A MULTIPLE CASE STUDY OF HOW THREE LIGHTHOUSE MIDDLE SCHOOLS
MEET THE NEEDS OF GIFTED AND TALENTED YOUNG ADOLESCENTS

By

TERRY DIXON WETHERINGTON

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A MULTIPLE CASE STUDY OF HOW THREE LIGHTHOUSE MIDDLE SCHOOLS MEET THE NEEDS OF GIFTED AND TALENTED YOUNG ADOLESCENTS

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TERRY DIXON WETHERINGTON

Approved:

Karen Weller Swanson, Ed.D.
Dissertation Committee Chair

Melissa Jurkiewicz, Ph.D.
Dissertation Committee Member

Clemmie Whatley, Ph.D.
Dissertation Committee Member

Jane West, Ed.D.
Director of Doctoral Studies Tift College of Education

Sharon Murphy Augustine, Ph.D
Chair, Teacher Education, Macon

Keith E. Howard, Ph.D.
Interim Dean of Graduate Studies
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ABSTRACT

A MULTIPLE CASE STUDY OF HOW THREE LIGHTHOUSE MIDDLE SCHOOLS MEET THE NEEDS OF GIFTED AND TALENTED YOUNG ADOLESCENTS
Under the direction of KAREN WELLER SWANSON, Ed.D.

The middle school years, grades sixth through eighth, have been identified as a time when gifted and talented young adolescents’ needs have not been met. The Association for Middle Level Education (AMLE) and the National Association for Gifted Children (NAGC) agreed that gifted and talented young adolescents have needs which may differ from their peers and should be addressed by educators. There were no research studies of how schools identified as exemplary middle schools by the Forum to Accelerate Middle Grades Reform and designated as Georgia Lighthouse Schools To Watch © met the needs of gifted and talented young adolescents. Therefore, the purpose of this multiple case study was to describe how the needs of gifted and talented young adolescents were met at three Georgia Lighthouse Schools To Watch ©. The following research question was used: how are the needs of gifted and talented young adolescents met at three Georgia Lighthouse Schools To Watch © within the middle school philosophy?

Three cases were selected using purposeful criterion sampling from designated Georgia Lighthouse Schools To Watch © as identified on the Georgia Middle School Association website. A qualitative multiple case study design was used. Participants
included principals and teachers from three Georgia Lighthouse Schools To Watch®.

Data were collected from interviews, focus groups, and documents analyzed. Data were analyzed using single case analyses and a cross-case analysis where categories and subcategories were identified as well as similarities and differences between the findings of each case.

The research findings were organized and reported based on the following categories which emerged during data analysis: (a) middle school philosophy and gifted education, (b) identification and grouping of gifted students, (c) services, (d) assessment, and (e) professional learning opportunities. The research findings indicated the needs of gifted and talented young adolescents were met when educators intentionally implemented services with differentiated curriculum and instruction based on individual needs. Future research is needed to better identify, refer, and serve students who are typically underrepresented in gifted programmings such as economically disadvantaged students, students with disabilities, and students from cultural and ethnic minorities.
CHAPTER 1
INTRODUCTION TO THE STUDY

In 1993, the National Middle School Association, currently the Association for Middle Level Education (AMLE), at its annual conference submitted a resolution which recognized that gifted students had differing needs from other middle level students (Tomlinson, 1994). Furthermore, in 2004, the National Association for Gifted Children (NAGC) and the AMLE published a joint position paper making recommendations for educating gifted and talented students at the middle level (National Association for Gifted Children, 2004). In the position paper, the following statement was made:

High-ability adolescents may differ from fellow classmates in cognitive skills, interests, modes of learning, and motivation. As a result, their educational needs may also differ in some important ways from those of other young adolescents. Attending to those needs requires informed attention to both equity and excellence in all facets of schooling. (NAGC, 2004, para. 4)

Similarly, Rogers (2007) concluded gifted learners needed challenging educational experiences, opportunities for independent learning, accelerated content as needed, temporary grouping or clustering with high-ability students, and a differentiated curriculum. Furthermore, meeting the needs of gifted and talented young adolescents required deliberate action by educators (NAGC, 2004).
Moreover, in 1998, the National Forum to Accelerate Middle Grades Reform established a Schools to Watch © committee of national middle school educators. The committee created a process to identify and recognize middle schools where educators addressed the nature and needs of young adolescents as described in the middle school philosophy. In the Schools to Watch © Self-Study and Rating Rubric two statements, along with others, were examples of the commitment educators made to provide all middle-level students with a challenging and rigorous academic experience. One, “all students are expected to meet high academic standards” (National Forum to Accelerate Middle Grades Reform, 2013, p. 2). Two, “students are provided the support they need to meet rigorous academic standards” (National Forum to Accelerate Middle Grades Reform, 2013, p. 3). In addition, the National Forum to Accelerate Middle Grades Reform (2013) in the Self-Study and Rating Rubric included the following:

To the fullest extent possible, … gifted and honors students participate in heterogeneous classes with high academic and behavioral expectations. Evidence of this commitment includes … differentiated instruction, special adaptations, supplemental classes and other supports. (p. 6)

Callahan, Moon, and Oh (2013) surveyed gifted program directors from twelve states and found a variability of services offered at the middle school level for gifted and talented young adolescents. Their research showed the needs of gifted and talented young adolescents were not always met. Nonetheless, fundamental beliefs described in the middle school philosophy and components of the Schools to Watch © rubric
supported the assertion that gifted and talented young adolescents’ needs can be met within the middle school philosophy when it is effectively implemented.

Statement of the Problem

It is a challenge for educators to understand the unique characteristics and needs of gifted and talented young adolescents; therefore, their needs may not be met (Brighton, Hertberg, Moon, Tomlinson, & Callahan, 2005; Callahan, Moon, & Oh, 2013; Coleman & Gallagher, 1992; Coleman, Micko, & Cross, 2015; Moon, Callahan, Tomlinson, & Miller, 2002). Tomlinson (1994) stated, “Preadolescents probably differ more than any other student group in intellectual, social, emotional, and physical development” (p. 49). Young adolescents identified as gifted based on the Georgia Department of Education’s (2016) criteria for mental ability, achievement, creativity, and/or motivation, have additional attributes and qualities which middle school educators should address.

Advocates for gifted and talented young adolescents suggested the middle school years were when they were most underserved, and research supported their assertions (Brighton, Hertberg, Moon, Tomlinson, & Callahan, 2005; Tomlinson, 1992, 1995).

Moon, Callahan, Tomlinson, and Miller (2002) surveyed students and teachers at nine middle schools in three states and concluded the varied needs of gifted and talented young adolescents were not being met. Additionally, researchers found this diverse population of students, gifted and talented, were not being adequately served by educators when curriculum and instruction were not appropriately differentiated to meet their needs (Moon, Callahan, Tomlinson, & Miller, 2002). Educators’ concerns for accountability and not understanding how to implement instructional strategies for higher
level learners were reported as possible factors for not differentiating (Moon, Callahan, Tomlinson, & Miller, 2002).

On the one hand, educators challenged a tenet of the middle school philosophy, social equity, as not advocating for gifted and talented young adolescents since the heterogeneous grouping of all students was recommended (Tomlinson, 1992, 1995). On the other hand, tenets of the middle school philosophy indicated the needs of all young adolescents would be met when schools are developmentally responsive, challenging, empowering, and equitable (Association for Middle Level Education, 2010). Chance (1998) concluded from a comparison study that “gifted education and middle school education share many of the same constructs and ideas” (p. 138). It may be presupposed that the needs of diverse learners, including gifted and talented, may be met when the middle school philosophy is fully implemented.

There were concerns that gifted students were not adequately served during the middle school years. Tomlinson (1992) stated, “Clearly there appears on the surface little conflict between what these middle school educators seek … and what educators of the gifted have espoused” (p. 209). The essence of what Tomlinson stated was attributes espoused by the middle school philosophy and the beliefs of gifted educators seemed to align. However, findings from several research studies indicated that the needs of gifted and talented young adolescents were not met (Archambault et. al., 1993; Brighton, Hertberg, Moon, Tomlinson, & Callahan, 2005; Coleman & Gallagher, 1992; Farkas & Duffett, 2008; Moon, Callahan, Tomlinson, & Miller, 2002).
No research was found which explored how exemplary middle schools such as Georgia Lighthouse Schools To Watch © meet the needs of young adolescent gifted and talented students. Since the academic level that students reached by eighth grade was found to be a stronger indicator of academic success and readiness for college and careers than anything that occurred in high school this research is significant (ACT, 2008; Bassiri, 2014). Xiang, Dahlin, Cronin, Theaker, and Durant (2014) reported high achieving young adolescents, between fourth and eighth grade, experienced a slowing of academic growth.

Purpose and Research Question

Research was needed to address the problem of gifted and talented young adolescents’ needs not being met in middle schools and to fill the research gap of how exemplary middle schools such as Georgia Lighthouse Schools To Watch © meet their needs. Therefore, the purpose of my research study was to describe how the needs of gifted and talented young adolescents were met at three Georgia Lighthouse Schools to Watch ©. The following research question was a guide for my research study: how are the needs of gifted and talented young adolescents met at three Georgia Lighthouse Schools to Watch © within the middle school philosophy?

Significance

Prior research indicated challenges to meeting the needs of gifted and talented young adolescents in middle school (Callahan, Moon, & Oh, 2013). This research study reaffirmed these findings. Significantly, there were examples of educators addressing challenges and meeting the needs of gifted and talented young adolescents. This study
added to the body of knowledge for educating gifted and talented young adolescents at middle schools in Georgia generally and Georgia Lighthouse Schools To Watch specifically. Research had not been done on how the needs of gifted and talented adolescents were met at Georgia Lighthouse Schools to Watch (Cook, Faulkner, & Kinne, 2009; Cook & Faulkner, 2010; Falbe, 2014; Weilbacher & Lanier, 2012). Therefore, this research was needed and was significant.

