodology proved a useful approach for identifying the issues that confront teachers working with struggling learners. This methodology resulted in the theory of guided differentiation, which represents the classroom experiences of teachers working with struggling students. This process was accomplished through interviews conducted with teachers. GT was chosen as the method of inquiry for this study because it has proved useful in developing theories about the main concerns of participants (Glaser & Strauss, 1967).

GT is a general method of inquiry involving the generation of concepts, categories, and ultimately, a theory from systematic and rigorous procedures (Glaser, 2009). Few researchers produce a grounded theory even though researchers may ground their work in the data (Simmons, 2009). GT is an inductive methodology that is not strictly a qualitative method, even though researchers often characterize it as one (Simmons, 2009). In GT, concepts/categories relate to each other as a theoretical explanation of the actions that continually resolve the main concern of the participants in a substantive area. Glaser (1978, 1998) explained, "Grounded theory can be generated with any data, qualitative or quantitative" (p. 6). Since several researchers have conducted studies on the myriad of problems with teachers and teaching in general, and because major challenges persist, using GT to examine teachers who educate low-achieving students could be valuable and offer some possibilities for social change.

The theory of guided differentiation will promote social change as it provides an accurate account of what can be expected when teachers or parents engage with struggling students. This can lead to improved teaching and learning among high school aged students (Olson, 2006). This inquiry also contributes to the existing body of information on education achievement by providing a grounded theory that accounts for the main concerns of the participants.

Problem Statement

Based on a recent survey of teachers from a high school in Maryland a need exists to better understand the experiences of educators who work with low-achieving students (Maryland High School, 2011). The problem is that it remains unclear what teachers are working on to support the struggling learners they work with in their classes. This lack of clarity is reflected in the High School Assessment (HSA) scores, graduation rates, and the number of students taking remedial classes in their first year in college (Greatschools, 2012). Low-achieving students often lag behind in their math, reading, science, and history scores (Maryland County, 2011).

In the state of Maryland, students have to pass the HSA test to graduate (Maryland County, 2011). Intervention initiatives like the Bridges to Excellence program give students who fail the HSA a way to graduate despite low scores, and are necessary for students to reach appropriate levels achievement (Maryland County, 2011). This system allows struggling students to retake the test and/or demonstrate competency in the target subjects (Greatschools, 2012).

NCLB (2002) has placed heightened pressure on teachers because of its emphasis on testing. Teachers also feel added pressure to help struggling learners because of high retention and dropout rates (Tilman, 2004). One Maryland High School has made many efforts to meet the mandates included in NCLB, such as trying to hire and retain highly qualified teachers,

instituting programs to improve reading, and requiring detailed teacher evaluations. Even with these efforts, however, graduation and dropout rates at this high school in Maryland continue to rise, along with the number of students who have to repeat coursework (Maryland County, 2011). According to recent data on students who take the English portion of the Maryland HSA, 25% of African American students, 15% of Hispanic students, 28% of economically disadvantaged students, and 42% of students with disabilities are not passing the test (Greatschools, 2012).

Past researchers on teachers of low-achieving students has offered predictions based on a variety of premises. For example, Mitchem and Benvo (2008) posited that teachers do not care enough about the students, or that educators are not prepared to teach all students, regardless of race, socioeconomic status, and other identifying factors. A GT study from the perspective of teachers could contribute new information to the existing literature and help educators and policy makers better understand the behaviors of teachers who teach struggling learners.

Nature of the Study

The data for this GT study came from interviews with teachers who work with low-achieving learners. The goal of the study was to produce an inductive theory about teachers' major problems and concerns with their struggling students. When conducting a GT study, it is important to minimize preconceptions in the early stages of data collection by focusing on the broad area of interest instead of a specific problem (Glaser & Strauss, 1967). Section 3 includes a more detailed discussion of the nature of this study.

Rationale for Choosing GT

The initial plan for this study was to conduct a quantitative inquiry utilizing a control group. However, it became clear that previous researchers had already identified both the

problems faced by struggling learners and the best strategies for improving their academic performance. As a result, any additional data gathered on the topic for this study would serve only to confirm existing data. Further investigation revealed that the best way to understand what was happening at this high school in Maryland was to develop a theory grounded in the data (Glaser & Strauss, 1967).

Most research methods deal with obtaining accurate descriptions (i.e. qualitative inquiry) or by testing a hypothesis (i.e. quantitative inquiry; Simmons, 2009). A GT study addresses the equally important enterprise of how to systematically further the discovery of data (Glaser & Strauss, 1967). The development of such a theory from data is understandable and useful to both sociologists and laypersons. It also provides relevant predictions, explanations, interpretations, and applications (Glaser & Strauss, 1967).

Teachers were interviewed in an effort to explain and predict what might be expected from teachers who work with struggling learners. To develop a theory that addressed the issues that teachers face when educating struggling students, participants were asked a grand tour prompt, “Talk about teaching struggling students at your Maryland high school.”

Purpose of the Study

The purpose of this study was to discover a theory about the major problems and concerns of teachers who teach struggling learners. At the time of this study, one high school in Maryland was implementing a Common Core State Standards Initiative (Common Core State Standards Initiative [CCSSI], 2010) to address the results of a recent survey that highlighted the need for improvements among teachers who worked with struggling students. The CCSSI is an educational initiative that lays out the content K-12 students should know in English and math at the end of each grade. As school districts across the country implement this new initiative, many

stakeholders still question how effective it will be, particularly among students who traditionally have struggled to achieve.

I sought to bridge the gap between general perceptions and assumptions about what is happening in the classroom and what teachers are actually experiencing. By asking an open-ended grand tour question and collecting data from the perspectives of the teachers who worked with struggling learners, a better understanding of their experiences was gained. The data from the responses were analyzed and coded, divided into categories, and then the properties were separated into categories. From these categories, a core variable was discovered that served as the basis for the theory of guided differentiation.

Conceptual Framework – The Local Level

Because this is a GT study, all data were suspended on all literature review until a core variable had been established; no theories, perspectives, or constructs were put forth at the outset. No literature was introduced into the study until the participants had given voice to there main concerns. Outlining a conceptual framework would be contrary to the intent of a GT study, which is to let the data serve as the basis for any theory that develops. Glaser (1978) stated that "the first step in gaining theoretical sensitivity, which is being open to what is actually happening in the data, is to enter the research setting with as few predetermined ideas as possible" (p. 3).

This study included only teachers who work with struggling students. This topic originated from the fact that schools across the country (XYZ School for the Arts in Baltimore, Maryland; MIJ Middle school Naples, Florida; TOP Middle School in Naples, Florida) seem to encounter the same problems with struggling learners (Baltimore County Public Schools, 2012, Collier County Public Schools, 2012). The XYZ School for the Arts primarily served inner-city students who had difficulty achieving on a high level. MIJ Middle School had a number of

subgroups that performed below grade level. TOP Middle School served mainly immigrant students from Haiti, Mexico, and various places in South America. A number of students in TOP Middle School faced challenges at home that impacted their learning. In many cases, their parents spoke very little or no English. Additionally, these students often were transient and would not come to school for months at a time (Collier County Public Schools, 2012).

In a Maryland County, programs like the Alternative Learning Program (ALPS), the Bridges to Excellence (BTE), the Black Achievement Student Program (BSAP), and Hispanic Liaison (HL) do a good job of helping low-achieving students do better (Maryland County, 2011), yet the achievement gap persists. While some of these programs are designed to provide support to specific subgroups, the focus of this study is on the teachers of all struggling students, regardless of their ethnicity.

Operational Definition of Terms

Adequate yearly progress (AYP): NCLB mandates that students' scores must meet certain benchmarks each year in order to make AYP (NCLB, 2002).

Alternative Learning Program System (ALPS): ALPS is a class set up for students who have had difficulty achieving in the traditional classroom because of behavior problems (Maryland County, 2012).

Bridges to Excellence: Bridges to Excellence is an alternative program for achieving a high school diploma in a Maryland County. This program serves students who fail to pass the HSA after three attempts (Maryland County, 2012).

Constant comparative analysis: Constant comparative analysis incorporates four stages: (a) comparing incidents applicable to each category, (b) integrating categories and their properties, (c) delimiting the theory, and (d) writing the theory (Glaser & Strauss, 1967).

Throughout the four stages of the constant comparative process, data is collected, sorted, and analyzed. The information is then coded; using theoretical sampling reinforces theory generation. The benefit of this method is that the research begins with raw data. Through constant comparisons, a substantive theory will emerge (Glaser & Strauss, 1967). Burgess (2010) stated, "Constant comparative analysis begins as early as the completion of the first collection of data, in most cases the completion of the first interview, and continues with every new piece of data obtained" (p. 41). Simmons (2009) explained that the process relates data to ideas, then ideas to other ideas (Grounded Theory, 2009). There are three basic elements to constant comparative analysis: substantive coding, selective coding, and theoretical coding (Glaser, 1978).

Differentiated instruction: Differentiated instruction involves teaching students of differing abilities in the same class. To differentiate instruction is to recognize students' varying background knowledge, readiness, languages, preferences in learning, and interests, and to react responsively. The intent of differentiating instruction is to maximize each student's growth and individual success by meeting each student where he or she is and assisting in the learning process (Hall, 2002).

Grand tour question: A grand tour question is a broad, open-ended question related to the general topic area (Olson, 2006).

High school assessment (HSA): The HSA is a series of tests that include English, Government, Biology, and Algebra in order to graduate from high school in the State of Maryland (Maryland County, 2012).

Memoing: The core stage of the grounded theory methodology. According to Glaser (1998), "Memos are the theorizing write-up of ideas about substantive codes and their

theoretically coded relationships as they emerge during coding, collecting and analyzing data, and during memoing" (p. 177).

No Child Left Behind (NCLB, 2002): The No Child Left Behind Act of 2001 (NCLB) is a United States Act of Congress and the reauthorization of the Elementary and Secondary Education Act, which included Title I, the government's flagship aid program for disadvantaged students. NCLB supports standards-based education reform based on the premise that setting high standards and establishing measurable goals can improve individual outcomes in education.

Properlining: Properlining occurs in situations where the participants are more concerned with saying the *proper* thing or how they think they should answer a question instead of answering honestly (Glaser, 1998).

Sorting: Sorting is the organizing of memos into an outline of the emergent theory, showing relationships between concepts. This process often stimulates more memos, and sometimes even more data collection (Glaser & Strauss, 1967).

Struggling student: A struggling student is one who is not achieving in academic subjects or scoring well on assessments. A struggling student can mean any of the following:

- A student who is overwhelmed by the amount of work expected of them;
- A student who struggles with the curriculum at the school;
- A student who is having a difficulty with grade level transition;
- A student who is having difficulty learning in a particular academic class; or
- A student who has to work very hard to keep up and spends hours doing homework (Greatschools, 2012).

Assumptions

One assumption made in the course of this study was that the participants were truthful with their responses. The hope is that all participants were motivated to be truthful because they were interested in talking about their students. Teachers are often eager to discuss students in their classes. Participants were volunteers who understood the terms of the interview regarding confidentiality. It was assumed that everyone working at this high school in Maryland works with some struggling students. This assumption draws from the definition of struggling, which can apply to students on many different performance levels. Another assumption was that the participants would be truthful and not provide properlined answers, in which participants deliver the "proper" or "expected" answers instead of telling the truth (Glaser, 1998).

Limitations

Interviews were conducted with only a limited number of teachers (20 teachers total) at a Maryland high school. Another limitation is that this study was only be able to account for what the participants thought at the time of the interview. Another limitation is that there was a limited amount of time to study this problem. Every effort was made to minimize the impact of these threats to quality. The researcher did his best to remain open to all available data.

Scope

I took into account the problems of teachers who taught struggling learners at one Maryland high school. The theory that developed originated from the experiences of these teacher-participants. While the focus of this research was on teachers at a high school in Maryland, the theory of guided differentiation is applicable to learners in any setting.

Delimitations

The focus of this inquiry was restricted to teacher-participants who work with struggling students. Data collection consisted of 20 interviews with teachers in a school in a Maryland County. I followed the GT method using theoretical sensitivity (coding and analysis of data from each interview) to guide decisions about who to interview with each subsequent interview. The criteria for selecting the subjects were minimal, as participants could include any teacher from this high school in Maryland.

Significance of Study

This study generated a theory that accounts for the main problems and concerns of teachers in the local setting and in a larger context. This theory could lead to the development of a significant framework in the field of education that speaks to the main problems and concerns of teachers who work with struggling students. This framework would consist of predicting expected behaviors in the classroom, gaining a deeper understanding of problems and concerns of teachers who work with struggling students, and shedding new light on what works and what does not. This knowledge may prove useful to teachers, students, parents, administrators, and even whole school systems. There is a need to understand how one can duplicate the success realized in many schools. Any improvement in learning and achievement, particularly in the subgroups that have traditionally lagged behind, could be a powerful agent for social change.

Summary and Transition

The purpose of this study was to discover a theory about the major problems and concerns of teachers who teach struggling learners. I made every effort to minimize preconceptions and forcing of the researcher's own perspective into the data collection. A question designed to convey to the respondent that they could discuss anything that was relevant

to them (not the researcher) about the general topic area. Using an open-ended or grand tour question allowed the respondent to speak his or her mind and yielded rich data about what was actually happening in the classroom. At the time of the study, these students lagged behind in scores on the HSA.

Section 1 was an introduction to the interest area and discussed the importance of the study. It included the history of low achievement and the trouble school systems have had with addressing this issue over the years. Section 1 also provided information on local and national efforts to improve teaching and student learning, and included a critical analysis of NCLB and what it has meant for teachers since 2002 (NCLB, 2002).

