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# Teacher Perspective on Differentiation for Gifted Students in the General Education Classroom

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# Walden University

College of Education

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Karen Arnold Kilgore

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2018

Abstract

Teacher Perspectives on Differentiation for Gifted Students in the General Education  
Classroom

by

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EdS, Walden University, 2010

BS, Middle Georgia College, 1989

Doctoral Study Submitted in Partial Fulfillment  
of the Requirements for the Degree of  
Doctor of Education

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## Abstract

Gifted middle school students may not always be provided with a differentiated curriculum that ensures their academic progression in inclusive educational settings. The purpose of this qualitative case study was to examine teachers' perspectives on differentiation for gifted students in the general education classroom. The conceptual framework for the study was anchored by the theories of Gardner, who recognized that students learn in different ways, and Vygotsky, who determined that students learn best at their level of learning or zone of proximal development. The research questions focused on teachers' perspectives about teaching the gifted students in the general classroom environment and how they were implementing differentiation for their gifted students. Participants included 7 general education teachers from a single middle school who taught students with mixed abilities. Data collection consisted of interviews with each teacher and a single observation in each teacher's classroom. Inductive analysis aided in the coding process. Open and axial coding were used to create labels and concepts, color coding for organization of the data, member checking for accuracy, triangulation, and peer review for validity. The results of the study indicated that teachers were willing to teach mixed-ability students in 1 classroom, but most teachers believed that gifted students should be taught in special gifted classes. Although teachers believed that differentiation was important, they were not implementing differentiation in their classrooms for gifted students. Social change implications include a deeper understanding by teachers and administration of the necessity for challenging and differentiated instruction. Recommendations are made for improvements in accommodations, appropriate strategies, and differentiated curriculum for middle school gifted students.

Teacher Perspectives on Differentiation for Gifted Students in the General Education  
Classroom

by

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## Dedication

This is dedicated to my family - the ones who told me I could whenever I thought I could not. I would especially like to thank my father who did not get to see me complete my degree, but who encouraged me along the way. I know you are looking down on me now, and I know that you are proud for me in finally reaching my goal.

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## Section 1: The Problem

### **Introduction**

More than 2 decades after the inception of inclusive education, the effectiveness of inclusion as a strategy of meeting the needs for gifted students is still in debate. However, regardless of the confusion of inclusion (Rebora, 2011), teachers are expected to make accommodations for every child, regardless of disability or ability. The question of the effectiveness of inclusion in providing the necessary accommodations for gifted students and meeting their academic and social needs in the least restrictive environment (LRE) possible has been a major concern for some educators and researchers (Brulles & Winebrenner, 2012; Kordosky, 2009; Rakow, 2012; VanTassel-Baska, 2013). In fact, gifted students are more likely to be overlooked due to the concentrated interest in raising the test scores for grade-level and under-grade-level student groups (Rakow, 2012). With such a diversity of academic strengths and weaknesses in a full inclusive classroom, differentiation of instruction is needed to comply with student needs as well as meeting federal and state mandates.

The perception of middle school teachers in teaching in mixed-abilities classrooms, perspectives toward working with students with disabilities (SWD) and gifted students, collaborating with coteachers, and knowledge and usage of differential techniques were important to the outcome of this research. A problem that I discussed in this study is that many of the gifted students are not challenged to the height of their abilities in the general education classroom (Callahan, Moon, Oh, Azano, & Hailey, 2015). As with students who have learning disabilities, those with learning abilities

require their needs to be met as well. Teachers often find it difficult to accommodate the gifted students who are usually ahead of their classroom peers academically (Zambo, 2009). Therefore, unchallenging curriculum provides opportunity for boredom, which results in a lack of motivation and interest in school. As explained by Vygotsky (1978) in the theory of the zone of proximal development (ZPD), when children are not in their ZPD, they will lose interest in learning. As with all students, the objective of education is to build on the potential of every child in a way that they progress and not become complacent and bored with learning. Differentiation is a necessary instrument in the general inclusive classroom if the academic needs of gifted students are to be fulfilled.

### **Problem Statement**

A problem exists in a small rural middle school in Georgia which prompted this qualitative case study investigation. I explored the teacher perspectives on differentiation for gifted students in the general education classroom. Located in an area of low socioeconomic status (SES), all students in the school system, which incorporates only two schools, qualify for free breakfast and lunch. Due to economic problems of the past decade, the school population has decreased as more people have moved elsewhere looking for employment.

Issues and challenges such as funding are usually based on a county's property taxes. Therefore, larger school districts benefit from more business and residential properties which mean more money, whereas the smaller rural districts do not have that benefit, especially in low socioeconomic areas (Roellke, 2003). Because of funding, small rural schools may not have the luxury of providing added incentives to hire extra

teachers for programs such as art and music. In addition, transportation cost may be higher than in an urban school due to population distribution of its pupils thus requiring additional funds. Also, as explained by Roellke (2003), staffing could be limited due to funding and could result in teachers having increased responsibilities along with being required to prepare for inclusion students and the various needs of each. Funding for rural and low-income schools directly affect the learning experiences by limiting programs and staff that are needed to ensure that gifted students are properly accommodated for in the LRE. It is the rural teachers who most frequently discuss the absence of special programs, teachers, and materials that are needed to aid in meeting students' needs more fully (Roe, 2010).

Currently, the county has one comprehensive, middle and high school and one elementary school. Because of the poor economy and decrease in student population, a reduction of staff was also initiated. With all the economic problems engulfing schools across the United States (Rakow, 2012), adequate staff development in differentiation for high achieving and gifted students has not been at the top of the academic agenda.

As with inclusion, teachers may lack the knowledge they need to differentiate for the various abilities and disabilities in the mainstream classroom. Likewise, one of the main ingredients of inclusive classrooms is the coteaching process of instruction (Hepner & Newman, 2010). General education teachers and their coteachers must understand the various needs of all students in the general inclusive classroom. The potential lack of preparation may pose a problem in meeting all students' needs in the LRE possible. With the spotlight directed toward serving the SWD, being prepared to teach and understand

the gifted students, although just as important, is many times forgotten by many school districts (Robertson, Pfeiffer, & Taylor, 2011). This problem of meeting the needs of all students may not be only a local problem. With cuts in budgets, teacher lay-offs, and other economic issues, many small rural schools could be experiencing similar circumstances.

The practice of inclusive education has become an intense topic among those who believe gifted students are being left behind due to the inclusion of such a variety of abilities in a single classroom environment (Kanevsky, 2011). The concerns of teachers in this rural Georgia middle school are not much different from many other small systems in Georgia, perhaps in other states as well. The issue of inclusive education centers on a student's right to be educated in the LRE as possible with disregard to disabilities or abilities of the student. Classroom teachers must adhere to federal and local policies in providing the atmosphere and learning situations that will ensure the needs of each student are met. For some schools, this can be an immense task if teachers are not prepared to teach the various ability levels within their classroom. Funding for staff development and training in differentiation for SWD and the gifted is necessary for any school system, rich or poor, to help meet needs of various student populations within their districts. Rural schools can face limited resources, including funding for special program teachers such as those in gifted education (Azano, Callahan, Missett, & Brunner, 2014). For this middle school, not having a gifted program poses a concern for many parents of previously identified gifted students who are not being served by a gifted teacher or an appropriate alternative.



In the inclusive classroom situation, the emphasis and focus are not on the gifted or high-achieving students (Brulles & Winebrenner, 2011a). Differentiation in the general education classroom for gifted learners requires teachers to help students build on prior knowledge and use challenging processes that strengthen their knowledge base and that will reduce boredom and lack of motivation that many gifted students experience in the general education classroom (Tomlinson, 2001).

For students to function effectively in the 21st century, they must be challenged with curriculum that promotes creativity and innovation (Coxon, 2012). The question then becomes: What differentiation or accommodations are being made for gifted students who are in the inclusive setting? In view of that question, Moon (2009) explained that although gifted students are performing well in the regular inclusive classroom, when left unchallenged, they are not being prepared for the rigors of the higher educational requirements that they will most likely experience later in their future. Thus, for those students, their academic needs may go unmet.

### **Nature of the Study**

This qualitative case study was centered on the belief that for gifted students to realize their full potential and academic strengths, the appropriate differential strategies must be exercised by the general education teacher (Brulles & Winebrenner, 2012). Through classroom observations and teacher interviews, I explored the perspectives teachers had of differentiation and how they used it in inclusive classrooms to help meet the needs of gifted students. In this case study, I concentrated on a small group of general

education and special education teachers who teach in inclusive classrooms and who have the responsibility of meeting the needs of SWD as well as gifted students.

Qualitative approaches to research are suitable when there is a problem that employs investigation and to understand the thoughts and concerns of those involved (Creswell, 2007). Also, Yin (2009) discussed a case study as being one that concentrates on meaningful and significant events and actual life situations. Accordingly, a strength of using a qualitative approach for this research, was the use of open-ended questions which enabled the participants to voice additional information that might not be afforded in a quantitative approach (Hyett, Kenny, & Dickson-Swift, 2014). Due to the lack of a gifted program or gifted services, qualitative interviews and classroom observations provided necessary information that helped in determining teacher perspectives in teaching gifted students in an inclusive setting, and they helped to establish what differential practices were being implemented that provided for the students who needed rigor and challenge beyond the general education classroom.

### **Research Questions**

In this study, I sought to gain a greater understanding of differentiation procedures and strategies set forth by general education teachers to meet the needs of the gifted students in the inclusive mixed-abilities classroom environment. I also explored the perceptions and attitudes of the general education teachers in teaching in a mixed-abilities classroom. While teaching a variety of abilities and disabilities, the general education teacher is expected to meet all students' needs, including a challenging curriculum for the gifted students. Teachers must have the appropriate differentiation strategies in place,

while at the same time perhaps teaching several different objectives so that all students in the classroom are accounted for academically (VanTassel-Baska, 2013). To determine and understand the perspectives of the general education teacher participants in this study, the following questions were important and guided the research:

1. What are teacher perspectives in teaching the gifted students in the mixed abilities classroom setting?
2. How are middle school teachers implementing differentiation for their gifted students in the mixed-abilities classroom?

When investigating the problem in this educational community, it was imperative that I understood the perceptions of those teachers who were involved. Through triangulation of teacher interviews, observations of differentiation strategies being practiced, fieldnotes, and reviewing coded information from teacher observations and interviews, I was given a better understanding of what differential strategies are currently being used by teachers to enhance and challenge the gifted students who are more and more served in the inclusive classroom environment. In addition, this study was supported by a thorough review of academic and scholarly literature as an evidence base necessitating this study. In Section 2, I provide a more detailed explanation as to what constitutes a qualitative case study and the necessity for teachers to understand that differentiation can be a tool to help gifted students succeed in the general education classroom.

### **Purpose of the Study**

The purpose of this study was to investigate teacher perspectives on differentiation for gifted students in the general education classroom. As is the case with this rural Georgia middle school, there is no gifted program; consequently, general education teachers must find ways to differentiate for all students in their classrooms, including the gifted students. Therefore, knowledge of differentiation is an absolute ingredient in meeting the needs of gifted learners every day of the year. Just as SWD, gifted students need curriculums that are designed to help them to progress and meet their special needs so that they may make gain from their education as well. Differentiation of curriculum for gifted students that utilizes rigor and challenging content is a way to meet the needs of these diverse learners. Rakow (2012) explained that because of the lack of services for gifted students, the middle school years are sometimes called the “black hole of gifted education” (p. 38). The results of this study indicated the perceptions general education teachers had about serving gifted students in their classrooms, the depth of knowledge and understanding in the strategies of differentiation, and in the characteristics of gifted learners.

In the current educational realm, where standards and state mandated test are the core and director of all aspects of a school, differentiation for gifted children may be overlooked as an important and integral part of meeting all students’ needs. In addition, gifted students require greater depth of subject matter to avoid the risk of becoming stagnant, bored, and underachieving students in the classroom (Reis & Morales-Taylor, 2010).

## **Conceptual Framework**

I based this research on the framework of development of the strengths and meeting the needs of gifted students through differentiation of instruction. Differentiation is an avenue that can be incorporated to meet the needs of students in current diverse classrooms. Students learn when they are challenged and not relearning things that they have already mastered, as emphasized by Tomlinson (2001). Gardner's (1983) theory on multiple intelligences (MI) states that people all have certain strengths and talents; furthermore, everyone learns differently, and individuals can choose to strengthen their intelligences or to ignore them and leave them undeveloped. This idea would lead educators to assume there would be a need for developing those areas of strength. Again, the assertion then seems to be in the hands of the general education teachers to be able to recognize and build on those strengths to help students in meeting their full potential. The intelligences that Gardner (1983) initially proposed included logical-mathematical, musical, linguistic, visual-spatial, bodily-kinesthetic, interpersonal, intrapersonal, and naturalistic. The theory of MI has implications for education and in recognizing and building on the individual strengths and talents of students (Gardner, 2006). Although it is possible to have multiple intelligences, teachers are responsible to teach to the strengths of students so that growth and progression takes place. In the environment of inclusive classrooms, teachers may find it difficult to meet the needs of the various intelligences. In effective classrooms, teacher modification and differentiation of content, process, and product maximizes student growth (Tomlinson & Imbeau, 2010).

Vygotsky (1978) also made significant contributions to the educational field and for the development of the gifted through his perspective on the sociocultural theory and through ideas that there is a ZPD. In the sociocultural theory, Vygotsky believed that human evolution is a combination of both social and cultural influences (Vygotsky, 1978). Second, the ZPD was theorized as the area or zone of what a child can do by themselves and the area or zone of what a child can achieve if they are working with someone else, such as with a peer tutor or partner (Vygotsky, 1978). Consequently, students would be challenged above what they already know or have mastered, which would meet the ZPD for gifted students.

Furthermore, Vygotsky was a proponent of peer tutoring and cooperative grouping, which has implications for present-day inclusive classrooms (McGlenn-Nelson, 2005). Vygotsky also theorized that students who are in their ZPD prefer to work with others who share their interest or with more challenging curriculum, and age did not matter as much as interest and new thought-provoking content and curriculum (French, Walker, & Shore, 2011). Thus, per Vygotsky's theory, the need for differentiation for gifted students would be important in promoting progress for those students in the general education classroom.

### **Definition of Terms**

The understanding of the special terminology of this qualitative case study is needed to fully comprehend the research. Therefore, the following terms are deemed important to the study.

*Differentiated curriculum:* Differentiated curriculum are units of study that have been modified in content and strategies and that are appropriate to accommodate gifted students (GaDOE).

*Gifted student:* A student who demonstrates high intellectual ability, creative ability, and/or a high level of motivation, and/or excels in a certain academic field and who would need additional services to meet the level of his or her abilities (GaDOE).

### **Assumptions**

An assumption in this study was that general and special education teachers had sufficient prior knowledge of the inclusive classroom and coteaching strategies. I also assumed that all classroom teachers were aware of academic abilities and limitations of each student in their classes. I further assumed that each teacher understood that differentiation of instruction was necessary to meet their students' individual needs per the abilities of that student, even those needs of the gifted students who are a part of the inclusive classroom environment. Still another assumption was that all middle school teachers would welcome the study and further information about differentiation strategies to accommodate the gifted students in the inclusive setting.

### **Scope and Delimitations**

It is important to contribute to the academic strengths of gifted students through proper differentiation from which the state of Georgia Department of Education (GaDOE) expects to take place in all Georgia public schools (Section IX State Board of Education Rule 160-4-2-.38, p. 23). However, some gifted students may not be receiving the rigor and challenge they require in the general inclusive classroom setting. This

research was directed toward the smaller, rural middle schools and the students who might not be receiving challenging instruction through appropriate differentiation strategies. Without the necessary knowledge needed to understand how to implement differentiation effectively, teachers could be failing to grasp the full knowledge of supplying the gifted students with the challenge they deserve while in the inclusive classroom environment. The research findings could also benefit other rural middle schools that may also encounter obstacles in providing proper teacher training, gifted personal, and instructional strategies to support gifted students.

### **Limitations**

A limitation to this study was the small number of teacher participants. Although I had anticipated the number of participants to be 12 teachers, only seven teachers chose to participate in the study. Another limitation was that only one observation was completed per teacher participants' classroom. If I had conducted more than one observation, there would have been an increased reliability for the study. Finally, because I am a teacher at the research site, there was a reluctance in some participants in revealing their knowledge of gifted students, their understanding of differentiation, and how to use effective strategies in teaching mixed abilities in inclusive classroom situations. These limitations would be valuable to consider in completing further research, and reliability could be added by more teacher participation and more than one observation of the strategies being implemented. Also, completing the research at an unfamiliar site may also add more trustworthiness to future studies.



To address some of these possible limitations, I assured the participants, those being the middle school teachers, coteachers, and special needs teachers, of the significance of the study and explained the importance of meeting not only the needs of SWD, but those of the gifted students as well. Also, I reminded the participants that their input into the research would be strictly confidential. I explained how this study could have implications on future teacher training directed to the further understanding of the motivational and academic needs of gifted students and in the development of strategies to properly initiate effective differentiation strategies for the gifted students. Last, I reminded the participants that I had no authority over them in the school, but that I was an equal as a middle grades teacher and the research was being conducted as a possible benefit to all teachers' understanding of differentiation and the importance of providing for gifted students in the school.

### **Significance of the Study**

The purpose of this case study research was to explore teacher perspectives on differentiation for gifted students in the general education classroom. All students are expected to be instructed to their needs and to be instructed in a way in which they may reach their area of need and potential. As with the SWD, through this research, it was anticipated that gifted students would be recognized as students with academic and emotional needs as well. Teachers' understanding of the importance of teaching a curriculum that has support and challenge will help to advance and increase the academic progression of gifted students. To aid in improving the understanding and accountability of teachers in instructing gifted students in the general inclusive classroom, I explored

differentiation as being an essential tool in rendering instruction to meet the needs of the gifted students in the inclusive setting. Without the support of a well-developed gifted program or other interventions, it is the gifted students who are more likely to exhibit the least amount of academic progress and growth during the year than any other group of students (Brulles & Winebrenner, 2011a). The implementation of differentiation in the general education classroom for gifted learners provides an avenue for teachers to help students build on prior knowledge, use challenging processes that strengthen their knowledge base, and help to reduce boredom and lack of motivation that many gifted students experience in the general education classroom (Tomlinson, 2001). This study helped to identify areas of weakness in a rural Georgia middle school where gifted students are a part of the general inclusive classroom environment. Also, this study was significant in determining the knowledge base of the general education teachers in differentiation and whether there were areas that needed to be addressed so that the gifted students may progress and not be merely stagnant bystanders.

In addition, the significance to this research study could be established by promoting a shift in thinking for other rural middle school teachers, not only teachers in this middle school, who are also experiencing a lack of understanding in teaching gifted students in the general inclusive classroom. Advancements for providing for gifted students can occur in identifying what area of teacher training in differentiation strategies are needed or in simply understanding the various needs that gifted students have in developing to his or her full potential. Also, the study could benefit school administration and remind them the importance in guaranteeing that each student be accommodated for

in the LRE, namely an environment in which all students can learn and reach their full potential.

### **Summary**

When it comes to meeting the needs of the gifted students in rural middle Georgia schools, problems may occur in providing the appropriate strategies that would ensure that gifted students are accommodated for in the inclusive classroom setting. As with many schools in Georgia, especially in low socioeconomic rural school districts, school systems may not have allocated funds to support needed services, such as a full-time gifted teacher or instruction in differentiation for teachers who have gifted students in their classrooms. Despite the lack of gifted programs, all students must be given the best possible education regardless of their abilities or disabilities. Some researchers see gifted students as a population of students who do not deserve or require any special treatment due to their academic abilities or talents. In many schools, teaching students as if they were all the same has been the practice for generations. However, per the literature, teaching to one group does not accommodate the needs of all students, especially for the gifted students who may not be given the challenging curriculum they need and deserve. With the ever-changing demands of the world in the areas of critical thinking, technology, and needed innovation, gifted students require differentiation and opportunities to develop to their full potential. Rural schools, despite the shortcomings they may face, must understand the concept of differentiation and provide academic challenge to accommodate for gifted students in the inclusive classroom. In Section 2 of this study, I will provide a review of the literature, which will help to strengthen this

qualitative case study and to support the purpose of the research. In Section 3, I will discuss and explain the methodology, rationale, and data analysis for this study. Section 4 will consist of data analysis and results of the research study. Finally, in Section 5, I will summarize the outcomes, interpret the findings, and make recommendations for the study.

## Section 2: Literature Review

### **Introduction**

With the concept of inclusive education, the need for differentiation of instruction is a necessary ingredient in a classroom where the goal is to meet the individual needs of every child in that classroom setting. The purpose of this qualitative case study was to explore teacher perspectives on differentiation for gifted students in the general education classroom setting. The perception of middle school teachers in teaching in mixed-abilities classrooms, perceptions toward working with gifted students, and knowledge and usage of differential techniques were important components of this research. The literature review that I present in this study expounds on the definition of *gifted* and presents a brief history of the development of gifted education. This section is a review of the literature and discusses the necessity for a more challenging and rigorous curriculum that is needed and may not be offered in the general inclusive class setting for gifted students.

### **Literature Search Strategy**

I used previously published articles from peer-reviewed journals in the literature review of this study. Also, I searched scholarly articles pertaining to current information and previous studies concerning the research questions from the local library database and the database at Walden University. I collected informational literature from databases that included EBSCO Host, ProQuest Central, Education Research Complete, Education Resources Information Center (ERIC), and Education from SAGE publications. I used information from these databases to research relevant information on the importance of challenge and the need for differentiation for the well-being and progress of gifted

learners. Some key words and phrases important in the literature search were *differentiation, gifted students, inclusive education, and identification of gifted students in the United States.*

The literature review conducted included organizing sources into categories that would best benefit the study. Such categories consist of definitions of gifted learners, characteristics of gifted students that might be overlooked in a general education classroom, an explanation and definition of what differentiation might consist of, and how a differentiated curriculum could help to promote meeting the needs of gifted learners. Previous studies conducted on differentiation of curriculum and the strategies some educators might use in promoting the gifted students are identified and discussed. I will present a condensed history of the development of gifted education and the importance in understanding the need for gifted services. I determined that saturation of the literature had been reached by repetition and the lack of new additional information that would contribute to the review.