The needs of gifted and talented students may not be met when the middle school philosophy is fully implemented unless intentional strategies are put into practice by educators (Tomlinson, 1992, 1995). The research literature provided two competing ideas. One idea provided that the middle school philosophy and the tenets of gifted education were compatible; therefore, gifted and talented students’ needs were met at schools where the middle school philosophy was fully implemented (NAGC, 2004). The second idea focused on incongruencies between the two philosophies particularly on grouping practices used for educating young adolescents. Whereas literature on the middle school philosophy advocated for a heterogeneous grouping of students, findings in the literature indicated effective educational options for gifted and talented students required the use of grouping options which placed them with peers based on ability or a less heterogeneous grouping (NAGC, 2004).

According to research findings from this study, the two philosophies do not have to be competing ideas. There is a third option which requires intentionality of purpose. There can be a synergy created when both philosophies actively mesh together. As a result, a new dimension of opportunities to meet the needs of gifted and talented young
adolescents can be created at exemplary middle schools such as Georgia Lighthouse Schools To Watch © which is significant.

Theoretical and Conceptual Framework

The theoretical and conceptual framework for this research study was based on the presupposition that the middle school philosophy and the tenets of gifted education are compatible for meeting the needs of gifted and talented adolescents. The framework used for this study was constructed by analyzing the philosophies of middle school and gifted education using the following documents: *This We Believe Keys to Educating Young Adolescents*, (Association for Middle Level Education, 2010), the Schools to Watch © Self-Study Rubric (National Forum to Accelerate Middle Grades Reform, 2013), the *Georgia Department of Education’s (2017) Gifted Resource Manual*, programming standards of the National Association for Gifted Children (2010), and a report issued to the Governor of Georgia with recommendations for gifted programming in Georgia, the Georgia Department of Education Subcommittee Report (2006). The results of the analyses may be seen in Table 1, and a detailed discussion of the middle school philosophy and the foundations of gifted education are found in chapter 2.
Assumptions

The researcher assumed the needs of gifted and talented young adolescents could be met when differentiated curricular and instructional strategies were implemented within the middle school philosophy and the tenets of Georgia Lighthouse Schools To Watch. 

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<table>
<thead>
<tr>
<th>This We Believe: Keys to Educating Young Adolescents and Schools To Watch©</th>
<th>National Association for Gifted Children and Georgia Gifted Resource Manual</th>
<th>GaDOE Gifted Education Subcommittee Report and Georgia Gifted Resource Manual</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Challenging, relevant, active, differentiated, and academically excellent, curriculum, instruction, and assessment</td>
<td>• Challenging, relevant, diverse, and effective curriculum, instruction, and assessment</td>
<td>• Differentiated instruction in content, process, products, and assessment to meet the diverse needs of gifted learners</td>
</tr>
<tr>
<td>• Developmentally responsive, empowering, and socially equitable, school culture and community</td>
<td>• Personally and socially responsible learning environments which foster multicultural awareness</td>
<td>• Developmentally responsive services which address gifted learners’ social and emotional needs</td>
</tr>
<tr>
<td>• Leadership, organizational structures, and processes, to promote continued growth toward excellence for young adolescents</td>
<td>• Leadership promoted through collaboration with the community</td>
<td>• Leadership and collaboration with teachers, parents, administrators, and the community</td>
</tr>
<tr>
<td>• Ongoing professional development to facilitate best educational practices for young adolescents</td>
<td>• Ongoing professional development designed to emphasize the needs and characteristics of gifted learners</td>
<td>• Ongoing professional development to facilitate excellence in gifted educational services</td>
</tr>
<tr>
<td>• Active involvement of families, community, and business partners</td>
<td>• Identification through multiple-criteria (mental ability, achievement, creativity, and motivation)</td>
<td>• Identification through multiple-criteria (mental ability, achievement, creativity, and motivation)</td>
</tr>
</tbody>
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Table 1: Key Tenets of Middle School Philosophy and Gifted Education

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Watch ©. Moreover, the researcher assumed a compatibility between the attributes of the middle school philosophy and gifted education. Finally, an assumption was made that providing a rich description of gifted programming at three Georgia Lighthouse Schools To Watch © contributed to the academic discussion of how the needs of gifted and talented adolescents are met.

Limitations

A limitation of this study was the subjective nature of defining giftedness and identifying the needs of gifted and talented young adolescents since they are not a homogeneous group. To address this limitation, a qualitative research design was used and participants were asked an open-ended question: how do you meet the needs of your gifted and talented students? Through the qualitative data collection process, educators’ experiences based on how they constructed knowledge of gifted and talented young adolescents and their needs were explored. By using a qualitative multiple case study design and gathering data through interviews and focus groups, how educators met the needs of gifted and talented young adolescents was based on the participants’ understandings and not a predetermined set of criteria.

Definition of Terms

Definitions have been provided to assure a continuity of terms throughout the research study.

**Acceleration.** Defined by the GaDOE (2017) as a student who “moves to a higher grade for instruction in one or more subject areas or a student skips a grade level to move to a higher grade than one more typical for the student’s age group” (p. 20).
Achievement. A student’s performance in school determined to be equivalent to or above standard predictors of achievement such as IQ scores or achievement test scores (Rimm, 1997).

Advanced content classes. Classes where students are homogeneously grouped on the basis of achievement and interests (Career, Technical and Agricultural Education, English language arts, fine arts, mathematics, science, social studies, and world languages) (GaDOE, 2017, p. 13).

Assessment. Defined by the GaDOE (2017) as “formative and summative on and off-grade-level monitoring to document students’ mastery of curriculum standards and learning levels” (p. 21).

Cluster grouping. Identified gifted students are placed as a group (recommended 6-8) into an otherwise heterogeneous classroom, rather than being dispersed among all the rooms/courses at that grade level (GaDOE, 2017, p. 14).

Curriculum compacting. Curriculum a student has already mastered is eliminated. The student is then allowed to pursue alternative curriculum options (GaDOE, 2017, p. 20).

Creative Ability. A student’s capacity for new knowledge acquisition and the generation of new and original ideas which may be seen in art, science, technological innovation, or other academic disciplines (Kirschenbaum, 1998).

Differentiation. The process by which curriculum and instruction are individualized to a student’s unique needs to allow the student to create knowledge based on his or her strengths and level of learning (Banks & Banks, 1995; Georgia Department of Education, 2016).
Gifted and talented student. The GaDOE (2017) describes a gifted student as one who demonstrates a high degree of intellectual, and/or creative ability (ies), exhibits exceptionally high degree of motivation, and/or excels in specific academic fields, and who need special instruction and/or special ancillary services to achieve at levels commensurate with his or her abilities. The abilities manifest in a collection of traits, aptitudes, and behaviors that, when taken together, are indicative of gifted potential (p. 23).

Lighthouse Schools To Watch ©. Middle schools in Georgia designated as “committed to a journey of excellence” (Georgia Middle School Association, 2017. para. 1). Lighthouse Schools are designated based on the requirements of the National Forum Schools To Watch © in the areas of academic excellence, developmental responsiveness, social equity, and organizational structures and processes.

National Forum to Accelerate Middle Grades Reform. Members are prominent national leaders in middle grades reform and are committed to “accelerating the academic performance and healthy development of every young adolescent in the nation” (Kasak, 2005, p. 304).

Schools To Watch ©. A system for recognizing exemplary middle schools throughout the United States created by the National Forum to Accelerate Middle Grades Reform. Schools identified as Schools To Watch © were designated based on evidence of academic excellence, developmental responsiveness, and social equity (Harrison, Lipsitz, & DeHart, 2005).
Transcendence. First used by Eichhorn to describe the stage of development for individuals between the ages of 9-14 which includes students in the middle school years. Eichhorn also referred to students in this stage of development as transcents. (Bailey, 2005).

Summary

This multiple case study was conducted to describe how three Georgia Lighthouse Schools To Watch © meet the needs of gifted and talented young adolescents. The conceptual framework for this research was based on tenets from This We Believe: Keys to Educating Young Adolescents (AMLE, 2010), the National Association for Gifted Children (2010), and the Georgia Department of Education (2016) Resource Manual for Gifted Services and is explained in detail in chapter 2. The following question was a guide for this research study: how are the needs of gifted and talented young adolescents met at three Georgia Lighthouse Schools To Watch © within the middle school philosophy?

The protocol for conducting a multiple case study was followed and data were collected using interviews, focus groups, and document analysis. Data were analyzed using a single case analysis for each school where categories and subcategories were identified. A descriptive framework was created where the findings were organized and reported for each school. In addition, a cross-case analysis was conducted and descriptions of the similarities and differences between the three cases were used to synthesize and report the findings. A valid outcome and quality results were ensured by establishing construct validity, external validity, and reliability.
CHAPTER 2
THE REVIEW OF RELATED LITERATURE

The history of the middle school philosophy was significant to this study; therefore, the foundational literature on the middle school movement was reviewed and a rich description of the history and philosophy of middle school was given in this chapter. Furthermore, after reviewing the literature on the history of the middle school, information was found that indicated the accountability paradigm was a factor in whether the middle school philosophy was implemented by some middle schools. A brief section was included on that topic. Along with information which provided the foundation for the history and the philosophical constructs of the middle school, in the literature reviewed five middle school research studies from 1998 – 2011 were found and included.