While Section 1 included an examination of the failures and successes found in public education across the country, Section 2 is a review of relevant literature. Because I used a GT methodology, a large part of the data collected came from interviews and observations, and existing literature did not come into play until I established a core variable. All literature had to earn its way into the theory. In order for any literature to be included in the literature review it had to exist in comments from the participants. I suspended the review of literature until the theory emerged to minimize preconception and forcing.

Section 3 is an explanation of the research methods used in this GT study and a discussion of GT and the techniques used to collect and analyze the data. The section also includes an explanation of the ethical protections of the participants. Section 4 presents the findings of the study and focuses on the data analysis, and the analysis process. The section details the process by which the researcher stored records and acquired new knowledge. Section 5 includes an overview of the study and draws connections between the theory and relevant

literature. The section also presents a discussion of the implications for social change and recommendations for further study.

Section 2: Literature Review

Introduction

The literature review for this study covers a variety of topics related to the issue of teachers who educate struggling students (Kit-Lang & Lee, 2008; McCall, Hauser, Cronin Kingsbury & Houser, 2007; Schindler, 2009; Seluk, Sahin, & Acikgoz, 2010; Teasley, 2004; Tomlinson, 2010). This review focuses on the literature concerning the procedures and strategies that teachers use when working with struggling students and will examine these works from three perspectives: historical, procedural, and leadership-related. The choice and focus on which literature to use resulted from what codes and categories emerged from the interviews.

I first reviewed literature of the leaders in the field of differentiated instruction (DI), with a focus on the most current and published knowledge on the subject, followed by a look at the history of differentiation, including an exploration of where it began and what is happening with it today. In this chapter I also discuss research that examined the ways that teachers have applied differentiation in the classroom and the steps associated with the process of differentiation.

This chapter will also include an analysis of what teachers do in the differentiated classroom, how they prepare for and implement interventions, and how they check for or evaluate learning when working with struggling students (Carson, 2007; Gambrill, Moss, & Vescongi, 2008; Giangreco, 2007). There will be a discussion about procedures and strategies for determining if differentiation is working. This section will also explores the effectiveness and outcomes of the DI evaluation processes (Aslam & Kingdon 2011; Boyd et al., 2007; Darling-Hammond & Friedlander, 2008).

The strategy used for researching the literature consisted of using keyword searches of scholarly journals online through ProQuest, EBSCOhost, Academic Search Premier, Education Resource Information Center (ERIC), databases through the Walden University Library, and through Google Scholar. Searches were conducted using keywords such as *teacher appraising*, *teacher interventions*, *teacher assessing*, *struggling learner*, and *differentiated instruction*. In addition, books associated with teachers who work with struggling learners, strategies for working with struggling learners, working with low performing students, and grounded theory were obtained from Amazon and other sources.

Educators' Context

If teachers are going to be successful with all students in a heterogeneous classroom, they will have to find a way to address the varied needs of their students (Tomlinson, 2008). The basic tenets of recent efforts from the department of education (NCLB and RTT) specifically lay out guidelines for using successful teaching methods so that all students, regardless of their challenges, can learn. Forty-three states and the District of Columbia have agreed to follow these guidelines Common Core State Standards Initiative (2010). Different schools and different classrooms require different approaches. This concept serves as the foundation of differentiated instruction.

To differentiate instruction is to recognize students' varying background knowledge, readiness, languages, preferences in learning, and interests, and to react responsively (Ondigi, Ayot, Mueni, & Nasibi, 2011). Differentiated instruction (DI) is a process of teaching students of differing abilities in the same class (Haley, 2011). The intent of DI is to maximize students' growth and individual success by meeting each one where he or she is and assisting in the learning process.

Tomlinson (2008), Robb (2010), and Wormeli (2011) each argued that DI is about meeting the needs of individuals. Teachers should meet these needs of students by differentiating content, process, learning environment, and assessment through flexible grouping (Wormeli, 2011). DI is all about teachers' efforts to respond to the differences among students in the classroom. When teachers make an effort to reach out to individual students, or even groups of students, and adjust their teaching to create the best learning situation possible, they are differentiating (Tomlinson, 2008).

Differentiated Instruction

DI is not just about creating a different type of curriculum; it is about the different things teachers can do to accommodate the diverse needs of the students through changes in content and process (Robb, 2010). For many years, educators have attempted to address the educational shortcomings of their students; however, they have met with a number of challenges, particularly when dealing with classes of students with a wide variety of skill levels (Thernstrom & Thernstrom, 2003). It is in classes that have students with a wide range of skills and abilities where DI becomes a useful strategy, and this has been the case since the inception of DI (Cohen, 1994).

The differentiation of instruction has a long history and practice and can be traced back to the 1950s where an entire journal edition on the topic of differentiation was dedicated to the challenges and differences of individual students (Snyder & Coleman, 2014). The edition included articles about teaching classes with multiple reading levels and how to teach classes with students on different skill levels in general (2014). Weimer (2013) believed that if all students are going to learn in a diverse classroom, teachers have to make adjustments to their usual way of teaching in order to accommodate the uniqueness of each student. From 1953 to

2014, when researchers have discussed the process of providing different paths to learning, they are often talking about the differentiation of instruction.

Gregory and Chapman (2012) argued that teachers should design instruction to make education more individualized and that textbooks should be self-paced and should support each student's ability to learn. The core concept of true DI is the creation of multiple paths to learning for students, so that they all have equal and, more importantly, appropriate access to the course curriculum (Tomlinson, 2008). Educators can apply these multiple paths by varying classroom instruction through alterations in content, processes, and product (King-Shaver & Hunter, 2003).

There is a need to focus on a learner's cognitive needs, interests, skill levels, and learning styles. There are a variety of ways to do this. According to Bowgren and Sever (2010), "Teachers are encouraged to look at differentiation for students not as a formula for teaching, but rather as a way of thinking about and shaping the learning experiences of all" (p. 6). Differentiation does not modify, add to, or dilute content. It identifies the different ways teachers can present content that will help learners to be successful. When teachers use DI, they ensure that all students have the opportunity to learn, because they have tailored their instruction to students' specific needs and abilities (Bowgren & Sever, 2010). A number of instructional models can facilitate this process.

One model of DI includes a three-step process (Bowgren & Sever, 2010). The first step is the "I do" step, in which the instructor demonstrates and models. This step serves as the foundation of the lesson. The next step is the "we do" step, in which the instructor and the students work through the lesson as a team. During this step, the instructor can coach and support the student. The third step is the "you do" step, in which the student has an opportunity to

practice independently what was learned (Bowgren & Sever, 2010). For this model to be successful, the teacher must attain the necessary learning skills to coach and support the learner.

Gavin and Moylan (2012) developed another model of DI and stated, “All good teachers recognize that their students' have varying learning needs and strive to meet them” (p. 184). This idea is not a new one. Tomlinson and Edison (2003) described DI as “really just common sense” (p. 1). In practice, offering such opportunities for students is challenging. Gavin and Moylan (2012) laid out seven steps to help teachers provide differentiated instruction to their students:

1. Select the appropriate task,
2. Increase expectations for all students,
3. Facilitate class discussion about concepts,
4. Encourage students to communicate their thinking in writing,
5. Offer additional support,
6. Provide extended challenges, and
7. Use formative assessments to inform instruction.

This model recognizes that students have to be engaged in a task that is appropriate for each individual within the whole class. The task should be consistent with attaining a knowledge base that is aligned with the goals of the class. In order for students to perform on a high level they need to understand that there are high expectations. Being able to articulate concepts via discussion goes a long way toward deepening students’ understanding of content (Brookfield & Preskill, 2012). When students communicate their ideas in writing, they benefit even more. While some students are able to grasp concepts more quickly, some struggle. Providing support to these students is helpful. This support can take many forms. It could be a fellow student helping out, a tutor after school, or a conference with the teacher, to name a few (Brookfield &

Preskill, 2012)). It must be noted that there are also students who excel and need to be challenged (Brookfield & Preskill, 2012)). This is an important part of the Gavin and Moylan model (2012). They believe that there must be work that challenges the high performing students as well. One way to maximize instruction is to utilize formative assessment in order to inform instruction. The last stage of the Gavin and Moylan model is the use of assessment.

Robb (2008) advanced yet another example of differentiation. Robb described DI as a way of teaching that challenges the instructor to know their students so well that they can provide each one with experiences and tasks that can improve learning. Robb identified the following five principles that make up the foundations of her conceptualization of DI:

- Teachers should provide ongoing assessments.
- Teachers should recognize the diversity of the learners.
- Teachers should allow students to do group work.
- Teachers should promote and encourage problem solving.
- Teachers offer students choices in reading and writing. (Robb, 2008)

Both Robb (2008) and Gavin and Moylan (2012) advocated for ongoing assessment, but neither discusses the value of an initial evaluation of students. Robb argues that it is important to celebrate the diversity of the students in a class so that they can see that they are valued. Robb also asserts that it is important to allow students to collaborate because collaboration is a life skill that allows students to help each other solve problems. Robb further argues that problem solving is paramount in promoting student success. Lastly, Robb reasons that it is important to get students interested in reading. Robb also maintains that one way that teachers can do this is to give the students choices of material to read.

While DI has been around for some time, a new group of educators has taken up the baton. Educators like Tomlinson, Robb, Imbeau, McTighe, and Allan have taken a prominent stance on promoting DI. These scholars purported that DI is an approach to teaching that advocates active planning for and attention to student differences in classrooms in the context of high-quality curriculums (Robb, 2010; Tomlinson & Imbeau, 2010; McTighe, & Wiggins 2013; Allan, 2010). Prior researchers on DI focused primarily on assessment, group work, high expectations, and student support. While there are many areas of focus that these works have in common, there are also some differences. Critics of the approach believe that DI is not always the best solution for mixed ability classrooms.

DI is not only about individualized or one-on-one instruction, although this support strategy is often required in some situations, but is inclusive enough to conclude that differentiation is the job of every teacher, and it is their responsibility to ensure that students of all ability levels learn. Teachers can make this happen in a number of ways. When a teacher stands near a student and comments on his or her work, asks the student to focus, or even suggests a new approach to something that the student is working on, that teacher is providing DI (Tomlinson, & Imbeau, 2010). DI is not about an unbalanced workload, where the top students do more work than do the lower-performing students (.(Tomlinson, & Imbeau, 2010). To the contrary, teachers should increase the difficulty of the material for high-achieving students, or push the students to use the material in new and different ways (Wormeli, 2011).

One view of differentiation focuses largely on reading (Cooper et al., 2011). Cooper (2011) argues that it is important to prepare students for reading and asserted that teachers should focus their reading lessons around a theme, issue, or genre. Cooper (2011) also notes that teachers should encourage students to keep a journal for taking notes from their reading. Robb

(2010) posited that it is important to create routines in the class to get to know the students as individuals and learn about their individual tendencies. According to this point of view, teachers can get to know students in a variety of ways, like through their writing, by asking questions about their readings, by conducting interest inventories, or by having conferences with students (Robb, 2010).

The Relationship of DI models to Guided Differentiation

When comparing the theory of guided differentiation to the three models put forth by Bowgren and Sever (2010), Robb (2008), and Wormeli (2006), there are a number of variations. The theory of guided differentiation begins with an appraisal of the student so that an understanding of where the student is academically can be clearly established. Teachers cannot begin the "I do" portion put forth by Bowgren and Sever (2010) without an understanding of what the student knows.

Gavin and Moylan (2012) asserted the importance of choosing and matching the appropriate task to support successful intervention. As such, the appraising element of guided differentiation evaluates each student so that the teacher can make meaningful and sustainable intervention choices.

Robb (2008) also highlighted the importance and value of on-going assessment in helping students learn. This is important, but it is more important to do an evaluation of the student at the beginning of the class. While it is important to assess the students throughout the course, no assessment is more important than the initial evaluation (Robb, 2008). This evaluation sets the tone for knowing where the student is compared to where you want to take them. This early evaluation will help the teacher decide what strategies they need to employ to help the student succeed (Robb, 2008)). There are a number of differences between guided differentiation and

other models of DI, but there are also some similarities. No place is this truer than the need to determine if DI is working for teachers and students.

Regardless of the individuals or groups advocating the use of DI, they all agree on the need to determine if DI works (Tomlinson & Imbeau, 2013; McTighe & Wiggins 2013; Robb, 2010; Tomlinson, 2008). There appears to be a general consensus in the literature that includes four essential components that must exist if DI is going to work: (a) setting proper targets for DI, (b) utilizing set-by-step procedures for creating lessons that are embedded with assessments, (c) recognizing the need for collaboration with others to improve assessments, and (d) recognizing the need to make adjustments in the instruction for the whole class (Waterman, 2010). The ultimate goal is to ensure that DI is working for teachers and the students with whom they work (Tomlinson, 2008).

Does Differentiation Work?

An issue of late is the debate over whether DI works for all students. This subject has been up for debate since the enactment of the Individuals with Disabilities Act (IDEA; 1997). The IDEA is a U.S. federal law that governs how states and public agencies provide early intervention, special education, and related services to children with disabilities (IDEA, 1997. This law ushered in the era of inclusion for students whom schools had historically excluded from mainstream classes in the past. Although support for inclusion of children with disabilities continues to grow, research on its effectiveness has not. The goal of inclusion is to create an environment where special education students get the optimum education experience regardless of their abilities (Colber, 2010). Inclusion is rooted in the idea of classes that use differentiation to reach each student. According to Learning RX, a brain training program for kids and adults that helps them develop smarter and faster brains, the following is true:

- The best available information on inclusion comes from the follow-up studies of high school graduates. The data suggests that inclusion in general education classes, especially in vocational education courses, is associated with improved post-school outcomes.
- Research and anecdotal data have shown that typical learners have demonstrated a greater acceptance and valuing of individual differences, enhanced self-esteem, a genuine capacity for friendship, and the acquisition of new skills.
- The pros and cons of special education inclusion center on the students such programs should serve. Inclusion is more than a one-size-fits-all initiative. It should fit the blind, the autistic, those with poor social skills, etc.
- Despite more than 30 years of action, more research is necessary to identify the pros and cons of special education inclusion. Research should determine the technology that best supports disabled students in the general education curriculum and in general education classes.
- Teachers need proper training. There is a need for well-trained general educators who have broad knowledge about subject areas and special educators who have expertise in effective instruction for students with disabilities. All teachers must have a common core of knowledge to work effectively in inclusive schools.
- Colleges and universities need to become more aggressive in redesigning their teacher education programs to provide novice teachers with this common knowledge base and set of experiences.