### **Brief History of Gifted Education**

Gifted education in the United States originated in the urban areas of New York, New York; San Diego, California; St. Louis, Missouri; and Chicago, Illinois (VanTassel-Baska, 2010). Leaders and promoters in the field of gifted education included William Torrey Harris, who in 1868 recognized the need to educate gifted students differently. Also, Lewis Terman and Leta Stetter Hollingsworth performed the first research studies of gifted children in the United States in the early 1900s (Gallagher, 1994). Terman, also called the father of gifted education, relied on the results of intelligence testing to determine

giftedness (Chen & Dai, 2013; Litster & Roberts, 2011). However, it was the launching of the Sputnik in 1957 by the Soviet Union that ignited a surge in American politics and education to increase concentration in the fields of mathematics and science (Johanningmeir, 2010). Some governmental leaders believed that public school systems in the United States had not prepared gifted and talented youth with the challenging curriculum needed to excel. To compete in the world economy and with other nations—namely the Soviet Union—the public schools needed to produce the gifted brain power that was necessary in leading the United States in becoming a major competitor in technological advances in the global marketplace (Johanningmeir, 2010).

In 1971, the Marland Report was presented to the U.S. Congress, and its purpose was to research the educational status of the gifted and talented children of the country (Marland, 1971). Through the Marland Report, a definition of a *gifted person* was introduced, which stated that gifted children are those who have demonstrated high achievement or potential in intelligence, academic ability, creativity, leadership, the arts, physical abilities, or in fine motor skills and have been identified by a qualified person (Marland, 1971; Plucker & Callahan, 2014).

The Marland Report further discussed equity and that all children, including minorities, should be considered when schools set out to identify their gifted and talented students. Also, the Marland Report recognized that differentiation of instruction or special programs outside the normal class instruction should be used to better serve gifted children (Marland, 1971). Consequently, several legislative bills were passed to provide funding and grants to expand gifted educational programs. One such act of legislation

was the Jacob Javits Gifted and Talented Student Education Act of 1988, which provided for the advancement of gifted children through projects and programs geared to help the low-income and students with limited English speaking abilities (Plucker & Callahan, 2014; Winkler & Jolly, 2011). The Javits Act recognized the problem of inappropriately identifying those children of low socioeconomic areas, minorities, and students of rural areas of the United States and developed programs that provided resources to help cultivate their abilities and skills more effectively (Winkler & Jolly, 2011).

Many of the concerns voiced in the research for the Marland Report in 1971, such as meeting the needs of the gifted students, still exist in some areas for gifted learners and educators. Some of the challenges facing gifted education are as follows: (a) The new state common core curriculum assessments do not take into consideration the advanced learner, but they are geared toward on-grade level results; (b) administrators are concerned with school accountability on state standards and gifted students are usually a low priority; (c) gifted students are not considered in implementation of state standards; (d) most educators have no professional development in the field of gifted education; and (e) many parents of gifted children, especially families who are of low SES, are unaware or uninformed of the importance of advocating for their gifted student (Johnsen, 2013).

Traditionally, a widely accepted concept was the idea that mental ability alone determined who was gifted (Terman, 1916). Eventually, most researchers believed that intelligence can encompass a variety of attributes and perhaps a different educational curriculum would benefit those students best (Gardner, 1983; McFarlane, 2011; Vogl & Preckel, 2014). Beginning in the early 1900s, there was a vital concern over the



underachievement of students in the United States. In fact, Terman (1916) noted that of the \$400,000,000 spent on education, 10% of the expenditures went toward remediation. Terman determined that there should be a division of instruction for those who displayed more capacity for learning. Terman provided a definition of *gifted* as those who could score in the top 1% of a group on the Alfred Binet intelligent quotient (IQ) test. However, Terman later reasoned that an IQ test could only determine the normal children from the advanced children and it overlooked other intelligences people might possess (Terman, 1925). With the expectations that general education teachers assist every student, especially in the small rural school systems, many of the talents students have the potential to develop may be undermined by the lack of resources and misunderstanding for the needs of the gifted and talented students (Rakow, 2012). According to Vogl and Preckel (2014), giftedness is the potential of achieving great things through one's abilities, talents, and motivations.

Throughout history, many gifted and talented individuals have helped to change the world (Plucker & Callahan, 2014). From all cultures of the earth, most of these gifted people have been recognized as leaders in governments, philosophers, artists, and inventors. Special recognition was offered to gifted individuals such as Plato and Confucius, and even specialized testing in some cultures was given so that the best individuals were selected for certain positions in government (Renzulli, 1978; VanTassel-Baska, 2010). However, as noted by Gallagher (1994), there are those who were highly gifted and thought of as mentally disturbed because they were not understood by their society. It was important to this research study and to the future of gifted education that

some of the current definitions and concepts of giftedness are understood and that gifted students are not misunderstood or misrepresented due to their special abilities.

### **Identification of Gifted Students**

A lack of understanding exists in the field of gifted education in the identification of gifted individuals, and a concrete definition of what constitutes a gifted person is needed (Callahan et al., 2017; Carman, 2013). The identification process of gifted students is a controversial issue because there have been concerns that some identification procedures are biased and are geared toward certain populations and ignore others (Azano et al., 2014; Callahan et al., 2017). Also, the absence of a universal definition of gifted has given reason for many different interpretations of what constitutes a gifted student. Consequently, it is the definition of *gifted* that directs how students would be identified and determined as being gifted and in need of gifted services (Callahan et al., 2017)

Gifted students should be identified by a qualified person who has knowledge of what constitutes giftedness. Typically, it is the general education teachers and the certified gifted teachers who identify gifted student potential. However, research has shown that school psychologists may be significant advocates for gifted students due to their training in the assessments of students with learning disabilities. School psychologists would be assets in working with classroom teachers and parents of gifted students to address and recognize the emotional needs, design curriculum, and address identification and testing that would best support all children (Morris, 2013; Roberson et al., 2011; Samardzija & Peterson, 2015). A failure or limitation in identifying many

gifted students may be the result of demographics, culture background, language barriers, disabilities, or other limitations that come from using an inadequate identification process (Azano et al., 2014; Roberson et al., 2011).

Dai and Chen (2013) suggested that gifted students should be tested and identified based on their educational strengths and weaknesses and taught with a needs-based curriculum rather than with a single program or potential-based curriculum. Children who perform or show gifted tendencies should be given opportunities to develop and strengthen their academic gifts through alternative forms of instruction (Renzulli, 1978; Marland, 1971; Carman, 2013). In addition, Terman (1925) believed that giftedness was determined by high intellectual ability, therefore students who possessed that ability would in turn become national leaders in various aspects of society; thus, it would benefit gifted students to be in classes that were geared to the level of those students in the areas of critical and higher order thinking and creative abilities (Dai & Chen, 2013).

Depending on the geography, demography, and culture of a school, protocols for identifying gifted students may vary from one district to another. Due to the wide assortment of methods that are used in different states in the identification process, children who are identified in one state as gifted may not qualify in another state as being gifted (Callahan et al., 2017; Carman, 2013). Carman determined that there were at least nine categories to consider in constituting a student as being gifted. Within those nine components, teacher and parent recommendations were considered, along with achievement and intelligence testing. Carman reported the method used most often in identification of gifted students was a form of intelligence testing. Research indicated that

in some states, intelligence testing was the only method of identification for gifted education. Furthermore, where a cutoff for gifted consideration may be 120 on an intelligence test in one state, it could be 130 in another state (Carman, 2013). In a school district in Florida, identification into the gifted programs depends on three plans. The plans of identification are based on (a) intelligence scores between 127 and 130; (b) students who are English language learners or students who receive reduced or free lunch with an intelligence score of 115; and (c) and high achieving students who score the highest on state mandated test (Warne, 2016). In addition, students in 25 states currently are required to meet certain criteria and have requirements in identifying their gifted students as dictated at the local school district levels, whereas five states are not required to adhere to any exact identification requirements (Callahan et al., 2017). It is important to have a universal identification protocol, along with a definition of what constitutes gifted, so that gifted education can be viewed as a field worthy of funding and support by the governmental agencies, both state and federal (Carman, 2013).

In the state of Georgia, there are two options for a student to be identified as being gifted. One option is to have a composite mental ability score of 96 percentile on a nationally age normed test, and a 90 percentile on a nationally normed achievement test in reading and math. Another option is that students must pass three out of four categories in the areas of mental ability, achievement, creativity, and motivation. A student must score a 90 percentile in area of mental ability, a 90 percentile in achievement, a 90 percentile on a nationally normed creativity test or creativity score that would equate to the 90<sup>th</sup> percentile on a product or performance, and a motivation score of 90 percentile

on a motivation scale or a grade point average of 3.5 based on a 4.0 scale in the areas of mathematics, English language arts, science, and social studies (GDOE, 2016).

### **Concepts of Differentiation**

Current trends in gifted education programs are changing and being replaced by the inclusive classroom model of instruction and is dependent on differentiation to meet the gifted students' individual needs (Netz, 2014). Differentiation is a key concept to implement in a mixed-abilities class environment, and all students can benefit from some form of differentiation of instruction (Tomlinson & Imbeau, 2013). However, most of the differentiation or modifications in the classroom are usually for the benefit of lower level or struggling students, and the level of differentiation needed to address gifted students is usually not being done to the depth required to promote gifted learners appropriately (Morgan, 2014). This may be due to teachers not having the time nor the skills necessary to differentiate for the gifted students in their classrooms (Wu, 2017). It is important for teachers to be trained in the field of gifted education, and without that training, differentiation of instruction in the general education classroom is not an effective tool for stimulating academic growth for the higher ability students (VanTassel-Baska, 2013).

There are also some educators who are concerned with the adoption of the Common Core Standards that were implemented in most states in America. There may be difficulty for classroom teachers to differentiate instruction for diverse learners and to teach the required standards for mandated testing (Van Hover, Hicks, & Washington, 2011). Furthermore, the common core standards were designed to promote and challenge students, but there are educators who feel that Common Core does not effectively

challenge or meet the needs of gifted learners because gifted students will more than likely master the standards long before other students in the class (Johnsen, 2012; VanTassel-Baska, 2013).

Although differentiation is a tool for providing individual instruction, teachers are not always given the opportunity or trained how to differentiate for gifted students. In a study conducted by Callahan et al. (2017), a total of 1,566 school districts across the United States responded to a survey concerning the implementation of state policies and how they are utilized at the district level. The survey included teacher responses from the elementary, middle and high school levels. Results indicated that 57.6% of the middle school teachers and 62% of the high school teachers indicated that they had received less than 5 hours of teacher training per year of differentiation for the gifted students. Additionally, the elementary level showed only a few minutes to approximately 4 days of training per year in differentiation for gifted students. Moreover, there are also only five states that require teachers who teach gifted students to participate in professional development or to hold a gifted endorsement (Callahan et al., 2017). The absence of professional development may help to fill a gap in understanding why some rural middle school teachers are finding it difficult to differentiate and meet gifted students' needs in the general inclusive classroom.

One way in which teachers might promote the use of differentiation in a classroom is to follow Tomlinson's framework of differentiation and base instruction on content, process, and product (Tomlinson, 2001). According to Van Hover et al. (2011), one teacher-initiated differentiation by following Tomlinson's (2001) framework and

based instruction on content, process, and product. Through observations and reflective journals, the teacher determined that differentiation was allowing students to learn the same material according to their interest levels and ability levels. They arrived at the same end-point of everyone getting the same content for the mandated testing.

Tomlinson explained during an interview with Wu (2013), “What you really need to do is to create a small world in your classroom. In this world, everybody is taken into account, everybody has a voice, and everybody has a space” (p.125). However, many times the different abilities are not taken into account and the needs of gifted students are not met (Brulles & Winebrenner, 2012; Gallagher, 1994; Johnsen, 2013).

As with the definition of gifted, differentiation may have a variety of connotations to educators as well. Examples of the multiple meanings of differentiation among scholars of education include recognizing differences among gifted students and addressing those differences through appropriate means (Roe, 2010). Differentiation is a practice of altering and adjusting the curriculum and materials to satisfy the academic needs of the students through effective planning (DeJesus, 2012). Also, differentiation is a set of strategies, a philosophy or new way of thinking about teaching and instruction, including the application of technology (Brulles & Winebrenner, 2012; Van Hover et al., 2011).

According to Roe (2010), differentiation may also be created and implemented in situations that best suits a school community. Differentiation may not always be data driven. Instead, issues such as classroom climate, available resources, professional development, language and culture, student behavioral challenges, mandated testing, and

teacher behaviors may dictate the extent of how differentiation is utilized in the classroom (Roe, 2010; Samardzija & Peterson, 2015). Differentiation may go beyond the classroom and therefore there may be a need to redefine differentiation to include not only school, but home and community as well (Roe, 2010) Differentiation may include a constructed challenge and support in different methods according to what students need, the circumstances that are present, and using the tools that are available to do so (Kaplan, 2016). It may be important in the definition of differentiation to include the significance of school opportunities fused with those of the home and community situations to understand more fully students' needs (Roe, 2010). Differentiation may also involve understanding student preferences for learning and their learning styles which could help teachers in directing and planning curriculum to meet individual needs more fully (Morgan, 2014; Samardzija & Peterson, 2015).

Many educators have thought that providing differentiation for a classroom of students is one of the most difficult paradigms to achieve (Van Hover et al., 2011). With focus on state standards and test scores, along with the demand to meet a deadline with a set curriculum to teach, educators could find it very challenging to understand how to implement differentiation and to find the time to create a differentiated classroom (Weber, Johnson, & Tripp, 2013). Therefore, differentiation may be viewed as an added inconvenience, which in turn, may contribute to the lack of differentiation practices by some educators (Tretter, 2010).

Differentiation is a modification of curriculum designed to meet specific needs in the classroom (DeJesus, 2012; Huebner, 2010;). Differentiation helps students, no matter



the academic ability or disability, to be successful by basing curriculum on student academic levels and interests. For gifted students, the purpose of differentiation is to increase rigor and challenge in their individual gifted areas of strength (Hedrick, 2012; Kaplan, 2016). However, as explained by Brulles & Winebrenner (2011a), often gifted students do not reach their level of potential because standardized tests only measure grade level competency. Rigor and challenge comes from the differentiation offered students such as higher order curriculum that gives students the opportunities to work above grade level and explore deeper concepts than some of their same-age peers (Brulles & Winebrenner, 2011a; Netz, 2014). Consequently, differentiation is necessary for those who need acceleration beyond their present grade level.

### **Differentiation of Curriculum**

When educators discuss SWD, differentiation of instruction is understood as a vital ingredient in meeting students' needs on their educational and interest level. Just as SWD have adjusted curriculums, the gifted learner needs specialized curriculum that will challenge them to meet their full potential as well (Manning, Stanford, & Reeves, 2010). As noted by Callahan et al. (2015) a strong differentiated curriculum results in a greater achievement level for gifted students. As early as the 1900s, researchers and educators have recognized the need for differentiation of instruction for the most academically gifted and talented young people (Gallagher, 1994; Plucker & Callahan, 2014). Also, the MI theory supports differentiated curriculums due to the various intelligences that students may possess in a single classroom (Gardner, 2006; Morgan, 2014). Creating a challenging curriculum that will maximize the capabilities of gifted students is the goal of

differentiation. To accomplish that goal however, there should be an understanding of what differentiated curriculum means. The Georgia Department of Education (GaDOE) did not give a definition of differentiation, but instead described differentiated curriculum for gifted students as courses that have been attuned to the skills and strengths of the student and suggested that gifted learners should be allowed to work at an accelerated level and less on basic instruction and remediation.

To determine student readiness and learning levels, Tomlinson (2001) suggested that differentiating curriculum in the content areas of what is taught, how the curriculum is taught or the process, how students comprehend the information, and finally, how students show through products what they have learned. Although the implementation of differentiation may sound straightforward, finding the time to determine the strategy, ascertain how the student will learn the curriculum, and how the outcome or product will be determined, has been very frustrating for some teachers. Some suggestions for remedying or easing the frustration include having a strong curriculum in place, provide student-choice and student-centered instruction, and engaging in adequate professional development opportunities for teachers to grasp a firm concept of a differentiated curriculum (Dixon, Yssel, McConnell, & Hardin, 2014; Hedrick, 2012; Weber et al., 2013). Also, as emphasized by Hedrick, useful professional development should not concentrate on the definition of differentiation, but instead focus on integration of technology, on the understanding of the needs of students, and in providing the type of assessments that showcase student achievement. As described by Strahan, Kronenberg, Burger, Doherty, and Hedt (2012), differentiation of instruction involves teachers being

responsive and looking at the individual goals of students and then matching and aligning the curriculum to the students' needs so that those goals can be reached.

Gifted learners need to be challenged and their learning enhanced by rigorous curriculum (Manning et al., 2010). A differentiated curriculum should be based on the amount of challenge needed to meet individual student needs and to align with student readiness (Kaplan, 2016). According to Vygotsky, if students are learning at their level of readiness then the curriculum is adjusted to their level of challenge and ZPD (Morgan, 2014). Due to the very nature of most gifted students, they are usually ahead of their peers in comprehension of basic instruction, and therefore covering material that has previously been learned is not providing gifted students with an equal education (Manning et al., 2010). Gifted students also tend to learn at a more advanced rate and therefore ask more in-depth questions. Differentiation of curriculum might allow gifted students the opportunity to explore and draw conclusions that would not be possible without a more challenging and differentiated curriculum (Manning et al., 2010; Samardzija & Peterson, 2015). If teachers design differentiated lessons and curriculum that are continually challenging for the gifted students in their classrooms, then students will be engaged and will benefit from the instruction due to the continued adjustments made (Morgan, 2014).

Through the appropriate curriculum, students should gain respect and understanding for past accomplishments, and a desire to improve the world and make it better for the future (Netz, 2014; VanTassel-Baska, 2004). The first step for implementation of such a curriculum is to prepare teachers who have a deep desire and

commitment to the field of gifted education and that will in turn make gifted education successful (VanTassel-Baska & Little, 2011). With this challenge in mind, teachers in the inclusive classroom environments, as well, need the professional training and preparation that is necessary in order that their gifted learners benefit from the curriculum and make progress just as those struggling learners or students who have learning disabilities are expected to make gains (VanTassel-Baska & Little, 2011). Although curriculum is crucial, teachers' knowledge of appropriate strategies and challenge for gifted students is the key to student success (Chandler, 2015; VanTassel-Baska & Little, 2011). A differentiated curriculum is one that is designed to provide interventions, is specialized, is matched to the students' academic readiness levels, and helps all students succeed (Dai & Chen, 2013; Dixon et al., 2014; VanTassel-Baska & Little, 2011). In addition, differentiation of instruction should include a curriculum stressing higher order thinking and problem-solving strategies (Terman, 1925). Also, the curriculum should include technology, the opportunity for acceleration, meaningful challenges, and independent study (Chandler, 2015).

For teachers to raise the rigor and challenge of gifted students, there is a need for an increased emphasis on abstract thinking skills, more student choice, and an increased depth of curriculum (Callahan et al., 2015; Chandler, 2015). A concern by some researchers is that most of the material presented in inclusive classrooms has been previously mastered by gifted students, and the re-learning of content holds gifted students back from being served appropriately and making academic progress (Callahan et al., 2015). A balanced and differentiated curriculum where all students learn, and the

gifted students are presented with lessons that encourage and promote the higher order thinking skills is a necessary combination for the inclusive classroom.

In many rural schools, some of the barriers in implementing differentiation of curriculum are funding and resources, lack of time to plan, limited number of eligible students, and the misconceptions about giftedness and differentiation (Azano et al., 2014; Callahan et al., 2015). National studies indicate that less money is spent on gifted learners in rural schools than in urban and suburban schools (Azano et al., 2014; Kettler, Puryear, & Mullet, 2016). Also, there are economic challenges in rural communities and fewer programs are in place which results in fewer opportunities and less attention given to gifted students. It is estimated that 45% of students in America live in poverty, which in turn may have a direct impact on students' academic progress, adult support, attendance, and behavior (Tomlinson, 2015). However, the lower achievement scores reported by some rural schools may not always be due to low SES. Due to less opportunity and incentives, it may be harder to recruit qualified teachers in rural areas. A recent study showed that the farther away a rural school was from an urban area, the lower the test scores were on national achievement tests (Kettler et al., 2016). In rural schools, students are often offered less opportunity to participate in gifted services, advanced courses like math and advanced placement courses, and less opportunity to enroll in dual college classes (Gagnon & Mattingly, 2016; Kettler et al., 2016).

Teachers often find it difficult to differentiate the curriculum and to make accommodations for the diversity of needs within the classroom (DeJesus, 2012; Tobin & Tippett, 2014). The difficulty in the implementation of differentiation is not concentrated

in the United States or in a designated geographical area, but it is a recognized global concern. Research in Sweden showed how some barriers to implementation of differentiation included tradition and attitudes, absence of professional development, and non-communication among those involved (Ineland, 2015). The research included three schools, and two of the schools were special schools and included students in grades four through six. The third school was a compulsory school and included grades seven to nine. Qualitative interviews revealed the teachers' lack of knowledge of what inclusion was and what to expect as students with varying abilities and disabilities entered their classrooms. Other barriers included the lack of time to plan for differentiation for all students, lack of administrative support, and the need for collaboration with general education and special education teachers (Ineland, 2015).

A study conducted in Canada, which included teachers in third grade through fifth grade, indicated problems in utilizing differentiation in science classes and the difficulty some students had in understanding expository and informational text required for science literacy. Some barriers included the difficulty teachers had in understanding what differentiation constituted and the anxiety of understanding how to plan for differentiation in their classrooms. Also, the lack of time, needed materials, and the requirements to meet standards were all areas of concern and presented possible barriers to differentiation (Tobin & Tippett, 2014).

In addition, a study in Portugal indicated similar concerns and difficulties in implementing differentiation strategies into the curriculum. A quantitative analysis was conducted through a questionnaire process and involved 273 Portuguese teachers. The

final analysis of the study indicated several barriers to integrating differentiation including the need for strategies and materials to best challenge students in their readiness levels. Also, there is the need to understand how to best assess students to understand what challenge or individual needs the students may have (Gaitas & Martins, 2016). Globally, there are concerns in implementing differentiation into the mixed-abilities classroom. Many school systems in many geographical locations share similar concerns and potential barriers that hinder the successful implementation of a differentiated curriculum and challenging classroom.