The history of Schools To Watch © was an important component of this research study since the participating schools were Georgia Lighthouse Schools To Watch ©. Georgia Lighthouse Schools To Watch © were chosen as cases to be studied because of their designation as exemplary middle schools as determined by the National Forum to Accelerate Middle Grades Reform. Four research studies were found and included in this chapter.

Similarly, literature was reviewed on gifted education, identifying gifted and talented learners, and gifted education in Georgia. The literature reviewed provided a foundational basis for gifted education generally and gifted education in Georgia.
specifically. Literature on the identification of gifted learners was relevant to this research study since identifying students eligible for gifted and talented services is the first step in designing and providing appropriate educational options. Matching the needs of gifted young adolescents with appropriate services begins with defining giftedness and identifying gifted and talented students.

The literature on educating gifted and talented learners and the characteristics of gifted and talented learners was also reviewed. How gifted learners were educated was pertinent to this research study since meeting the needs of gifted and talented learners at the middle level was dependent upon services available to the learners and the rationale for providing the services. Together with the descriptions of the findings from the literature reviewed, six research studies were included from 1992 – 2015 on educating gifted and talented learners.

In the literature reviewed the philosophy of differentiation was found to be a foundational concept for educating gifted and talented students in the state of Georgia. Therefore, to understand gifted programming in Georgia, it was important to build knowledge of differentiation and the literature available. Thus, the literature on the differentiation of curriculum and instruction was reviewed along with differentiation in heterogeneous and homogeneous classrooms, and differentiation for gifted learners. Twelve research studies were included from 1998 – 2013 on differentiation. Additionally, a service delivery model for gifted and talented learners based on differentiation which was frequently used in middle schools, cluster grouping, was researched. Six research studies from 1999 – 2012 were included on cluster grouping.
Finally, the review of literature for this research study was done by utilizing Mercer University’s online access to the Traver Library and the purchase of relevant books. The search engines utilized were ProQuest, EBSCO, ERIC (EBSCO), and ERIC Institute of Education Services. A search for references from peer-reviewed journals, experts in the field as identified through relevant sources, and additional references from peer-reviewed articles and research was done. In addition, foundational books were used which were recommended to me by Dr. John Lounsbury in a personal meeting.

Historical Context of Middle Level Education

The junior high school concept was initiated during the early twentieth century in the United States, expanded during the 1920s, and was further established during the late 1940s (Lounsbury & Vars, 2005; Urban & Wagner, 2014). Large numbers of students entering school, after World War II, necessitated the construction of additional public schools to house students between elementary school and high school. Thus, the predominant configuration of schools, with students spending eight years at the elementary level and four years at the secondary level, was questioned, and a new configuration was proposed (Stephens, 2005).

Urban and Wagoner (2014) described two significant reasons for the creation of the junior high. “First, its services were targeted to the special developmental needs of early adolescence. Second, it helped to prepare students for the new curricular requirements they would encounter in the comprehensive high school” (p. 217). The organization of students into a junior high school, grades seven through nine, was based on practicality, structure, and the curricular needs of the high school. As a result, junior
highs often looked and functioned very much like high schools. Thus, the rationale for grouping students into a junior high, to meet their developmental needs between elementary school and high school, was not fully realized as part of the junior high concept.

When speaking about what happened to the junior high, Eichhorn (2011) stated, “A strange thing happened on the road to the junior high school – we ultimately forgot the students” (p. 19). Early pioneers and advocates for a school to meet the unique developmental and academic needs of early adolescent students, such as Lounsbury and Toepfer, had backgrounds in junior high education (Smith & McEwin, 2011). With strong commitments to the educational, emotional, and developmental needs of young adolescents, many educational leaders began to write and speak about the failure of the junior high schools to meet the needs of the students.

Dr. William Alexander, a noted curriculum authority, spoke at a Cornell University conference in 1963 where he set forward principles foundational to the philosophy of true middle schools (Association for Middle Level Education, 2010). In fact, Alexander was credited with having a strong influence on the inception of schools in the middle and championing specific educational strategies and structures for students in the ten to fifteen age range. Alexander (2011) stated, “The “changing view” I have seen and reflected here is by now obvious to you as a view of a middle unit in a vertically planned educational system” (p. 12). He also spoke of a configuration of grades six through eight; however, he advocated a true middle placement of grades five through eight (Alexander, 2011).
The belief that students between childhood and adolescence had unique needs and characteristics and that the predominant school structure in place during the early 1960s, the junior high, was not meeting their needs was reflected in Alexander’s words. “This unit or school may compromise what is now called junior high school; however, this unit is really a third quarter, too much like the final quarter” (Alexander, 2011, p. 12). Alexander’s words reminded educators that configuring the junior high like a high school and implementing a curriculum and instruction designed for students at a higher level was not the best educational practice for students in the middle. Since Alexander strongly advocated for a school which was developmentally appropriate for young adolescents with teachers trained to understand their nature and needs, Alexander came to be known as the Father of the Middle School (Association for Middle Level Education, 2010; Lounsbury & Vars, 2005).

The 1960s and 1970s were times of evolution from the junior high school to the middle school. “This new label, however, was not immediately embraced” (Schaefer, Malu, & Yoon, 2016, p. 4) by educators, and deciding on a name was only one goal identified during the journey to establish developmentally responsive schools for young adolescents. Nevertheless, understanding the nature of middle school students, and designing a school with curriculum and instruction appropriate for them was debated.

In 1966, Eichhorn used the term “transescence” (Lounsbury & Vars, 2005, p. 5) to describe individuals between the ages of ten and fourteen. The term reflected the transitional nature as well as the psychological and physical changes young adolescents’
experience. By recognizing the uniqueness of transescents, it was possible for educators to focus attention on developing specific educational opportunities to meet their needs.

Nevertheless, dispersing the middle school concept throughout the United States and describing what an effective middle school would look like for students between the ages of ten and fifteen was not easy. Coming to a consensus among stakeholders on what would work best in the design of a middle school did not happen quickly. However, the process was ongoing and continual progress was made during the 1960s (Schaefer, Malu, Yoon, 2016). *The Emergent Middle School* was published in 1968, and the book’s authors, Alexander, Williams, Compton, Hynes, and Prescott, addressed questions about “curriculum, instruction, and organization” (Lounsbury & Vars, 2005, p. 5) of the middle school.

Agreeing on the arrangement of the schools by educators, not just grade levels but also the structure of the grades and the grouping of students, was a challenge. Some advocates proposed middle schools with a five through eight configuration while others envisioned a six through eight middle school (Lounsbury, 2013). By 1970, a survey by Ronald Kealy indicated that a total of 2,298 middle schools existed (Lounsbury, 2013). Ronald Kealy’s survey results documented the continued growth of the middle school movement. In addition, his results showed the middle school philosophy was being accepted by more educators as a way to create successful schools for young adolescents.

Significant to the middle school movement in the 1970s was the organization of the Midwest Middle School Association where school administrators from Ohio and Michigan, along with teacher educators from colleges and universities, organized to
promote the middle school movement (Lounsbury & Vars, 2005). Toepfer described how he, along with a prominent group of educators, Alexander, Lounsbury, Vars, and Eichhorn, influenced the burgeoning middle school movement as schools transitioned from junior highs to middle schools (Smith & McEwin, 2011).

Toepfer and others were instrumental in persuading the Midwest Middle School Association to expand, and through that expansion, the National Middle School Association was created in 1973 (Smith & McEwin, 2011). This was an important milestone since the “focus remained on identifying and defining the elements that defined a middle school” and the influence of a national organization was instrumental in the conceptualization of key components in the middle school movement (Schaefer, Malu, & Yoon, 2016, p. 6). To reflect the mission of the organization, which is to focus on young adolescents and their education, the National Middle School Association was renamed the Association for Middle Level Education (AMLE) in 2011 (Lounsbury, 2013).

The Middle School Philosophy

An understanding of the unique needs of students, between the ages of ten and fourteen, increased as well as an impetus to create schools conceptually designed to meet their needs. This was reinforced by the report, The Middle School We Need, issued by The Association for Supervision and Curriculum Development (ASCD) published in 1975. In the report, the authors proposed a “rationale for the middle school based on an analysis of physical, mental, intellectual, and personality development of middle level students” (Lounsbury & Vars, 2005, p. 7).
The authors adopted a holistic view of educating young adolescents and advocated for a uniquely designed educational experience to meet their needs.

Lounsbury and Vars authored seminal works on the design of curriculum for the middle school. Their book, *A Curriculum for the Middle School Years*, published in 1978 was based on “three foundations: needs of the learner, expectations of society, and disciplines of knowledge” (Lounsbury & Vars, 2005, p. 7). The needs of the learners, referred to by Eichhorn as transescence, were described as multifaceted. “The several developmental processes associated with adolescence, while natural and necessary, present challenges to those entrusted with … education of young adolescents” (Association for Middle Level Education, 2010, p. 7).

Transescence was characterized as a time when students undergo rapid changes, physically, mentally, and psychologically. It is a time when students develop habits of mind and body. In addition, the opinions of peers become increasingly important, and the authority of parents and teachers is often questioned (AMLE, 2010). Recognizing these challenges and the diversity of middle level learners, educators such as Lounsbury, Eichhorn, and Vars, promoted ideals of curriculum and instruction to address the needs of the learners. Lounsbury (1996) posited, “The middle school ideal is an entity, as much a philosophy of education as a composite of educational programs” (p. 5). A successful middle school was dependent upon the attitudes of the stakeholders, such as administrators, teachers, and parents, and their beliefs and understandings of the nature and needs of transescence as well as their commitment to providing a developmentally appropriate learning environment.
The expectations of society were taken into consideration when the middle school philosophy was formulated and the position paper, *This We Believe*, was first authored in 1982. The AMLE (2010) posited, “In any partnership or venture, all parties must benefit and share mutually understood roles and expectations” (p. 42). Effective middle school educators did not operate in isolation, but they worked in concert with parents, community leaders, and business partners. The AMLE (2010) explained, “Creating and maintaining schools that fulfill the broad responsibilities of middle level education requires extensive support” (p. 43). The changing needs of society were recognized, and as society changed, the proposed curriculum, instruction, and implementation of the middle school philosophy evolved. This was evident in the revisiting of the ideals and philosophy of the middle school and its impact on students during the middle years by educators.