A Study by LearningRX looked at the value of differentiation on student's test scores explored the ability of teacher participants to meet the needs of a diverse group of students. According to

the study, students who prepared for the test using differentiated techniques showed a gain in math, but no comparable gains in reading (Learning RX, 2014).

Tomlinson (2004) investigated the nature of teaching practice among middle school students to identify the level of differentiation that teachers used. The study showed that very few teachers took into account the interests, learning profiles, or cultural differences of their students when creating lesson plans. Further, Weckstein (2013) found that few teachers optioned for any differentiation accommodation at all. In fact, most of the participants were frustrated about having to deal with a diverse learning group at all (p. 27). This study suggests that when teachers opt for differentiation, there is evidence that improvements are possible; however, when teachers do not differentiate instruction, they limit the learning of students in an increasingly diverse student population.

Proponents and Critics of DI

Proponents of DI suggest that DI is the answer for struggling students in the 21st century (Ornstein, Levine, Gutek, & Vocke, 2011). They believe that tailoring instruction to the individual interest and needs of students has the potential to improve learning especially, for low-performing students (Ornstein, Levine, Gutek, & Vocke, 2014).

Critics, on the other hand, contend that that there are too many problems with DI to make it a viable solution. Opponents argue that the strategy is too time-consuming, that teachers lack time for planning adequate teaching, that they have limited space for group work, and they lack administrative support given all of the requirements that teachers have to deal with (Joseph, 2013). In some cases, parents with children who are high performers in the classroom are concerned that teachers will neglect their students while they work with the struggling learners (Joseph, 2013, p. 431).

The Impact of DI on Students

Historically, many students compete for success in the classroom (Joseph, 2013)). They often want to get the best score on an exam to impress the teacher or their peers. In a DI environment, some students may feel inadequate if the teacher has to instruct them individually or by using alternative means while other students are moving faster.

Some educators believe that cooperative learning, where student's work together to solve problems, is the way to go. Many teachers complain that the DI framework tends to promote an environment where only some students in the group do all or most of the work, while others contribute little to the group effort. In a homogeneous class where students are roughly on the same level, this is not a problem. A heterogeneous class, however, is another matter.

A heterogeneous classroom is one in which the student population has a wide range of abilities. In today's heterogeneous classrooms, change that does not take into account the needs of the students is not enough (Tomlinson & Imbeau, 2010). Instead, educators must identify their students' needs and use those needs as the basis of formulating change. In order to meet the needs of a diverse group of students, teachers must follow a process that guides them to the goal of meeting the needs of all students in the class.

Although experts and practitioners acknowledge that the research on DI is limited, existing research does shows that specific practices of differentiation have proven to be beneficial (Kappler & Weckstein, 2012; Tomlinson, 2014). These practices include using effective classroom management, recognizing and considering different learning styles, grouping students for instruction, and teaching to the student's zone of proximal development (Earl, 2012; Santamaria, 2009). Mounting evidence shows that DI can have a positive impact on mixed-ability classrooms (Rock, Gregg, Ellis, & Gable, 2008). One three-year study conducted in

Canada researched the application and effects of DI in the K-12 classroom in Alberta. The study found that there were positive results among a wide variety of subgroups like African-Americans and Hispanics (Walpole, McKenna, Uribe-Zarain, & Lamitina, 2010).

Grounded Theory

GT is a strategic method for discovering a theory through the analysis of systematically collected data (Simmons, 2009). Rhine (2009) states, "All research is 'grounded' in data, but few studies produce a 'grounded theory'" (par. 1). Simmons (2009) provides the following definition of GT:

> Grounded theory is a "discovery" method directed by a rigorous set of procedures that guide the researcher through a primarily inductive process from which emerges a theory that is systematically grounded in data and therefore gets at the real problems or issues in a system rather than those derived by conjecture or logical elaboration. (p. 488)

While many refer to GT as a qualitative method (Creswell, 2007), it is neither purely qualitative nor quantitative. It is a general method of inquiry (Rhine, 2009, par. 1) that can be used with either qualitative or quantitative data (Simmons, 2009). Creswell (2007) groups GT with the other forms of qualitative research (Narrative, Phenomenology, Ethnography and Case Study). In actuality, GT is a general method involving the generation of concepts, categories, and ultimately, a theory from systematic and rigorous procedures. These concepts/categories relate to each other as a theoretical explanation of the actions that continually resolve the main concern of the participants in a substantive area. The purpose of conducting a GT study is to generate a theory that accounts for the behaviors of the participants (Glaser & Strauss, 1967). A GT study consists of seven stages: (1) Minimizing preconceptions, (2) Data collection, (3) Constant

comparative analysis, (4) Memoing, (5) Sorting, (6) Theoretical outlining, and (7) Writing up (Simmons, 2009).

Research Question and General Area of Interest

When conducting a GT study, the researcher must make every effort to minimize preconceptions, although grounded theorists do not begin research as a blank slate (Simmons, 2009). Instead, the well-trained theorist approaches their study with flexibility, openness, and an acquired "theoretical sensitivity" (Glaser, 1978). Olson and Raffanti (2006) offered the following guidance:

> One of the hallmarks of grounded theory is the preliminary research stage. Contrary to other methods of inquiry, grounded theorists do not review the literature in the substantive area of investigation prior to entering the field, nor do they pre-formulate a specific research problem, instrument, or hypothesis at this stage. Rather, grounded theorists set aside preconceived notions that may have instigated the research, thereby permitting the participants' main concerns to emerge from the data. (p. 33)

Grounded theory research begins, as all research does, with a general area of interest (Glaser, 1978, 1998). The area of interest for this study began with a curiosity in discovering why teachers struggled with low-achieving students.

Instead of developing a series of research questions as one might find in other qualitative methods, a GT researcher enters the field armed simply with one *grand tour* question. Olson (2006) asserts, "A grand tour question is to be a very general, yet unforced, question that will trigger a participant to speak about a general interest area without leading, directing, or forcing any questioning" (p. 5). Subsequent questioning is guided by theoretical sensitivity (Glaser, 1978), where follow-up questions are triggered by responses the participant articulated in the

interview, or through theoretical sampling later in the study when the theory is mature and codes are being tested for saturation. A grand tour question is always the starting point for any interview. The grand tour question for this study was, "Talk about teaching struggling students at your high school."

Related Research to Guided Differentiation

Guided differentiation focused on documenting the experiences of teachers who work with struggling learners. The teachers interviewed in this study offered many different ideas about what they considered to be the major problems that teachers face when working with low-achieving students. I sought to identify, organize, and categorize these incidents to develop a theory about their experiences, and drew upon previous literature on the subject to position the literature in the theory.

A considerable amount of research exists on what teachers do when working with struggling students (Dynarski, Moore, Deke, & Mansfield, 2005; Tinsley 2008; Fogarty & Pete, 2010; Hauser, McCall, Cronin, Kingsbury, & Houser, 2007; Kit-Lang & Lee, 2008; O'Meara, 2010). Many researchers have studied specific subgroups of students, such as African-Americans, Hispanics, Asians, and free and reduced meal students, examining the relationship between these subgroups and expected levels of achievement (Darling-Hammond & Friedlaender, 2008; Mo & Singh, 2008; Teasley, 2008). Some researchers and authors have asserted that DI is, in fact, the key to success for teachers who teach struggling learners. Tomlinson (2008) maintained that anyone who has taught knows that students learn in different ways and at different paces. Because students have a wide variety of interests and motivations, teachers must develop lessons in ways that help students see the value in the lesson. When

students care about a subject, they learn more rapidly. One way to find out what students care about or their skill level is to "appraise" or evaluate students.

Assessing and Skills

When educators want to determine the skill level of students, they often turn to pre-testing before they determine a course of action or decide where the student should be placed. The ACCUPLACER test is an example of a pre-test that is designed to determine the skill level of students in reading, writing, math, and computer skills. Further, many colleges and universities employ this same testing strategy, resulting in minimizing the failure rate of many freshmen (Maryland Community College, 2014).

The best pretests cover exactly the same material that will be included in the class, perhaps different questions, but not necessarily so (Johnson, Mims-Cox & Doyle-Nichols, 2009). Many teachers have used the KWL model (K- what you know, W- what you want to or will learn, L- what you learned), which has become an important strategy for pre-testing. In the past, many critics of this technique believed that students should not be expected to know anything prior to teaching them. In fact, many states have required scaffolding or spiraled educational content so much that almost nothing a student learns each year is brand new (Edutopia, 2014). Additionally, many students enter the classroom having prior knowledge and skills that allow them to succeed without the need for instruction at all. As a result, it is critical that teachers find out what students know before instruction begins. Critics also assert that if teachers are to administer pre-test, they have to know exactly what they will test (and teach) beforehand. Wiggins and McTighe (2011) argue that if teachers are to be professionals, there is no reason that they would ever begin instruction without having the final exam already prepared and aligned to the correct learning objectives. This portends the end of an era. No more can teachers

afford to just teach, and then create a test that covers what they believe they have taught the students. Once teachers are armed with the knowledge of what students know, they can begin the process of employing meaningful strategies to address student deficiencies.

Strategies to Meet Student Needs

When teachers are confronted with students who have major obstacles that may be creating barriers to their success teachers often look to employ different strategies to help these students improve their learning. Nowhere is the need to find effective strategies more important then in the area of literacy instruction. There is also the added pressure to meet state and national standards of college and career readiness. All of these challenges have to be met as society transitions from print to digital based media. One resource for literacy teachers contains the latest research that offers knowledge and advice that helps teachers improve practice (Marrow & Gambrell, 2011). Some of these strategies include work in the area of phonics, vocabulary expansion, fluency, and writing.

Some educators believe that when teachers develop skills in differentiation their students tend to achieve on higher levels (Tomlinson, 2014). Teachers who practice differentiation must make two assumptions: the will have a set of standards to meet, and secondly that their students will come in with a range of skill levels. This being the case, the teacher who differentiates often tries to appeal to the interest of the students, use varying rates of instruction and use varying degrees of complexity. These teachers also look to employ a range of supports systems consistent with the needs of the student.

Still others believe that in this digital age the key strategy for improving student learning is the use of technology in the classroom. One study found that the greatest inequities in computer use are not in how often computers are used, but in the ways in which they are used

(Wenglinsky, 1998). Poor, urban, and rural students were less likely to be exposed to higher order uses of computers than nonpoor and suburban students. In essence, the study found that technology could matter, but that this depended on how it was used (Wenglinsky, 1998). This study indicated that used properly computer can be a useful tool for improving learning.

Assessments

In order to determine if students are learning, there must be assessments. In fact, continually assessing students relative to goals is an important part of goal-oriented instruction. According to Tomlinson (2014), "[W]e know that what we learn from ongoing assessment is only of value if it helps us do a better job of teaching a wide variety of students" (p. 7). Assessment is a key part of deciding where and how to proceed with one's lesson. Such assessments can be formal, like a written test, or informal, like monitoring how a student is functioning in the class.

Themes

Several researchers have identified themes or connections between student achievement and a teacher's skill level (Shindler, 2009; Tomlinson & Imbeau, 2012; Weckstein, 2013). Research also indicates that addressing the main concerns and problems of teachers who work with struggling learners goes a long way toward improving teaching and learning (Herman, et al., 2010). Often, teachers who educate struggling learners are not equipped to navigate the process required to improve achievement levels. Part of the problem is that educators and researchers are constantly developing and implementing new ideas, and teachers must make continued adjustments to their instruction to apply the new mandates required by initiatives like Goals 2000 (EAA, 2000), No Child Left Behind (NCLB, 2002), Race to the Top (RTT, 2009), and Common Core (CCSSI, 2010). McKernan and McKernan (2013) asserted, "As change

continues, effective teachers carry on the search for meeting their students' needs" (p. 18). Too often, however, new approaches are implemented before they are proven to deliver results. One teacher stated: "For seven years we used a program that was designed to help struggling students and for seven years there was virtually no improvement in student performance." Educators should welcome new ideas, but there also should be a framework for determining if any new system works and improves teaching and learning.

Related GT Framework

Glaser and Strauss (1967) began working together at the University of California-San Francisco and co-founded GT together. Their partnership began when they were hired to help nursing students in their research. Subsequently, Glaser and Strauss published a number of books and articles together and with others, but it was Strauss and Corbin's (1990) who triggered Glaser (1992) book that created a difference of opinion about the future direction of GT.

At the heart of the disagreement was Glaser's deep commitment to the principals and practice associated with the "qualitative" paradigm. Glaser believed that the informant's world should emerge naturally from the data analysis, with little effort or influence from the researcher. Strauss, on the other hand, emphasized the importance of retaining "canons of good science," such as replicability, generalizability, precision, significance, and verification, which placed him much closer to more traditional quantitative doctrines (Jones & Alony, 2011).