### **Approaches to Differentiation**

Students come to class at various ability levels, however many teachers do not recognize those differences, but instead they deliver the material without concern for the diversity in academic ability. The rationale for differentiating for gifted students lies in the notion that *accommodating* and *differentiation* are not the same. Accommodations, as those made for SWD, are not considered the same as differentiating instruction for gifted learners (Rakow, 2012). Also, for most teachers, making accommodations for students is much less stressful than differentiating for them because accommodations have been already assigned for students (Rakow, 2012). For gifted learners, differentiation means teachers must understand and be aware of the instructional resources that promote advanced grade level instruction and strategies that will foster and stimulate the gifted students' areas of strengths. Most general education teachers have not been trained in differentiation for gifted learners, therefore they may have misconceptions of what constitutes differentiation, and that it is not the same as simply doing something different

(Rakow, 2012; Tomlinson & Imbeau, 2013; VanTassel-Baska, 2013). Also, teacher discourse often is comprised of questions that are too easy, or the answers are already determined, and they do not promote thought or fail to initiate students' critical thinking skills (Netz, 2014). Teachers who have never used differentiated strategies in their classrooms or who feel that everyone learns equally, may not see the necessity of implementing differentiation or may be hesitant in trying something new. As described by Strahan, Kronenberg, Burger, Doherty, and Hedt (2012), differentiation of instruction involves teachers being responsive and looking at the individual goal of students and then matching and aligning the curriculum to the students' needs so that those goals can be reached. Professional development instruction helps teachers foster a sense of confidence and self-efficacy in using differentiation as a teaching tool in a mixed-abilities classroom (Dixon et al., 2014).

Many rural school systems do not have the luxury of designated gifted programs, therefore teacher knowledge and understanding of differentiation of instruction is a vital ingredient in meeting the needs of gifted students. Although there are special gifted programs, such as pull-out programs and gifted classrooms, there are indications that not all gifted programs are beneficial to students' progression (Warne, 2016). Due to emphasis on test scores and accountability, especially in economically and low socioeconomic areas, the focus for schools has been on meeting standards and less on providing quality education for gifted students (Kettler, Russell, & Puryear, 2015). Gifted students require differentiated curriculum that fits their individual needs for optimal growth to take place (Dai & Chen, 2013; VanTassel-Baska, 2013). Also, with inclusion



of mixed-abilities in one classroom, differentiation of instruction and curriculum for the gifted and advanced learners is even more imperative (Dai & Chen, 2013; Firmender, Reis, & Sweeny, 2013). However, due to high-stakes testing of state standards, some teachers find it hard to differentiate for gifted learners and regress to teaching everyone in whole group instruction (Manning et al., 2010; Samardzija & Peterson, 2015).

The provisions of differentiation can also eliminate many of the problems school systems deal with concerning gifted education; one issue differentiation could provide for would be a more equal education and challenging classroom curriculum for the higher ability students (Hertberg-Davis, 2009). By teaching all students at one level, teachers are not providing an equal opportunity for all students to learn at their range of ability (Manning et al., 2010). Other issues that may be solved through differentiation include the problem of defining the term gifted, and the fact that differentiation would provide an avenue for gifted students to work to their readiness level and make progress according to their abilities.

There may be a need for differentiated instruction due to lack of opportunities that many inclusive classrooms offer gifted students, especially in reading. Research has indicated that for most gifted learners, challenging reading materials were not encouraged and most of the reading instruction was centered around the lower level students (Firmender et al., 2013). Differentiation of instruction for gifted learners can be accomplished through acceleration of above-level reading experiences, enrichment in more challenging reading materials, reading clusters that encourage reading discussions, reading that stresses creative and critical thinking, and the allowance for a wide range of

reading experiences that would decrease repetition and already learned content (Firmender et al., 2013; Plucker & Callahan, 2014). Some of the approaches to differentiation for gifted students may also include the use of cluster grouping, technology, scaffolding, and innovative thinking skills (Brulles & Winebrenner, 2011b; Chen, Dai, & Zhou, 2013; VanTassel-Baska, 2013).

One such approach to implementing services to gifted students is the school wide cluster grouping model (SCGM). The SCGM is a way of grouping students per their achievement levels and abilities (Brulles & Winebrenner, 2011b). The model is especially attractive to school administrators because it requires little to no additional funding. Also, the SCGM is an effective way to serve gifted students in rural school environments where there may not be enough students to create a section of gifted or advanced students for a specific subject (Gentry & Kielty, 2001). Cluster grouping allows gifted students with similar abilities to work together, which according to Brulles and Winebrenner (2011b), allows for growth through working with same-ability peers, competitiveness, and risk taking that usually does not take place in mixed-ability classrooms. On the other hand, a challenge with clustering students according to ability comes from the idea that grouping results in low self-esteem and self-concept for the lower achieving students, or those performing below grade level (Plucker & Callahan, 2014).

However, according to Vogl and Preckel (2014), gifted students who were grouped by ability in general education classes showed more motivation and interest in school than gifted students in separate gifted classes and being in groups helped gifted

students to form peer relationships. Ability grouping promotes development in challenging content and gives students an opportunity to work at their level of performance (Vogl & Preckel, 2014). In addition, a more positive self-concept was demonstrated by gifted students who were grouped with like ability peers (Vogl & Preckel, 2014). Although ability grouping can be advantageous for gifted students, without the proper differentiation in place, it may not prove to be as an effective strategy in promoting academic progress (Plucker & Callahan, 2014).

The gifted population in heterogeneous classrooms can also benefit through integrating technology and the Internet to strengthen and enhance critical thinking and problem-solving skills (Chen et al., 2013; Morgan, 2014). One tool used to integrate technology is the use of WebQuests. WebQuests are inquiry-based programs that extend content knowledge and can offer gifted students a wider range of strategies that can be intertwined into the regular education classroom and promote a more rigorous curriculum via the Internet. (Chen et al., 2013; Schweizer & Kossow, 2007).

The on-line virtual learning lab is another tool that could help to accommodate for the gifted learners in inclusive classrooms. The utilization of a virtual learning lab may be a way to enrich and accelerate the learning potential for gifted students and may be a pliable option for rural schools in accommodating for gifted learners (Chen et al., 2013; Swan, Coulombe-Quach, Huang, Godek, Becker, & Zhou, 2015). The requirements for the virtual labs are for students to spend at least part of the day in a physical school-type setting, and a teacher would have to be present during the labs (Swan et al., 2015). Also, virtual labs benefit students by becoming virtual museums and cultivates students in the

creative and performing arts (Chen et al., 2013). Virtual labs provide gifted students with options that they may not have had otherwise such as enabling the students to participate in multiple types of classes while in the general education classroom. Virtual labs also reduce the need for special teachers which is cost effective for the schools (Chen et al., 2013; Swan et al., 2015).

Other forms of technology that can be used to enrich the curriculum of gifted learners include e-books, self-pacing opportunities, in-depth research, encounters with real-world situations, problem-solving, and the opportunity to interact with other gifted students (Chen et al., 2013; Morgan, 2014). According to Chen et al. (2013), one model of differentiation for gifted students is called the Enable, Enhance, and Transform model. Students' learning is enabled by all the opportunities that technology offers and can be a tool to serve gifted students in the inclusive classroom. This is especially beneficial for school systems that do not provide gifted services. Also, technology enhances student assessment, provides current instructional methods, and provides enhanced tools for research and presentation, plus it fosters motivation in gifted students. With the current problems of identification and need for definitions, technology could be used to provide more students with instruction in areas of their individual strengths and interests. It may also provide students who may not have been identified as gifted by the usual means, but still has need of a more in-depth and challenging instruction, an opportunity to make more academic progress as well. (Chen et al., 2013). Although the implementation of technology can be used to further develop gifted attributes, a concern may be in low-

socioeconomic or rural schools having access to the technology needed to execute the use of technology appropriately in general education classrooms (Azano et al., 2014).

Differentiation is a combination of student needs combined with the academic content (Tomlinson & Imbeau, 2010). One study conducted in a small southern U.S. middle school incorporated the logic model which was designed to take students' needs, interest and learning styles in mind while incorporating science, social studies, mathematics, and language arts into the lessons (Strahan et al., 2012). Data were collected from seventh grade students through student interviews, student work samples, and student observations. Differentiation was implemented into the lesson by adjusting the activities and the unit to better meet the needs and interest level of the students. The logic model was designed to keep student interest in mind and for teachers to be more responsive to the level of challenge the students may need. Research has shown that the interest levels of students have a direct effect on the positive outcomes, and each student can make progress in some area of the unit through the catering of individual strengths, building on students' ideas, and the interest students have in the topics of the unit (Strahan et al., 2012; Samardzija & Peterson, 2015). The goals of classroom instruction include the utilization of learning strategies that will promote student self-efficacy and build student knowledge by keeping individual differences in mind (Tomlinson & Imbeau, 2010). To determine what approaches of differentiation might be most appropriate, Kanevsky (2011) suggested asking students about their preferences for learning through surveys or through conversations with students. For teachers, it may save time and be more effective when determining what approaches of differentiation to

take for gifted students to simply ask them about learning styles and their likes and dislikes about learning (Kanevsky, 2011; Morgan, 2014).

One approach to differentiated instruction is an inquiry approach for gifted students which includes a scaffolding of higher order thinking and problem-solving skills. One technique, known as the intellect model, consists of questions evoking a technique or framework which calls for 75% of the questions asked gifted students to be on a higher order or level of thinking (VanTassel-Baska, 2013). This type of questioning technique promotes a variety of thinking and problem-solving skills such as memory, cognition, convergent, divergent, and evaluative questioning and thinking skills (VanTassel-Baska, 2013). As shown through the research in gifted education, creative and innovative thinking are also attributes and strengths of many gifted students.

The teachers' lack of knowledge of what differentiation means may also be a hindrance to implementing a differentiated curriculum (Weber et al., 2013). School leaders in a PreK to eighth grade school in Florida realized that teachers lacked the knowledge and had misconceptions about using differentiation in their classrooms that would benefit gifted students. Also, the teachers had misconceptions that differentiation was only needed for SWD, differentiation meant having to make multiple lesson plans, and that differentiation was too difficult to implement (Weber et al., 2013).

The issue of understanding gifted students was investigated in a qualitative study in Scotland where participants included gifted students and their perceptions of what it meant to be gifted (Morris, 2013). Findings showed that most of the gifted students had a positive attitude about themselves, they possessed a powerful sense of socialization, and

described themselves as highly motivated and hard-working students (Morris, 2013; Vogl & Preckel, 2014). However, some of the students felt that they were not challenged enough and that they did not like to wait on other students in the classroom to grasp concepts that they had already learned. Some teacher participants discussed that within the busy general education classroom, gifted students were not high on the agenda or priority list of need (Morris, 2013).

One of the strategies that is often used to promote the achievement levels of gifted students is that of acceleration. However, there could be problems with the approach of the acceleration of students. The differences in ages of the students may cause problems with their socialization or acceptance of others. Therefore, acceleration might be considered not only according to grades, but also by personality of the student and the students' personal feelings about being accelerated (Morris, 2013). Also, ability grouping allows for students to work with other students with similar abilities, but it also may put more pressure on the students to perform well. The pressure comes from the feelings of being in competition with other gifted students in the group (Morris, 2013; Vogl & Preckel, 2014). In contrast, however, acceleration has been shown to have positive effects on student academic achievement and is a differentiation strategy that is also used globally (Plucker & Callahan, 2014). Furthermore, some results indicate up to a year's growth in student academic progression through various forms of acceleration (Plucker & Callahan, 2014).

The approaches that teachers take to meet the many needs of a classroom pave the way to better behavior, more commitment from students, and promotes the best work

from students (Chandler, 2015; Morgan, 2014). Some differentiation approaches that teachers can use to provide students with individual attention are to first personalize students' instruction by knowing their interest and what motivates students to learn. Second, teachers need to know where students are in their academic progression. Third, teachers can allow students to work at a pace that encourages learning and discourages limitations and boredom. Last, the implementation of technology can help to motivate students and aid in meeting the individual learning styles of students (Morgan, 2014). Unchallenging lessons and classroom remediation in general education classrooms invite a disruptive classroom, but if teachers use the appropriate strategies and approaches of differentiation in their curriculum that motivate and encourage learning, then students will more than likely to be engaged and motivated to do their best work (Morgan, 2014). There is a need for more learning opportunities for students, and there is a need for more training and professional development for teachers in how to provide those opportunities through appropriate motivational curriculum (Chandler, 2015; Firmender et al., 2013).

### **Qualitative and Case Study Approach**

I anchored this research study on a qualitative research design and a case study approach. Qualitative research is studying phenomena in its natural state or surroundings and interpreting or making sense of the data gathered from the people who are part of those surroundings or phenomena (Creswell, 2007). Researchers who use the qualitative approach to an investigation do so by collecting data at the site of the problem, and by examining and observing the natural setting, a first-hand experience emerges about the problem and proposed research questions (Creswell, 2007). Data for qualitative research



consists of the collecting information from interviews of the participants, observations, and recording data from documents (Creswell, 2007; Merriam, 2002). Observations are good tools to use to get a clearer picture of what happens in the classroom from a first-hand perspective and adds to the triangulation of the other research instruments (Zohrabi, 2013). Through a variety of data gathering instruments, the researcher then analyzes and categorizes the data into resourceful information that may help to answer the research problem. Qualitative research could also be considered “action research” (p. 5) when it is conducted by educators with hopes of gaining valuable documented information about the school’s practices in search of promoting a positive change and improving student performance (Mills, 2003). By using a variety of data collecting instruments, or a triangulation of information, the research becomes more solid and valuable to the researcher (Mills, 2003).

There may be a need for more qualitative research in the educational field and more conversation among educators to address issues, such as motivation, pertaining to the teaching of the more academically advanced students (Morris, 2013). Qualitative interviews allow a researcher to fully understand and make sense of how the participants in a given environment understand a phenomenon. Also, qualitative interviewing can afford a more in-depth understanding of the perception the interviewee may have through the discussions and questions posed by the interviewer (Morris, 2013). Through such qualitative approaches as interviews, data may be uncovered and understood at a more personal level than is offered through a quantitative approach to research. Because I used a qualitative approach to research in this study, a valuable and deeper insight into the

participant perspectives was determined which may not have been established through a quantitative approach (Hatch, 2002).

Qualitative interviews provide for the researcher with more detailed perspectives about the problem and from those who have the most knowledge to report. It has been noted that the implementation of quantitative research does not allow the freedom for participants to vocalize their perspectives on critical issues, but instead, research is controlled, and the behavior of participants is bound by a set agenda (Hatch, 2002). However, the foundation for qualitative research is the research site, the everyday interactions the participants have with the events that occur there, and the conversations and involvement of the participants who understand what is taking place at the research site.

In comparison to quantitative research which is based on statistics, qualitative research may support or give quantitative research more validity. Qualitative research relies on observations, conversations, recordings of events and interviews, and can yield data through behaviors or impressions of those being interviewed or observed. Also, quantitative research relies on verification through statistics, however, unlike qualitative research, there may be questions remaining that the numbers could not answer completely (Green, 2017).

Qualitative case study investigations are based on a single topic or case and is concentrated on the natural phenomena of a situation (Hyett et al., 2014). Case study research requires the observation and interviewing of the participants involved to fully understand and to make sense of what participants perceive and encounter in the natural

setting (Hatch, 2002; Hyett et al., 2014). Results of the data analysis from case study evidence furnish a detailed account of the case which should provide help in determining conclusions, making predictions, or posing implications for further study (Green, 2017). A case study is centered on the relationship between the participants and the researcher and is anchored in the evidence gathered through interviews from those who are familiar with the case in study and observations of what is taking place in the natural setting. One of the features of case study research is in the combination of multiple sources of data that helps to support the case (Morgan, Pullon, Macdonald, McKinlay, & Gray, 2017). Some data sources include observations, interviews, probing questions, behaviors, field notes, peer reviews, member checking, and overall impressions.

In ascertaining a research approach to the study, I determined that a case study approach of qualitative design was be the most appropriate method of research. A case study is a relevant strategy in determining why and how a social phenomenon works or does not work (Yin, 2009). In this research, there was the need to understand if gifted learners in a rural middle school are being accommodated for through differentiation of curriculum. Also, a case study approach usually falls under a constructivist paradigm which is concerned with what individuals or participants feel and perceive about a situation or inquiry (Hatch, 2002). Furthermore, case study research is a good approach when the research questions focus on a *how* or *why* of a phenomenon (Yin, 2014). Yin also explained that case studies are appropriate when researchers have little control over the events or behaviors of participants, unlike some quantitative research methods.

Furthermore, case studies are good for contemporary phenomenon in real-world situations (Yin, 2014). Therefore, I conducted interviews and observations, and the information gathered from the resources were reconstructed into interpretations of what the participants were saying about differentiation for gifted students. I also coded the information that I took from the interviews to gain an overall picture of how general education teachers in inclusive classroom setting provided differentiation for their gifted learners. It is important in qualitative research to understand the perceptions and interpretations of the participants about a phenomenon to gain a better understanding of what is taking place in the research setting (Arghode, 2012). Consequently, by understanding teacher perceptions of gifted students and teacher understanding about the importance of accommodating all students through differentiation, I was able to add validity was added to the study that gifted students may not be receiving a balanced and appropriate curriculum to meet their individual needs in an inclusive classroom environment.

### **Summary**

With gifted programs being eliminated due to continual budget cuts, differentiation in the general inclusive classroom may be the key in promoting and aiding gifted students towards meeting their individual potentials (Azano et al., 2014). Too often remediation of standards and repetitive lessons geared toward lower achieving students is the rule of the class period. With the increased pressure on teachers to gear teaching to state standards and mandated tests, differentiation may seem hard and too time consuming to implement in the inclusive classroom. There is also a problem with

defining exactly what characteristics define a gifted student. For some researchers and educators, it is the intelligence alone. For others, however, gifted is not determined by intelligence alone, but through a wide avenue of attributes such as creativity, art or music, in leadership, or even sports related. There are those who would argue the problem revolves around the fact that there is no universal definition of what constitutes a gifted individual, which in turn, makes it difficult for policy makers to support some areas of gifted education. Also, without a lack of an agreed upon definition of gifted, there is a problem with the identification process from state to state. In the study referred to by Carman (2013), one of the gaps connected with the literature review was the problem of identification of gifted students. If researchers have difficulty in clarifying what constitutes gifted and how students are identified, educators of gifted students may find it challenging to understand just how to differentiate instruction for them.

The literature that I researched indicated that a problem may exist in many schools across the United States, even globally, not just in the state of Georgia. Without a clear-cut definition of what constitutes a gifted student, educators may not take seriously the importance of meeting the needs of some of the most outstanding students. Without a solid foundation of knowledge about the needs of the gifted students who are in the inclusive classroom environments, students who may appear to be content with school may indeed be wasting valuable time, becoming stagnant instead of progressing, developing attitudes that school will always be easy, and developing a decrease in motivation which may eventually lead to them dropping out of school completely due to a lack of interest. The research and theories developed by Gardner, Vygotsky, Tomlinson

and others, accentuate the importance of meeting the needs of students at their level of interest and mental development. Also important are the implications from their work which show the need for differentiation of curriculum for optimal growth and development, both academically and socially.

I also discussed the use of a qualitative case study approach as an appropriate strategy for this study. Understanding the problem from the viewpoints of those involved in the phenomena was an important tool in implementing change in an environment. In this case study, it was important to understand what the teachers knew and did not know about differentiation and the implementation of strategies that could promote growth and progress for the gifted student population in the general education classroom setting.

In Section 3 of this research study, I will elaborate on the rationale for the methodology chosen. Also, I will discuss my role as the researcher, participants of the study, and the instruments that I used in the study. Section 3 will also include the research questions, and I will explain how I examined them in relationship to the qualitative case study methodology of the research.

### Section 3: Research Method

#### **Introduction**

The focus of this study was to investigate how middle school teachers were accommodating the gifted students in the general education inclusive classroom. I evaluated the perception of middle school teachers in teaching in mixed-abilities classrooms, teacher perspectives toward working with gifted students, and the knowledge and usage of differential techniques used in the classroom. With the increase of educational initiatives to meet the needs of the SWD, meeting the educational and emotional needs of gifted learners may be on the back burner with some middle school teachers. In conjunction with meeting new common core standards, becoming accustomed to having a multitude of learning abilities in the classroom, learning to work with a coteacher, and the stress of learning how to differentiate for diverse students, middle school teachers may be overlooking the important needs of their gifted and high achieving students.

In this section, I discuss and examine the research method for the study and the reason for implementing a qualitative approach to this research. Also, I discuss the rationalization for the case study research design, as well as the elements and instruments that I used to complete this study.

#### **Research Questions**

The focus and guides to this study revolved around middle school teachers and their perspectives and knowledge about differentiation for gifted students in the general inclusive classroom environment. The major question is how gifted and high achieving

students were appropriately having their academic needs met. The research questions that I used to develop an understanding to the purpose of this study are as follows:

1. What are teacher perspectives in teaching the gifted students in the mixed-abilities classroom setting?
2. How are middle school teachers implementing differentiation for gifted students in the mixed-abilities classroom?

### **Research Design**

For this research study, I determined that a qualitative approach would be the most appropriate. Whereas quantitative research is centered around numerically generalizing large populations and sample sizes, qualitative research allows a researcher more flexibility to recognize patterns and trends in small settings more easily (Cox, 2012). Also, a qualitative study needs to be detailed and descriptive in that in qualitative research words matter more than numbers in understanding an educational phenomenon. In the case of a small rural school environment, a qualitative approach to investigating a phenomenon was the most appropriate.

A qualitative research design is used when a researcher wants to understand an issue in detail. Therefore, as suggested by Arghode (2012), I was concerned with what the research participants could add to the understanding of a problem through various methods of data collection and conducted in the natural setting. I did this by questioning and then listening to what the participants had to say about a problem. A qualitative approach to research is expressed in words and pictures, whereas quantitative methods of research are reliant on numbers (Kohlbacher, 2006). Also, a qualitative approach is



applicable when a need exists to know details of a problem, when it is necessary to hear from those who are on the front lines of the educational phenomenon, when a need exists to understand the setting and environment of the problem, and when quantitative measures do not meet the needs, such as the conversations between people or opinions expressed from the participants (Kohlbacher, 2006). In qualitative interviews, participants are actively engaged in conversation about the proposed study questions and add in-depth information about the problem in that setting due to the lived experiences concerning a problem or phenomenon (Arghode, 2012). I based the outcome of this research study on the evidence and on the interpretations of the data taken from the participants which contributed to making this qualitative design approach appropriate.