Beane (1995) wrote, “A discipline of knowledge is a field of inquiry about some aspect of the world-the physical world, the flow of events over time, numeric structures, and so on” (p. 617). As advocates for an integrated curriculum and interdisciplinary teaching, Beane (1995) and Lounsbury (1996) believed that all students, particularly young adolescents, would benefit from learning through real-world, problem-based, curriculum and instruction. These curricular ideals were reflected in the tenets of the middle school philosophy.

During the late 1970s and early 1980s, the middle school movement gained momentum. The ideology and beliefs that students in the middle had unique needs and characteristics continued to influence curriculum design and school configurations at the
middle level. An important event in 1980 occurred when prominent educators, Arth, Alexander, Cherry, Eichhorn, Toepfer, Vars, and Lounsbury, were commissioned by the National Middle School Association (NMSA) to author a document which described the characteristics of middle schools and middle level learners based on a consensus of beliefs (Smith & McEwin, 2011). The culmination of the writers’ efforts was the first position paper by the NMSA titled, *This We Believe*.

Published in 1982, the position paper “identified ten essential elements of a “true” middle school” (Lounsbury, 2013, p. 26). Lounsbury (1996) explained the ten essential elements were:

- educators knowledgeable about and committed to young adolescents,
- a balanced curriculum based on student needs,
- a range of organizational arrangements,
- varied instructional strategies,
- a full exploratory program,
- comprehensive advising and counseling,
- continuous progress for students,
- evaluation procedures compatible with the nature of young adolescents,
- cooperative planning, and
- positive school climate. (p. 2)

Subsequently, there have been three editions of *This We Believe* (1) *This We Believe: Developmentally Responsive Middle Level Schools* in 1995, (2) *This We Believe: Successful Schools for Young Adolescents* in 2003, and (3) *This We Believe Keys to
Educating Young Adolescents in 2010 (Association for Middle Level Education, 2010). The AMLE (2010) established “that successful schools for adolescents” will provide an educational environment that is “developmentally responsive, challenging, empowering, and equitable” (p. 14). Furthermore, the AMLE established guidelines for curriculum, instruction, and assessment which included sixteen characteristics as seen in Appendix A.

The report by the Task Force on Education of Young Adolescents of Carnegie Corporation of New York in 1989, Turning Points: Preparing American Youths for the 21st Century, provided the public with a rationale for educating young adolescents. In addition, the report advocated for organizations and structures which would create effective middle schools (Lounsbury, 2013; Schaefer, Malu, & Yoon, 2016). Writing about Turning Points, Lounsbury (1996) stated, “This landmark report, released with considerable fanfare, put middle grades education on the public’s not just the profession’s agenda” (p. 2). He also explained eight recommendations from the report were significant and many schools sought to implement them. The recommendations were:

- create small communities for learning,
- teach a core academic program,
- ensure success for all students,
- empower teachers and administrators to make decisions about the experiences of middle-grade students,
- staff middle grade schools with teachers who are expert at teaching young adolescents,
• improve academic performance through fostering the health and fitness of young adolescents,
• re-engage families in the education of young adolescents, and
• connect schools with communities. (pp. 2-3)

The middle school philosophy gained acceptance and components of the middle school concept were recognized and implemented in schools in the United States during the 1990s. For example, practices such as advisory, cooperative learning, team teaching, interdisciplinary teaching, and exploratory education were prevalent concepts in middle schools during that time (Schaefer, Malu, & Yoon, 2016). An emphasis on a special certification for middle school educators, so teachers would be mindful of the nature and needs of middle school students when designing curriculum and instruction, became common in many schools of education (Schaefer, Malu, & Yoon, 2016).

Educators, such as Tomlinson (1995), began to study the congruity between the middle school philosophy and special populations of students such as gifted and talented learners. The concept of heterogeneity for grouping students, as seen in the middle school philosophy, seemed by some proponents of gifted education to be antithetical to the emphasis on ability grouping for gifted and talented learners. On the other hand, advocates for middle-level education asserted that the two philosophies were compatible.

Coleman and Gallagher (1992) conducted a quantitative study where members of professional organizations, both middle level and gifted (n = 336), were surveyed to ascertain similarities and differences between perspectives of middle-level educators and educators of gifted and talented students. Survey categories included grouping practices, social development, curriculum, program differentiation, emotional support, teacher
preparation, identification of gifted students, a collaboration between regular and gifted education, teacher assignments, and program evaluation (Coleman & Gallagher, 1992).

The findings from the Middle School Survey after analysis using Cronbach’s Alpha indicated that between the two groups of educators there was moderate significance, .66. The regular curriculum was not challenging enough for gifted and talented students. In addition, there was a moderate difference between the two groups, .67. Results indicated there needed to be more staff development for middle-level educators in gifted education. Coleman and Gallagher (1992) reported that educators from both groups indicated collaboration between middle-level educators and gifted would be beneficial.

To determine the alignment between four middle school models and six gifted models, Chance (1998) conducted a content analysis. Middle school models proposed by four prominent middle-level experts, Alexander, Beane, Eichhorn, and Lounsbury/Vars, and six nationally accepted gifted models by Clark, Gallagher, Kaplan, Renzulli, Taylor, and Treffinger were compared. There were three themes identified by Chance (1998) content, instruction, and delivery system. Of these three themes, two areas of commonality were identified between the gifted models and the middle school models: content and delivery system. However, Chance (1998) did not identify any common themes around instruction.

In 1999, “the state of Iowa acknowledged that the cognitive and affective needs of gifted and talented learners were unique” and implemented a state mandate to strengthen programming for gifted and talented learners (Schneider, 2006, p. 225). Schneider (2006) conducted a quantitative descriptive study to determine if...
School Improvement Process in Iowa had a positive or a negative effect on gifted programming at the middle school level. Two questionnaires were mailed to all middle-level schools in Iowa. Responses from middle-level principals (n = 104) and middle-level teachers (n = 111) were analyzed. Schneider found there was no perceived negative effect and that there was a significant perceived positive change ($p < .05$) for both teachers and principals.

Moon and Callahan (1999) administered The Arlin-Hills Attitudinal Surveys to 1,326 middle school students from two Mid-Atlantic states and one Southwestern state to evaluate students’ attitudes toward middle school. The four surveys measured student attitudes toward teachers, learning processes, language arts, and mathematics using fifteen questions answered on a 4-point Likert scale (Moon & Callahan, 1999). Results of this survey indicated that regardless of achievement, students held very positive attitudes toward school. When looking at students by achievement level, students placed in the high achiever’s group reported a more positive attitude toward school regardless of grade level.

At the turn of the 21st century, the general nature and needs of middle-level students were recognized. The diversity of students and their individual needs were also being addressed (Schaefer, Malu, & Yoon, 2016). There was a focus on “the needs of special populations of students … inside content area classrooms and schools” (Schaefer, Malu, & Yoon, 2016, p. 12). In 2004, The National Association for Gifted Children and the National Middle School Association published a joint position paper delineating specific recommendations for educating gifted and talented young adolescents. The
authors of the position paper wrote, “Their educational needs may also differ in some important ways from those of other young adolescents” (National Association for Gifted Children, 2004, para 4). By issuing the joint position paper, the two organizations indicated a joint commitment to meeting the needs of gifted and talented young adolescents within the middle school philosophy.

Gentry, Gable, and Springer (2000) conducted a causal-comparative study between gifted identified students and non-identified students in grades six, seven, and eight in thirty-five classrooms. Through a survey, My Class Activities, data were gathered in the areas of interest, challenge, choice, and enjoyment. The students’ responses to the survey were measured using a five-point Likert scale. The researchers found slight differences between groups with the most significant finding being that both groups reported that their class activities were only “slightly more than “sometimes” interesting, challenging, or enjoyable” (Gentry, Gable, & Springer, 2000).

In 2004, Picucci, Brownson, Kahlert, and Sobel conducted a research study of seven high-performing, high-poverty middle schools across the nation. The purpose of the study was to explore how these schools improved student performance between 1997-1998 and 1999-2000. The researchers used reading and math scores, interviews, and observations to collect data, and reported that elements of the middle school concept led to improved student performance, even in high-poverty schools (Picucci, Brownson, Kahlert, & Sobel, 2004).
The Accountability Paradigm

The National Commission on Excellence in Education (1983) in the report *A Nation at Risk* made little mention of middle schools; however, middle schools in the 1980s became prevalent with either new schools being built or junior highs converting to middle schools (Schaefer, Malu, & Yoon, 2016). Lounsbury (2013) writing about *A Nation at Risk* stated, “Middle level education, with its emphasis on … meeting the varied needs of students has been vulnerable to … political initiatives such as this” (p. 26). In fact, “the middle level movement and national politics began to intertwine” during the 1980’s (Schaefer, Malu, & Yoon, 2016, p. 6). The impact of the accountability paradigm in national politics was influential and evident in policies implemented in education in the United States generally and middle-level education specifically.