Alternative Research Methods

Researchers who have explored the issue of teachers who work with struggling students have employed a number of different methodologies. Some of these approaches include experimental research, where the investigator manipulates quantitative variables to generate analyzable data (Aslam & Kingdon, 2011; Grossman, Lankford, Loeb, & Wyckoff, 2007);

opinion-based research, which involves designing an experiment and then collecting data (Colber, 2010; Peterson & Lluadet, 2006), and observational research, where the investigator observes a phenomenon without interfering with it (Seluk, Sahin, & Acikgoz, 2010).

While a considerable amount of this related research focused on differentiated instruction and its benefits, the critics of DI contend that that there are too many problems with this strategy (Ornstein, Levine, Gutek, & Vocke, 2014). Two of the drawbacks mentioned in Ornstein, Levine, Gutek, and Vocke's (2014) study are that DI is too time consuming and that high-performing students miss out when teachers spend more time helping low-performing students.

Previous Research

This research study focused on documenting the experiences of teachers who work with struggling learners. The teachers interviewed in this study offered many different ideas about what they considered the major problems that teachers face when working with low-achieving students. The researcher sought to identify, organize, and categorize these incidents to develop a theory about their experiences, and drew upon previous literature on the subject to position the literature in the theory.

Academic Literature

A considerable amount of research suggests that there is a connection between DI and student performance (Colber, 2010; Heineman.com 2011; Robb, 2010; Tomlinson & Imbeau 2010; Waterman, 2010). These studies have shown that differentiation produces good results when teachers receive proper training and engage in an intensive dialogue and consultation about the implementation of DI in the classroom (Blozowich, 2001). Many times, teachers simply endure staff professional development (PD) sessions and consider them a necessary evil thrust upon them by the administration. Teachers often believe that the information they receive in

these mandatory sessions is not useful in the classroom. Occasionally, teachers will call PD sessions the “flavor of the week.”

It is important that educational leaders gear PD toward applicable strategies for teaching, instead of just dispensing general information. One group of teacher leaders and administrators that has been instrumental in the implementation of DI used Tomlinson's (2007) "fire and light" metaphor to identify strategies to ensure deep implementation. According to Tomlinson, "light" symbolizes efforts to beckon and draw teachers toward the change. Such strategies include PD, modeling, celebration, and teacher leadership. Not all teachers, however, respond to the “light;” therefore, "fire" strategies are necessary for the few who resist change. "Fire" symbolizes the use of cognitive dissonance to help teachers understand the need for change through the presentation of data. Cognitive dissonance makes it difficult for people to maintain status quo performance, because over time, they come to realize that the status quo might not be what is best for students. "Fire" strategies that help to increase awareness and create cognitive dissonance include implementing differentiated supervision, providing "required choice" professional development, and aligning teacher evaluation to the change initiative (Kappler, Hewett & Weckstein, 2012).

Researchers have identified a number of models for implementing DI (Robb, 2008; Tomlinson, 2014). Regardless of the method used, evidence suggests that DI helps teachers improve learning.

Summary

Chapter 2 began with a summary of the procedures used in carrying out this study. Search engines used to guide literature collection, the context of the study, a brief history of DI, and literature related to the theory of guided differentiation were presented. This section ties to the

presentation of the theory in Chapter 4. Previous research related to the interest area was also presented.

Section 3: Research Design

Introduction

The area of interest for this study is the experience of teachers who teach struggling students. Using the grand tour question in GT promoted elevated conceptual accounts from the perspective of the teachers by allowing them to voice their main problems and concerns. This high school in Maryland has made an effort for many years to address the problem of student achievement, yet has experienced only marginal improvements. Doing a GT study in this context allowed for an inside look at the experiences of these teachers and their ongoing quest to serve struggling students.

Research Tradition: Grounded Theory Methodology

Classic GT was methodology used for this study (Glaser, 1998, 2001, 2005, 2008, 2009; Glaser & Strauss, 1967). The objective in conducting a GT study is to generate a theory that is derived and grounded in interview data and that accounts for the main concerns of the research participants (Glaser & Strauss, 1967). According to Simmons (2009), seven stages are completed when conducting a GT study, which will be implemented in the following order. These stages are sequential, beginning with efforts to minimize preconception and ending with the write-up:

1. Minimizing Preconception
2. Data collection
3. Constant Comparative Analysis
4. Memoing
5. Sorting
6. Theoretical outlining
7. Writing

The process of data collection, coding, and memoing is fluid and although ordered, can often happen concurrently. Glaser (1998) stated that the process "happens sequentially, simultaneously and serendipitously, and all at once" (p. 1). Any information that can help generate concepts that help define the emerging theory is data and, therefore, has value.

Research Questions: The Grand Tour Question

This study began with the grand tour question, "Talk about your experience teaching at your high school." The teacher-participants were encouraged to talk about anything in their past experiences that related to the prompt. In exploring this central research question, the high school teachers addressed the following areas of concern:

- Students
- Teaching Style and Strategies
- School culture
- Parental Support
- School Leadership

Context of the Study

The population of this high school was approximately 1400 students who are served by 145 teachers (hcpss.org). Every teacher in the school teaches students with a variety of skill levels including some students who struggle in their classes. The principal of the high school, insured access to willing teachers who wanted to participate in this study.

The school is located in a middle-income community in a city in a Maryland County. The population of the school consists of about 30% free and reduced meal students (FARM) and, based on the developmental reading measurement (DRP), a measure of the student's reading level, about 10% are below level (hcpss.org). This means that at least 10% of the student

population struggles to read. This deficiency can impact a student's ability to process information or to be successful or fully participate in every class.

Measures of Ethical Protection

The current system for the protection of human participants in research dates from the work of the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research. This commission was established in 1974 in response to the revelation of researcher misconduct in such trials as the Public Health Service Study of Untreated Syphilis in Black Males conducted at the Tuskegee Institute (Parvizi et al., 2007). The charge to the National Commission was to identify the basic ethical principles that underlie the conduct of human research and to develop guidelines to assure that human research is conducted in accordance with those principles (Parvizi et al.,2007).

Careful attention was paid to the protection of all participants' rights. The Institutional Review Board (IRB) reviewed the research plan. The participants' consent form (Appendix A) identified the participants' rights as follows:

- Participants could withdraw from the study at any time and for any reason.
- Participants were informed of the details involving the purpose of the study.
- Participants were briefed with the procedures involved in the study and protocol for what to expect in the interview process.
- The possible benefits of the study were explained to the participants.
- Participants were free to ask questions of any kind before, during, and after the interview process.

The only data collected in this study were participant interviews. All measures possible were employed to ensure the protection of participants in this study. A central protection for

research participants is the guarantee that someone other than the investigator will assess the risks of the proposed research. No one participated in the research until an independent review concluded that the risks were reasonable in relation to the potential benefits.

The Role of the Researcher

At this high school in Maryland, many of the interviews provided familiar stories and scenarios. With an eye on any bias that the researcher may have, careful attention was paid to remaining neutral and objective while interviewing and during interview coding and analysis. Familiarity with interviewees provided a more relaxed atmosphere and most likely promoted deeper trust and transparency. Coaching each participant with the ethical measures and participant rights helped to promote a professional atmosphere and relaxed environment. All participants were informed that their real names would not be used, and any information they shared would remain confidential in an effort to remove fear of retaliation.

Criteria for Selecting Participants

Participants included male and female teachers, counselors, parents, and administrators associated with this Maryland County School System. Both male and female participants between the ages of 22 and 65 participated in the study. Some participants were in their first year of teaching, while others had up to 35 years of service. The number of participants was limited to 20 due to the time limitations of the study. The criteria for selecting the participants were that they must be a teacher at this Maryland high school.

Data Collection Procedures

Interviews were conducted in person and were recorded in digital format. Field notes were written and coded after each interview, employing pseudonyms to protect participants' identities. When the interviews were completed, they were transcribed. The notes were coded

and dated to match the data from the audio/visual recorder. A DVD copy of the digital interviews was also shared with my dissertation chairperson.

Data Analysis Procedures

Coding is the core process in classic grounded theory methodology (Glaser & Strauss, 1967). Glaser and Strauss (1967) identifies two types of coding in a classic grounded theory study: (a) substantive coding, which includes both open and selective coding procedures, and (b) theoretical coding. In substantive coding, a researcher works with the data directly, fracturing and analyzing it, initially through open coding for the emergence of a core category and related concepts and then subsequently through theoretical sampling and selective coding of data to theoretically saturate the core and related concepts (Simmons, 2009). Theoretical saturation is achieved through constant comparison of incidents (indicators) in the data to elicit the properties and dimensions of each category (code; Glaser, 1978). This constant comparing of incidents continues until the process yields the interchangeability of indicators, meaning that no new properties or dimensions are emerging from continued coding and comparison. At this point, the concepts have achieved theoretical saturation and the theorist shifts attention to exploring the emergent fit of potential theoretical codes that enable the conceptual integration of the core and related concepts. Theoretical codes integrate to produce hypotheses that account for relationships between the concepts, thereby explaining the latent pattern of social behavior that forms the basis of the emergent theory.

The coding of data in grounded theory occurs in conjunction with analysis through a process of conceptual memoing, capturing the theorist's ideation of the emerging theory. Memoing occurs initially at the substantive coding level and proceeds to higher levels of conceptual abstraction as coding proceeds to theoretical saturation and the theorist begins to

explore conceptual reintegration through theoretical coding (Glaser & Strauss, 1967). Glaser (1978) argues "If the analyst skips this stage [memoing] by going directly from coding to sorting or to writing - he is not doing grounded theory" (p.83). Memoing naturally follows coding and as memos mature, theory generation begins.

The method of analysis used in this study allowed for the creation of a core variable that accounts for the main concerns of the participants. The GT method is a research method that operates almost in a reverse fashion from traditional social science research (CITE). Rather than beginning with a hypothesis, the first step in this study was data collection and analysis

Methods to Address Validity and Trustworthiness

Validity is approached in GT differently than in qualitative descriptive research or quantitative research (Glaser, 2009). Glaser (1978, 2004) asserts, "The goal of grounded theory is to generate a conceptual theory that accounts for a pattern of behavior which is relevant and problematic for those involved. The goal is not voluminous description, nor clever verification" (2004, par. 13; 1978, p. 93). Merriam (2009) states, "Grounded theory research emphasizes discovery with description and verification as secondary concerns" (p. 7).

One measure of the trustworthiness of a GT study is that it provides a conceptual and accurate (grounded) understanding of what is going on in the action scene. The outcome of GT is not descriptive, or simply a reporting of a set of facts, but rather a set of probability statements about the relationship between concepts, or an integrated set of conceptual hypotheses developed from empirical data (Glaser, 1998). The effectiveness of a well-developed grounded theory can be observed through the following five properties: (a) Grab, (b) Fit, (c) Workability, (d) Relevance, and (e) Modifiability (Glaser, 1978, 1992, 1998; Glaser & Strauss, 1967; Olson, 2006).

Grab

When a theory is compelling and interesting, it has grab. According to Olson and Raffanti (2006), a theory has grab when its impact and relevance can be applied to other disciplines. This study should have grab because while its focuses on the major problems and concerns in one substantive area (teachers who teach struggling students), it should be applicable to other fields outside of education such as business, science, or finance where one wants to develop a theory regarding the problems and concerns of its participants.

Fit

The concepts resulting from the data should fit with the incidents they are representing. Incidents are data from participants' accounts and observations. According to Glaser (1998), "Fit is another word for validity" (p. 18). Fit refers to whether the concepts align with the core variable. Concepts are a collection of similar content that allow data to be grouped.

Workability

When evaluating a GT's workability, it must be determined whether the theory connects the discovered patterns coherently and whether the theory explains, predicts, and interprets, thus making it useful for participants (Olson & Raffanti, 2004). Workability means that a theory should be able to explain what happened, interpret what is happening, and predict what will happen in an area of substantive or formal inquiry (Glaser, 1978). When a theory demonstrates workability, others can relate to what they have read and find it useful in predicting behaviors in a similar action scene context (Olson, 2006).

Relevance

Relevance addresses the question: "Did the theory emerge from a problem of significance to the participants without being forced through preconception" (Olson, 2006, p. 19). Relevance

is attained when a GT truly addresses the main concerns and issues of participants in the action scene (p. 19). Glaser (1978) explains that, "Grounded theory arrives at relevance because it allows core problems and processes to emerge (p. 5)." Readers are drawn to a good GT because it provides a logical flow and believable account of the participants' experiences.

Modifiability

The modifiability of a GT study addresses the following question: Does the theory have sufficient diversity and variation to allow for its modification as new data are compared in later studies (Olson, 2006). A theory that is modifiable is one that can accept variations when new and relevant data is compared to existing data. A GT study should be a living product that is open and adaptable to new data. As new or additional data become available both during and after the study, modifiability allows for integration of this new data (Glaser, 1978; Olson, 2006).

Summary and Transition

Section 3 was an explanation of the research design. The design begins with the reasons for doing a GT study about teachers who teach struggling learners and why GT was chosen as the methodology. While there are a wide variety of methodologies that could be used for this study, GT is a good choice because it is an inductive method that is intent on capturing the main concerns of the participants. The initial plan was to do a quantitative study utilizing a control group, but this was not deemed to be the most effective way of getting at what was going on in this Maryland High School. It seemed that any theory should be grounded in the data if the real problems of the participants were going to be understood. The measures taken to ensure the ethical treatment of the participants, the role of the researcher, and the criteria for selecting participants were explained. Additionally, steps taken for the collection and analysis of data were

explained. This section concluded with steps that will be taken to address the validity and the trustworthiness of this GT study.

In Section 4, the theory will be presented. There will also be a presentation of the process followed to ensure the accuracy of the data. This study did yield valuable information for teachers who work with struggling learners. Having a better understanding of the specific challenges faced by teachers who teach struggling students could prove useful for all stakeholders and especially for new teachers.