In determining the approach to a qualitative research design, five basic approaches to a qualitative work should be considered. Those five approaches include narrative research, phenomenology, ethnography, grounded theory, and case study research (Creswell, 2007). A narrative research is an inquiry in which the researcher gathers first-person accounts of life stories such as found in biographies, autobiographies, journals, family stories and histories (Merriam, 2002; Hatch, 2002). The second approach, phenomenology, is concerned with the life experiences of a phenomenon of people—such as grief—and try to explain or describe what the commonalities the participants experienced (Creswell, 2007). Grounded theory is the third approach, and the intent of a grounded theory research is to deductively formulate a theory or hypotheses based on collected data (Leedy & Ormrod, 2001). Grounded theory is used when a researcher wants to create an explanation of an event or phenomenon and where a

significant number of participants are involved (Merriam, 2002). In ethnography, the researcher is concerned with a group or culture of people and the society in which they live. The research takes place in the natural setting and observations are the key collection instrument which usually requires an extended amount of time at the research site (Leedy & Ormrod, 2001; Merriam, 2002). The last of the five approaches is that of a case study approach to research. A case study examines a problem, such as differentiation, and seeks to understand it through those who experience it. A case study takes place within a specified period and at a predetermined site and attempts to collect information from those who know the most about the case or phenomenon being studied (Creswell, 2003; Yin, 2014). Also, the boundaries of an investigation are important points when describing a case study design (Hatch, 2002). In this case study, I used observations and interviews to hear what teachers had to say and the conversations that took place about differentiation for gifted and high-achieving students which provided vital information to the research.

Although some of the aspects of the five approaches used in qualitative research are similar, I determined that a case study approach was the most appropriate for this research study. A case study approach allows investigators to concentrate on real-world events such as school performance, or in this case the utilization of differentiation (Yin, 2014). By using both interviews and class observations, I wanted to *hear* what the teachers were saying to understand their perceptions of differentiation for the gifted students, as well as see how the teachers understood and implemented challenging curriculum for the high achieving students in their classrooms.

I used the research questions as the guiding factors in deciding on an approach to the study. With determining whether gifted students are being accommodated for in the general education class setting, for multiple data collection instruments within a bounded system are needed (Hatch, 2002; Merriam, 2002). I added depth to the study by using teacher conversations from interviews and student conversations during classroom observations. I gathered data from interviews and observations and used the information as sources of validity to the research. By comparing more than one source of evidence, data accuracy can be better determined (Briggs & Coleman, 2007). Whereas quantitative research is centered on numerically generalizing large populations and sample sizes, qualitative research allows a researcher more flexibility to recognize patterns and trends in small settings more easily (Cox, 2012). Qualitative research has also been termed as being abundant in rich description which promotes a clearer understanding of an educational phenomenon (Merriam, 2002). In the case of a small rural school environment, a qualitative approach to investigating a phenomenon is the most suitable.

### **Context of the Study**

The context for this study was a rural Georgia middle school, with approximately 250 middle school students. Among those students, all are provided with a free breakfast and lunch each day. The low SES of the school qualifies it for a Title 1 school and thus receives Title 1 funding. I conducted this study in the natural setting of the middle school which I chose due to convenience of being an employee of the school system. Currently, there is no gifted program in the middle school, and gifted students rely on the differentiation of instruction provided by their general education teachers. Due to their

abilities, the gifted students are often overlooked by some educators and often viewed as those students who can make it on their own no matter the curriculum (Morris, 2013). The belief that gifted learners are self-sufficient and do not need differentiation could stem from a lack of understanding of the needs of gifted students.

The school has a history of a high teacher turn-over, therefore I have not worked with all the participants in the school. Along with the high turn-over of faculty, the school has had four different principals in the last 5 years. The school district consists of one elementary school, and one middle and high school which are housed in the same building. The neighboring counties are approximately 30 miles away, and almost the entire faculty commutes to the school from other neighboring towns.

As a teacher at the research site, I was concerned that perhaps all or most efforts go to serving the students with learning disabilities and that very little effort and concern had been directed toward helping the gifted students in their academic progression. For several years, the system has had no special accommodations for the gifted students. Within the middle school faculty, there are two teachers with a gifted certification. The system has offered some one-day training sessions in differentiation, but this training dealt very sparingly with differentiating for gifted students. Also, there has been no current evaluations given to identify gifted students in the middle school. The SWD usually have modifications for their individual learning needs and abilities. However, for gifted students, they have not been considered as students with special needs. Therefore, by implementing appropriate strategies of differentiation into the general education

classroom, all students might be provided for instead of only 1 sector of the student population.

### **Participant Selection**

The population for this study consists of seven certified teachers and in the areas of mathematics, science, social studies, English language arts, and reading in grades 6 through 8. The number of participants depend on the state of the research (Hatch, 2002). Also, it is important to choose participants who will best help to answer the research questions and who will best understand the problem (Crotty, 1998). I purposefully selected all the middle school teachers who had 3 or more years of experience in teaching in the inclusive classroom for possible participants in the study. The anticipated teacher participants were invited to take part in the study through a short after school meeting where the intent of the study was communicated.

The participants were advised of the purpose of the research study, the data collection strategies that would be used, as well as the confidentiality of their input gleaned from discussions from teacher interviews and classroom observations. A letter of participant consent was placed in each of the teacher's mailboxes in the main office of the middle school. The participants were told the intent of the study, assurance of confidentiality of the study, possible benefits from the study, and their option to withdraw from the study at any time, as suggested by Sarantakos (2013). Following the data collections and analysis, I asked the participants their opinions of the final data analysis. I also informed them that they could make comments or suggestions for clarification of information. Purposeful sampling of middle school teachers was the best indicator for

this research due the teachers' direct involvement of day to day classroom experience in working with varying student abilities and was the most valuable voice in the study (Crabtree & Miller, 1999). Due to the school size and limited amount of personal, the participants understood the school climate and makeup. Also, the participants represented a variation of content areas which was beneficial in determining their areas of understanding in differentiated instruction in their subject areas. A signed consent form from both the school superintendent and the middle school principal was granted giving me permission to conduct the research as planned.

### **Role of the Researcher**

As the active researcher in this study, I gathered vital information through various qualitative strategies to satisfy questions surrounding differentiation in the classroom. I am a certified gifted and general education teacher who has worked in the system for 24 years. I have taught in the general education classroom where special needs students participated in a pull-out program for most of the day. I have also taught in an all-inclusive classroom setting of mixed-ability students. Finally, I have taught gifted and honors classes for 7 years, including both elementary and middle school. For several years, I was the gifted teacher for both the elementary and middle school, and I did not work directly with the middle school teachers. For the past 4 years, due to economic restraints, I have taught in the general inclusive classroom where all abilities are to be accommodated.

For this research, I was an observer in the study, as well as the collector of the data. The study took place in the school where I am employed. Although this type of

research is convenient, it required multiple research strategies to avert bias and to create trust and validity in the study. This form of research has been referred to as “backyard research” (Creswell, 2003, p. 184), and although convenient, researchers must take extra precautions in averting bias of the data. One of the ways in which I ensured validity of the study and to avoid bias that may appear during the research was by having a peer debriefing partner who helped in reviewing the data and provided feedback of the interpretations of data (Hatch, 2002). Also, member checking was another strategy used to decrease the chances of bias or misinterpretation of the findings (Hatch, 2002). Finally, data reliability was supported using triangulating the data obtained from classroom observations and teacher interviews, and documentation.

I have been a general education teacher in the inclusive classroom model for the past 4 years, and it has been enlightening to learn how difficult it is to meet the needs of every student within an inclusive classroom with such a diversity of abilities. I hoped to bring to light how important it is for the school system to accommodate all students, and to determine if differentiation for the gifted-students is an active ingredient in the general education inclusive classroom.

### **Ethical Protection of Participants**

Important to note, I did not possess or have authority over any of the teachers in the school, but rather I was a colleague of those teachers. Prior to any data collection or participant recruitment or involvement, I was granted to permission to conduct this study by the Walden University Institutional Review Board (IRB). I followed IRB procedures throughout the research study and ensured participant confidentiality, and I did not cause

participants harm including physically or psychologically. Participants taking part in this study was asked to sign a consent form which explained the purpose of the study, and that participation was fully on a volunteer basis. The participants were made aware that no compensation would be paid to them for their part in the research study, and that all information would be kept confidential. Names of participants were not used in field notes or in Table 1, but rather a number code was representative of those participating. All information was transferred onto a personal home computer where privacy was secured. Participants were made aware they could withdraw from the research study at any time. Through member checking, participants were also privy to the data and to voice any corrections they may have had concerning the interpretations I gave of the collected data. (Merriam, 2002). All participant data were kept at my home on a personal flash drive, along with all research notes and documents pertaining to the current research study. Furthermore, following a 5-year period, all data will be destroyed – including all notes and flash drive data.

### **Gaining Access to the Research Site**

To gain access to the school research site, I personally spoke to the middle school principal and the school superintendent and explained my intended research study. I also emailed the middle school principal as a reminder of the purpose of the research study and the statement of my intentions of positive outcomes for the school through this research study. Both permission forms were also signed by the principal and superintendent granting me consent to conduct the research. I contacted the



superintendent and the principal and informed them of when I was to begin to conduct the study and collect the data from the interviews and observations.

### **Data Collection Procedures**

I collected and analyzed the data for this research over a 4-week window of time and included multiple data sources. I began the data collection process through classroom observations. Following the observations, which took place within a 2-week period, I conducted individual teacher interviews. The time that I set aside for teacher interviews was also 2 weeks. The time periods that I reserved for observations and interviews allowed for any unforeseen circumstances that may have arisen and interrupted the scheduled times set for the observations and interviews. Qualitative research is based on “interpretivist paradigm” (p. 162) which require a multiple strategy inquiry to determine an accurate explanation of a phenomenon or problem (Arghode, 2012). Interviews, unlike surveys, are good tools to use when a conversation needs to take place that requires more than a one-word response. Interviews could be considered as being in-depth conversations that may elicit much more information than a single written survey (Rubin & Rubin, 2005). By recording the conversations from interviews, the information was compared to the field notes and then analyzed for accuracy. Classroom observations were valuable in presenting a first-hand look at what took place in an inclusive classroom situation. A direct observation is the most efficient method of gathering data and to obtain evidence concerning a problem or phenomenon (Marzano, 2003). The purpose of any observation is to understand the phenomenon, setting, and social environment from the participants’ point of view (Hatch, 2002).

## **Observations**

Data collection through participant observation is one strategy most often used in qualitative research. Through observations, participants' perceptions can be important in producing valuable knowledge and information about a situation or research problem (Arghode, 2012). In this study, the information I gathered from the observation of teacher participants added understanding of how the gifted students were provided for and what differentiated strategies were in place in the natural setting of an inclusive classroom environment. To pre-determine who the gifted students were, I looked at student records, Georgia Milestones mandated test scores, report cards, and at the results of those who had passed the criteria for being determined a gifted student in Georgia. By looking at the gifted evaluations, I could determine if the students were gifted in mathematics or in reading or in both subject areas. Also, by looking at test scores and report cards, I could better determine who the academically advanced students were in the classroom, or those students above grade level.

During the observations, I took the position as a passive observer. By acting as a passive observer, my focus was on the collection of information and observing what was taking place in the classroom pertaining to differentiation and student response (Mills, 2003). As a passive observer, I was more concentrated on the notes and the strategies being used and how the gifted and advanced students were accommodated for rather than worrying about taking part in the classroom activities. As a teacher at the research site, I knew most of the students who had been identified as gifted students. Also, there is the possibility of intrusiveness if the observer becomes a participant in the setting (Hatch,

2002). Due to the importance of understanding how the gifted students were being challenged, being an observer instead of a participant was imperative in the final analysis and discussion of the research.

The observational portion of the research took place during my afternoon planning time, between the hours of 1:40 and 2:40 on Monday, Thursday, and Friday, and the duration of the observations was approximately 45 minutes each. I also allowed approximately 2 weeks to complete the observations. Due to the size of the school and the small number of teacher participants, it was difficult to coordinate a large time span for observations. On some occasions, the coteacher took over the classes as I conducted classroom observations. Although I conducted only one observation per classroom, I followed up the observations with a review of the field notes and by asking the participants questions when I needed clarification of what I observed. Another factor that played a part in the number of observations conducted was the amount of time I had to conduct them due to teacher responsibilities and meetings during planning times. In a small school setting, teachers often wear many hats which means the teachers have other responsibilities other than those pertaining to the classroom.

Prior approval from the school principal and the classroom teachers was obtained before the research took place. Also, a consent letter explaining the purpose and guarantee of confidentiality was given to the participants one week before the observations started. I initially contacted the potential participants by e-mail to introduce the research study and to seek participant consent in taking part in the study. I also met with the faculty and introduced the study and explained the purpose and possible benefits

for the school that could come from the research. The purpose of the observations was to gather information on the strategies that were being used to differentiate for gifted students in the general education classroom. Also, student involvement, response to class activities, and interactions with like peers were noted as possible indications whether the differentiation strategies were in-depth and challenging. At no time during the research did I interview or discuss the study with any student. Furthermore, student names were not disclosed or used in the research at any time during the data collection process or in the final analysis of the study.

The observations included seven teacher participants in grades 6 through 8. The subject areas observed elicited English language arts, mathematics, science, and social studies. The teacher participants observed were chosen from different subject and grade levels to gain perspective on how teachers in various teaching capacities handle differentiation for their subject area and for gifted students. An observational protocol planning sheet was used and included descriptive notes, time of the observation, and a brief note about the setup of the classroom.

During the observational process, I took field notes as reminders and as a record of the events observed. By using an observational checklist, I could see what actual differentiation was taking place in the class first hand rather than relying solely on information gathered from teacher discussions (Hatch, 2002; Mills, 2003). I conducted the data analysis through the collection of the field notes and through the classroom observations. I divided field notes into direct observations of setting, students, strategies used in differentiation, and student reactions to the strategies and activities used to

promote challenge and academic growth. The students' reactions, student conversations and their willingness to engage in the differentiated lesson activities would have been an indicator if the strategy was differentiated appropriately or challenging enough for gifted learners.

### **Interviews**

The second strategy of data collection I used came through teacher interviews which provided important insight on how the general education teacher felt or perceived teaching the gifted students in the inclusive classroom. Qualitative interviews are important in that each one is different from the one before, unlike in surveys where all participants answer the exact same questions (Rubin & Rubin, 2005). The interviews allowed for me to ask probing questions to add further depth and description to the answers the interviewees gave. Also, the interviews provided information about teachers' perspectives toward using differentiation to meet the needs of their gifted students who are part of their diverse class composition. The protocol I used for teacher interviews consisted of semi-structured focused questions, as suggested by Mills (2003) and Rubin & Rubin (2005). I audio recorded the interviews in order that I could pay more attention to what the interviewees were saying rather than the burden of hurriedly writing completed notes during the actual interviews. Unlike the observational field notes, interview field notes were not as detailed. By conducting semi-structured questions and allowing the conversations to flow, I had anticipated that perceptions and concerns would be voiced and expanded as to give adequate information concerning high achieving and gifted students and differentiation (Mills, 2003; Rubin & Rubin, 2005).

I conducted the interviews at the participant's convenience. The setting for the interviews was anticipated to be the middle school conference room to ensure privacy and to be free of intercom or hallway disruptions. However, due to conflict in scheduling and teacher planning meeting, it was determined to be more convenient for the teachers to have the interviews after school in their own classrooms. If there had been a problem with the face-to-face interviews, I had planned to use e-mail or phone interviews as a second option. The after-school interviews proved to be very successful in that they were free from the interruptions of the school day. The interviews lasted approximately 45 minutes each, and I audio recorded them for accuracy and for data analysis purposes. I was an active participant in the interview process and conducted all interviews and recording of information.

I directed the interview questions toward understanding and gathering information of what strategies were being incorporated into teacher lessons and activities that differentiated from the other students in the classroom. Interview questions were open-ended which allowed for the interviewees to voice any other comments or concerns they may have had that perhaps would be of added interest to the research (Hatch, 2002). I asked probing questions to keep the conversation on target and to gather as much information from the informant as possible during the interview time limit. By using probing questions, as well as follow up questions, I was able to gain a more in-depth understanding of the participants' thoughts and opinions (Legard, Keegan, & Ward, 2013). In the teacher interviews, I recorded the data from the conversations and field notes which also provided insight into the perceptions of the participants in the areas of

differentiation and understanding of the characteristics and needs of gifted students. From the recordings and notes, I made a chart and placed the data per relevance to other comments. The chart was used to organize the notes and it made it more convenient to add to, combine, or take out data that I found did not pertain to answering the research questions.

### **Data Analysis**

The process of analyzing data began with the information collected through various means, but it was mostly the interpretation given to that information that helped me to gather the evidence needed for the study. Data analysis is the process of putting narratives into worthwhile data that represents what participants have to say about an issue or problem (Hatch, 2002). For this research study, I incorporated an inductive analysis strategy to approach the collected data by analyzing each observation as soon as it has been completed and making inferences from that data. This method, as suggested by Hatch (2002), enabled me to decide if there had been adequate information gathered from the observations and field notes to satisfy the research needs. I began my data collection process through classroom observations. The data retrieved from classroom observations and teacher interviews were transcribed word for word and sorted per theme and commonalities. Themes are main ideas or concepts that appear in all portions of the collected data (Hatch, 2002).

I extracted the data from the teacher interviews and coded it which allowed for themes to emerge and descriptions to be interpreted into meaningful data. Coding is a process of utilizing the qualitative data gathered from the interviews and observations and

breaking the information down into smaller chunks, words or phrases, and then assigning a label or code to that information (Kohlbacher, 2006). Furthermore, coding can be viewed as a method to index information from the text or written notes into segments of meaning to indicate what was discussed in the interview process (Glaser & Laudel, 2013). Also, all responses to probing questions were intertwined into the interview conversations and coded accordingly. I incorporated both open coding and axial coding to locate words and phrases in the field notes which in turn enabled me to determine and create labels and categories for the collected data. I also made use of color in the coding procedures to help me organize and better understand the data by having different colors represent various themes as they developed from the transcripts. By coding the data, I could see what people were saying and what they were doing in the research setting.

I commenced by having predetermined themes or categories in mind which were based on the research and interview questions, as suggested by Glaser & Laudel (2013). The strategy of typological analysis was also incorporated in the interviews and observations. In a typological analysis strategy, information that share common traits or characteristics are looked for in the data (Hatch, 2002). I used the data connecting the observations and interviews to formulate conclusions concerning teacher perspectives and differentiation strategies used to challenge gifted students in the general education classroom.

The first step I took in the analysis of the collected data was to repeatedly listen to the audio tape recording of the responses given during the teacher interviews. By closely listening to what was said and reading field notes taken during the interview



procedures, I could gain a better insight of exactly what other themes or categories of information could be formulated or that have emerged. I typed up field notes with short phrases, words and comments. Using short phrases and key words helped me to narrow down information into smaller pieces. I transcribed the data as soon as possible and began to look for typologies that aligned with the research questions (Hatch, 2002). Along with the recorded data, I also took some field notes, although not as extensive as I took during the observational portion of the research. I used colors to separate the different data sets when trying to determine categories and subcategories of data (Hatch, 2002).

Accordingly, once I had a general idea of emerging themes, I used abbreviations to form groups or categories and to assign codes for the information. For example, an abbreviation for probing questions can be coded as PQ. Consequently, all PQ questions were colored coded in brown to allow for easy identification of probing questions that was asked in the interview portion of the data collection process. By using the coded abbreviations, I could more easily recognize like responses for forming categories of similar information. Codes also enabled me to locate outlying responses that may not have been anticipated which, in turn, also made it easier to recognize using a color code system. Data from audio recordings from interviews were entered and typed into a computer document where I summarized the interviews, as suggested by Hatch (2002). From the interview and coding process, I then formulated conclusions concerning the research problem based on participant perspectives and insights surrounding the research topic.

I used classroom observations and teacher interviews to gain an overall picture as to how gifted students were being challenged and how teachers felt about the process of differentiation for gifted students and if differentiation was taking place to meet the needs of these students. Triangulation of data for qualitative case study research is important in understanding the full implication of the research questions by examining them from different perspectives (Yin, 2014).

For example, when I compared the observations with the interviews, it may have been noted that in one observation there was no indication of differentiation taking place, whereas in all other observations gifted students were being challenged and differentiation was a major factor in accommodating those students. Also, this might correspond to the individual teacher's interview which could indicate a need for that one teacher to be trained in the field of differentiation or the understanding of the needs of gifted students. These findings will be important to the future of the middle school in ensuring that gifted students are being accommodated for in the inclusive classroom. I compared the information collected from teacher observations to grade level and then by subject area to locate any common themes that may have existed. Common themes may be in certain grade levels employing differentiation more than others.

Some of the questions and topics that emerged and that I addressed were as follows: 1) Was differentiation for gifted students observed? 2) What differentiation strategies were observed? 3) How did the gifted students respond to the differentiated curriculum? 4) What were teacher perceptions in teaching all abilities in one classroom environment? 5) What were teacher perceptions in using differentiation strategies for

gifted SWD? 6) How were the gifted students identified? Finally, 7) what was the observed comfort level of teaching gifted students? Branching from the two research questions, these seven questions were a catalyst for coding major themes that appeared as the data were read and analyzed. I shared the results of the data analysis with the participants for verification of the accuracy of the interviews and to establish that there were no discrepancies in the transcriptions or corrections that needed to be made.

Following the transposing and coding process, I reported the findings through a description of the original case study and setting and elaborated on the themes found in the data collection process. Although many categories and codes emerged from the data, a utilization of the data were condensed into a smaller arrangement and subcategories of themes so that the data could be explained more clearly. As I condensed the data, categories changed and those not pertaining to the research problem and research questions were omitted from the final data analysis summary. Data analysis as a combination of categorizing and examining the qualitative data, and then looking for reoccurring patterns in the data that pertains to the original case study proposition (Yin, 2009).

The reporting stage of the research brought the data together into one overall picture through comparing and examining the issues of differentiation for gifted students. Through the interviews and observations and the combination of field notes, I noted important issues and overlapping of data emerging which elicited a validation of the problem and presented other issues concerning teacher perceptions about the research problem and research questions. Along with the validation of the problem, some themes

appeared that I had not anticipated, but also contributed to the final recommendations of the research and which could possibly benefit this middle school as well as other similar schools. Reporting case studies need to be in context easily understood so that readers of the study can determine if the findings from the research could be applied to their own school's situation, which in turn, might promote social change within that community (Baxter & Jack, 2008).

### **Validation**

Ensuring the validation of data collected and accurately interpreting what participants had to say in that data is the heart of any research study. It was equally crucial to a research study that the data gathered from credible sources answer and support the findings to the questions or problems posed in the study. There are eight recommended validation approaches that can be employed to help validate the accuracy of qualitative research (Creswell, 2007). From those suggested strategies, I chose to validate the research through triangulation, member-checking, clarifying biases, and peer debriefing.