In 2001, No Child Left Behind (NCLB) fueled the accountability paradigm facilitated by statewide testing and federal mandates. Lounsbury (2013) wrote, “Rather than capitalizing on the curiosity of young adolescents and cultivating a love of learning, students and teachers increasingly were pushed to focus on preparing for and taking tests” (p. 33). In response to educational climate changes as well as measurability outcomes during the years of 2000 through 2009, research used best practices, teacher performance, and student learning as justification. The decade was a time when researchers and educators studied educational practices to create a foundation for renewing interest in the middle school movement (Schaefer, Malu, & Yoon, 2016).
More recently, the effects of national and state accountability mandates, even though NCLB was scaled back in 2011, continued to be a hindrance for some schools to implement or continue practices which align with the middle school philosophy. Schaefer, Malu, and Yoon (2016) found “pressures from above (i.e. national policies) often seemed to push the [middle school] movement back, while … impetuses from below, such as model schools … pushed the movement forward” (p. 17). To that point, furtherance and continuation of the middle school philosophy were seen in middle schools of excellence where the middle school philosophy and the principles for educating young adolescents were guided by the AMLE’S *This We Believe Keys to Educating Young Adolescents*. It may not be possible to fully assess the impact of the accountability paradigm enumerated in Georgia by College and Career Ready Index (CCRPI) scores, the Georgia Milestones scores, or the Georgia Standards of Excellence on educational practices at the middle level without further research.

To ascertain the status of schools where the middle school concept was implemented, McEwin and Greene (2011) conducted a survey in 2009 of 827 randomly selected public middle schools and 101 highly successful middle schools. Questions on the questionnaire were in key areas of middle school philosophy, and the second questionnaire contained the same questions but was administered to schools identified as Highly Successful Middle Schools (HSMS) (McEwin & Greene, 2011). The researchers concluded that many middle schools at that time had not fully implemented “developmentally responsive programs and practices” (McEwin & Green, 2011). However, it was also concluded that the middle school concept was viable, and
successful middle schools showed a commitment to the middle school philosophy (McEwin & Greene, 2011). A summary of middle school research studies may be seen in Table 2.

Table 2

*Middle Level Research Studies*

<table>
<thead>
<tr>
<th>Study</th>
<th>Purpose</th>
<th>Design</th>
<th>Findings</th>
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| Coleman & Gallagher, 1992 | Middle School Survey to compare attitudes of educators from middle school movement and gifted education | • 400 members of professional organizations were surveyed  
• Likert scale 23 questions  
• Second section: concerns  
• Third section: comments | • The regular curriculum not challenging enough: moderate difference in groups .66  
• More staff development needed moderate difference .67  
• Agreement that collaboration between gifted education and middle schools would be beneficial |
| Moon & Callahan, 1999  | The purpose was to describe middle school students’ attitudes toward school | • Four attitudinal surveys: attitudes toward teachers, learning processes, language arts, and mathematics  
• 1,326 middle school students surveyed from two Mid-Atlantic States and one Southwestern state (The Arlin-Hills Attitudinal Surveys) | • Regardless of achievement, students in general do not hold very positive attitudes toward school  
• Students defined as high achievers based on achievement data held more positive attitudes toward school |
| Chance, 1998           | The purpose was to do a content analysis of middle school models and gifted models | • Middle school authors’ models: Alexander, Beane, Eichhorn, and Lounsberry/Vars  
• Six gifted educators’ models: Clark, Gallagher, Kaplan, Renzulli, Taylor, and Treffinger | • Common themes between content and delivery systems  
• No common themes found in the instruction |
Table 2 -continued

<table>
<thead>
<tr>
<th>Study</th>
<th>Purpose</th>
<th>Methodology</th>
<th>Findings</th>
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<tbody>
<tr>
<td>Piccucci, Brownson, Kahlert, &amp; Sobel, 2004</td>
<td>The purpose was to understand how seven high-performing, high-poverty, turnaround middle schools across the nation could improve student performance</td>
<td>• 2001-2002 school year&lt;br&gt;• Reading and math scores, interviews, and observations&lt;br&gt;• Elements of the middle school concept can lead to improved student performance</td>
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<tr>
<td>Gentry, Gable, &amp; Springer, 2000</td>
<td>The purpose was to compare identified gifted and non-identified gifted students’ classroom activities</td>
<td>• Group-administration survey&lt;br&gt;• Casual comparative survey: <em>My Class Activities</em></td>
<td>• Slight differences between groups&lt;br&gt;• Both groups reported that their class activities were only slightly more than “sometimes” interesting, challenging, or enjoyable</td>
</tr>
<tr>
<td>Schneider, 2006</td>
<td>The purpose was to survey principals and teachers to determine their perceptions of state gifted mandates in Iowa</td>
<td>• Two questionnaires mailed to all middle level schools in Iowa&lt;br&gt;• 104 principals responded&lt;br&gt;• 111 teachers responded</td>
<td>• Statistically significant positive perceived changes&lt;br&gt;• (p &lt; .05)&lt;br&gt;• Positive changes with no detriment to other programs</td>
</tr>
<tr>
<td>McEwin &amp; Greene, 2011</td>
<td>The purpose was to gather data to ascertain the level to which middle schools implemented the middle school philosophy</td>
<td>• Comparative analysis&lt;br&gt;• Data from the survey of 827 randomly selected middle schools, and&lt;br&gt;• The survey of 101 highly successful middle schools</td>
<td>• Not all middle schools fully implemented the middle school philosophy with developmentally responsive programs and practices.&lt;br&gt;• The highly successful middle schools demonstrated a commitment to the middle school philosophy</td>
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Schools To Watch ©

In 1998, the National Forum to Accelerate Middle-Grades Reform (the Forum), a group of national leaders in middle grades education, established a Schools To Watch © (STW) committee. By identifying exemplary middle school’s practices, the National Forum sought to “impact middle grades education policy and accelerate the rate of middle-grades reform” (Harrison, Lipsitz, & Dehart, 2005, p. 332). The Forum’s goal and the committee’s objective were to identify exemplary middle schools in the United States to spotlight as examples of effective middle schools.

The Forum developed thirty-seven criteria in areas of “academic excellence, developmental responsiveness, social equity, and organizational support” (Harrison, Lipsitz, & Dehart, 2005, p. 332). Initially, in 1999 and 2000, four schools were identified and met the criteria established to be classified as STW. One school was in Kentucky, two in Illinois, and one in Texas. Factors all the schools shared were explained by Harrison, Lipsitz, and Dehart (2005) as “meeting the challenges of middle grades education in ways that foster a community where academic excellence, developmental responsiveness, and social equity thrive” (p. 332) (see Appendix B for the Schools To Watch Self-Study and Rating Rubric). The practices at these schools were researched and utilized to expand the Schools To Watch © program.

The Schools To Watch © program expanded to the state level. In 2002, three states were selected to be STW states. The criteria for selection was based on the states’ history with middle grades education, as well as, “an established partnership of middle-grades stakeholders-including departments of education, middle school associations,
principal and curriculum leadership groups, and educators and administrators from both the middle grades and university levels” (Harrison, Lipsitz, & Dehart, 2005). The three states selected were California, Georgia, and North Carolina.

In each state, STW teams of professionals were formed to scrutinize criteria from prospective schools to determine if they qualified as STW. In 2003, ten schools were identified in these states as STW (Harrison, Lipsitz, & Dehart, 2005). The program continued to be implemented and expanded to seventeen states with over three hundred schools honored to date (The National Forum to Accelerate Middle Grades Reform, 2014). In addition, the Forum developed a rubric for identifying exemplary middle schools in the areas of academic excellence, developmental responsiveness, social equity, and organizational support, and continued to promote educational reform at the middle level.

Schools to Watch © Georgia

Georgia was one of the first three states to be designated with the distinction of a STW state. In 2017, Georgia had twenty-one schools that earned the honor of being a Georgia Lighthouse STW model school (Georgia Middle School Association, 2017). A list of 2018-2019 Georgia Lighthouse STW may be seen in chapter 3. The Lighthouse schools are recognized for continued excellence in middle-level education, and the faculty, administrators, and staff at each school serve as mentors for other middle-level stakeholders. To demonstrate continued growth as an exemplary middle school, the school must reapply every three years.
Cook, Faulkner, and Kinne (2009) surveyed middle school teachers and administrators at Kentucky’s Schools to Watch (KSTW) to determine the level of middle school concept implementation. In addition, researchers collected state assessment data in the spring of 2007 from the Kentucky Department of Education to measure student achievement. The data from KSTW were compared with data from non-designated middle schools. The findings showed that the KSTW experienced overall higher levels of student achievement than non-designated schools (Cook, Faulkner, & Kinne, 2009).

To explore an Illinois Horizon Schools to Watch middle school’s gender-specific advisory program, Weilbacher and Lanier (2012) conducted a qualitative research study, and data were collected by focus group interviews of middle grades students and their teachers. The findings suggested that gender separation appeared to have benefits as reported by the students and the teachers. Gender-specific advisories are not the norm in most middle schools. However, the study reinforced the belief that an effective advisory program was an important component of a successful middle school.

Cook and Faulkner (2010) conducted a case study of two high-performing middle schools within one suburban school district. The schools reported common planning time and earned excellence designation as Kentucky Schools to Watch. Data were collected through interviews, structured observations of team meetings, and demographic information collected as part of a national study using the protocols developed by the Middle Level Education Research Special Interest Group (Cook & Faulkner, 2010). The findings indicated both schools believed common planning was an essential component
of the school’s success. Three themes were identified to explain the schools’ effective common planning: a common vision, clearly defined goals, and effective leadership by administrators (Cook & Faulkner, 2010).