Section 4: Results/Findings

Introduction

The purpose of this GT study was to discover a theory about the major concerns of the teacher-participants who teach struggling learners. Between March and November, 2013, 20 interviews were conducted with teachers at this Maryland High School. The initial grand-tour question for this study was, "Talk about your experience teaching at your high school." The teachers talked about a range of issues associated with their teaching experience. After each participant's response, theoretical sensitivity guided each subsequent question and to minimize forcing and preconception (Glaser, 1998; Glaser & Strauss, 1967). Responses from the participants were followed by open-ended questions that sought to dig deeper or clarify whatever response the participant offered.

Data Collection Process

Interview data served as the foundation of this study (Simmons, 2009). Each interview took place in the teacher's classroom. Most of the interviews took place after school or during the teacher's planning period. The collection process began with a letter to the principal of the school requesting permission to conduct interviews with teachers in the school. After approval was given, a request went out to the president of the teachers' union. After approval had been obtained from the teachers' union, a letter of invitation was sent out via e-mail to teachers who worked with struggling students in the school system. After teachers agreed to participate, a time and place was arranged to conduct the interview. I created a calendar and a schedule for the teachers based upon mutual availability.

All teacher interviews averaged about 60 minutes and were conducted and recorded on a digital recorder. Following Glaser's (1998) suggestion, coding occurred as the interview

proceeded to prepare for follow-up questions and deepen understanding of the interview. Recorded interviews were transferred to my computer. One of the interviews is also included in Appendix J. The names of the participants were secured on an external hard drive, locked in a personal cabinet, and mailed to my chair for back-up. After the interviews were completed and transcribed, the teachers were given two copies of the interview, one to keep, and one to offer corrections on. All interview participants offered no corrections or changes. The participants were also extended the choice to suggest changes or corrections to the transcriptions until the study is published.

Each interview began with the same open-ended question, "Talk about teaching struggling students at this Maryland High School." Since a grand tour question is just a starting point to get the participant to share their experiences, it should be noted that the follow-up questions were only asked about content brought up by the participants except in the latter stages of data collection and theoretical sampling or re-interviewing (Glaser, 1998; Glaser & Strauss, 1967). The data from the interviews were coded after being transcribed and used to construct a code bank.

The constant comparative analysis method was used to compare new codes to codes from other interviews (Glaser, 1967). Constant comparative analysis included open coding, selective coding, and theoretical coding. The next step following coding in the process was memoing, sorting, memo maturing, and eventually the generation of a theoretical outline. Three questions were constantly asked as the data was coded:

- What is this data a study of?
- What category does this incident indicate?
- What is actually happening in the data? (Glaser, 1978 p. 57)

Coding Procedures

I employed the constant comparative analysis process (Glaser, 1978) to induce the theory of guided differentiation. GT data analysis begins immediately after the first interview by employing line by line coding of the interview transcript (Glaser & Strauss, 1967). The reason that line-by-line coding is valuable is that it allows one to dissect each line and focuses the researcher's attention to each activity or behavior that the interview transcript suggests. In GT data analysis there are two types of coding: (a) Substantive Coding, and (b) Theoretical Coding (Simmons, 2009). When utilizing substantive coding, three ideas are followed (Simmons, 2009):

- Substantive codes summarize empirical substance (they have grab, relevance, and fit).
- Sensitizing concepts: Are "accessible" through imagery, humor, and irony.
- In vivo concepts: concepts inherent to the action scene (e.g. milkman's "coffee stop")

Substantive coding includes both open coding, and selective coding. Open coding includes coding for anything and everything. The analyst asks the following three general questions of the data:

1. "What is this data a study of?" This leads to discovery of the "core variable." The core variable becomes the focus of the research and theory. The core variable is the variable which accounts for the most variation (e.g. Milkman's "cultivating relationships").
2. "What category does this incident indicate?"
3. "What is actually happening in the data?"

The next step is the establishment of theoretical codes (Glaser, 1978). Theoretical codes conceptualize how the substantive codes may relate to each other as hypotheses to be integrated into the theory. Theoretical codes bridge the relationships between the substantive codes. If the theoretical codes were not grounded in the substantive codes the codes "become an empty basket of thought" (Glaser, 1978, p. 72). This is true regardless of the appeal of the idea or the researcher's fondness for the insight (1978).

A code bank was generated and grew with each subsequent interview. At first, the code bank for each interview was kept separate from other interviews. After a few interviews the codes were compared, merged, and re-sorted by categories. Some of the codes survived intact while others were incorporated into other codes. The coding process is illustrated below in an excerpt from an interview:

Table 1

Coding Example

Codes	Interview Text
Abandoning: left alone at home to care for yourself and your siblings (underlined text) De-buttressing: education is not important in the family, little or no support (underlined text)	"If you don't have breakfast in the morning and you don't eat lunch and your mom's not home when you get home; Or, you have a single mother and she works two jobs and she's not home; You have four brothers and sisters and you are responsible for yourself and for your little brothers and sisters, you know that's a problem. If education is not important in your family then you may not be prepared when you come to school."

Once the codes develop and mature, memoing begins. Simmons (2009) asserted that "memos are the theorizing write-up of ideas about codes and their relationships" (par. 4). Data collection, analysis, coding, and memoing are an ongoing and often recursive process. Memos mature as ideas and concepts are compared and integrated.

The Theory of Guided Differentiation

The emergent core variable for this study is guided differentiation—a serpentine path to understanding issues of teachers who teach struggling learners. Guided differentiation describes the path that teachers often navigate when dealing with struggling learners. Guided differentiation refers to what teachers may expect to experience when they work with struggling students. Guided differentiation does not follow a sequential path, but can go in a number of different directions depending on the teacher's interpretation of the student's actions. Guided differentiation consists of three categories including: (a) Appraising, (b) Tool-boxing, and (c) Reappraising.

Appraising refers what teachers do when they want to gain a better understanding of the students in their classes. These teachers want to gather information for the purpose of understanding what may be causing their students to struggle. In order to inform any decisions that might be made to address this problem, data is needed. Appraising considers all available student data.

Tool-boxing refers to all available intervention options that are at the disposal of the appraiser. These resources are considered and applied to resolve struggling student issues.

Reappraising occurs when a teacher finds that intervention(s) they employed did not deliver the desired results or improvement that was expected. Or, reappraising can be a recursive

process that starts the intervention process in motion again, either resulting in advancing a student, or in reintroducing the student back into the classroom for further observation, tool-boxing, and assessing. Assessing is a process of evaluation (which can be either formal or informal) that considers the effectiveness of any action(s) employed during the intervention.

Appraising

Appraising is the process of seeking information for the purposes of providing appropriate student intervention. The appraising process consists of five stages: (a) Observing, (b) Examining, (c) Data Validating, (d) Organizing, and (e) Considering. When teachers begin appraising, they want an accurate assessment that can yield lasting and meaningful change. In order to uncover an accurate assessment, teachers often turn to data like test scores, attendance records, behavior records, and any other sources of data that they have access to in order to better understand the student. In many cases, however, they may turn to their best guess about what may be causing a student to perform poorly (Tizhoosh, 2005). The appraising process often begins with observing.

Observing. Observing is often the first step when a teacher begins to appraise a student. There are many different kinds of observations in guided differentiation, including individual observation or watching/interacting with a group. Observing may also occur in a variety of settings or contexts, formal or informal. Observing can occur during an interview or conference, or it can happen in a more informal or casual way, like in a social setting or during a field trip.

There are many reasons for observing. At this Maryland high school, teachers often observe students for the purpose of placing them in classes that are consistent with their skill levels, deciding on interventions to improve learning, or making a recommendation for an Individual Education Plan (IEP). Observing also serves as a reliable data source for examining.

Examining. In guided differentiation, examining is a process of gathering, inspecting, and interpreting student information to advance appropriate intervention determination. While observing may include the gathering of information like grades, attendance, and behavioral infractions, it also includes any prior observational information that may have initiated a concern in the first place. The goal of examining is to gather data on student performance, behavioral, disposition, and observational data in order to better understand the systemic landscape that may have promoted student struggling.

Data validating. Once the appraising process has begun, a teacher often chooses to dig deeper to understand if the observations, examination, and interpretation of the student's behavioral information is trustworthy. Data validating is the process of determining if observed data is confirmed as error-free. Data validation often involves checking for correctness, precision, and meaningfulness. Maryland County (2010) refers to this as a divergent process that compares student behavior and performance to the desired behavior. One teacher observed,

> Well, my first experience in with teaching math and struggling students is that a lot of them have a phobia about math. Math is one of those subjects that you are either right or wrong about and many of the challenges are breaking that phobia of being wrong and getting kids to take risks, of attempting problems and being ok with being wrong.

While data validating can often be a reliable process that correctly identifies appropriate intervention, it can also serve to misdirect when it is only confirmed as a hunch, feeling, or intuition. Either way, data validating serves as a foundation, no matter how shaky at times, for moving forward with intervention even if it is driven only by a "best guess."

Organizing. Organizing data is a convergent process in appraising that often begins a process of matching student behavior with whatever interventions are available. It can be a

systematic process that arranges collected student data and aligns it with possible intervention(s). This process may involve one or more of the following five organizing processes: (a) chronological organizing, (b) spatial organizing, (c) value/size organizing, (d) simple to complex organizing, and (e) intuitive organizing.

Chronological organizing occurs when student behavior is sequentially aligned. Chronological organizing is also a good way to interpret and explain events over time. Patterns are often identified when chronological organizing is employed and may serve to direct a more appropriate intervention choice. The next method of organization that teachers engage in is spatial organizing.

Spatial organizing happens when the observed student's behavior is related to the student's physical environment (like the student's classroom, school environment, or social interactions). This alignment can play out informally, such as a teacher imagining how the student's observed behavior might play itself out in a classroom where other students are present and how that behavior might disrupt expected levels of class discipline. Another stage in organizing is value/size.

Value/size organization is about prioritizing and organizing observed information based on what is deemed most important to what is least important. It can oftentimes be counter-productive to focus on the least important issues a student faces at the expense of more important struggles. Another consideration is the school hierarchy, which determines funding and the importance and availability of intervention resources. One example of value/size organizing can be found in students with poor reading skills. If the text is on a ninth grade level and the student is reading on a second grade level, improving reading would be become a high priority for that student if learning is going to occur. One teacher asserted, "A lot of it is their reading score; if

they can't read well, and they don't do well." School culture, its priorities, and the current leadership all have an impact on the kind of intervention that is made available to a teacher in value/size organizing.

Simple to complex organizing involves working with difficult, struggling students who require the scaffolding of learning from the simple to the complex (Gibbons, 2002). Gibbons (2002) argued,

> What teachers choose to do in classrooms, and in particular, the kinds of support they provide, is of crucial importance in the educational success of their students. Scaffolding provides help that assists learners to move toward new skills, concepts, or levels of understanding. (p. 10)

Teachers often teach in a similar manner by breaking down the learning into manageable chunks and then reconstructing these learning chunks until students understand. Organizing in this manner allows teachers to provide more accessible learning. The next phase is intuitive organization.

Intuitive organizing seeks to understand and interpret student behavior after exhausting traditional resources. This often manifests itself by employing a "best guessing" approach to intervention consideration. After all the facts and reasons have been examined, conclusions are drawn that may reflect an intuitive placement based upon what is going on in the data. After the observed behavior has been considered, it is organized into useful categories and then compared to existing knowledge or best practices. When teachers are considering best possible options when no clear pattern or path is found, they often engaged in intuitive organizing.

Considering. Considering is a process where student performance and behavior is subjected to possible intervention(s). Intervention is a process of matching up where the best

student outcome is considered based upon whatever available knowledge is known about the student. Limitations may include available intervention programs or resources. One teacher remarked, “There is a need for different programs designed specifically to help struggling students.” Another teacher commented on the need for appropriate intervention: “Rules of classroom [discipline] such as: take turns talking, raise your hand to talk, listen to the teacher, that kind of thing, needs to be instilled in students if improved learning is going to take place.” Behavior and discipline are also considered when matching up intervention programs or resources for struggling students.

Tool-Boxing

Tool-boxing is the second category in guided differentiation, which is a process of utilizing interventions to address problems discovered during the appraising process, both formally and informally. Tool-boxing has three components: (a) Behavioring, (b) De-buttressing, and (c) Skillfulness. Tool-boxing is a process of matching up available intervention tools with identified issues or problems. Tool-boxing builds off of the appraising stage and moves the intervention into the “now what?” phase, in which options to remedy problems are considered and confronted. Weimer (2013 argued, “In order to facilitate learning that changes how students think and understand, teachers must begin by discovering student’s existing conceptions and then design instruction that changes those conceptions” (Weimer, 2013, p. 11). Teachers are concerned with contemplating these options and finding the solution that can resolve their students’ main concerns.

There are a number of interventions that teachers who teach struggling students employ to improve learning in their classrooms. One example is a strategy developed by the Norwest Regional Education Laboratory (NWRL). The NWRL mission is to improve learning by building

a capacity in schools, families and communities through applied research and development (Northwestern, 2006). Chartered in 1966 as Northwest Regional Educational Laboratory, Education Northwest conducts nearly 200 projects annually, working with schools, districts, and communities across the country on comprehensive, research-based solutions to the challenges they face. Their wide-ranging projects are making an impact in areas such as school improvement, community building, literacy, equity, and research. Although their services and publications have national reach, they primarily work in the five Northwest states of Alaska, Idaho, Montana, Oregon, and Washington (Northwestern, 2006). Many of their programs like the 6 + 1 strategy have been adopted nationally as a model of instruction for improving writing. The 6 + 1 strategy focuses on teachers demonstrating, modeling, collaborating, guiding, and ultimately reinforcing what was learned as a means to improve learning.