Triangulating methods of research is a way to provide more evidence that research data is accurate and substantiates the validity of the information as well (Briggs & Coleman, 2007). From the data gathered from interviews, field notes, and observations, common themes emerged that added credibility to the research. I constructed triangulation with teacher interviews and a single classroom observation. The classroom lessons and activities that I observed aligned with many of the responses given by the participants during the interview sessions. Most of the participants indicated that

they needed more direction in the use of differentiation, and during the classroom observations there was little to no differentiation of curriculum observed. Importantly, triangulating data not only strengthens the value of qualitative research, but it helps to minimize biases in the research (Mills, 2003). Triangulation is also a way to explain certain phenomenon or behavior using at least two or more sources of data (Briggs & Coleman, 2007).

As with triangulation, member checking is a way to ensure validity and data accuracy. Member checking was also a way to verify the data and acknowledge to the participants what they had to say was important to the study. Furthermore, member checking helps in validating the credibility of the researcher (Brit, Scott, Cavers, Campbell, & Walter, 2016; Lincoln & Guba, 1985). To provide more validity and to overcome bias that may have occurred, I involved the participants in member checking which enabled them to question the interpretations of the collected data that were provided (Briggs & Coleman, 2007). Member checking was done on an individual basis, and it took approximately a week to complete. I allowed the participants to read the analysis and impressions of the collected data. Some of the teachers made comments as to how hard it was to differentiate when so many of the students were on the same level. One teacher explained that she did not have the materials or the time to develop differentiated lesson plans, so she did not implement differentiation into her curriculum. Most of the comments participants made matched the concerns in the interviews and the observations of the lessons. However, participant 1 indicated that her lesson was interesting and that she did not have to show differentiation every day.

A third way of validating the research was to clarify any bias I may have had as the researcher in this study. Being a general education teacher at the research site, I was interested in how gifted students are accommodated for in the inclusive classroom situation. I do not claim, however, to have any biases toward any staff, faculty member, or administrator, nor do I have any bias toward teaching in the general education classroom. I used member checking and a peer debriefing partner as additional tools of validation. Also, observations and interviews with follow ups helped to eliminate or minimize the reporting of biased data. Through the approval of the IRB, I was also bound to adhere to the approval and not infringe on the rights of any participant, including reporting or misinterpreting data (Creswell, 2007). I made notes of the impressions and any bias I may have had when making the observations. The role of being a teacher and the researcher at the site of the study also required participant validation of information following data collection and analysis. Although the teacher meetings were to take place in the conference room of the middle school, four of them were held in the teachers' classrooms for convenience.

I included a peer review or debriefing strategy into the research, which provided strength to the results by having other perspectives and opinions as part of the study. The peer debriefing partner was a colleague familiar with the research study, but not a classroom teacher. By not being in the classroom, the peer debriefer had limited knowledge of differentiation of instruction in the inclusive classroom setting, and therefore had a different approach and perspective in looking at the information that was collected which added more validity (Barusch, Gringeri, & George, 2011). Through

discussions of the data, and by asking questions about the results of observations and interviews, the peer debriefing partner was an added tool in the process of ensuring trustworthiness in the study (Barusch et al., 2011). The purpose of the peer debriefer was to probe into the research and question the methods used, the interpretations of the interviews and observations, and to act as a watchdog over the research to assure accurate data, interpretations, and results were presented. Accuracy of information is extremely important to any research study, therefore by also including a peer debriefing partner in the data analysis, I had another opinion and interpretation to add to the final analysis of information (Creswell, 2007). The technique was useful in the discussions and decisions of what to include and what to leave out as being important to the final outcomes. By incorporating triangulation of information, member checking, and a peer debriefing partner, I hoped to ensure validation and reliability of the research findings.

### **Summary**

For this current research study, this section conveys the purpose of the study, the research questions under investigation, and the methodology used in the study. Due to the nature of the research, I determined that a qualitative case study approach to be the most appropriate. Data collection consisted of classroom observations and teacher interviews. Also, I included a description of the data analysis procedures in this section as well. I validated the research through triangulation of the data collected, the utilization of member checking, a clarification of biases that might have been present, and the use of peer debriefing as a reviewing partner to ensure accuracy of the account as presented in the research. I also explained the assurance of the ethical protection of the participants in

this study and the appendices that are included were also disclosed. In Section 4 of this study, I will include the final data analysis and the findings and results of this research.



## Section 4: Results

### **Introduction**

This research study was based on a qualitative case study approach, and I explored the perspectives and viewpoints of classroom teachers in a small rural Georgia middle school. Within the inclusive classroom setting, students with varying abilities and disabilities are expected to learn on an equal basis, and teachers are expected to differentiate for each student and provide for their academic needs. Thus, the purpose of this case study was to investigate teacher perspectives on differentiation for gifted students in the general education classroom. I incorporated interviews, classroom observations, and field notes to determine how teachers used differentiation to meet the needs of gifted students in the classroom. Teacher interviews provided insight into how teachers believed and their perspectives on teaching students with differing levels of abilities. Classroom observations also provided a first-hand view of strategies and accommodations made through differentiation and those strategies that were being implemented by the middle school teachers. I addressed and analyzed the following research questions during this study:

1. What are teacher perspectives in teaching the gifted students in the mixed-abilities classroom setting?
2. How are middle school teachers implementing differentiation for their gifted student learners in the mixed-abilities classroom?

The topics that I have included in this section of the research consist of a brief description of the setting and participant profile for this research study, a description of

the procedures taken in collecting the data, and the procedures for analyzing results of data taken from both interviews and observations. Also included are the results of the data collection and the level of trustworthiness given to this the study. Finally, I summarize the overall conclusions of this research study.

### **Setting**

The setting for the study was a rural Georgia middle school. Because I was interested in teachers who had experience in teaching in the inclusive general classroom environment, I purposefully selected those teachers with at least 3 years of experience or more in teaching in the inclusive mixed-abilities classroom setting. Although I originally hoped to have 12 potential participants, my final participant pool was only seven middle school teachers. I gave each participant a code name and number in order that the actual participants' names be concealed (see Table 1). From these participants, I began to conduct the data collection process.

Table 1

*Participant Profile*

Pseudonyms	Years of experience	Grade levels	Subject area
P1	11	6-8	Science
P2	11	7-8	Math
P3	10	6-8	Math
P4	22	6-8	ELA
P5	14	6	Math/science
P6	9	6-8	Social studies
P7	23	6-7	Social studies

*Note:* ELA, English language arts.

### **Data Collection**

#### **Interviews**

The procedures for beginning the in-depth interviews with the participants began with a schedule that I worked out with the participating teachers. Due to the small faculty and school system, it was somewhat difficult to schedule times for interviews that did not interfere with other duties and responsibilities held by the teachers. Therefore, I conducted the interviews after school because it was more convenient to the teachers and it did not interfere with their planning times or daily responsibilities. Upon initiating the interview process, I explained the procedures for audio taping each interview and my plans for keeping all information confidential. To establish credibility of the research, I described the procedures for conducting the study, and the positive benefits it could have

on the middle school through the recognition of the strengths and weaknesses that might be realized through the research (Barusch et al., 2011). Also, the importance of participant honesty in relaying information would support a more reliable study to take place, and it would be important to the outcome and findings of the study.

As I began the after-school interviews, I arranged for a time and place that was convenient for the teacher participants. Most interviews took place around 4:00 p.m. after the students had been dismissed for the day. Due to construction repairs, the school system began the year a month later than normal. Also, the school hours for the system were extended to 3:45 p.m. instead of the usual 3:15 p.m. Each interview lasted for approximately 45 minutes. Although participant interviews were originally planned to take place in the middle school conference room, all interviews took place in the teachers' classroom which proved to be more convenient. I reminded the participants of the protocol that was in their participant permission forms, and that I would be recording the conversations for quality of information that would be valuable in the analyzing the data later. I also reminded them that there would be no compensation for participation, and all information collected would be kept in strict confidence. Additionally, at no time would participants' names appear on any of the data, but instead they would be given a code name and number which will represent them as participants. Only combined findings and results in the research were reported in the final paper. I also reminded the participants that I held no authority over any teacher in the middle school, and that the research study was based on mutual respect and honesty. All seven interviews took 2 weeks to complete. I also took approximately 1 week to check with the participants to

confirm the accuracy of the data that I had documented and to ask whether there were any discrepancies in the information that I had taken from the interviews.

During the interviews, I incorporated predetermined semi structured and focused questions, which allowed for probing questions to be asked as the interviews proceeded and as additional information was needed from the participant (Appendix B). The interview questions I asked focused on the participants' perspectives of differentiating for the gifted students in the general education inclusive classroom. I also asked questions concerning the challenges or difficulties teachers might have with differentiation, their understanding of and being prepared to teach gifted students, and their thoughts on teacher training in differentiation to better accommodate gifted students in their classrooms.

The procedures that I used for recording the information consisted of a cassette taped-recording of the interviews and the written field notes of what I heard. The recorded conversations and probing questions enhanced the understanding of what was said and the follow up questions that I had asked. The recordings were useful reminders of what took place during the interview phase. Also, I could watch the participants' expressions as they thought about their answers to the questions asked which I also took note of in field notes. Although I did not record as many notes during the interviews as I kept in the observational portion of my research, they too were reminders of impressions and participant perspectives at the time. I recorded the field notes in a notebook, along with each individual coded interview form. When I was not using them, I kept all field notes and recordings in a briefcase which I locked in a closet until I left each day. I also

kept all transcribed notes and information on a flash drive which I used only on my home computer. I did not record or store any information on the school computer. I stored all transcribed data on a word-processing document, including those from classroom observations.

For validity and reliability purposes, I incorporated a member checking of information which allowed for any discrepancies to be voiced by the participants. Member checking was done after my transcriptions of the interviews and was completed in a week and a half. I met with the teacher participants and asked them to read over the summaries and interpretations of their interviews.

### **Observations**

As part of the triangulation of data, I conducted pre-scheduled classroom observations. Those teachers who were interviewed, were also the seven middle school teachers who participated in the classroom observational portion of the research. During the observations, my goal was to observe teachers and determine if differentiation of instruction was being utilized to accommodate the different levels of abilities in the classroom. Adhering to the observational protocol, I observed and listened to how the teacher utilized strategies of differentiation. Field notes were taken to record teacher strategies being used and to observe firsthand the engagement of students and determine through their interactions and conversations with their classmates if they were engaged and involved in the lessons and activities provided in the inclusive classroom setting. The original observational times were set according to my planning time, between the hours of 9:05 a.m. and 10:25 a.m. each morning. To provide time for all classroom

observations, namely from those teachers who shared planning time with me, I gained permission from the principal to have the coteacher to use part of our shared classroom time to complete the observations. I was therefore able to complete some of the observations during the times of 1:40 to 2:40 in the afternoon. I reminded the participants of the protocol for the observations, and they were also reminded that I would act as a passive observer as to not disturb the classroom routines. Participants were similarly reminded of the code system that would be used to provide confidentiality of their participation.

The observations took 3 weeks to complete, although 2 weeks were originally planned for observations. Unscheduled principal meetings during planning times took up some of the time I had allotted for observations to take place. As with the interviews, I observed 7 classrooms during the allotted time frame. Each observation took approximately 45 minutes, and they included teachers from grades 6 through 8. I purposely chose teachers who had 3 years of experience to gain insights on various teaching strategies that might be used to challenge and accommodate the levels of abilities in their classrooms. The teachers whose classrooms I observed were also the teachers who were participants in the interview process of the research. I took notes of how the classrooms were arranged and listened to the conversations of the students during their learning activities. Although it is important that every student be served to meet their individual abilities in a classroom, the research concentrated on the gifted and more academically advanced students. It is important to understand the diversity of abilities that encompass inclusive classrooms and how the gifted students are challenged.

It is also important to know how teachers use differentiation to develop the gifted students' strengths in the classroom. Therefore, I took notes during the observations of how the gifted students were being serviced and whether differentiation of curriculum might be taking place to sufficiently accommodate them in the inclusive classroom setting.

### **Data Analysis**

The data analysis portion of the research consisted of transcribing the interviews and classroom observations into categories and looking for similar themes and patterns of data which would add to the credibility to the study. After each classroom observation and participant interview, I rewrote the notes and made charts for organizational purposes. The data was then broken down into smaller chunks of information. From those chunks, I located similar categories of information and assigned labels and codes to the data. I incorporated both open and axial coding to formulate first broad categories of information and then to look for patterns in the categories to formulate subcategories and themes for the data. In this way, I systematically looked for meaningful data that would help me to answer the research questions.

### **Categories Formulated Through Interviews**

Once I had completed each of the initial interviews, I rewrote the interview notes and audio transcriptions in a word processing document and saved them on my home computer and on my personal flash drive. I also added my notes into a composition notebook which I could readily access if I needed to add any pertinent information. The research questions guided the formation of categories and units of information. The



research questions were labeled Question 1 as RQ1 and Question 2 as RQ2. These I added to a chart to help in the organization of data during the interview and transcribing process. I numbered the participants from 1 to 7 and used code numbers to ensure confidentiality. For the interview questions, I elicited a color coding system to easily identify between questions and participants. I began with 131 question-related statements taken from the seven participants in response to the eight interview questions. However, I did not include in this number those conversations that I judged as not being of benefit in helping to answer the overall study questions. I then narrowed down the responses into 34 categories of information. Through the open coding process, I broke down the data into 10 categories of relevant information. I formulated several tables as I proceeded to develop the categories from which I added and discarded until I had reached a saturation of categories that I felt would best help to answer my research questions.

The focus of RQ1 was about teachers' perspectives in teaching gifted students in the general education class setting. In RQ2, the question centered on how teachers implemented differentiation for the gifted students in their classrooms. In attempting to narrow down interview data and locate relevant information that would help answer these questions, I developed a table of 34 participant responses of teachers who had similar reactions to the interview questions. The table was beneficial in easily showing number of answers given to each category in comparison to other interview responses. It also provided a convenient reference for organizing and narrowing down still further the categories into themes of worthwhile information.

Using the table as a guide, I condensed some of the responses and deleted those I felt did not pertain to the promotion of relevant data that would support the development of the research questions. In this way, I could condense the responses into a workable set of data that more aligned with the purpose of the research questions. This procedure proved to be difficult due to the similarities of some of the responses, however by listening to each response carefully, I could more fully understand the different viewpoints of the participants.

### **Categories Formulated From Observations**

I next dealt with the data I collected from classroom observations and field notes. As a passive observer, using a predetermined set of observational criteria, I utilized a check list as I took notes during the observational process. Following each completed observation, I read through the notes many times and combed through each detail looking for information pertaining to the research questions. It was important that I reviewed and read the field notes as soon as possible while the notes and impressions were fresh on my mind. I also added any questions, thoughts, and impressions I had about the observations to the notes as well. Some information I placed in brackets as a reminder that the notes were added after the observation took place. In this way, I could determine the various themes and concepts conceived through what I saw and heard during the observations and, at the same time, avoid personal judgments and risking the validity of the observation by allowing personal perceptions to interfere with what took place during the observational process. To keep track of the classrooms I observed and the field notes from each classroom, I organized the research by color coding and labeling. Each teacher

participant was given a code number from which all data relating to that teacher participant was henceforth referred. Again, school computers were not used in order that confidentiality of participant information would be secured.

While I was writing the notes on the physical description of the classroom and desk arrangements, the teachers and the students were settling into the routines of their day. I first began by jotting down the descriptions of the physical arrangement of the rooms I visited, including anchor charts, word walls, and student work that may have been posted on bulletin boards or elsewhere in the classroom. During the initial gathering of observational information, looking and recording the physical setting and classroom arrangement was important in setting a context for the study.

Following the observational protocol (Appendix A), I recorded the field notes and the observational impressions of what was taking place in the classroom and how the gifted students were being accommodated. The observational data included (a) the number of students in the classroom, (b) the physical setting of the classroom, (c) grouping or seating arrangements, (d) evidence of differentiation provided for gifted students, (e) the strategies of differentiation being observed, (f) gifted students' motivation, and (g) the extent of engagement of the gifted students in the lesson or activity. For each observation, I used topological analysis and read the field notes many times to formulate broad categories of information I felt might be valuable data in the research. I then removed some of the categories that I believed did not help to answer the research questions or did not pertain to the research problem. As with the interview data, I proceeded in this manner until I had narrowed down what I believed were the most

important data and that which contributed most to the research questions I was attempting to answer.

### **Results From Interviews**

As I conducted the teacher interviews, I listened and watched as each participant explained and expounded on his or her opinions and perspectives on differentiation for the gifted students in the general education classroom. The research questions were semi-structured, and the participants were encouraged to address concerns they had as well. Through the openness of conversation, along with probing questions I asked as follow-ups, I gained beneficial insight of the teacher participants' perceptions at the time. In looking at the interview questions and keeping the research questions in mind, I condensed the data into themes and aligned them with the research questions as shown in Table 2.

Table 2

#### *Emerging Themes Related to the Research Questions*

Themes	Research question
Meeting all students' needs to pass the same mandated state test	RQ1, RQ2
Problem with differentiating for all abilities	RQ1, RQ2
Problem with teaching for all abilities	RQ1
Inclusion is not effective in a large group setting for all students	RQ1
Lack of coplanning with regular education teachers and coteachers	RQ2
Lack of training in differentiation and identification for gifted students	RQ1, RQ2

In determining the findings, I first looked at the research questions and how each theme of information interrelated with participant responses to the questions. In looking for categories and themes from the interviews, I condensed the data into six themes. Five of those themes related to RQ1, and four of the themes aligned with research RQ2. In three cases, there was an overlapping of themes that related to both RQ1 and RQ2. Six of those themes related to RQ1, and four of the themes were aligned with RQ2.

Within the six themes that emerged from the teacher interviews, all teachers agreed that differentiation was a good way to meet the needs of all students in their varying needs. For gifted students, the teachers also felt that they needed a differentiated curriculum. However, most of the participants did not understand how to implement differentiation while working with the different ability levels in the same classroom setting. Also, participants indicated concerns over the time it took to locate materials, having the proper resources, and the lack of understanding of the gifted students and their need for challenge beyond what they already knew.

### **Theme 1: Meeting all Students' Needs to Pass the Same Mandated State Test**

As shown in Table 2, the first theme developed was in response to interview Question 1 which asked participants how they felt in teaching students with mixed abilities in the general education classroom. Four of the seven teacher participants that I interviewed were concerned with meeting the needs of all students in the general classroom setting. Of the seven teachers interviewed, four of them felt that it was not possible to teach everyone equally in the same classroom environment due to the vast differences in ability and motivation of the students involved. The four teachers who

shared their perspectives in teaching all abilities felt it was very difficult to teach all students and expect the same results for the state mandated test. P4 expressed,

Well, um...I think that there needs to be classes based on ability of the students because everyone doesn't learn at the same pace. My bubble students and special ed students work at different levels, and then I have my upper level students. Yeah - of course it is hard to teach everyone in one class and expect them to pass the same test.

Three of the participants that I interviewed expressed concerns with serving the gifted and higher ability students while at the same time being accountable for the lower ability students who are expected to take the same mandated test. Two of the participants, P3 and P7, both shared their perspectives as feeling that gifted and those students with higher abilities were usually ignored in the general education classroom due to the time needed for the lower ability and the struggling students in the class. P3 stated, "Right now, my perspective is very discouraging for gifted and high-level kids – um, I really don't know how to help them as far as differentiating for them with the other kids I have to tend to also." P7 expressed similar feelings and stated, "It is very difficult for me to teach all levels of kids, yeah, it is difficult because there are too many ability levels that has to be reached in one setting." P7 added, "Right now, the smarter kids are basically being ignored." I asked P7 what he meant by his statement, and he replied, "I mean that the kids are waiting on the others to catch up because I have to devote so much more time in helping the slower kids. I just think we need a special class for each group." When questioned further about using a grouping strategy or cluster grouping for extended

learning, P7 discussed the problem of needing strategies to use for gifted students and for ideas on how to teach all his students so that all of them would be able to progress.

I also recorded some teachers who voiced their anxiety in having to teach every student the same standards to pass the state mandated test. Other perspectives were that students needed to be placed in environments that would best suit their learning abilities and where they could make the most academic progress.

## **Theme 2: Problem With Differentiating for all Abilities**

The second theme I noted was the problem teachers encountered and their perspectives on differentiation for all abilities of students in their classrooms. This theme referred to teacher perspectives on differentiation. Six of the seven teacher participants felt that differentiation was very difficult to do every day. However, P1 enjoyed using differentiation strategies during instruction. In further conversation, P1 stated, “It is not hard to differentiate for the class because science is a hands-on subject and we do a lot of investigations and kids like it.” On the other hand, P3 discussed concern over the amount of time it took to locate activities and strategies to use each day to differentiate for every ability in the classroom. P3 explained, “In math classes it is hard to water-down the material enough in order that every ability of student in the class can be taught equally and in a format with which mandated test would be given.” P2 also expressed concerns with the documentation and time it takes to locate material to plan for every ability level. I also noted that there was a concern with not having textbooks for guidance or extra ideas and strategies, and the time it took to locate enough sources to differentiate for

every level. The teacher also explained the many levels and the difference in the levels did not lend itself to easy differentiation for everyone. P6 explained,

I think differentiation is good, but every lesson can't be differentiated.

I think all kids need to learn the same things to make improvements. They need to be taught the same way if kids are expected to perform the same and make similar improvements on the same test.

All seven participants agreed that differentiation was a beneficial tool, but they had differing opinions on how differentiation should be carried out. P4 thought that differentiation was needed but that it should be done in small group settings rather than in a large classroom with varying ability levels of students. Another concern of P4 was that gifted students needed more attention than teachers could afford them in the general classroom. P7 expressed the opinion that differentiation was just as a way of "taking the responsibility off the child and putting it back on the teacher if they fail to make progress." Also, P7 expressed concern that there was no coteacher in the classroom to help with the social studies classes that he taught.

P1 stated, "I try to incorporate differentiation into my classroom each day." P1 also explained that she was taught about differentiation in college and that for her it was not a problem to use it into her lesson. In addition, the teacher indicated that because the subject was science, that most kids liked it which made her job easy. P1 elaborated, "I don't worry that every lesson is differentiated because it doesn't have to be, but I try to modify if I need too. It is not like some of the other subjects because all of the kids take part." The teacher added that she used peer tutoring often in her class to help those who



may have problems, and she uses grouping for the smarter students to work on extra material.

The mathematics teachers expressed more concern than other teachers because they found it a challenge to simplify mathematics concepts for some students to understand, and at the same time, expect them to pass the state mandated test. Other perspectives included were the need for small groups and separate classes for the high achieving students who lacked the attention they needed in the general education classroom.