In 2014, Falbe conducted a quantitative correlation research study of eighty Schools to Watch © and eighty non-Schools to Watch © in Virginia, Ohio, New York, and Colorado. Data were collected using math and reading scores from the criterion-referenced tests from each state. The findings did not show a statistically significant difference in LA/reading and math scores between the two groups. A synthesis of the research studies may be seen in Table 3.
### Table 3

*Schools To Watch © Research Studies*

<table>
<thead>
<tr>
<th>Study</th>
<th>Purpose</th>
<th>Design</th>
<th>Findings</th>
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| Cook, Faulkner, & Kinne, 2009 | The purpose was to examine the level of academic achievement in Kentucky’s Schools to Watch (KSTW) compared to non-designated middle schools | • Surveyed teachers and building administrators  
• Spring 2007 assessment data were assessed by Kentucky Department of Education as an indicator of achievement | • Schools designated as KSTW experienced overall higher achievement than non-designated schools |
| Cook & Faulkner, 2010 | The purpose of this study was to study the effective use of common planning time in high-performing middle grades schools with the designation as a Kentucky School to Watch | • A case study of two middle schools in one suburban school district in Kentucky  
• Qualitative data through interviews, structured team observations of team meetings, and demographic and contextual information  
• A national study of the use of common planning time: Middle Level Education Research Special Interest Group | • Common planning time was viewed as essential to the school’s success  
• Interdisciplinary planning, grade level planning, and professional learning communities  
• Observations confirmed that the central focus was students |
| Weilbacher & Lanier, 2012 | The purpose was to study the impact of gender-specific advisories at a Horizon Schools to Watch middle grades school in Illinois | • Qualitative data were gathered from focus group interviews with middle grades students and their teaching teams  
• Issues explored were the impact gender separation had on establishing trust, openness, and confidentiality within the advisory program | • Gender separation appeared to provide benefits in the opinions of the students and teachers  
• Advisory was found to be a key component in creating an effective middle school environment |
| Falbe, 2014 | The purpose was to examine state data to determine whether there was evidence to support the benefits of the middle school philosophy on achievement | • Quantitative Correlation Research design  
• Quantitative data of students from 80 Schools to Watch and 80 non-Schools to Watch in Virginia, Ohio, New York, and Colorado were used for analysis  
• Data were gathered using math and reading state based criterion-referenced test results | • Findings did not suggest a statistically significant difference in achievement in language arts/reading and math for Schools to Watch and non-Schools to Watch students |
Summary Middle Level Education

Students between childhood and adolescence, the students Eichhorn referred to as transescents, are at a critical transitional period not just physically and emotionally, but also academically. Uniquely, the special needs of gifted and talented (GT) transescents may be forgotten, and in the push to meet accountability standards, they may not be challenged to grow academically while in middle school. There have been discussions among educators at the middle level and educators of gifted and talented students on how to meet the needs of the GT young adolescents. On the one hand, the assertion was made tenets of the middle school philosophy which advocated for developmentally responsive schools would also meet the needs of gifted and talented learners. However, the argument was made the middle school philosophy did not address the needs of GT young adolescents specifically.

The literature reviewed revealed some middle schools moved away from the middle school philosophy and the leadership teams organized the schools to mirror the image of high schools with departmentalization. Conversely, there were schools where the middle school philosophy was implemented and used as a framework for the organization and structure of the school as seen in *This We Believe Keys to Educating Young Adolescents*. Many exemplary middle schools were designated as Schools To Watch © nationally, and in the state of Georgia, Georgia Lighthouse STW have been recognized as exemplary middle schools. The literature concerning STW indicated the middle school philosophy was viable for meeting the needs of young adolescents.
Along with understanding the middle school philosophy in this research study, it was important to recognize the needs of gifted and talented students. Therefore, the next section of the literature reviewed explored the historical context of gifted education, gifted education in Georgia, and identification of gifted and talented students. In addition, the literature reviewed on educating gifted and talented learners, characteristics of gifted and talented students, differentiation, and cluster grouping were explained.

Gifted Education

The history of identifying and educating gifted and talented individuals may be traced back to around 400 B.C. and the writings of Plato. Hollingworth (1926) wrote that Plato discussed “ways of identifying the intellectually gifted to educate them in his Utopian state” (p. 23). More recently, the development of mental ability tests, first researched and developed in France during the early 1900s by Binet with his colleague Simon, provided assessments by which learner cognitive differences were measured (Brown et al. 2005; Hollingworth, 1926). During World War I, the army began to use mental ability testing, particularly the Alpha test, and intelligence tests became widely accepted in the United States (Kulik, 1992). Binet and Simon made significant changes to the Binet-Simon Intelligence Test between 1908-1911 (Becker, 2003).

In 1916, Terman adapted the mental ability test for use in the United States and produced an English translation. Not only did Terman add new items which he published in a testing manual, but he also adapted the existing questions to be more reflective of American culture (Becker, 2003). In fact, the success of the Stanford-Binet Intelligence Test, as well as significant changes to the test, were credited to Terman (Becker, 2003).
Hollingworth (1926) acknowledged that once education became compulsory in the United States, “the first services rendered in this respect by psychologists had to do with the least able children, instead of with the most able” (p. 24). Initially, mental ability testing, for educational purposes, was used to identify students with less than average learning ability and did not emphasize students with above average ability (Jolly & Kettler, 2008). At the same time, Terman (1916) wrote about using the Stanford-Binet Intelligence Test to identify students with high abilities.

Terman (1916) posited, “The future welfare of the country hinges, in no small degree, upon the right education for these superior children” (p. 13). Hollingworth and Terman both studied students with high mental ability who were identified by an intelligent quotient (IQ) from the Stanford-Binet, and their findings were foundational to understanding the characteristics of gifted and talented learners. Their work was instrumental in promoting curriculum and instruction for this population of students (Robinson & Clinkenbeard, 1998). During the 1920s, Hollingworth designed enrichment classes for gifted and talented students in the New York City Schools to augment the accelerated classes already in place (Kulik, 1992).

Terman’s longitudinal study of 1500 high school students with an IQ of 140 or above as described by Robinson and Clinkenbeard (2008) showed results where the students “achieved from two to four grades beyond the one in which they were enrolled” (p. 15). Similarly, Hollingworth (1926), whose studies involved a highly-gifted boy and students with IQ scores of 180 or above, identified characteristics of highly able students. Hollingworth (1926) revealed, “The American studies of the past ten years have clearly
shown that children identified by mental tests as of superior intelligence, can learn very much more rapidly, and can grasp much more complex ideas than average children can” (p. 280). As the author of what came to be known as the first handbook for gifted education, Hollingworth’s contributions to understanding the characteristics of gifted learners and their needs were foundational to gifted education.

Gifted Education in Georgia

Four months after the launch of Sputnik, by the Soviet Union in 1957, the House of Representatives in Georgia passed HR-246 which recognized gifted and talented learners as a special population of students requiring special programming and services. The state of Georgia was in the forefront of gifted education nationally and became the first state to provide funding for gifted and talented students’ support in public schools. Legislation from Georgia lawmakers and rules from the Georgia Department of Education (GaDOE) (2006) led to Georgia’s multiple criteria for identification of gifted and talented learners in 1994 and 1995. The multiple criteria along with Georgia’s due process procedures, encouraged a fair and equitable identification, referral, and assessment of gifted and talented students (GaDOE, 2017).

Scholars from the University of Georgia’s Gifted and Creative Studies program were instrumental in contributing new knowledge of gifted, talented, and creative learners over the years (GaDOE, 2006). Torrance often referred to as the father of creativity developed assessment tools widely used in the identification of students who were creatively gifted (GaDOE, 2006). In the 1990s, Frasier conducted research for the National Research Center on Gifted and Talented to find efficient ways to identify and
refer students for gifted services. Her research was beneficial in identifying students from typically underrepresented populations such as “economically disadvantaged students, culturally and linguistically different students, students with disabilities, and certain ethnic minorities” (Georgia Department of Education, 2006, p. 1). Frasier’s research was instrumental in Georgia’s adoption of multiple criteria for identification of gifted and talented students in 1994 and 1995. Furthermore, in 2012, the State Board of Education Rule 160-4-2-.38 EDUCATION PROGRAM FOR GIFTED STUDENTS identified gifted students as a category of special education; thus, gifted and talented students were required to be served in Georgia schools (GaDOE, 2006).

In 2014-2015 in Georgia, 177,877 students were reported to have received gifted services (National Association for Gifted Children, 2015, p. 164). According to the National Association for Gifted Children (2015), the delivery models reported being used most frequently in middle schools in Georgia were the honors/advanced coursework, cluster classrooms, and the self-contained classroom. Eleven percent of students in the sixth grade received gifted services in 2015. Eleven and five-tenths percent of students in the seventh grade received gifted services. Eleven and five-tenths percent of students in the eighth grade received services (National Association for Gifted Children, 2015, p. 150). The numbers reinforced the need to provide effective programs for all students who are identified as gifted and talented in Georgia middle schools as well as the obligation to fairly and equitably identify and refer students who need services.
Identification of Gifted and Talented Learners

Renzulli (1984) stated, “Scholars and laypersons alike have debated (and continue to debate) the age-old issues of how certain human abilities, personalities, and environmental conditions contribute to what we call giftedness” (p. 1). Historically, a challenge to educating gifted and talented students has been defining what is meant by gifted and talented. Broadly speaking, how gifted and talented individuals were identified, as well as how the term gifted was defined, has been influenced by cultural norms and attitudes within societies.