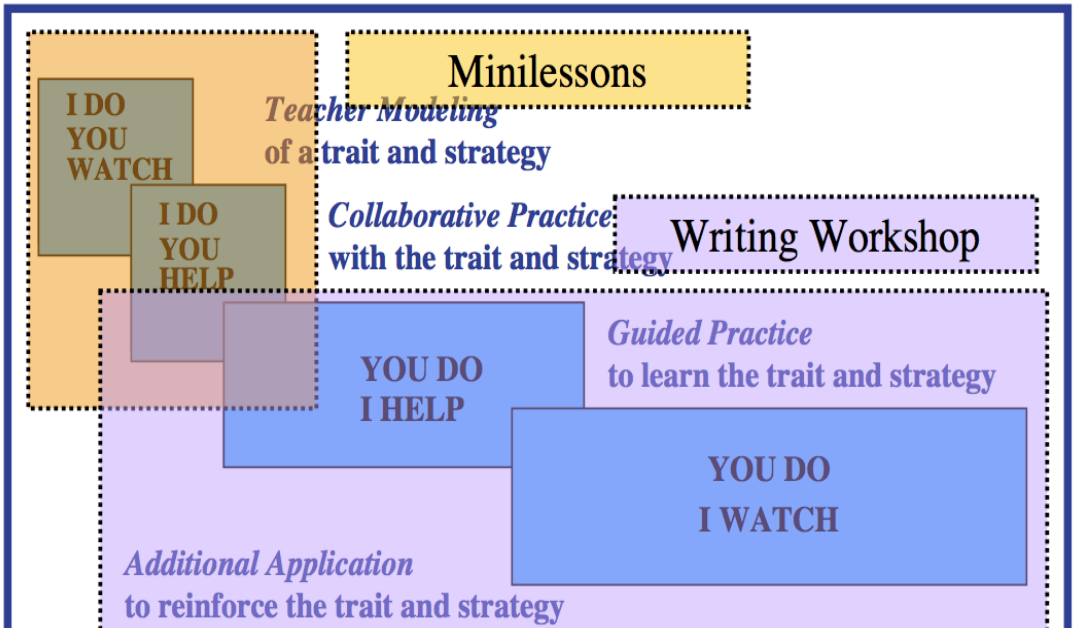

Figure 1. 6 + 1 STRATEGY.

Another strategy employed by teachers who teach struggling learners is the Intensive Interventions for Students Program. This program was created by the Center on Instruction (COI). The principals that make up this system are the following:

1. Supporting cognitive processing by integrating executive function and self-regulation into teaching for struggling students.
2. Intensifying instruction delivery by implementing systematic and explicit instruction and providing opportunities for student response and feedback.
3. Increasing instructional time for struggling learners.
4. Reducing class size for struggling learners (Board, et al, 2008).

Still other educator's favor differentiated Instruction as a means of intervention. The focus of differentiated instruction is based on modifying teaching to accommodate the differences amongst the students in one's class thus creating an individualized or differentiated instruction. Regardless of the individuals or groups advocating the use of DI, there is a general consensus that includes four essential components that must exist if DI is going to work: (1) setting proper targets for DI, (2) utilizing set-by-step procedures for creating lessons that are embedded with assessments, (3) recognizing the need for collaboration with others to improve assessments, and (4) recognizing the need to make adjustments in the instruction for the whole class (Waterman, 2010). The ultimate goal is to ensure that DI is working for teachers and the students with whom they work (Tomlinson, 2008).

In the case of this Maryland high school, three problems emerged as the main concerns of teachers: (a) Behavioring (behavior problems), (b) De-buttressing (problems with student support) and, (c) Skillfulness (learning skills deficiencies in that impacted learning).

Behavioring. In tool-boxing, behavioring is a mitigating process that addresses issues associated with student behavior problems. Student behavior can disrupt the flow of learning and impact or possibly disrupt the learning of others. The school's culture can also have an impact on the effectiveness of behavioring. According to Zettler (2011) "…it is assumed that students' self-control impacts university citizenship behavior positively and counterproductive academic behavior negatively" (p. 119). Behavior problems can often be persistent and varied in their nature. In fact, behaviors of individuals are often in flux and can change from day to day or even hour-to-hour. Raffanti (2005) speaks to this point when he says, "people who weather change move in and out of various behavior patterns." Behavior problems can take a heavy toll on any organization.

Educators are also under tremendous pressure to teach an increasingly diverse population in an environment of high-stakes testing. The pressure to produce high performing students exists regardless of the skill level, disposition, or behavior patterns of the students. Some teachers have to deal with behavior issues that can only be defined as abusive. Blasé, Blasé, and Du (2008) outlined the abuse that many teachers confront and the issues that surfaced as a result of that abuse in a national study of mistreated teachers. Failing to deal with behavior problems can lead to teacher burnout, frustration, or even despair. According to one social studies teacher:

> There are many students who are difficult in the classroom and what I mean by difficult is understanding raise your hand to talk, listen to the teacher, that kind of thing. So I do spend a lot time trying to keep them on track when everyone else is trying to learn.

According to Reeves (2009), making a list of the major problems and concerns that are causing problems with behavior can be a good place to start in order to make sense of what is going on and pushing to resolve these problems.

Teacher collaboration can also be an effective tool in mitigating student behavior. According to Beatriz, Deborah, and Hunter (2008), teachers rely on the know-how and experiences of colleagues as concerns surface and ideas or suggestions are needed. Support, in whatever form it comes, is a way to use the experience of colleagues to improve teaching effectiveness.

De-buttresssing. De-buttressing is the lack of available support that teachers may have to achieve learning goals and objectives. In tool-boxing, de-buttressing has four components: (1) Peer Support, (2) Parental Support, and (3) Community Support. Each of the components of de-buttressing are related because each includes some kind of lack of support or assistance.

When the school culture fosters a community of teachers who support one another, they promote an environment in which employees work together to resolve or address problems as they arise. Collegial support can create communication that builds on the collective experiences of one another. Since it is unlikely that any one individual to have all of the answers to solve pertinent problems, this kind of assistance can be useful in overcoming barriers that are holding students back. Parents can also serve as important voices in mitigating de-buttressing. When teachers find creative ways to involve parents in supporting their children's learning, parents can become important allies in promoting a healthy learning culture.

***Peer supporting*.** In tool-boxing, peer supporting promotes assistance from the student's peers to promote and encourage student succeeding. Peer supporting provides friends to go to when a learner has problems with class work, skill development, or disposition, and promotes learning success while reducing incidents of behavior problems. The individuals helping in this type of relationship are empowering themselves as well by practicing collaboration and demonstrating the importance of being able to effectively articulate deeper learning and knowing

(Weimer, 2013). This effort ultimately supports the intervention goals of the teacher, too and makes the teacher's job easier. Christen and Peterson (2013) stated in a recent study conducted in an educational setting on peer support that, "findings confirmed that social support in family, peer, and school settings, and family cohesion positively predict self-esteem and perceived school importance, which, in turn, have protective effects on psychological symptoms, violent behaviors and substance use" (p. 623). The value of peer support as a tool for improving learning can play an important role in increasing the performance and effectiveness of each student.

Parental supporting. In tool-boxing, parental support is defined as assistance from students' parents, guardians, or family members. Teachers often see parental detachment as a detriment to student learning and succeeding. Results revealed that parental support played a moderating role in the relationship between detachment and internalizing problems, such that, at higher levels of detachment, internalizing problems tended to be lower when parental support was high (Pace & Zapulla, 2013). According to Phillipson and Phillipson (2012), "It's parental involvement and expectations that form part of the constellation of factors that predict children's academic achievement" (p. 495).

Community supporting. Community support includes assistance from anyone outside of a student's family. While support of peers and family certainly can play an important role in student succeeding, community support can serve to fill gaps that may exist in some student's lives. Absent parents or family support can leave a hole in the kind of support and encouragement that may drive student success. According to Alleman and Holly (2013), formal and informal partnerships between schools and their communities can provide a wide range of supports for all students, but particularly those from low-income families. There is mounting evidence that community support can have a major impact on student success. Rogers (2002) and

Fenstermacher, Soltice, and Sanger (1998) indicated that learning should occur in social environments in which students are engaged in meaningful activities that require them to think critically and solve problems. These kinds of social partnerships and interdisciplinary teaching can also serve to promote student engagement (Martinez & Ulanoff, 2013).

Skillfulness. Skillfulness is having the knowledge, ability, and disposition to accomplish a particular task. In the field of education problem solving, reading, and math skills have been a major focus in the past and continue to be a priority adapted in Common Core (Race to the Top, 2009). In fact, the major focus of the Common Core initiative adopted by 46 states and the district of Columbia is geared towards improving reading and math skills. Two participants in the study attributed student struggling to low skill levels in reading and math.

One English Language Arts (ELA) teacher at this Maryland high school remarked, "some of the negatives that I experience are low reading levels. "A considerable amount of my time is spent expanding vocabulary, improving the decoding of words, and improving fluency when reading." A math teacher at this Maryland high school said, "my first experience in especially with teaching math and struggling students is that a lot of students have a phobia about math. Math is one of those subjects that you are either right or wrong about and many of the challenges is to break that phobia of being wrong and getting kids to take risks, of attempting problems and being ok with being wrong." This teacher, though teaching on the high school level explained that they spend a considerable amount of time working on fundamentals like fractions, percentages and even the order of operation used when solving math problems. He often use math games with prizes as a way to motivate the students.

In guided differentiation, when a teacher desires to improve the skill level of a student or resolve any learning deficiencies, they first consider how best to utilize available time and

resources. In one study conducted by Hattie, Biggs, and Purdie (1996), 51 different studies designed to look at interventions that could improve student learning were examined. This study focused on one or a combination of learning skills that could facilitate improved learning. These interventions typically focused on task-related skills, self-management of learning, or affective components such as motivation and self-concept.

Reappraising

In Guided differentiation teachers often appraise when they have tried interventions and are still searching for ways to improve learning for their students. When teachers engage in the reappraising process they often seek authentic assessment as a means to measure the impact of retooling. Teachers engage in reappraising or return to the appraisal process anew with the goal of obtaining new information or a fresh perspective that may have been missed during the initial appraisal process. One Biology teacher at this Maryland High School remarked " I spend a considerable amount of time trying different strategies to help my students, unfortunately the don't always work and I have to go back to the drawing table." One Social Studies teacher at this Maryland High School commented, "I have gone to many seminars and works shops that offer systems to help struggling students, some work or they work only in certain situations, but more often then not I have to look at other options."

Authenticity. Authenticity refers to being genuine and accurate. Authentic assessment is the measurement of "…intellectual accomplishments that are worthwhile, significant, and meaningful" (Street, 2014), as compared to multiple choice standardized tests. Authentic assessment can be devised by the teacher, or in collaboration with the student by engaging student voices. When applying authentic assessment to student learning and achievement, a

teacher applies criteria related to "construction of knowledge, disciplined inquiry, and the value of achievement beyond the school" (Reese, Gordan, & Price, 2004).

In many instances after teachers have assessed the skills that have been subjected to tool-boxing they find that the results that they hoped for were not realized. When this occurs teachers often reappraise. Reappraising is the process of beginning the appraising process of anew in search of what may have been missed in the initial appraisal process.

In guided differentiation the reappraisal process can take different paths depending on the challenges that teachers confront with each student. Some teachers decide, for example, to engage in the reappraisal process as a way to properly place a student in a less or more challenging class based on the student's performance. Reappraisal is an example of when guided differentiation takes serpentine path, because it can retrace the appraisal process, and help determine if the teacher needs to pursue different interventions. The goal in returning to the appraisal stage is to search out details that can add to a deeper understanding of the major problems of teachers who teach struggling learners.

Conclusion

Section four was concerned with the data collection process, coding procedures and the categories that make up the theory of guided differentiation. The categories of appraising, toolboxing, assessing, and reappraising were examined in detail. Section five will elaborate on the theory of Guided Differentiation by engaging in a discussion of the theory in relations to the area of interest, draw some conclusions based on the findings and make some recommendations regarding the application of the theory.

Section 5: Discussions, Conclusions, and Recommendations

Overview

After many years of reform efforts, educators are still searching for ways to better serve the needs of struggling students. Teachers are utilizing the same strategies and teaching approaches without seeing much improvement or student success. The purpose of this study was to understand the experiences of teachers who teach struggling learners at a Maryland high school. It was determined that the most appropriate vehicle for understanding the experiences of these teachers was to approach them using classic GT (Glaser & Strauss, 1967). This inductive method allows participants to express their thoughts freely and encourages them to express their main concerns. Twenty teachers were initially asked the same grand tour question, "Talk about your experience teaching at your high school." Participants spoke freely and these interviews were transcribed, coded, and subjected to the constant comparative analysis method of inquiry (Glaser & Strauss, 1967).

A core variable, guided differentiation, emerged, as well as the following four sub-categories that were previously presented in Chapter 4: (a) Appraising, (b) Tool-boxing, (c) Assessing, and (d) Reappraising**.** Appraising refers what teachers do when they want to gain a better understanding of the students in their classes. These teachers want to gather information for the purpose of understanding what may be causing their students to struggle. In order to inform any decisions that might be made to address this problem, data are needed. Appraising considers all available student data. Tool-boxing refers to all available intervention options that are at the disposal of the appraiser. These resources are considered and applied to resolve struggling student issues. Assessing is a process of evaluation (which can be either formal or

informal) that considers the effectiveness of any action(s) employed during the intervention. Reappraising occurs when a teacher finds that intervention(s) they employed did not deliver the desired results or improvement that was expected. Reappraising can also be a recursive process that starts the intervention process in motion again, either resulting in advancing a student, or in reintroducing the student back into the classroom for further observation, tool-boxing, and assessing. The theory is presented in its entirety and in greater depth in Chapter 4.