### **Theme 3: Problems With Teaching All Abilities**

The third theme that emerged was the negative perspectives voiced by some teachers in teaching all abilities in the general education classroom setting. I recorded five of the seven participants as disapproving of teaching all abilities in one classroom setting. The research question that was associated with this interview question was RQ1. P3 was concerned with *simplifying concepts* too much for the lower level students, while trying to teach the same standards to everyone. A problem for P3 was in the lack of materials needed to help with the varying levels of students in the classroom. I asked her what materials she used for her classes, and she responded by explaining she had a few old Criterion Referenced Competency Test (CRCT) workbooks, but they were not up to common core standards and did not help her with differentiation strategies in her subject area.

Participant 6 had major concerns in teaching all abilities in a single classroom and with the time it takes to prepare for all the ability levels. As explained by P6, “Time is the

biggest challenge I have in teaching all abilities in my classroom. The time it takes to locate differentiated materials and prepare lessons is really difficult and challenging and it interferes with time at home.” P6 continued by explaining,

Along with the time-consuming part of trying to come up with ways to make my lessons differentiated, and at the same time making sure everybody’s needs are met is a tremendous challenge. Sometimes I feel like I’m rushing around trying to put on a ‘dog and pony’ show for the administration and observations instead of really teaching as I need to.

P1 responded to the question and agreed with P6 that time was a challenge.

However, P1 stated, “The biggest challenge is in trying to plan with my coteacher. The coteacher doesn’t always work with my regular education classes. But then I don’t think I have to do as much differentiation with science because science is interesting.” P1 explained that in working with a coteacher, she could use more time in helping the higher-level students, but she really didn’t help them to do much because they “got it” most of the time. The teacher also explained that if the coteacher was with her, the lower level students would put more effort into their work whenever they had notes or worksheets to do.

P7 discussed motivation as being a major challenge in teaching an all-abilities class. P7 stated, “How do I say it? Motivating the student, and then literally pushing the child to obtain the material taught. Gifted students really have no problem in motivation, but it is really difficult to differentiate for all students because of low motivation.” P7

explained that if he had a coteacher, the motivation might be higher for the special education groups because they could work at their own pace.

The problems for most teachers that I interviewed were in understanding how to teach the same standards while also having to teach to each individual students' ability. Teachers were concerned with having to make the work simpler for some students and more advanced for others. Also, time involved in developing a variation of lesson plans to accommodate all students in the classroom was a problem for most teachers. Lastly, the lack of time to meet with coteachers to develop lesson plans and the lack of coteachers to be in every classroom was a concern.

#### **Theme 4: Inclusion is Not Effective in a Large Group Setting for All Students**

The fourth theme to emerge from the interview was the idea that gifted students and SWD need to be taught in a separate classroom because inclusion is not effective in a large group setting for all students. As P7 explained, "Gifted and the higher ability group in general are more likely to ask in-depth questions, and they are usually eager to learn. This is not true with many of the other students I have in my class." P4 stated, "There are way too many ability levels that have to be reached in one setting, and this is what holds the higher-level kids from gaining ground."

Another concern from P2, was that the gifted students needed more time and attention than she could give them in the class with mixed abilities. The teacher further elaborated that she did not mind the children, but that it was so hard to teach all levels of abilities, and when abilities vary greatly, it is difficult to teach the standards as should be taught. P6 also explained, "We need gifted classes to be taught. They need to be around

other kids that think the way they think. We need our own self-contained gifted classes, so these students can progress too.” Similarly, P3 also explained,

The special education group is so far behind the others that it hinders learning for other students in the classroom. If students were grouped to their ability, then all ability levels benefit. I can help kids best with other kids with the same learning ability.

Whenever I asked the teacher to elaborate on the ability differences, the teacher discussed the fact that for math to be taught correctly, the lower level students needed to be in a smaller group situation, or those who were on level or above level and could grasp math concepts should be in classes so that they could make more progress. The teacher felt the higher-level students suffer because of the lack of special services and more challenge. Furthermore, P3 explained that inclusion was not only unfair to the higher ability students, but also to those who cannot do the work. P5 also discussed inclusion further by explaining,

The concept of inclusion and of all abilities being taught equally in the same classroom is not what it (inclusion) is supposed to be and inclusion is not what they (administration) think it is because it does not work for everyone. Inclusion was supposed to be an environment with everyone learning at their level, but it has been pretty much the opposite. There are not enough coteachers to help with the slower kids, and that makes inclusion unequal and unfair to all students.

In discussing the idea of all abilities of students in the same classroom, P6 explained, “If kids were put in classrooms according to ability, we wouldn’t need differentiation. It’s easier and it would benefit students more to match the abilities in the classrooms – that’s the way it should be.” P4 discussed how all levels of abilities in the same classroom did not provide for all students’ needs to be met.

I recorded the teachers’ overall perspective which included the following: 1) Gifted students should have their own classrooms; 2) SWD asked more questions when in smaller groups; 3) gifted students need more attention given them can be offered in the inclusive classroom environment; 4) gifted students need to work with others of their own ability, and 5) all students suffer because the needs of every child are not met in the inclusive classroom.

#### **Theme 5: Lack of Coplanning with Regular Education Teacher and Coteacher**

The lack of co-planning time with coteachers and general education teachers was also a concern for some of the participants. Five of the participants that I interviewed said that there was not enough time for coteachers and the regular education teachers to plan for all the abilities that needed to be accommodated. P2, P3, and P7 explained the need to have planning time with coteachers because the teachers had been given very little training in working with the varying learning abilities, especially those of special educational needs and gifted students. P3 also discussed, “Coteacher planning is needed with every teacher because we should know every students’ strengths and weaknesses. We will be better able to help them meet or exceed the standards”. P4 described the middle school as very small and that there were not enough coteachers to be in every

classroom during every class period. P2 stated a concern for needed planning time with coteaches when addressing some students who may have special needs such as in behavior or self-control. They further elaborated on the need for teachers to plan together in order to accommodate the differing abilities and issues that may occur in the classroom.

Overall, Theme 5 was centered around the need for coteachers and general education teachers to be able to work, discuss, and plan together to provide a more beneficial learning environment for every student. The need for co-planning with the coteachers and general education teachers could provide needed assistance to general education teachers who may not have the advantage of having extra help in the mixed-abilities classroom.

#### **Theme 6: Lack of Training in Differentiation and Identification for Gifted Students**

The lack of training in DI and the identification of gifted students was a major concern for all the teacher participants. In research Q2, I asked the participants how middle school teachers implement differentiation for their gifted and high achieving students in the general education classroom. All seven teacher participants indicated that this was an issue for them.

Teacher participants indicated several ways in which they identified their gifted and high achieving students. Some of those strategies included pretest and posttest, formal assessment data taken from labs, higher order thinking skills, class participation and class discussions in which advanced vocabulary and in-depth questions could be

observed. Concerning the recognition and identification of gifted and high achieving students, P7 explained,

That's easy – most high achieving students are eager to learn, ask questions, and follow directions. Gifted students ask questions that pertain to the ideas of the lesson, and they are not satisfied with their grades that seem lower than their standards.

The teacher elaborated further by explaining the less motivated are usually those who do not understand or care about grades or who settle for anything, mostly a passing grade. P3 said, "I can tell when students get it and they ask questions." P6 also stated,

Um – you just know the higher-level language and vocabulary they use, and they use it correctly. The higher level can use math and make comparisons and in math that is important. The way they answer the questions tells me what level they are.

All the teacher participants stated that they also used preassessments and post assessments to gauge students' abilities and levels of understanding.

Also, included in theme 6, was how teachers differentiated for the gifted and high achieving students in their classroom. P3 confided, "Honestly, I haven't been. My goal is to go higher and challenge them more than the other kids." The teacher indicated a lack of knowledge in how to differentiate for gifted students and in how to prepare for some students differently when she was teaching the same concepts and standards. In a similar response, P7 explained, "I don't, although I have stations – everyone does the same things. I really don't know what else to do if everyone is supposed to make progress and

pass the same test.” Although each teacher indicated that differentiation was a good tool to implement to help meet the needs of gifted students, most teachers had difficulty utilizing differentiation. P1 indicated a different response when asked about differentiating for the gifted student by explaining,

I use less scaffolding in labs. It is their responsibility to collect and analyze the data. They take leadership; they have the ability to have control over what they learn. Plus, I make my labs a safe place to fail and then we discuss why it (lab) failed.

P1 also indicated that she had prior training for differentiation of instruction in her training as a teacher. P5 explained,

Those students who are struggling are in a group. The on-task kids are put together, and the higher-level kids – I give them more of a challenge.

They are given more of a chance to work on other grade level materials.

P7 stated that students are grouped according to their interest and ability levels. Two of the seven teacher participants stated that they incorporate the gifted students as classroom tutors for lower level students and those who are struggling with the content.

Also, I asked the teachers about their teacher preparation and training in the field of understanding and working with gifted students and training in differentiation for the gifted students. P4 indicated that training has been concentrated on how to appropriately serve to the struggling student and the SWD, and there has been little to no training for teachers in differentiation for the higher ability and gifted students. P7 explained that there was a need for teachers to be trained in understanding gifted students and how to



better challenge and differentiate for them. Two of the participants discussed that they had training in college on differentiation, but not too much focus was placed on gifted students. P4 explained that she had a gifted endorsement, but that she had not been given the opportunity to work with gifted kids. As a probing question, I asked the teacher how she used her endorsement in her classroom to challenge the gifted students; she stated that she tried to give them high level work, but she found it hard to teach to one group while having to help the others in the classroom who were having trouble with understanding some concepts. Although she stated that she was trained to work with gifted students, she did not implement differentiated strategies often because she was concerned about every student understanding the same material for the state mandated test. The teacher questioned why the school system did not include advanced classes in the middle school for the gifted and upper level kids.

P5 explained that the teachers had not been given enough training in differentiation, especially in working with the gifted students. The teacher explained,

Hum – I don't think I have been prepared at all to differentiate for gifted students. In college, I learned to teach students in general. I've never been given adequate information or training dealing with gifted students. We are supposed to hear something once and know what to do. It doesn't work that way – training needs to be followed up.

One teacher indicated that the lack of stability in administration was a reason for the absence of training in general in the middle school. P7 stated,

Uh - I need more training, at least training once a year. Our school has too much flip-flop with teachers and administration to have set trainings and the materials we need. Um...well, I think we need more training if we are expected to help all our students equally.

The consensus of all the teacher participants that I interviewed was that training in the field of differentiation was needed and that a better understanding of the needs of the gifted learners would also be of benefit. Although teachers used pre and post assessments, as well as formal assessments and discussion and participation in class as indicators of their high achieving students, the need to understand how to accommodate for the high achieving and gifted students in a mixed-abilities classroom was indicated. Another concern included the level of attention given in providing for the struggling students and the lack of interest in providing for those students who are high achieving. I also heard issues voiced by some teachers with teaching mixed abilities of students in one classroom, the lack of stability in administration, and the need for honors or gifted classes.

The overall results from the eight interview questions that I asked the participants indicated an overlap of responses. Accordingly, teachers did not mind teaching students with mixed abilities in their classrooms. However, teachers felt overwhelmed with the time it took to plan differentiated lesson plans and implementing them while also making sure that state standards were met. Some teachers thought that more training in implementing differentiatinal strategies was needed. To identify gifted and high achieving students, teachers used pretest and posttest, along with formal assessments,

discussions, and observations. Also, most teachers felt that gifted students should be instructed in separate classrooms and work with students with like abilities so that their needs would also be met.

### **Results From Observations**

During the observations, engagement of gifted and high achieving middle school students was observed through 1) group conversations, questions, 2) student attitudes shown toward an assignment, 3) facial expressions (smiles, looks of boredom or lack of interest), verbal expressions (advanced vocabulary, self-confidence, dominating), and 4) the level of motivation with which the student approached the assignment. In observing middle school inclusive classrooms, I focused on the gifted students. However, I also included other classroom activity because I felt it was important to give an overall picture of the inclusive classroom environment and the level of differentiation and attention that teachers provided for gifted students.

Through the classroom observations, I gathered first hand insight into what was taking place in each of the classrooms, how the classrooms were alike, and how they differed, and how the middle school teachers implemented differentiation to reach all levels of students, but especially how the gifted students were being challenged and accommodated in the general education classroom. When analyzing the data gathered from the teacher interviews with the data from the teacher observations, I made comparisons to what was said and what was done in the classroom at that time of observation.

The observational protocol consisted of seven areas of interest. I wrote

impressions of what I saw and especially what I heard as students began conversations or worked on assignments. In this section, I referred to the seven classroom teacher participants by using code numbers. I used four observational protocol questions to structure the observations. The four questions were as follows: 1) Was differentiation taking place in the classroom? 2) What differentiation strategies were taking place? 3) What level of involvement did the gifted students display while working on the lesson or activity? 4) How did the teacher engage all students in the lesson?

In comparing interview notes and observational notes, I noticed some reoccurring words that I had written - both in interview and in the observational notes. The reoccurring words or phrases that I recorded in the field notes during the observations and noted or heard during the interviews were socialization, worksheets, videos, grouping, differentiation strategy, cooperation, remediation, motivation, and student engagement. I used field notes and the original protocol questions to develop categories for my observations. I used four protocol questions as the categories and from those I built three reoccurring topics of interest. Those three topics included 1) lack of motivation, 2) strategies of differentiated instruction, and 3) engagement of students.

The results of the observations I conducted were somewhat unexpected due to the responses given during the interviews. There were discrepant data between the interviews and observations that did not align with one another. During the interviews, all participants expressed the importance of differentiation in the inclusive general education classroom, however, most teachers were not including a differentiated curriculum during the observations. Most of the participants voiced the need for further professional

development and training in differentiation, therefore participants may not have fully understood the concepts of a differentiated classroom.

As I observed classrooms and the way in which they were taught at that time, I observed some gifted students who were not engaged in the lesson. The absence of student engagement from gifted students could have been from a lack of enthusiasm to do the work on the students' part, or a lack of a differentiated lesson, strategy, incentive or challenge provided by the teacher.

In five of the seven classrooms I observed, there was interaction and socialization of the gifted students who also displayed cooperation among the other members of their groups. In one group, there was no conversation among the group members. In two classrooms, the students were seated in rows, but they socialized and interacted with one another during the class. Other repeated words I heard and notes that I had written concerned the use of worksheets and videos. The worksheet in one of the observations was based on the video, and all students interacted and worked together to complete it. In another classroom, the worksheets were completed in silence and there was no interaction among any of the students, including the gifted students. Student engagement in some activities was observed, but I only made one observation of a lesson where I saw and heard differentiation taking place for the gifted students.

The observations I conducted were valuable to the study because the strategies of differentiation that may have enhanced student achievement for gifted students were only observed in one classroom. Had I conducted more or extended observations in this study,

perhaps a higher level of differentiation for the gifted and high achieving students would have been noted.

### **Observation 1**

This observation was significant in showing the difficulty that some teachers may have in implementing a form of differentiation in a mixed-abilities classroom. Although the lesson was interesting, and the demonstrations held the attention of most of the class at the time, there was a lack of challenge provided for gifted learners in the classroom.

While I observed the science classroom of P1, I first noted the seating arrangement of the students. Twenty-five student desks were grouped in pods of three and four with 19 students in the class. The room was well organized with anchor charts and student work on the bulletin board. In looking to answer the observational questions, I began to write what I saw and heard as the class period progressed.

The teacher began the class with a video of current events. Following the video, the teacher discussed the news events and introduced the lesson by explaining what the standards would be taught that day. Three of the students in this classroom were gifted students and were sitting together in one of the groups. Most of the students appeared to be eager to get their notebooks and take notes. However, I saw four students who did not follow the directions, and the teacher had to tell them several times to get on task.

Following the notes, the teacher completed an experiment using balloons, students' hair, and sweaters to demonstrate the concept of static electricity. All groups were then asked to complete a graphic organizer, and I began to hear the conversations taking place. Of the five groups of students, the conversations of three of the groups I

heard, including the gifted group, were on task and the students looked as if they were concerned with the assignment. I took note of gifted students explaining and talking together in their group about the concepts of static electricity, but I could not hear all their conversation. The gifted students worked and completed the assignment and were one of the groups completing the assignment first. However, for other ability groups, I did not see every member of the groups engaged in the assignment, as some members were talking, looking around, and off-task.

Although the teacher repeated the assignment goals of completing the work, according to my observation, I did not observe a strategy of differentiation being used in the lesson that would have challenged the gifted students. Also, I took note that after the three gifted students had completed the graphic organizer, two of them read books, while the other gifted student wanted to talk. Conversations within the gifted group did not sound as if the lesson promoted a sense of challenge for the gifted students, although they were concerned with completing the assignment. The teacher's lesson assignments did not exhibit a level of differential strategies to fully keep gifted students engaged in the lesson or that would have challenged their academic abilities. The objective for all students was to complete the graphic organizer from the lesson and be ready for discussion of the activity when time was called.

## **Observation 2**

I observed the classroom of P2. The arrangement of the classroom was much like the class setup of P1. The 25 desks were arranged in groups of four, and there were 20 students in the class. Although there were no identified gifted students in the classroom,

there were eight students whose test scores indicated that they were high achieving students who also needed to be challenged in the classroom, and they were seated in two groups of four. I also noted anchor charts and rules posted on the board, as well as student work samples. The teacher began the lesson with a reminder of an upcoming test. All students were asked to complete the opener which was a question pertaining to the test. Following the opening discussions, the class began a whole class review which consisted of the teacher asking questions and the students taking turns and answering them. During this time, I observed that student engagement as not very high. Some students, including a group with four of the high achieving students, were not participating, but instead were talkative and disengaged with the review. However, three of the high achieving students in a second group wanted to answer every question that the teacher asked.

Using the observational protocol questions as a guide, I did not see a differentiated strategy being used, nor did I observe all high achieving students engaged in the review activity. Three of the students were genuinely engaged and interested in the lesson, but the other five high achieving students were not engaged by the teacher to work on the question-answer test review. I did not observe or hear a strategy implemented that would have indicated that differentiation of instruction was taking place that might provide an in-depth level of review for gifted or high achieving students. The observation of P2 directly aligned with the interview responses in which the teacher discussed her need for training in differentiation and in teaching gifted and high achieving students.



### **Observation 3**

The important part of the third observation was the lack of differentiation for the gifted and high achieving students in the classroom. The classroom I observed was welcoming and very creatively decorated with an engaging bulletin board and a lot of anchor charts. The classroom of P3 had 25 desks arranged in groups with 21 students in the class. The composition of the class included two gifted students and five high achieving students.

The teacher utilized the white board with a video about rocks and minerals. The students were motivated by the video because almost all the students in the classroom were watching it and paying attention. One student, however, was playing with a rubber band, and the teacher asked him to put it away. The students were told they would be participating in a lab on rocks and minerals the next day, and this announcement was welcomed and commented on by several members of the class. All the students were then asked to complete a worksheet pertaining to the video that was being shown. Following the assignment, the teacher also asked if the class had any questions about the material in the video or the assignment, whereas three students asked pertinent questions about the video.

I understood the objective for the lesson was for students to complete the worksheet that was due at the end of the class session. The instructions for all students to complete the same assignment did not engage or motivate all gifted students to stay on task. Following the direction to complete the worksheets, I observed several students not doing the assignment as they were asked. I also saw three groups of students who all

appeared to be working as they were instructed. From where I was sitting, I observed that members of three of the groups were engaged in conversation pertaining to the assignment, and they seemed to be concerned with getting their work completed.

Although the worksheet activity engaged the members of the gifted group, they completed the assignment and read or talked while the other students were completing their work. There was not a differentiated lesson described or assigned by the teacher through the classroom instructions given, and all students were assigned the same worksheet.

#### **Observation 4**

The significance of this observation was that some of the students did not appear to be challenged to their abilities. This observation could have been due the teacher's need to differentiate the learning activity that would have provided more depth and challenge beyond what they already knew. Although the class was expected to watch a current events presentation and answer questions based on what they learned, the teacher did not employ a differentiated lesson or activity that would have met the needs of all students.

The classroom of P4 was arranged differently from the other classrooms in that the 25 desks were arranged in rows and not in groups. I observed that the classroom appeared more crowded than the others, perhaps the seating arrangements made the room appear to be smaller. There were anchor charts, posters, and a vocabulary word wall. The bulletin board consisted of a news section but was void of student work. According to test scores that I had obtained, the composition of the class included two gifted students and five

high achieving students. The gifted students were sitting one behind the other, whereas the high achieving students were sitting near each other in the classroom.

As I began my observations, the students were asked to watch the current events news program for the opening session and answer questions based on the program. The students watched, and most of them were interested in the program according to my observation of facial expressions and the comments concerning the topics that were being discussed. One news story was about the new football helmets that had been designed for safety issues. The boys especially were interested in the football story. However, during the news presentation some of the students lost interest and began to whisper to their neighbor.

It was somewhat difficult to tell who may have been more engaged or interested in the news presentation because I was unable to hear what students had to say. I observed the two gifted students who appeared to have completed the questions because they were reading. Three of the high achieving students were not watching the video but were writing or drawing on their paper, and two of the high achieving students were whispering. The three high achieving students may have been answering the questions, but I could not be sure because they did not seem to be interested in watching the video. The teacher did not indicate or discuss a differentiated lesson or activity in the assignment given. Two of the high achieving students were whispering, while one was watching the presentation and writing.

Students were working in a whole group activity which did not engage every student, nor did it seem to challenge gifted students. The disengagement of some to the

students could have been the result of an unchallenging follow up activity from the video. The teacher expressed in her interview that she had been trained to teach more of the struggling students rather than the gifted students, and she had trouble teaching all abilities in the same classroom.

### **Observation 5**

The significant part of this classroom observation was that the high achieving students were given the opportunity of reading at their level, and then share what they had learned with the class. Also, the other students in the class could read at their ability level which may have been a strategy of differentiated curriculum for that level ability student as well. The teacher used level reading assignments as a differentiation tool and explained the reading activity to the class and that everyone would not be reading the same article.

In the classroom of P5, I observed 22 students whose desks were in groups of three, five, and six per group. The classroom walls displayed student posters, a word wall, anchor charts, and a bulletin board with a news section and a large section of student work. This class did not have any identified gifted students. However, according to test scores there were eight high achieving students in the classroom.

These eight students were divided into two groups. At the beginning of the class, the teacher began with an opener pertaining to a previously read article. A whole group discussion took place and a student sharing and question period followed. The teacher then explained the reading for the day and that each group would be given an article to read, cooperatively answer questions, and then discuss their findings with the class.

The teacher was incorporating differentiation of instruction because she explained to the class that some of the groups would have the same article, however some groups would have a different article to read. The teacher also explained that some articles would not be the same, and they may contain different questions and vocabulary than the other groups. Therefore, whenever their time came to share with the class, students should tell something new that the other groups did not explain from their article.