Prior to the 1950s, the most prevalent way to identify gifted and talented students was the use of mental ability testing and the use of the IQ score from the Stanford-Binet Intelligence Test (Robinson & Clinkenbeard, 2008). In 1950, Guilford proposed a multi-dimensional process for identifying gifted and talented learners which assessed the learner’s creative and problem-solving abilities (Brown et al. 2005; National Association for Gifted and Talented, 2016). At the same time, quantitative measures of a student’s aptitude in school continued to be used, and “numbers became the determinant of what students could accomplish in school” (Brown et. al, 2005, p. 75).

Even among experts in the field, it was difficult to come to a consensus “on the nature of giftedness [and] how giftedness, talent, intelligence, creativity, and prodigiousness are related” (Cohen, 2006, p. 93). In 1983, Gardner (2011) proposed the theory of multiple intelligences which provided a way for defining giftedness that was much broader than using a specific IQ score. From Gardner’s perspective answering questions on an intelligence test and defining giftedness based on a numeric value did not
fully encompass the diverse nature of gifted and talented students. Gardner (2011) stated, “There must be more to intelligence than short answers on a test” (p. 4). Gardner’s (2011) theory identified linguistic, logical-mathematical, spatial, musical, bodily-kinesthetic, as well as intrapersonal and interpersonal relationships as categories of giftedness. The theory of multiple intelligences, proposed by Gardner (2011), had an influence on the way gifted and talented students were identified as well as the curriculum and instruction designed to meet their individual needs.

Renzulli (2012) advocated for many different types of intelligence and asserted that schoolhouse giftedness, as identified by test scores, was not the only reason that students were successful. In fact, the second type of giftedness was identified by Renzulli (2012) as a creative productive giftedness. Creative productive gifted students, as contrasted with what Renzulli (2012) identified as students who excelled in traditional school academics, were students who exhibited talents as “inventors, designers, authors, artists, and others” (p. 151).

Renzulli (1978) theorized a “Three-Ring Conception of Giftedness” (p. 83) to include levels of creativity and to identify traits not assessed by mental abilities tests. The Three-Ring Conception of Giftedness consisted of three interrelating components of giftedness: above-average general ability, task commitment, and creativity (Renzulli, 1978). Renzulli (2012) stated each of these traits “is based on an overlap and interaction between and among three clusters of traits that create the conditions for making giftedness” (p. 153). For Renzulli (2012), giftedness was not a one-dimensional construct based on a single quantifiable value, such as an IQ score, used to label a
student’s intellectual ability. Instead, there was an overlap between the three constructs each exerting multiple influences on the other.

Agreeing with the assertion that coming to a consensus on a definition was difficult, Gagné (2004) suggested that “giftedness and talent are confounded by most professionals… aptitudes can be described as natural abilities … and achievement as systematically developed skills in a particular talent field” (p. 120). The Differentiated Model of Giftedness and Talent (DMGT) emphasized varying abilities and exceptionalities among gifted learners as well as the need for effective instruction for this population of students. Gagné (2004) believed the DMGT met the needs of gifted students by developing their gifts and talents through systematic and operational instructional practices. The DMGT included the element of chance. The element of chance involved the learner’s natural abilities, both mental and physical, environmental factors, and intrapersonal skills. All factors of the DMGT lead to the developmental processes for the gifted and talented learner. The DMGT can be described as a model to guide the design of curriculum and instruction for GT learners.

Identification of Gifted and Talented Learners in Georgia

The Georgia Department of Education (GaDOE) (2017) describes a gifted student as one who demonstrates a high degree of intellectual and/or creative ability (ies), exhibits an exceptionally high degree of motivation, and/or excels in specific academic fields, and who need special instruction and/or special ancillary services to achieve at levels commensurate with his or her abilities. The abilities manifest
in a collection of traits, aptitudes, and behaviors that, when taken together, are indicative of gifted potential. (p. 23)

The theoretical framework for identifying gifted and talented learners in Georgia may be understood through the lens of Renzulli’s multiple intelligences conceptions of giftedness. Renzulli (1978) asserted, “It is important that no single cluster makes giftedness” (p. 83). He described two types of giftedness, academic giftedness or creative-productive giftedness (Renzulli, 2005). Renzulli (2012) theorized The Three-Ring Conception of Giftedness as three interacting areas of human abilities: above average ability, task commitment, and creativity. The Three-Ring Conception of giftedness emphasized the relationship between all three areas of giftedness “rather than any single cluster” (Renzulli, 2005, p.31).

In Georgia, students are referred to be assessed for gifted services in several ways. The Georgia Resource Manual for Gifted services lists “teachers, counselors, administrators, parents/guardians, peers, self or others” (Georgia Department of Education, 2017, p. 12) as individuals who may refer a student for further assessment. In addition, a student may automatically be referred for testing by making a specified score on a normed referenced test. Each Local Board of Education (LBOE) establishes the score to be obtained by students in that school district.

Once students are referred, a Gifted Eligibility Team (GET) further assesses whether the student will be tested for gifted services based on an evaluation of documents gathered from teachers and others. When GET recommends a student for testing, the student evaluation is based on Georgia’s multiple criteria: mental ability, achievement,
creativity, and/or motivation (see Appendices D and E). Following the assessment, if a student is found to be eligible for gifted and talented services then the school is required by HR-246 and SBOE Rule 160-4-2.38 to provide services. Georgia’s Department of Education (2017) provided guidance for LBOEs in the Georgia Resource Manual for Gifted Services where gifted service models and requirements for service are explained.

Characteristics of Gifted and Talented Learners

While gifted and talented (GT) students are not a homogeneous group, they have unique characteristics in common. First, gifted and talented learners may enter the classroom with background knowledge of the concepts being taught, learn faster, and understand complicated information (Rogers, 2007). Second, GT students are individuals with distinctive abilities, and they construct knowledge through different approaches and experiences. Coleman, Micko, and Cross (2015), through a synthesis of studies concerning the personal experiences of gifted and talented students, concluded they were a diverse group with individual needs. The studies showed gifted and talented learners had abilities and interests that were different from their non-gifted peers.

Rogers (2007) synthesized research on gifted and talented students and concluded that gifted learners needed a challenge, time for independent learning, acceleration as needed, time to learn with like-ability peers, temporary grouping or clustering with high-ability students, and a differentiated curriculum. GT students may work with greater independence in a classroom, be self-motivated, and have high levels of task commitment (Renzulli, 1984). In addition, Goodhew (2009) indicated not all GT students did well on standardized tests, and they did not do equally well in all academic subjects.
Gifted and talented students may share some commonalities, but they are each unique with individual needs. VanTassel-Baska and Stambaugh (2005) asserted, “Only when individual differences are acknowledged, embraced, and acted on …, will gifted students be adequately served” (pp. 216-217). VanTassel-Baska (2006) synthesized the results from seven gifted program evaluation studies in twenty different school districts and found effective curriculum and instruction for gifted learners were not frequently utilized.

Educating Gifted and Talented Students

There were few programs available which provided specialized educational services for gifted and talented students prior to the 1950s. Educational services for GT students “played only a supporting role in American education” typically by providing an accelerated curriculum (Kulik, 1992, p. 8). In fact, the state of Georgia was the first state, during the 1950s, to pass legislation providing education for gifted and talented students based on intellectual, as well as creative abilities (Georgia Department of Education, 2016).

After the launch of the Russian satellite, Sputnik in 1957, the effectiveness of education in the United States was questioned particularly for gifted and talented students. There was an emphasis on the fields of science, mathematics, and technology “for the stated purpose of channeling intellectual talent into defense related fields” (Urban & Wagner, 2014, p. 268). More attention was directed toward educating GT students. Money was appropriated through the National Defense Education Act (NDEA)
and additional programs were developed to serve this population of students (Kulik, 1992; National Association for Gifted and Talented, 2016).

During the post-Sputnik era, there was an increased push to well educate academically gifted and talented students. Unfortunately, there were eligible students not included in accelerated classes or other gifted programs because of the limited means by which students were identified for gifted services. Robinson and Clinkenbeard (2008) wrote concerning the use of IQ tests, “Their use in identifying students for gifted education programs and services has become controversial due to concerns about test bias” (p. 21). As a result, minorities and economically disadvantaged students were disproportionately excluded from gifted and talented services.

The concern for educating gifted and talented students generally, and minority students specifically, was highlighted by The U. S. Commissioner of Education (1972) when the Marland Report was published. It was reported, “Intellectual and creative talent cannot survive educational neglect and apathy” (U. S. Commissioner of Education, 1972, p. 1). The commissioner went on to admonish that the educational system in the United States was not meeting the needs and cultivating the strengths of many gifted and talented students. Additionally, it was concluded in the report that “existing services to the gifted and talented do not reach large and significant subpopulations (e. g. minorities and disadvantaged) and serve only a small percentage of the gifted and talented population” (U. S. Commissioner of Education, 1972, p. 4).

In 1983, a National Commission on Excellence in Education made recommendations concerning the needs of gifted and talented students in the report, A
Nation at Risk. The authors of the report asserted, “Gifted students, for example, may need a curriculum enriched and accelerated beyond even the needs of other students of high ability” (National Commission on Excellence in Education, 1983, p. 24). While the report did not bring about significant changes to gifted education initially, Jolly (2015) confirmed, “The document would be used as an instrument to advocate on behalf of gifted students and their educational needs” (p. 127).

In the report, National Excellence: A Case for Developing America’s Talent, the argument was made, “Most gifted and talented students spend their school days without attention paid to their special learning needs” (U. S. Department of Education, 1993, p. 10). Certainly, the fact that GT students were not being adequately served in regular classrooms was highlighted in this report. When their academic needs were not met through effective curriculum and instruction, many GT students became bored which led to a lack of engagement and unsuccessful experiences (VanTassel-Baska, 2005).