Interpretation of Findings

In a GT study, one does not have findings, but a conceptual multivariate theory (Glaser, 2008). The four conceptual categories from the theory of guided differentiation were appraising, tool-boxing, assessing, and reappraising. These categories emerged due to following the rigorous procedures of constant comparative analysis inherent in the methodological rigor of GT. Interviews were first coded, followed by the clustering of themes found in the substantive and theoretical codes. Themes from each interview were compared to themes from subsequent interviews until a theory began to emerge that accounted for what teachers experience while working with struggling students. The word *guided* means that teachers assist and help drive students by noticing their actions and behavior and then take action by beginning a process of intervention. Differentiation includes addressing student learning needs, beginning from the initial intake assessment to implementation and evaluation. Guided differentiation includes the student, teacher, and other important supporters (i.e. parents and family, other teachers, peers, etc.) in a quest to help utilize all available resources with the goal of student success. While school resources and available time were limitations in the current study, teachers did what they could and expressed a deep interest in promoting student success.

Many teachers were eager to acquire information that could improve student learning and

teaching. While there are regular professional development sessions conducted on the latest educational initiatives like Common Core (Mathis, 2010) and the Danielson Framework (Danielson, 2011), both veteran and new teachers at a Maryland high school continue to look for answers to resolve their frustration of working with struggling students. This theory provides a systems perspective into the experiences of teachers that participated in this study and provides a glimpse into their experiences.

The four categories that emerged during the development of theory of guided differentiation were: appraising, re-tooling, assessing, and reappraising. In the process of guided differentiation, teachers often first engage students with appraising as they observe student behaviors. Appraising may include things like gathering, validating, organizing, and considering student data as an attempt to consider options to address student learning concerns. The range of appraising can include almost anything from a formal process of gathering student data, to simple observation of a student in action. The observation and evaluating of student data can be an effective tool and gateway into understanding students and the beginning of resolving their deficiencies. Riding and Rayner (2013) corroborated this idea when they noted that appraising or evaluating student behavior is the preferred starting point for gathering data and understanding learning student styles and behaviors. Rose (2013) praised the value of observation when she stressed the benefits of observation over other starting points for gathering student data. Rose also argued that observation should be a natural part of the everyday life of a teacher. Rose asserted that one's method of observation can range from raw impressions to highly systematic measurements. According to Weimer (2013), observations in education are being used all across the disciplinary landscape by faculty at all kinds of institutions that teach all kinds of students. Appraising is a useful and important first step in understanding a student, and the gathering and

consideration of any kind of student data may contribute to resolving their deficiencies and ultimately promoting student success.

In guided differentiation, teachers enter the tool-boxing stage once they have gathered and considered student performance data in the appraising stage. When teachers begin considering options to help their students resolve or overcome discovered learning problems, they often look to skill development, student support, and/or ways to resolve issues of behavior. Duncan and Magnuson (2011) discovered a link between student behavior and learning skills of young students and skill levels and achievement in later years. Breslau, Breslau, Miller, and Raykov (2011) furthered this notion when they discussed the history of student behavior and its connection to student success. Breslau et al. cautioned that previous researchers have not examined whether the observed effects of early behavior problems are explained by more proximate behavior problems, given the tendency of children's behavior problems to persist. Teachers often spend many hours calling and/or emailing parents in an effort to address concerns with behavior and learning skills with little response or action. De Carvalho (2014) argued, "the impediments to securing more parental support can be attributed to the parents' timidity, uneasiness at school, time constraints, and general lack of encouragement" (p. 1). De Carvalho asserted that the remedy for student success is a combination of school support and parental support at home.

Alderman (2013) asserted that any increase in student knowledge should also be accompanied by motivational support and increased standards for educational reform. Tsalapatas, Heidmann, Alimisi, Florou,and Houtis (2012) furthered this idea of creating challenges and establishing standards when they suggested the following:

The cMinds project proposes a learning intervention that exploits new technologies and

> promotes the adoption of educational objectives by schools through the development of transversal learning skills, namely analytical and critical thinking, independent learning, learning in groups, and entrepreneurial thinking that help learners excel academically in all subject areas of the school curriculum. (p. 5,231)

Hadwin and Winne (2012) introduced another model for improving learning skills through self-regulation. They argued for a four phase approach to self-regulation, including:

> Creating accurate and complete tasks perceptions (Phase 1), Setting high quality goals and standards (Phase 2), Adopting and adapting strategies that achieve goals (Phase 3) and, Continuing to evaluate and adapt study during the task and across tasks (Phase 4). (p. 201)

When teachers address the challenges of motivation, self-regulation, and skill development, there is a greater probability that intervention will be successful.

Weimer (2013) observed that all schools in the United States are under greater scrutiny and have increased requirements for high performing students compared to requirements in the past. According to Castle and McGuire (2010), delivering assessment in different ways, like online or face-to-face, can provide significant benefits in achieving multiple goals. Cox, Imerie, and Miller (2014) argued the value of using different approaches when marking and reviewing assignments, tests, and examinations, and the strong connection between assessment and the way students approach their learning. Chu, Guo, and Leighton (2014) detailed how student attitudes toward testing should influence the testing design itself. Weimer (2013) considered the reasons some students did not do well in her classes and decided to try a different way of assessment. She gave her students a greater sense of control by giving them choices and allowed them to make some decisions about their learning. By doing this, she found that the rate of attendance

and student attitudes actually improved. Students were even willing to work harder.

Guided differentiation has a number of connections to the theory of driven succeeding (Olson, 2006) and through theoretical synergy (Raffanti, 2006), several categories and properties were modified and successfully integrated into the theory of guided differentiation. For example, driven succeeding and guided differentiation, both involved adults navigating a learning experience. Guided differentiation involved teachers working with struggling learners, while driven succeeding involved adult students struggling to attain high school competencies. Both theories utilized classic grounded theory as the research method and share a number of similar categories and properties.

Implications for Social Change

The current study's implications for social change can be realized in any learning situation where teachers work with struggling learners. Guided differentiation can be useful for promoting a more systemic view of the process (stages) that teachers navigate when addressing the learning needs of struggling students. Teachers who are interested in providing meaningful and sustainable student intervention need to do more than apply a repertoire of techniques to resolve student struggling (Weimer, 2010). Jumping right to intervention techniques (toolboxing) without careful student-centered assessment (assessing) may yield undesirable or short-term results.

Another contribution of guided differentiation is the importance of conducting a meaningful evaluation of any applied intervention. Promoting a more learner-centered approach will foster a more collaborative relationship with the teacher where a learner is more likely to be honest with the instructor and confident that the teacher has his or her best interests in mind. This

study may also be useful to any organization that desires to implement professional development activities to address effective teacher practices.

The theory of guided differentiation may be useful to any instructor that wants to gain a better understanding of what to expect when working with struggling students. The development and implementation of a professional development that presents this theory could provide valuable insight into the process of understanding what teachers face when working with struggling learners. It may also be valuable for creating a set of procedures that new teacher can employ when working with struggling learners. Extending guided differentiation to the middle school environment could also help teachers resolve student learning problems earlier and correct familiar student habits could otherwise persist throughout the student's learning career.

Guided differentiation may also be useful a parent training tool. Efforts that teachers take in the areas of parental involvement, skill development, and behavior modification can have an impact on a teacher's ability to improve learning when working with struggling students (Kaiser & Hancock, 2003).

The implications for applying guided differentiation to alternative high schools, adult basic education (ABE), or General Education Development (GED) programs may also increase enrollment and the quality of students entering community colleges, colleges, and universities. Evidence suggests that a main contributor to college attrition is the lack of student preparedness coming out of high school (McCarron & Inkelas, 2006). Many colleges now offer what is termed the "thirteenth grade," where incoming freshmen spend a year preparing to be college students in remedial classes (Greene & Forster, 2003). This remediation became a necessity because of the number of freshmen failing their first year of college. It is hoped that improved performance of

teachers on the secondary level would translate into improved performance of students in college.

Recommendations for Action

An important recommendation would be to extend of the theory of guided differentiation and pursue GA. GA is the extension of grounded theory for the purpose of designing and implementing practical actions such as interventions, program designs, action models, social and organizational policies, and change initiatives (Simmons & Gregory, 2003). The GT becomes the explanatory theory in GA. In GA, the operational theory addresses each of the main concerns found in the explanatory theory, and then suggests possible change initiatives and/or interventions (Olson, 2006). The purpose of GA is to extend the GT by using it as an explanatory theory to design meaningful and sustainable action. Simmons (2009) explains, "the action is the realization of the action plan" (p. 488). Pursuing GA would be a natural next step (Simmons & Gregory, 2003). A GA would allow a researcher to look at ways to address issues raised by the participants in GT. In GA, the action plan is the roadmap for measuring and putting the operational theory into motion (Olson & Raffanti, 2006, p. 535).

Another action initiative might be to conduct this study starting with the same grand-tour question with elementary school teachers who work with struggling elementary students. By doing so, the theory could also account for any variations that might emerge from that context. Grounded action would also be a natural next step for a study with elementary students, too.

Recommendations for Further Study

This GT study generated the theory of guided differentiation. This theory was generated from interviews with teachers at a Maryland High School. One possible recommendation would be to conduct a case study that focuses either on the teachers, struggling students, or both. This

might be a productive follow-up to the theory of guided differentiation, since it could provide a more in-depth account of issues facing teachers and students.

One idea would be to conduct a phenomenological (Moustakas, 1994) study with teachers of struggling students. This approach would potentially delve into the feelings and struggle experienced by these teachers. The impact of such a study would provide an informative and descriptive companion to the theory of guided differentiation. Another other recommendations could be a GA study where the researcher could implement practical actions like interventions. Grounded action is the application and extension of grounded theory for the purpose of designing and implementing practical actions such as interventions, program designs, action models, social and organizational policies, and change initiatives (Simmons & Gregory 2005).

Personal Reflections

Having taught school for many years, I have always felt that far too many teachers were just "winging it" for one reason or another. I think this is especially true where struggling students meet frustrated or worn-out teachers. I don't think that it was intentional by any means, but they probably were not sure how to solve the problems that confronted them. This study gave me an opportunity to actually hear from teachers and get to understand what they experience on a day-to-day basis. For this I am thankful.

This experience has helped me become a better researcher. I also learned to appreciate the process involved in a GT study. As with any researcher, I brought my own bias into this study and made every effort to try and suspend my own preconceptions. Having taught for many years, I too was challenged to rethink my practices when working with struggling learners. I gained a better sense of the struggle teachers face on a daily basis as they work with struggling

students. I gained a deeper sense of empathy for the unique struggles teachers face on a daily basis and was amazed by my encounter with many altruistic and giving teachers. Where I had falsely thought that teachers have struggling students because the student or the teacher was not working hard enough, the answer proved to be far more complicated. As a result of my work, I have grown both as a teacher and a student.

I have also gained an appreciation of the work required to complete a GT study. It is my hope that this theory will be beneficial to those who teach struggling students in all settings. Lastly, I found that the conversations with my study participants had an impact on both the participants and on me. I hope that this study provides a voice for those who struggle as teachers or learners by offering a look into what behaviors teachers who teach struggling students can expect to see when working with challenged learners.

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Appendix A: Letter of Consent from the President of the Teachers' Association

December 10, 2012

Dear Mr. Rankin,

Based on my review of your research proposal, I give permission for you to conduct the study entitled An Analysis of Teachers Who Teach Struggling Learners: A Grounded Theory Study within . As part of this study, I authorize you to conduct interviews with teacher members that are willing to meet with you, and access in data that may be relevant or helpful to your study that does not compromise the privacy of our members. Individuals' participation will be voluntary and at their own discretion. We reserve the right to withdraw from the study at any time if our circumstances change.

I confirm that I am authorized to approve research in this setting.

I understand that the data collected will remain entirely confidential and may not be provided to anyone outside of the research team without permission from the Walden University IRB.

Sincerely,

Appendix B: Letter of Cooperation

Date March 14, 2013

Dear Brett Rankin

Based on my review of your research proposal, I give permission for you to conduct the study entitled Teachers Who Teach Struggling Learners within the . As part of this study, I authorize you to interview teachers at all interviewees will receive a consent form and their names will not be used in any way in the study. As a feature of member-checking all interviews will receive a copy of the interview to insure interpretation All interviewees understand that the data gathered in this study will be shared with Walden University. Individuals' participation will be voluntary and at their own discretion.

We understand that our organization's responsibilities include: only a consent to interview teachers at Wile Lake High School and that interviews will not take place during the school day. Teachers reserve the right to withdraw from the study at any time if circumstances change.

I confirm that I am authorized to approve research in this setting.

I understand that the data collected will remain entirely confidential and may not be provided to anyone outside of the research team without permission from the Walden University IRB.

Sincerely,

Walden University policy on electronic signatures: An electronic signature is just as valid as a written signature as long as both parties have agreed to conduct the transaction electronically. Electronic signatures are regulated by the Uniform Electronic Transactions Act. Electronic signatures are only valid when the signer is either (a) the sender of the email, or (b) copied on the email containing the signed document. Legally an "electronic signature" can be the person's typed name, their email address, or any other identifying marker. Walden University staff verify any electronic signatures that do not originate from a password-protected source (i.e., an email address officially on file with Walden).