I observed an orderly and cooperative environment where the teacher communicated to the students what was expected of them. The teacher monitored and kept those who wanted to stray off track on task. The teacher had few discipline problems, and there was also a coteacher in the room working on and off with a group of six students. Through the conversations of the group of the five high achieving students, I observed two of the students who took more control of the conversations in the groups than other students. Some of the high achieving students wanted to control the conversations, while other students just worked quietly. However, I did observe collaboration among the members of the group.

I noted that the teacher engaged the students through monitoring of the assignments, as well as using different levels of articles to help in meeting the abilities of the readers in the groups. Differentiation of instruction was taking place in the classroom and the expectation for the students was to complete the articles, listen to the other groups, and then explain something new that they had learned from the articles and group collaboration. However, P5 had expressed her need for more training in differentiation

for the gifted students in her classroom during her interview. Also, the teacher explained the need for follow-up in future trainings.

### **Observation 6**

An important part of teaching in mixed-abilities classrooms is in the teachers' understanding of the students that are in their classrooms. A major significance to this observation was in recognizing that gifted students spend wasted time waiting for other students in the classroom to grasp concepts and complete work.

In the sixth observation, I observed desks arranged in groups of three, four, and five. Again, there were 25 desks in the classroom and 20 students. There were anchor charts, posters, and sample mathematics problems on the wall. Also, there was a word wall and student bulletin board. In this class, I also noted that there were two students identified as gifted students and six high achieving students. The students were seated according to ability with four high achieving students forming one group, and two gifted and two high achieving students forming the second group.

I did not observe an opening to the lesson, however students were working on a project worksheet from the day before according to the instructions I heard given by the teacher. The lesson was on percentages and comparing "yesterday's" prices with "today's" prices on selected items. The groups were working very quietly on their assignments. One of the groups was SWD group and the special education coteacher was with them while they worked. One of the students in that group was told to walk around the room and complete the assignment from the day before. He was looking at items displayed throughout the room and had to figure the difference using percentages of the

old prices and in the new prices of the items. The other students, including the gifted, were working on a graphic organizer or worksheet. Whenever the students began to whisper among themselves, the teacher told them to stop talking.

In reviewing my observational protocol questions, I did not observe differentiation of instruction, although there was a coteacher. The coteacher appeared to be doing more modifications with the SWD students rather than differentiation of instruction. Also, I could not hear the gifted students' conversations because the teacher instructed the students not to talk during the work session, therefore it was not possible to hear what was taking place. The teacher did not indicate a differentiation of instruction or student directions or incentives during the last 45 minutes of class.

In referring to the protocol questions for the observations, I did not record a strategy of differentiation being implemented in the class, however, all students appeared to be working on their assignments. Although students were involved in the assignment, I observed the group of high achieving students and two gifted students looking around at the class as if they had completed the assignment and were waiting for the others to finish. Without conversation or group socialization I could not determine if students had a differentiated assignment, however, none was indicated through teacher communication during the observation. Additionally, the teacher had previously discussed in the interview session her concern that inclusive classrooms did not meet all students' needs.

### **Observations 7**

The prominence of this observation was the lack of a challenging lesson suitable for the two gifted students in the classroom. The classroom of P7 also had 25 desks, and they were arranged in rows. The class consisted of 22 students. The classroom, as the

other six I had observed, had student work on the bulletin board, anchor charts and posters on the walls, and a word wall. The teacher's motivational strategy for the class to participate was an upcoming test and a geography competition.

The teacher utilized a whole group review of the previous week's lessons with the class, and the students were told they would be reviewing for a test they would have the next day. I listened as the teacher set the expectations for the class and reminded them of the importance of being prepared. Also, the teacher explained they were going to be practicing for a geography contest that was to be held later in the week. The teacher asked students to raise their hands if they wanted to answer the questions. The rules to the contest review were read and explained to the class. Two of the students in the class were gifted students. The two gifted students wanted to answer all the questions. Although these students were answering the questions, not all students were engaged in the review. I observed some of the students were listening, and paying attention, and one student was reading a book and looking up occasionally instead of participating in the review.

Although the activity was engaging for some students, it was not an engaging activity for other students in the class. The teacher did not have the aid of a coteacher in the room, and there was no evidence from the observations that a strategy of differentiation was being utilized during the class session that would have enhanced learning for the gifted students. Had there been a coteacher present, the general education teacher may have found it easier to differentiate for the review. The gifted students were answering most of the questions which could have been due to a non-challenging lesson or activity where academic progress may have been hindered.



### **Summary of Observations**

Classroom observations indicated that most teachers did not implement a strategy of differentiation in their assignments that would have been aimed at promoting academic progress for the gifted students. In the classroom observations, I did not record hearing most of the teachers explaining or describing differentiated lessons or activities to the students. There was also a lack of higher order thinking questions asked that may have indicated differentiated instruction.

For the most part, I observed lessons that were whole group and were not presented as those based on students' strengths or abilities. Due to the facial expressions and reactions to the assignments of some of the students observed, mostly those who were gifted, I perceived some students as being bored or disinterested. The reactions could have been due to students' prior knowledge of the curriculum which may have resulted in a lack of interest in re-learning what was already known. Also, the observations and student involvement or lack of involvement, could have been due to the degree of the teachers' knowledge in the art of using differential strategies or higher order thinking skills that would help to meet the needs of the gifted students and those high achieving students. However, based on most of the teacher interviews, the observations backed up what most of the teachers expressed when questioned about their ideas and understanding of differentiation and the gifted students.

Through triangulation of data, teacher P1 said she enjoyed using differentiation in her instruction, however this was not indicated in the observation of her class. P3 stated that she did not know how to differentiate for the gifted students and teach the other

students in her class. Likewise, I did not observe differentiation taking place in her classroom. P4 and P5 discussed the need for training using differentiation which may have been why there was not an observance of differentiation being utilized in their instruction. Finally, P7 explained that he needed strategies to use for the students with advanced ability and ideas that would help him teach all students. He also stated that he did not use differentiation, but he did use stations which were basically the same activities because he did not know what else to do if all students were to pass the same test.

I had pre-scheduled classroom observations with individual teachers before the observations took place. The observational data indicated only one classroom as utilizing a form of differentiation. However, a single observation of each classroom provided only a limited view of how each teacher organized the classroom activities and curriculum. Although I had limited observational evidence, the observations were very useful in providing an overall idea of what the teachers were doing to challenge the gifted students in their classrooms at that time. Furthermore, because observations were pre-scheduled, and there were no surprise observations that took place, it might be assumed that the observations were based on what normally occurs in the classroom.

### **Theme Formulated From Observations**

The observations that I conducted helped to determine the extent to which differentiation was implemented for the gifted students in the general education classroom. The major theme drawn from the observations indicated that differentiation

with challenging activities for gifted students was not being implemented in the classroom.

During the observations, I noted that students in most of the classrooms were on the same task. According to the literature, to employ a differentiation of instruction means to offer students a variety of activities that may incorporate remediation, challenge and rigor, teacher instruction, small groups, implementation of technology, whole group, or number of other strategies that will help students meet their potentials (DeJesus, 2012).

### **Common Themes**

The overall themes that resonated from the data analysis of the interviews and observations were 1) the need for professional development in differentiation for gifted students, and 2) the need for professional development in identifying and understanding of the characteristics of gifted students. These were determined based on the reoccurring responses from the participant interviews and in the observations and what was taking place in the classroom. In the teacher interviews that I conducted, all teachers expressed that they needed training recognizing and identifying the needs of gifted students. Also, they discussed the need for more training in understanding of differentiation and how to implement a differentiated curriculum. As I further explained in the literature review, it may be difficult to adjust to a mixed-abilities classroom if teachers have not been trained in differentiation and in understanding of the levels of learners that encompasses inclusive education classrooms (Hedrick, 2012; Weber et al., 2013). Through the observation of identified gifted and the high achieving students, and observations of classroom activities taking place, I determined that a differentiated curriculum was not

implemented by most of the teacher participants because every student was doing the same activities as instructed by the teacher (Wu, 2017). For differentiation to have been taking place, there needed to be a variety of methods being implemented in which students could experience learning that would have maximized student growth (Tomlinson, 2001).

### **Evidence of Quality**

To ensure the quality and trustworthiness of this study, the data I collected consisted of one-on-one participant interviews and one classroom observation per teacher. The importance of interviews stems from the opportunity participants have to explain what they think and how they feel about a situation or problem (Hatch, 2002). Also, the value of classroom observations is to back up or explain what the interviewees were describing and to see the use of differentiation in action. Again, an added strength of credibility would have been made had there been more than one observation per classroom. Also, an important part of trustworthiness or credibility came from meeting with the participants in a member checking review. I allowed the teacher participants to hear the interpretation of the information that was given during the interviews, and make changes or comments to the information, which was important in establishing trustworthiness and credibility (Creswell, 2003). Although it was determined that most teachers were not implementing differentiation in their classrooms, teachers agreed with the results of the data analysis and the findings. One teacher indicated that she did not feel that she needed differentiation in her lesson, however she understood how her activity did not challenge the gifted students at the time. In member checking, the

teachers commented that they realized their need for more training and follow up in the use and implementation of differentiation.

Peer debriefing was another measure that I used to ensure an evidence of trustworthiness to the study (Creswell, 2013). In meeting with the peer debriefer and discussing the results of the data collected from observations and interviews, I was more aware of what I needed to focus on to make my research more reliable and credible. The peer review partner is a former teacher of 20 years and is now the middle school's media specialist. I met with the peer reviewer to discuss the data, to review the transcripts, to make comparisons in the notes and recordings, and to make corrections and adjustments in the overall analysis of the study. The peer debriefing partner was not a classroom teacher, but she did have knowledge of the purpose of differentiation. Through the peer reviews and member checking, I could look at the data at more closely and evaluate the results more clearly.

I developed a triangulation of data through the information gathered during the observations and in the interviews. Triangulation was essential to the development of themes, and in ensuring trustworthiness to the study. Whenever a researcher utilizes more than one method of data collection, the methods support each other, and weaknesses in one method may be balanced out in the strength of another method (Mills, 2003). In this study, I incorporated triangulation through classroom observations and teacher interviews. The interviews helped to support the observations because the interviews were followed up with member checking and discussions of what had been said. As previously discussed, teachers understood their need for extended training in areas of

differentiation and in understanding the needs of gifted students in the classroom. This was indicated through individual teacher interviews and verified through the classroom observations and the degree to which teachers were observed utilizing differentiation in their instruction. Although most teachers explained the need for more training using differentiation, P1 discussed her training in college using differentiation, and that she did not have to differentiate for every lesson. This could have been why differentiation was not observed in her classroom. Perhaps an additional observation would have highlighted her implementation of differentiation.

### **Summary**

In summary, classroom observations and face-to-face interviews that I conducted were the key instruments in this qualitative case study research. The overarching research question was how are teachers making accommodations to meet the needs of the gifted students in the mixed-abilities classroom setting in a rural middle school? Although this study was based on a small sample of teachers in a rural community, it has implications for advancement in differentiation for the gifted students. The results of the triangulation of data indicated the need for more teacher training in the areas of differentiation and in the characteristics of gifted students. In Section 5, I will address the overall conclusions and interpretations of the findings and the social implications that this may have for improving the support needed for the gifted students, and not only in small rural schools but also in other school systems where administrators and teachers may have concerns with appropriately meeting the needs of all students.

## Section 5: Discussion, Conclusions, and Recommendations

### **Introduction**

The onset of inclusive education has caused some educators to question the effectiveness of inclusion as being the best fit in meeting and accommodating every students' need in the classroom. The mark of success for any school system is for every student to show progress and to make gains, no matter the ability or disability of a student. The progress for gifted students could come from a broader challenging curriculum in the classroom (Morris, 2013; Tomlinson & Imbeau, 2010; VanTassel-Baska, 2010). As early as the 1900s, educators understood the need for gifted students to be educated differently (VanTassel-Baska, 2010). Likewise, in current inclusive classrooms settings, it is important for teachers to understand gifted students, the characteristics they may possess, as well as their academic potentials (Bangel et al., 2010; Moon, 2009).

Gifted students may be able to survive in the classroom without differentiation, but they may not make the progress that is necessary to accommodate and meet their level of learning and need. Students who are gifted and high achieving students need challenge, or they may not study or work to their potential and thus find themselves unprepared for college or other educational pursuits in the future (Manning, 2010). Gifted students need help in reaching their full potentials with curriculum that is structured to individual mental and academic abilities (Tomlinson, 2001).

In this study, I investigated the challenges that some teachers in a rural middle school may have in providing and implementing a differentiated curriculum that would

promote learning to take place for the gifted learners. Also, I presented literature that supported the use of differentiation as a tool that all schools can incorporate regardless of SES if appropriate professional learning is provided for teachers in understanding the various differentiation techniques and the need and characteristics in recognizing the potentials of gifted learners.

### **Purpose of the Study**

The problems of differentiation and providing a suitable curriculum for gifted students are often overlooked and thus laid the foundation for this research study. Accordingly, the purpose of this qualitative case study was to determine teacher perspectives on differentiation for gifted students in the general education classroom in a rural middle school. To understand teacher perspectives more fully, the study also addressed the following two research questions:

1. What are teacher perspectives in teaching the gifted students in the mixed-abilities classroom setting?
2. How are middle school teachers implementing differentiation for their gifted student in the mixed-abilities classroom?

### **Summary of the Findings**

Teachers related their perspectives on implementing differentiation, as well as perspectives on teaching gifted students in the general classroom with students with mixed ability. Findings revealed that some of the participants were comfortable with teaching a variety of student abilities, others were not. There were some teachers who



believed that inclusion did not help gifted students in matching their abilities or in making needed progress (Kanevsky, 2011).

As I recorded in the field notes and the interactions of the students in the classrooms, I did not observe a challenging curriculum that would have helped to accommodate the academic needs of gifted students in most classrooms. There was an alignment with some of the teacher interviews and the observed implementation of differential strategies used in the classroom for gifted students. However, per teacher interviews, differentiation was determined by the teachers as being an effective tool to use, however the strategies of differentiation were not executed in most of the classrooms observed. Two sources of collected data, interviews and observations, indicated problems and challenges when it came to differentiation for the gifted students in the inclusive general education classroom.

Teachers voiced the need for a better understanding of how to teach a variety of abilities in one classroom, while providing the same standard content for testing purposes. I used the literature in this study to provide evidence that the problem of incorporating differentiation with limited resources, both in professional development and classroom materials, is also a problem for many other rural schools. Literature also provided information of strategies and resources that can be implemented that could help teachers in rural school systems to better accommodate their gifted students.

### **Interpretations of Findings**

The interpretations of the findings and the conclusions that I made from the research were formulated through teacher perceptions from interviews, classroom observations, emerging themes, the theoretical framework, and scholarly literature. Most teachers expressed that they needed more training in understanding the needs of gifted learners and in providing for their needs. Also, teachers understood the necessity of implementing a differentiated curriculum into their lessons, however most of the teachers stated that they needed more training and guidance in the practice of utilizing differentiation in their classrooms.

In the interviews that I conducted, the teachers indicated that the gifted students and the high achieving students were often ignored because of the emphases and time given to the lower achieving students. Accommodating for the gifted is a problem and a concern for many educators (Brulles & Winebrenner, 2012a; Gallagher, 1994; Johnsen, 2013). In fact, the problem of gifted students being left to fend for themselves in the general education classroom has been shown to be a problem in many schools across the United States (Callahan et al., 2015). Another concern for teachers in this case study was that all students are expected to pass the state mandated test, therefore all students should be taught the same standards and content. This is consistent with studies in other states and school districts in which teachers have reported feeling the pressure with mandated testing and expectations of teaching every child to meet the standards (Van Hover et al., 2011).

The first research question that I explored dealt with the teacher perspectives about teaching the gifted students in the mixed-abilities classroom setting. The interpretations of the interviews indicated that teachers in general believe that there should be specialized classes for gifted students because teachers did not have the time or resources to accommodate gifted learners as they should be in the mixed-abilities classroom setting (Weber et al., 2013). Studies indicated that gifted students prefer to work at their own pace rather than having to wait on others, they like challenge, they did not like to remediate, and they had rather work with others who have their same interest and abilities (Kanevsky, 2011). Also, teachers expressed the concern of not having ample training in the field of recognizing and understanding of gifted students. There is a need for teachers to have the necessary background in differentiation to know how to implement various activities that would support and encourage the gifted learners to meet their individual potentials (Bangel et al., 2010; Firmender et al., 2013; VanTassel-Baska & Little, 2011; Weber et al., 2013). One conclusion I reached because of this study, was that the middle school teachers needed professional development training in understanding how to determine the learning preferences of gifted students and how to add challenge to their assignments that would help to build their strengths and abilities (Hedrick, 2012; Kanevsky, 2011). Although there are challenges that rural middle schools of low SES may encounter that neighboring urban and suburban schools may not face, according to the literature, a differentiation of instruction would benefit all students, especially the gifted students who do not have gifted pull-out or special classes with teachers certified in gifted education (Azano et al., 2014).

The second research question that I explored centered on how middle school teachers implemented differentiation for their gifted students. Responses from the interviews indicated that arranging students in small groups of like abilities was the most common form of differentiation (Brulles & Winebrenner, 2011b). Studies and strategies implemented within general education classrooms have been of benefit to rural middle schools. In the absence of a pull-out gifted program, researchers have suggested cluster grouping, WebQuests, higher-order thinking skills, model-based units, and blended learning from virtual learning labs as strategies for differentiation for gifted students (Brulles & Winebrenner, 2011a; Callahan et al., 2015; Schweizer & Kossow, 2007; Swan et al., 2015).

Some of the teachers that I interviewed discussed having gifted students work with other students in the classroom as peer mentors. Although this may be of benefit to those students being tutored, peer mentoring may not challenge or promote new learning for the gifted students (Manning, 2010). One teacher indicated that she did not use differentiation or special accommodations for gifted students because she did not have the time or the resources to create different lessons and activities. According to Azano et al. (2014) and Firmender et al., (2013), educators in other school districts expressed a need for more time and resources. Tomlinson explained differentiation as a method of modifying the curriculum based on students' readiness and ability levels (Tomlinson, 2001). Also, teachers need to know how to incorporate depth of knowledge, critical thinking skills, abstract thinking and reasoning that go beyond the daily content curriculum (Callahan et al., 2015; Tomlinson, 2001). To achieve the optimal growth

opportunity or the ZPD, students should be challenged slightly above their learning level to maximize learning and to promote academic growth (Vygotsky, 1978). A conclusion I made from the study was that the middle school teachers would like professional development training in the use of differentiation to understand how to implement the strategies and tactics of a challenging curriculum needed for gifted students. Studies have found that for a gifted student to be appropriately accommodated, there needs to be an effective curriculum that would challenge students and strengthen their abilities (Callahan et al., 2015; Hedrick, 2012).

Along with the conclusions that I drew from the original research questions, it was the following six themes that overlapped and were developed that helped me to determine the conclusion. Those emerging themes include the following: 1) Meeting all students' needs to pass the same mandated state test; 2) problem with differentiating for all abilities; 3) problems with teaching for all abilities; 4) inclusion is not effective in a large group setting for all students; 5) lack of co-planning with general education teachers and coteachers, and 6) lack of training in differentiation and identification for gifted students.

I determined that one of the emerging themes was in meeting the needs of every student to pass the same mandated testing. Teachers were concerned with having to teach the SWD as well as the gifted students the same material and standards but in a way in which all ability groups could be successful to pass the state test. Differentiation is a way in which teachers can direct students in learning using various methods of instruction to teach meaningful curriculum (Tomlinson & Imbeau, 2013). Curriculum must be

meaningful and purposeful for all students; however, gifted students need to be challenged to the level of their ability just as other students are challenged to their levels of ability. Differentiated curriculum for gifted students offers stimulation and challenge through critical thinking or thought-provoking activities and can aid in motivation (VanTassel-Baska,2013). There is also the argument that mandated tests are not differentiated, however, when gifted students are challenged and taught to the level of their abilities through differentiated approaches, they will have more self-confidence on standardized test no matter the format (Tomlinson & Imbeau, 2013). I documented that the teachers in this study felt pressured by the importance of state mandated tests and having to accommodate every student in a single classroom environment. Therefore, teachers expressed their uncertainty and lack of self confidence in understanding how to meet the needs of every student in the mixed-abilities classroom while also challenging the gifted students to meet the requirements to pass state testing objectives.

The second theme to emerge was the problem with differentiation for all abilities in a single classroom setting. Studies show that for many rural middle schools, funding issues have major impacts on the number of certified teachers, resources, and programs set aside to serve gifted students (Azano et al., 2014; Kettler et al., 2015). The goal of differentiation is to provide success to every student, and to provide that success based on the pre-diagnosed readiness, ability, and interest levels of the diverse student population of the classroom (Tomlinson, 2015). Also, the purpose of differentiation is to create change in the way students learn. Teachers who have a wide array of strategies of differentiation can support students' needs more effectively, and it benefits those teachers

and classrooms where professional development funding is limited (Hedrick, 2012).

There are many approaches to creating differentiated curriculum for gifted learners, and according to the literature, many of the approaches do not require extra funding. Tomlinson and Imbeau, (2013) suggested that if appropriate measures are taken through the various forms of differentiation and implemented in the general education classroom for gifted students, all ability levels might be accommodated. Teachers in this study were concerned with the funding and lack of special education teachers to help in their classrooms with students with mixed abilities. The teachers voiced their frustration in not knowing what to do to provide for the diverse population of students in their classrooms. To be able to understand how to differentiate and meet the needs of all students, professional training is needed, especially in the absence of a special education coteacher.

The third theme I addressed was the problem of teaching all abilities in the general education classroom. According to the study by Morris (2013), some gifted students in Scotland felt unchallenged and unmotivated due to time that was wasted in the classroom waiting on other students to understand concepts they already knew. Other researchers (Callahan et al., 2015; Morris, 2013; Samardzija and Peterson, 2015) suggested that gifted learners need to be challenged in different ways which can help in motivation and can keep them engaged in the learning process to ensure their academic progress. Most of the teacher participants that I interviewed expressed concern in not having the appropriate training in differentiation and in teaching the gifted students within their classrooms. Also, there was a concern in understanding how to adjust a

curriculum and meet the needs of students so that gifted students stayed motivated to what was being taught at the time.

The fourth theme I discussed was that inclusion was not effective in a large group setting for all students. The need for understanding how to differentiate for students is necessary in diverse classrooms where there exists a variety of learning abilities (Firmender et al., 2013). In the inclusive classroom, many times gifted students are overlooked due to the time and attention given to the lower achieving students because of the concern over test scores (Firmender et al., 2013). In 2008 under No Child Left Behind, it was shown that the lower-ability students made gains whereas most of the gifted population remained about the same (Firmender et al, 2013).

The conclusion that can be made is that inclusive education requires a change in attitude toward how teaching is conducted. It could include a special education coteacher who can implement differentiation for the SWD and the general education teacher who should have knowledge of how to differentiate or adjust the curriculum of the other students in the class, including the gifted students (DeJesus, 2012; Manning et al., 2013). For the middle school in this study, there are special education coteachers available for the mathematics and English language arts classes only. Science and social studies teachers do not have a special education coteacher in their classrooms. Special education teachers are experts in working with SWD and in strategies that can be incorporated in the general education classroom to best help students who may have learning, behavioral, or other disabilities to make progress. Also, the special education coteachers help with the monitoring and teaching of all students as well, but through their expertise, SWD are



better accommodated. However, due the absence of special education coteachers in all classrooms, teachers need to be familiar with the diverse needs of all students whom they teach. Professional development is necessary to ensure that all teachers are knowledgeable in how to implement differentiation within their classrooms, and to challenge students according to their learning styles and abilities (Weber et al., 2013).

The goal of differentiation is to provide success to every student, and to provide that success based on the pre-diagnosed readiness, ability, and interest levels of the diverse student population of the classroom (Tomlinson, 2015). The teacher participants I interviewed had concerns with knowing how to manage a diverse classroom with varying abilities of students. Some teachers felt overwhelmed with dealing with behavioral issues and providing one-on-one instruction and guidance that some students need, in addition to challenging and providing a strong curriculum for the gifted students in their classes.

I determined the fifth theme as being the lack of co-planning between the special education coteacher and regular education teacher. The regular education teachers would benefit from more planning time with the special education coteachers because of the lack of training in teaching students with varying abilities in the same classroom (Kanevsky, 2011). Coteachers could be a wealth of information for teachers who are not comfortable with differentiation of curriculum in that special education coteachers of SWD students routinely make changes in lessons and make modifications for their students. Although modifications and differentiation are not the same, special education coteachers understand the concept of adjusting curriculum according to students' readiness levels because of the training that special education coteachers have had.

A recommendation that I believe would be beneficial to the school would be to increase the number of special education coteachers so that general education teachers might have the time to access a better understanding of the composition of a class. Planning with a coteacher would add to the atmosphere and the smoothness of how a class operates. Also, planning together may help teachers to embed rigor for gifted students in the curriculum and not just a one-size plan geared toward every student in the class learning at the same level (VanTassel-Baska, 2015). The need for special education teachers in every classroom is an important issue for those teachers who do not have help during their instructional time. According to some teacher participants that I interviewed, with the expectations of the school system to have every student be successful, funding for additional special education coteachers would be of added benefit.

Finally, the sixth theme centered on the lack of training in differentiation and identification for gifted students. The interviews that I oversaw revealed that teachers used a variety of strategies to identify gifted students. However, once students have been identified, teachers should implement teaching strategies and plans that will best support and strengthen the students' progress with ability and readiness levels in mind. One way to ensure that the level of differentiation is implemented and tailored to the needs of the students is through continual use of formal assessments and pre-test and post test results (Tomlinson, 2013). Also, having knowledge of the learning interest and strengths of students would be beneficial in creating curriculum with learning styles in mind (Gardner, 2006). There is a need for support and training in identifying the various needs of students and the strategies that can be utilized in the classroom that will help students

to obtain a level of the ZPD in learning (Vygotsky, 1978). For this middle school, teachers expressed the need for training in understanding the identification of gifted students and professional development in differentiation for gifted students. With the absence of a gifted program or special gifted classes, general education teachers expressed concerns with providing for the more advanced students and deep concerns with having to ignore student who needed challenge and a more rigorous curriculum.

The data that I gathered from observations revealed very little differentiation of instruction taking place, although during the teacher interviews, most teachers described differentiation as a positive strategy in meeting students' needs. The variance in what was seen during the observations and what was said by the teachers in the interviews may have been due to a lack of understanding by the teachers of the approaches to differentiated curriculum that they could have implemented in their lessons that would have helped to motivate and challenge gifted students. The data from the teacher participant interviews that I conducted showed that there was the need for training in the use and implementation of differentiatonal instruction. Therefore, another recommendation that I derived from the study was to implement professional development in differentiation of instruction. There is a need for teachers at this middle school to better understand how to accommodate gifted students in the general education classroom and to understand the strategies that could help promote their academic progress.

The research that I conducted in this study indicated three key concerns for the teacher participants at the research site. The overall results indicated the majority of the

teachers were concerned with 1) the knowledge they had of the characteristics and needs of gifted students and teaching the gifted students in inclusive classroom settings, 2) not having the needed preparation and training in the area of differentiation to adequately differentiate for the gifted students they taught each day, and 3) the time involved in preparing and locating materials to implement the appropriate curriculum and construct a differentiated lesson plan for the gifted students. Also, the findings can help administrators and teachers in understanding the importance of implementing differentiation into the curriculum so that the gifted and students with advanced abilities can be challenged and progress academically to their fullest ability.

I built the conceptual framework of this study on recognizing the importance of meeting the needs of gifted students and to promote their academic growth through a differentiation of instruction and a challenging curriculum. When students are not provided with the opportunity to succeed and progress to meet their potential and to strengthen their talents and abilities, but they are instead required to do work that is below their ability, they may become uninterested and unmotivated with school (Reis & Morales-Taylor, 2010). Most gifted students will attend colleges and universities, but if they do not receive the higher-order educational opportunities in middle and high school then they may not be prepared to meet the rigor and pressure of those institutions because they have not been challenged to the best of their abilities, or they may drop out of school altogether. However, when work requires more thinking and effort, then motivation to succeed and work harder increases (Tomlinson & Imbeau, 2010).

In this rural middle school, where the poverty rates are high and literacy rates are low, it might be a great advantage to teachers to know how the students learn, what they would like to learn, and then construct ways through differentiation to accomplish those goals. Vygotsky's ZPD theory set the stage for educators in understanding that students' progress best when they are within the ZPD and when they are challenged slightly beyond their present ability level. This provides the challenge they need to best meet the potentials they have for learning. Vygotsky also emphasized that students' ZPD is the area in which they can work independently and the zone that can be achieved if they are working with a partner or tutor (Vygotsky, 1978). Gifted students need the challenge and rigor in their curriculum to achieve at their level or zone of ability and development.

Also, Gardner theorized that students possess various intelligences. Gardner's MI theory may be beneficial for educators in developing and designing differentiated curriculums. Likewise, understanding more of students' interests could benefit all students, but the MI theory could also have positive implications for the gifted students who may need more challenge over what is being taught in the general inclusive classroom through tapping into student interest and areas of strengths (Gardner, 2006). Understanding the strategies and techniques in teaching all abilities in a single classroom requires raising expectations and providing rigor and challenge that will promote engagement for the gifted students (Tomlinson, 2001).

Although much has been written about the necessity of differentiation as a tool for gifted students in the mixed-abilities classroom, there is a gap in literature as to how differentiation is being implemented in the middle schools, especially those in low SES

areas, to accommodate for these students (Azano et al., 2014; Morris, 2013). The interpretations of the findings were anchored in the conversations with middle school teachers about their teaching, perspectives, understandings and challenges of differentiation, and identification of gifted students in their classrooms.

### **Implications for Social Change**

Exploring the need for a small rural middle school in meeting the needs of the gifted students could promote academic growth and a better understanding of the academic potential of students with advanced abilities. The conclusions and findings I made from this study could promote a change in the local school community by increasing awareness of the need for gifted students to be challenged so that the abilities they possess may be strengthened and not crushed by remediation and boredom. Although the inclusive classroom is considered by many in the field of education to be the LRE for students with learning disabilities or other special needs, it is also questioned by some researchers and educators as to its effectiveness in challenging the gifted students in the classroom (Brulles & Winebrenner, 2012; Kordosky, 2009; Rakow, 2012; VanTassel-Baska, 2015). This research study revealed through teacher participant interviews and classroom observations the need for professional development in both differentiation and in understanding and identifying gifted students.

This study has implications for change in the way gifted students are taught by enlightening the school community about the need for gifted students to be recognized as being positive members of society and potentially future leaders and professionals. Through the knowledge gained from those teachers who are on the frontlines and who are

expected to show growth and progress for every student in inclusive classrooms, strategies in promoting differentiation to enhance the knowledge base of gifted learners is a necessity. Studies have shown that without a challenging and rigorous curriculum, gifted learners may become bored, stagnant, and unproductive in mental growth and progression (Brulles & Winebrenner, 2011; Moon, 2009).

For change to take place, there needs to be a change in attitude about differentiation and gifted students in general. According to the outcomes in Section 4, some teachers expressed concern about knowing how to accommodate for gifted students through a differentiated curriculum while attempting to prepare all students for the same state mandated test. This may also be a concern for other school systems in rural areas where there is a lack of gifted classes or where there are too few gifted students to have specialized classes. The findings of this study may have positive implications for this rural middle school by promoting an increased awareness of the needs of gifted students to be accommodated in the general education classroom. This may be accomplished through teacher training and professional development in the understanding of differentiation and in teaching strategies that would stimulate progress of gifted students.

Although I based this study on middle school teacher perspectives, this study also has implications for the elementary and high school teachers. To promote change in a school community, it is important for everyone involved in enhancing student success to understand the needs and identification of gifted learners. Also, it is important for teachers and school administration to recognize the need for a differentiated curriculum of instruction, and to recognize and understand the concepts and strategies of

differentiation. With increased teacher knowledge of the strategies of differentiation and the understanding of the needs and characteristics of gifted learners, a change in the way inclusive classrooms are taught could mean growth potential for the gifted students.

### **Recommendations for Action**

From the findings of this research study, there are several recommendations that I believe would benefit the teachers, students, the school system, and perhaps similar small school systems as well. As signified by the teacher responses from interviews and the classroom observations that I conducted, there is a need for a better understanding of the concept of differentiation and in understanding the needs of gifted students in the general education classroom.

One recommendation that I would make would be an extended professional development in differentiation strategies that would be followed up with action plans to be implemented throughout the year. Often school districts conduct teacher training in an area of instructional practice, but they fail to follow up or implement the training in the classroom. By employing extended training, teachers would be held responsible in executing a plan of differentiation into the weekly lesson plan that would directly benefit the gifted students in their classrooms. For the gifted students to be challenged there needs to be a higher order curriculum in the areas of problem solving and critical thinking skills which would better prepare students to meet their potentials and challenges of the future (VanTassel-Baska & Little, 2011). All the teachers stated that they lacked training in differentiation for gifted students, therefore, recommendations for further teacher preparation and training could be made which would be of great benefit to the



advancement of the academically gifted student as well as to the entire school system.

Some teachers indicated that they did not understand the needs of gifted learners and have not been given adequate training in the field of gifted education. The lack of understanding was also evident in the classroom observations where little to no differentiation of instruction was taking place. Therefore, a second recommendation I would present is further training in understanding the characteristics of gifted learners and what strategies can be used to meet their needs. Also, an added recommendation I would make is for all institutions of teacher training to instruct teachers in gifted education and in the understanding of the need for advancement of the curriculum in the areas of higher order thinking and problem-solving skills. Added training would not only help in bridging the gap in teacher understanding of what constitutes gifted students, but it would also allow teachers to understand what is needed for gifted students to progress and advance at their levels of ability (Manning et al., 2010).

A third recommendation is based on teacher responses about teaching students with mixed abilities in the regular education classroom. I would recommend that all teachers be trained in the identification and academic needs of gifted learners so that teachers may understand that gifted students also have special needs. Training should be delivered on an on-going basis throughout the school year. In this way, teachers would understand the need for all students to be recognized as having special potential and the need for all abilities to be accommodated in one classroom setting.

With the lack of gifted programs and more and more accommodations being called for in the regular education classrooms for all students, it is important for teachers

to understand how to meet the needs of gifted learners and that proper training be in place (Bangel et al., 2010). All students could benefit from differentiation of instruction, and differentiation could help school administrators to solve some of the problems concerning gifted education such as providing a more equal and challenging classroom, and differentiation does not cost the school system extra money to implement other than training (Hertberg-Davis, 2009). Understanding various differentiations strategies such as cluster grouping would allow for growth and competitiveness among like peers, and it also is useful when there is only a small number of gifted learners within a school (Brulles & Winebrenner, 2011; Gentry & Kielty, 2001). As indicated, there is a need for teacher training in differentiation and without the training, differentiation will not be effective in promoting growth for gifted students (VanTassel-Baska, 2013).

In schools where there may not be special gifted programs, teachers need to understand how to serve gifted and advanced learners and as well as being knowledgeable in appropriately identifying those students and then align the curriculum to meet their special needs (Schroth & Helfer, 2009). According to the National Association for Gifted Children (2010), the lack of teacher training in differentiation and working with gifted students may be one of the reasons that some smaller rural schools are not effectively implementing differentiation to meet the needs of their gifted and advanced learners.

### **Recommendations for Further Study**

I based this study on the middle school and the understanding teachers had of using differentiation as a tool to promote the academic growth of the gifted and advanced

ability students. Due to the nature of the study including only seven middle school teachers, I believe that it would be important to further explore the problem with a larger sample of teacher participants and to include both elementary and high school teachers. In this way, it may be determined if the problem of providing and differentiating for the gifted and higher ability students is isolated to the middle school teachers only, or if it is a problem to be acknowledged in the other schools as well. If it is found to be a problem in the elementary and high school also, this finding may help to promote the academic achievement of students and help in the implementation of proper training and to ascertain all teachers' understanding of the necessity of challenge and differentiation of curriculum for the gifted and high achieving students. Students need to be taught in the appropriate manner and served based on their educational needs, as explained by Schroth and Helfer (2009), through proper identification of the gifted students, and a better alignment of curriculum that would benefit all students with higher achievement.

Another recommendation I would make is to include a series of observations of each classroom for a clearer picture of the strategies of differentiation utilized by the middle school teachers. A single observation can provide only a limited understanding of the amount of differentiation which takes place in the classrooms. For a more accurate representation of the scope of strategies used by teachers in the inclusive classrooms, more than one observation would be important.

Also, I believe that conducting a prolonged study that would involve several observations and follow-up interviews throughout the year would be of benefit for a broader view of the problem. Conducting the research study in other Title 1 schools of

similar demographics and socioeconomic community status may be of benefit in understanding if the problems of differentiation for the gifted students are just a local problem or is a wide-spread problem among similar middle schools in Georgia.

Finally, some teacher participants suggested in the interviews that there was a need for a common planning time for teachers and coteachers to better understand every student need in the classroom. I would suggest for a further study to investigate the importance of shared planning time with coteachers and general education teachers. Such a study may indicate a need for more collaboration in planning for all student abilities, not only for the low achieving students, but in understanding the importance of providing additional challenge to the gifted students who share the same classroom. Gifted students, like other students in the classroom, need guidance and direction in strengthening their abilities (Tomlinson, 2001).

### **Summary**

This purpose of this study was to investigate how gifted students were being accommodated in the inclusive classroom and the knowledge teachers had of differentiation and of the characteristics of gifted students. The research site, a small rural school system within a low socioeconomic community, was the subject for this study. Meeting the needs of all students in a school system is the goal for every educator. However, in some school systems the opportunity for the gifted students to progress and achieve their potential growth is minimized by the lack of a challenging curriculum.

With inclusive education and the absence of specialized gifted programs, differentiation of instruction is necessary for the promotion and advancement of gifted

students. I realized through the data collected during this research study, that it was evident that most teachers lacked the training and knowledge in the areas of differentiation and in the understanding of the characteristics and needs of their gifted learners. As I had identified in the research of scholarly literature, gifted students need the learning opportunities and the challenge that will prepare them for future educational experiences.

Through the teacher interviews and classroom observations that I conducted, the cumulative data indicated the need for teachers in this small rural middle school to be trained in the strategies of differentiation and in the understanding of the characteristics and academic needs of the gifted learners. Teacher perspectives were voiced, and their concerns documented about the lack of knowledge of how to best provide for the gifted students whom they teach. Also, the diversity in the classroom makes it imperative that teachers know students' level of ability, their interest, how to implement challenge, and promote a learning environment that will help students to learn at a ZPD according to their abilities and talents.

### **Reflections**

Having experience teaching in both the general education inclusive classroom and in the gifted and honors classroom, I was inspired to research how the gifted were being accommodated in a rural Title 1 middle school. My interest came after cuts in programs across the school district, and the gifted and honor's programs were eliminated. As a former gifted teacher for the county, I understood the needs of the gifted and advanced learners and was concerned about the lack of interest given to this group of students.

At the time, I could not understand why more concentration was not given to the gifted students. However, as I began to teach in the inclusive classroom, I more fully understood the time it took to prepare for a larger group of students and the challenges which came from teaching in a classroom of a wide range of mixed-ability students. In investigating further, I soon understood the importance of providing services to the gifted students if they were to make growth and increase academic performance on the state mandated test. I found that differentiation was a difficult strategy to implement in the classroom because I believed that I did not have the time, knowledge, or training to provide individual instruction or activities to meet every need in the classroom.

Through this research, I have gained insight on the concepts of differentiation, and I have gained a tremendous wealth of knowledge from the research of scholarly literature. I have also learned that teachers may fail to differentiate for the gifted students because they may be lacking the proper training and tools it takes to understand the needs of the gifted students in the mixed-ability classroom, or they may be unaware of the strategies of differentiation that could be implemented.

In completing this research study, I have a much broader view of the world around me and that everyone, no matter the ability, deserves the right to learn at the level of their ability as discussed by Vygotsky (1978) decades ago. I understand the concepts of research and how it feels to be better informed about topics that, had it not been for my experience in gaining this degree, I would have otherwise missed out on. I also feel a sense of great accomplishment that only perseverance and determination could give whenever a goal has been reached. It has taken many years to get to this point in life, but

I believe that I have a better understanding of the importance of differentiation and of gifted learners because of this study. Also, through this research, I believe that I am better prepared to share my findings and help to provide a more challenging curriculum for the gifted students whom I teach. In addition, I hope that through this research, educators in my school system will understand the importance of providing for all students in the mixed-abilities classroom, no matter the disability or the ability a student may possess.

### **Conclusion**

Through the research, I examined teacher perspectives on differentiation for gifted students in the general education classroom. I utilized teacher interviews and classroom observations to better determine the extent of knowledge middle school teachers possessed of the strategies of differentiation, the understanding of gifted learners, and the identification and characteristics of gifted and advanced ability students. Teachers indicated a concern and the need for professional development in the areas of differentiation and understanding the needs of gifted and high achieving students.

The results of the study also indicated that although most of the middle school teachers who were interviewed understood that differentiation is a strategy that would be beneficial in meeting students' individual needs, I observed only one teacher orchestrating a strategy of differentiation in the classroom that would have promoted academic growth for the gifted students. During the teacher interviews, many teachers expressed not having the time to create or implement a strategy of differentiation for gifted students. Other teacher participants indicated that they needed more training in differentiation. Also, teachers agreed that the gifted students are often neglected due to

the emphasis and time required for the SWD students in the inclusive classroom.

To ensure the academic growth of the gifted students and the high achieving students, educators should understand the need to reduce remediation and to increase a challenging curriculum that would inspire and motivate those students to strengthen their academic talents. If students are not challenged, but allowed to get by with minimal effort, then they may not want to take risks and become less productive (Tomlinson, 2001). With the special programs for gifted students declining in many school systems, it is vital that teachers be provided with the tools needed to instruct the gifted and the high achieving students with the challenge and rigor that will help to strengthen their individual talents and potentials.



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Appendix A: Observation Checklist Pertaining to the Study

**Title of the Study:** How are gifted students challenged and accommodated for in the general education classroom and what are the teacher perspectives in teaching gifted students in a mixed-abilities inclusive class setting in a rural middle school.

<b>Observation Plan</b>	
Date of Observation_____	Time of Observation_____
Teacher/Code Number _____	Duration of Observation_____
<b>Areas of Research Observation</b>	<b>Observational/Reflective Notes</b>
<ul style="list-style-type: none"> <li>• How many students are in the class?</li> </ul>	
<ul style="list-style-type: none"> <li>• What is the physical setting of the classroom?</li> </ul>	
<ul style="list-style-type: none"> <li>• What are the seating or grouping arrangements?</li> </ul>	
<ul style="list-style-type: none"> <li>• Is differentiation taking place in the classroom?</li> </ul>	
<ul style="list-style-type: none"> <li>• What differentiated strategies are taking place in the classroom?</li> </ul>	
<ul style="list-style-type: none"> <li>• What level of involvement did the gifted students display while working on the lesson/activity?</li> </ul>	
<ul style="list-style-type: none"> <li>• How did the teacher engage gifted students in the lesson?</li> </ul>	



## Appendix B: Interview Questions Pertaining to the Study

**Title of the Study:** How are gifted students challenged and accommodated for in the general education classroom and what are the teacher perspectives in teaching gifted students in a mixed-abilities inclusive class setting in a rural middle school.

Date of Interview _____	Time of Interview _____
Interview Code Number _____	Duration of Interview _____
Teacher Participant _____	Subject/Grade _____
<b>Interview Plan</b>	
<p>Hello, my name is Karen Kilgore and I would like to thank you for your participation in this research study. As you have been informed, my research is concerned with how we differentiate for our gifted students in the middle school. I will be asking you several questions pertaining to this topic. The interview will be approximately 30 minutes, and you have the right to end or to withdraw as a participant at any time. As a reminder, I will be recording our conversations for accuracy and to compare with my written notes. Is that okay with you? Do you have any questions concerning the research study or the interview? Thank you, we will begin.</p>	
<b>Interview Questions (Probing Questions may be asked)</b>	<b>Participant Response/Reflective Notes</b>
<ol style="list-style-type: none"> <li>1. How do you feel about teaching students with mixed-abilities in the general education classroom?</li> <li>2. What is your perspective on differentiation?</li> <li>3. What challenges or difficulties do you face in differentiating for all the students in your classroom?</li> <li>4. How do you identify your high achieving and gifted students in your classroom?</li> <li>5. How do you differentiate for your gifted students?</li> <li>6. In what ways do you feel you have been adequately prepared to work with gifted</li> </ol>	

<p>students and to understand their specific needs?</p> <p>7. What is your perception on how the middle school could best accommodate for the high achieving and gifted students in the general education classroom?</p> <p>8. What is your perspective on teacher training in differentiation for the gifted students?</p>	
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**Note:** *Prearrangement of observation will be obtained from teacher consent. I will be a passive observer during the observation. Observation will be approximately 45 minutes in length.*