Appendix C: E-mail Consent Form

You are invited to take part in a research study of teacher leadership in the Grande School District. You were chosen for the study because you are or have been a member of the leadership team at your school. This form is part of a process called ―informed consent‖ to allow you to understand this study before deciding whether to take part.
This study is being conducted by a researcher named Brett Rankin, who is a doctoral student at Walden University. Mr. Rankin is also a high school teacher in the district. He has been serving in the district for the past 10 years, and teaches Music at .

Background Information:
The purpose of this study is to better understand major problems and concerns of teachers who teach struggling learners.
This study is aimed at creating a theory that is generated by, and loyal to the experiences of the participants. Capturing this experience will provide a window into the realities of the participants and allow for the prediction of expected behavior in a similar situation. Additionally, the opportunity to make a positive social change is here as well. If better ways to teach exist then perhaps embracing them can help to reduce teacher burnout and improve student learning.

Procedures:
If you agree to be in this study, you will be asked to:
Participate in an interview. Mr. Rankin will contact you about the time and location that is most conducive to you.
Discuss your thoughts on teaching struggling students in an open and honest conversation.
If necessary, Mr. Rankin will contact you for further follow-up or clarification after the initial interview is over.
Interviews will vary in length, but will not last more than one hour. If more time is needed, or additional questions arise, an additional interview may be scheduled.
Interviews will be recorded unless participant objects.

Voluntary Nature of the Study:
Your participation in this study is voluntary. This means that everyone will respect your decision of whether or not you want to be in the study. No one in the Howard County School System or at will treat you differently if you decide not to be in the study.

At this time there are no foreseeable risks to participating in this study. Any risk that may exist will be mitigated by the fact that only pseudonyms will be used to indicate feedback from teachers, and very few of those. The benefits are to the profession. This is an opportunity to have your experience as a teacher leader influence the way the district and teachers move forward in addressing the issue of teacher leadership in the years to come.

Compensation:
No compensation will be offered.

Confidentiality:

Any information you provide will be kept confidential. The researcher will not use your information for any purposes outside of this research project. Also, the researcher will not include your name or anything else that could identify you in any reports of the study.

Contacts and Questions:
You may ask any questions you have now. Or if you have questions later, you may contact the researcher via phone at 916-206-xxxx or by e-mail at edward.burgess@waldenu.edu. If you wish to speak to Mr. Rankin supervising chair you may contact Dr. Mitchell Olson by telephone at 815-877-xxxx or by e-mail at mitchell.olson@waldenu.edu. If you want to talk privately about your rights as a participant, you can call Dr. Leilani Endicott. She is the Walden University representative who can discuss this with you. Her phone number is 1-800-925-3368, extension 1210. Walden University‘s approval number for this study is xx-xx-xxxxx and it expires on August xx, 2012
The researcher will give you a copy of this form to keep.

Statement of Consent
I have read the above information and I feel I understand the study well enough to make a decision about my involvement. By signing below I am agreeing to the terms described.

Printed Name of Participant_____

Date of Consent_____

Participant’s Written Signature_____

Researcher’s Written Signature_____

Appendix D: Example of Coding

Coding	Interview text April 10, 2013 Interviewee Stephanie Jones

Experience explaining	R: Okay, I'm going to be interviewing a Biology teacher at ; and I want to ask you a question: Can you tell me what your experiences have been teaching struggling students? Teacher (T:): Uh, I've been teaching for twenty-three years and I've always taught struggling students. I started off with, at Southwestern High School in Baltimore City working with our prison population students who attended school during the day and went to jail at night. Actually, that was my first entre, which was pretty, I thought was great, because it made the rest of my teaching career very, very, smooth and easy. I've taught all levels of Biology, Environmental Science, Forensics, Earth Science, ICP to students who are alternative students in terms of how they learn. That's kind of my background. R: Okay, and what is your experience been with regard to working with students who are struggling to learn?

Labeling Differentiating Chunking	T: Um, when you have excep-, I call them exceptional learners, then you have to kind of scaffold and make your lessons more multi-dimensional and user-friendly to the students; which means you break it up into blocks of fifteen. One, if I'm talking to them for more than ten minutes – that's too much – we do some interactive there, and then we go and do something visual or tactile, a lab, or something on the computer that's, you know, a little bit more up-to-date, a video; and then we come back into a small group and work. So I do a lot of pair share, group share and then team work; cooperative learning – it works better with my struggling students. R: Okay. And why would you say these students struggle in the first place? T: Um, our students struggle for a variety of reasons; some of it is self-confidence in their abilities to do the work. They kind of know it, but they are unsure, so they haven't gotten that academic confidence

Adequacy gauging Toolboxing Foundationing Toolboxing	up, yet. A lot of it is their reading score; they can't, they don't read well. Um, that starts from elementary on and we just kind of push them through the system. Um, and then some have disjointed educationary gaps, whether it be skill gaps or actual time gaps out of school; and a lot of them have attendance issues, as well, which all come together to conspire against the student doing well. R: Okay. Now, if a student is struggling because of, maybe, their reading skills, is there something that can be done, or is done, to help them improve their reading skills so that they can learn better? T: Well, what I do at the beginning of every year is I have solid teaching materials that I use every year, but I modify them based upon the classes that I have. And, you organize your papers, your worksheets, or whatever you give the students, to make it appear as if there's less on the page by using schematics or graphic

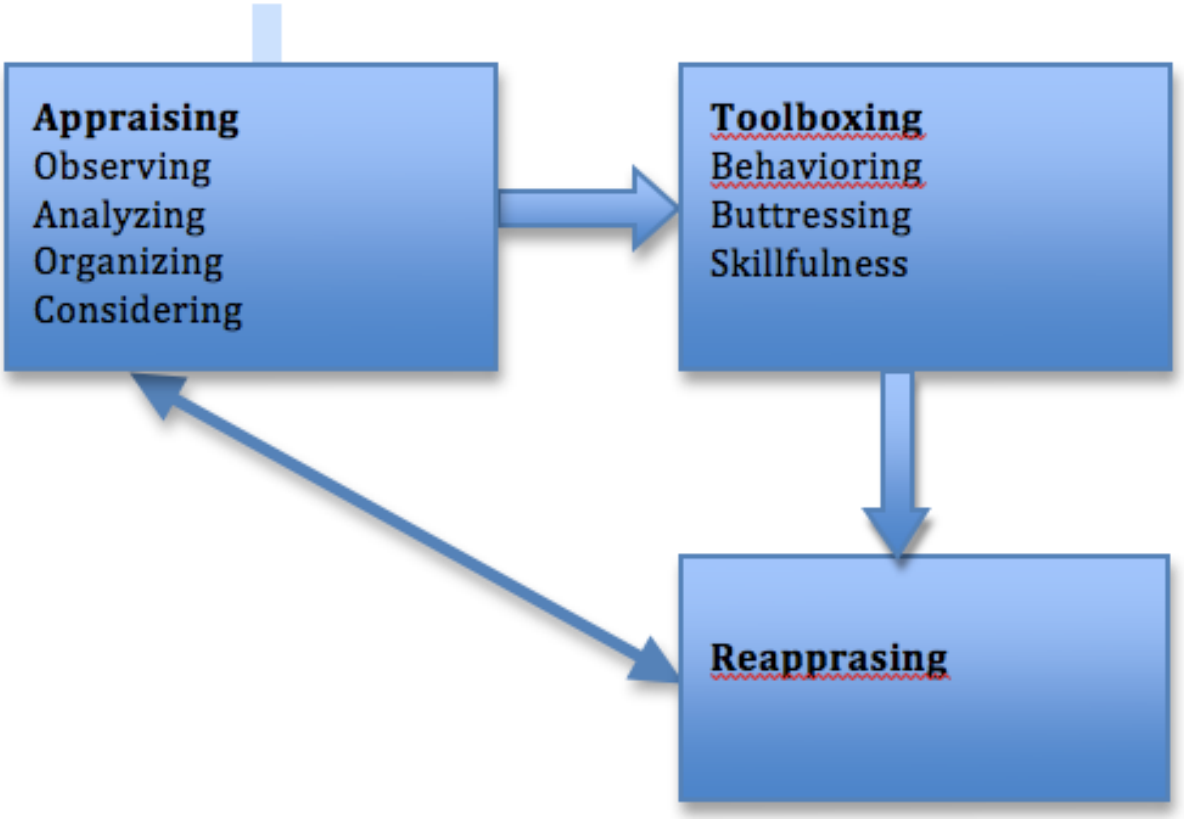
Differentiating Organizing (toolboxing) Chunking differentiating	organizers or just breaking up the information to chunking which doesn't make it intimidating and also allows the students to be able to really get the point. I use a lot of cartoons, a lot of interactive diagrams, so that as we're going over stuff, they have something that's written for those who really just need it straight out to learn something, and a picture format; so there's different formats you use to help kids get the comprehension, and there's always a comprehension check for that. R: Now, students who do struggle, um, how successful are they at being able to grasp the material in your class? T: Um, by this time, which is the, you know, the end of the year almost, it's the last quarter, most of my students have been trained to use their brain; and I say that because we've been spoon-feeding them for years and we have to really, it's scary to go out and have to think on your own, and it's a skill that high school students

	should come out of high school with independent thinking. So, what I do is we still scaffold, but more of the owness is on the student to come up with the answers.
Toolboxing	We take verbal answers, written answers; they can write or they can draw a picture. I just need to know that they know. So that's
Ownershipping	the kind of strategies that we use.
	R: Okay. And, is there a prerequisite to your class?
	T: No, for Biology there is no prerequisite; for any of the – the upper level science you do – but for Biology, it's just a State
Ownershipping	requirement for them to have.
	R: Okay. Now are there any math skills used in your class?
	T: Oh, yeah! I mean, they have to be able to do math graphing skills, you know, just basic math; we're not really doing anything high level, just basic math skills: averages, extrapolating some data, plotting data. So, it's really the basic skills that you could come out of third grade/fourth grade with

Toolboxing	to use. R: Now, do you find that the students have those skills? T: Without the calculator, no. They have to use

Appendix E: Diagram of Guided Differentiation

Guided Differentiation: A Serpentine Path to Understanding Teachers Who Teach Struggling Learners



Appendix F: Risk and Benefits of This Study

At this time there are no foreseeable risks to participating in this study. Any risk that may exist will be mitigated by the fact that only pseudonyms will be used to indicate feedback from teachers, and very few of those. The benefits are to the profession. This is an opportunity to have your experience as a teacher leader influence the way the district and teachers move forward in addressing the issue of teacher leadership in the years to come.

Compensation:
No compensation will be offered.

Confidentiality:
Any information you provide will be kept confidential. The researcher will not use your information for any purposes outside of this research project. Also, the researcher will not include your name or anything else that could identify you in any reports of the study.

Contacts and Questions:
You may ask any questions you have now. Or if you have questions later, you may contact the researcher via phone at 916-206-xxxx or by e-mail at edward.burgess@waldenu.edu. If you wish to speak to Mr. Rankin supervising chair you may contact Dr. Mitchell Olson by telephone at 815-877-xxxx or by e-mail at mitchell.olson@waldenu.edu. If you want to talk privately about your rights as a participant, you can call Dr. Leilani Endicott. She is the Walden University representative who can discuss this with you. Her phone number is 1-800-925-3368, extension 1210. Walden University‘s approval number for this study is 08-19-10-0358548 and it expires on August 18, 2011
The researcher will give you a copy of this form to keep.

Statement of Consent:
I have read the above information and I feel I understand the study well enough to make a decision about my involvement. By signing below, I am agreeing to the terms described above.
Printed Name of Participant: _____
Date of consent: _____
Participant‘s Written Signature: _____
Researcher‘s Written Signature _____

Curriculum Vitae

Brett Rankin

Professional Profile

- Skilled in working with teachers, students, parents and the community to promote improved learning and teaching so that student can achieve on higher levels. Masters in technology is used to support the use of current trends in technology use in education.
- Holds a Master's degree in Education with a focus on technology.
- Experienced in training teachers in best practices and the use of technology in the classroom.
- Dedicated to reaching out to students, teachers, and parents via mentoring program designed to help low performing students.

Education, Certification, and Honors

- Doctoral Candidate, 2014 (Education Leadership)
  - Walden University, Minneapolis, MN
- M.Ed Education with a focus on Technology 2004
  - Walden University, Minneapolis, MN
- Bachelors of Science in Education 1997
  - University of Washington DC, Washington, DC
- Nominated Teacher of the Year
  - Howard County Maryland 2011, 2012
- Teacher of the Year
  - Collier County Florida, 2004
- *Teacher of Distinction
  - 2002 and 2003

Key Training and Qualifications

- Certified (K-12) Music Education
- Curriculum Writing Activities
- Served on the Curriculum Writing Committee for Howard County Maryland Public Schools 2014
- Started, organized and managed Howard County Vocal Solo and Ensemble Festival 2005 to 2009
- East Naples Middle School Advisory President 2003 to 2005
- Sponsor for Student's Working Against Tobacco 1999 to 2005

Employment, and Education Advisory Boards

- Teacher,
  - 2010 to the Present Columbia, Maryland
- Teacher, Hammond High School
  - 2005 to 2010 Columbia, Maryland
- Teacher, East Naples Middle School

    - 2003 to 2005 Naples, Florida
- Teacher, Oakridge Middle School
    - 1999 t 2003 Naples, Florida
- Teacher, Southwest Academy
    - 1997 to 1999 Baltimore, Maryland

Technology Related Workshops

- **Mapping Workshop 2002**
- **Music Technology Presenter 2005, 2010, 2011, 2012, 2013**
- **Towson University Music Technology Presenter 2006**

Professional Affiliations

- Maryland Music Educators Association (MMEA)
- National Education Association (NEA)
- Tri-M Modern Music Masters
- Howard County Educators Association (HCEA)