Cohen (2006) quantitatively and qualitatively analyzed topics between 1989 – 2004 at the National Association of Gifted Children (NAGC) conferences to determine prominent themes that framed gifted education. Cohen (2006) synthesized the findings and reported, “The purpose of gifted education is to support development so that the child can move toward the highest levels, developing both self and field” (p. 96).

Plucker and Callahan (2014) analyzed the status of gifted education and determined that research had been strong around curriculum and design for gifted learners, particularly in the field of accelerated curriculum. However, Plucker and Callahan concluded that further research was needed on ability grouping of gifted and
talented students. Research on equality for minority students in gifted and talented programs was also found to be lacking (Plucker and Callahan, 2006).

Delcourt, Loyd, Cornell, and Goldberg (1994) did research as part of The Learning Outcomes Study at the University of Virginia. The study was conducted over a two-year period. Participants were in grades two and three, and the study determined the academic effects of four different gifted service delivery models: within-class, pull-out, separate class, and special school. The researchers concluded, based on the performance of students on standardized achievement tests, teacher ratings of student learning behaviors, and student attitudes toward learning processes, that gifted learners in special programs i.e., special schools, separate classes, and pull-out programs, showed higher achievement than students not in special programs (Delcourt, Loyd, Cornell, & Goldberg, 1994).

Callahan, Moon, and Oh (2013) conducted the National Survey Status of Gifted Programs and received responses from twelve state directors and information on 1,753 school districts. The findings from the survey indicated there was diversity among services at the middle level for gifted and talented students. In addition, there were challenges to serving gifted students with minimal federal level policies, lack of accountability, and minimal guidance in some states (Callahan, Moon, & Oh, 2013). In addition, VanTassel-Baska (2006) explained that educators could benefit from staff development to help them meet the needs of gifted learners. Through understanding, educators can implement effective curricula and challenging instructional practices based on the characteristics of gifted and talented learners.
The key, however, is for gifted programming to be effectively implemented to provide GT students with a continuum of opportunities for success. Gallagher (1994) reminded, “What is not always commonly recognized is that the converse of great attention and encouragement of talent can result in sizeable negative consequences for talent development” (p. 86). Gallagher asserted if educators fail to meet the needs of gifted and talented students, they can experience negative educational consequences.

Twenty-seven fourth, fifth, and sixth grade, gifted and talented students from Sydney, Australia, who experienced schools where students’ unique academic and social needs were addressed, were participants in a qualitative research study by Eddles-Hirsch, Vialle, Rogers, and McCormick (2010). When interviewed, the students reported schools that provided resources to address their social, emotional, and academic needs, created positive school experiences for them. The researchers concluded that a rigorous academic environment was an important factor in the experiences of the gifted and talented students, but closely integrated with the challenge was the social climate of the school (Eddles-Hirsch, Vialle, Rogers, & McCormick, 2010). A synthesis of research studies on educating gifted and talented learners may be seen in Table 4.
Table 4  

*Educating Gifted and Talented Students Research Studies*

<table>
<thead>
<tr>
<th>Study</th>
<th>Purpose</th>
<th>Design</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kulik, 1992</td>
<td>The purpose was to analyze research of ability grouping from a historical perspective</td>
<td>Meta-analysis of research studies on ability grouping</td>
<td>Results showed that higher aptitude and gifted students benefited from separate instruction. Talented students in programs specially designed for them gained more academically.</td>
</tr>
<tr>
<td>Delcourt, Loyd, Cornell, &amp; Goldberg, 1994</td>
<td>The purpose was to evaluate the effects of programming arrangements, within-class, pull-out, separate class, and special school, on gifted students</td>
<td>The Learning Outcomes Study at the University of Virginia. Two-year study. 1000 students in grades 2-3. Four gifted models.</td>
<td>Gifted children attending special programs performed better. Children in special schools and programs showed substantially higher levels of achievement than their gifted peers not in programs.</td>
</tr>
<tr>
<td>Eddles-Hirsch, Vialle, Rogers, &amp; McCormick, 2010</td>
<td>The purpose of the study was to explore the experiences of gifted elementary students in environments that were differentiated to meet their individual needs</td>
<td>Qualitative phenomenology. Twenty-seven gifted elementary students grades 4, 5, 6 in Sydney, Australia. Interviews with open-ended questions.</td>
<td>Academically advanced students need daily challenge. The students’ perception of a positive school environment was linked to academic achievement.</td>
</tr>
</tbody>
</table>
Table 4 – continued

<table>
<thead>
<tr>
<th>Study</th>
<th>Purpose</th>
<th>Search terms</th>
<th>Synthesis</th>
<th>Gifted and talented students felt different and want to feel “normal”</th>
<th>Not a homogeneous group</th>
<th>Learn faster than nongifted peers</th>
<th>Have interests and abilities that nongifted peers may not have</th>
<th>Variability of services at the middle level</th>
<th>Challenges in serving students at the middle level include: minimal federal level policies, minimal guidance at the state level, and minimal accountability in educating gifted students</th>
<th>Look for more holistic ways to teach gifted and talented students.</th>
<th>“The purpose of gifted education is to support creative development so that the learner can move toward the highest levels, developing both self and field” (p. 96)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coleman, Micko, &amp; Cross, 2015</td>
<td>The purpose was to synthesize studies concerning the personal experiences of gifted and talented students</td>
<td>Search terms included gifted and lived experience and school.</td>
<td>Synthesis included studies within the last 25 years with an emphasis on studies published since 2005</td>
<td>Gifted and talented students felt different and want to feel “normal”</td>
<td>Not a homogeneous group</td>
<td>Learn faster than nongifted peers</td>
<td>Have interests and abilities that nongifted peers may not have</td>
<td>Variability of services at the middle level</td>
<td>Challenges in serving students at the middle level include: minimal federal level policies, minimal guidance at the state level, and minimal accountability in educating gifted students</td>
<td>Look for more holistic ways to teach gifted and talented students.</td>
<td>“The purpose of gifted education is to support creative development so that the learner can move toward the highest levels, developing both self and field” (p. 96)</td>
</tr>
<tr>
<td>Callahan, Moon, &amp; Oh, 2013</td>
<td>The purpose was to determine the status of middle school gifted programming</td>
<td>Mixed methods</td>
<td>Programming options – 1,753 programming directors from school districts in twelve states were surveyed</td>
<td>Gifted and talented students felt different and want to feel “normal”</td>
<td>Not a homogeneous group</td>
<td>Learn faster than nongifted peers</td>
<td>Have interests and abilities that nongifted peers may not have</td>
<td>Variability of services at the middle level</td>
<td>Challenges in serving students at the middle level include: minimal federal level policies, minimal guidance at the state level, and minimal accountability in educating gifted students</td>
<td>Look for more holistic ways to teach gifted and talented students.</td>
<td>“The purpose of gifted education is to support creative development so that the learner can move toward the highest levels, developing both self and field” (p. 96)</td>
</tr>
<tr>
<td>Cohen, 2006</td>
<td>The purpose was to analyze the Conceptual Foundations presentations of the National Association of Gifted Children (NAGC) from 1989-2004</td>
<td>Abstracts were analyzed qualitatively for content and quantitatively for the number of presentations</td>
<td>Gifted and talented students felt different and want to feel “normal”</td>
<td>Not a homogeneous group</td>
<td>Learn faster than nongifted peers</td>
<td>Have interests and abilities that nongifted peers may not have</td>
<td>Variability of services at the middle level</td>
<td>Challenges in serving students at the middle level include: minimal federal level policies, minimal guidance at the state level, and minimal accountability in educating gifted students</td>
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</tbody>
</table>

If gifted learners are not provided with rewarding academic experiences through curricular and instructional strategies designed for their unique needs then, “they sit bored in classrooms where their instructional level exceeds by years their age-peers” (VanTassel-Baska, 2005, p. 90). While it is a challenge for LBOE and LEA to design a curriculum that will be adequately challenging, diverse, and engaging for GT learners, the rewards for students are well worth the efforts. In the Georgia Resource Manual for
Gifted Services it was stated, “curricula for gifted students shall focus on developing cognitive, learning, research, and reference, and metacognitive skills at each grade grouping using principles of differentiation” (GaDOE, 2016, p. 9).

The GaDOE developed recommendations for educating gifted learners; however, each Local Board of Education (LBOE) and Local Educational Agency (LEA) decides how to best meet the needs of the gifted and talented students in a school. When designing gifted programming it is important for educators to understand that “gifted students are gifted every year, not only during the years when the school has a program that addresses their needs” (Gentry & Owen, 2004, p. 39). Continuity of services is important for gifted and talented students, particularly in middle school, and a continuum of opportunities should be available for students to meet their needs.

Van Tassel-Baska and Little (2011) proposed four questions to be considered by designers of curriculum for gifted learners:

1. Is the curriculum suitably advanced for the strongest learners in the group?
2. Is the curriculum complex enough for the best learners, requiring multiple levels of thinking, use of resources, and/or variables to manipulate?
3. Is the curriculum sufficiently in-depth to allow students to study important issues and problems related to a topic under study?
4. Is the curriculum sufficiently encouraging of creativity, stimulating open-ended responses and providing high-level choices? (p. 10)

The questions are useful when designing curriculum and making instructional decisions for gifted students. When educators address the questions posed by Van-Tassel Baska
and Little rigorous and differentiated learning opportunities can be created for gifted and
talented learners.

Differentiation of Curriculum and Instruction

According to Tomlinson and Imbeau (2010), differentiation is a philosophy with a
“set of principles” (p. 15). The principles of differentiation identified by Tomlinson
(2009) were:

• Students differ as learners” (p. 28),
• Teachers must study their students to teach them well” (p. 29),
• Effective teachers teach up” (p. 31), and
• Responding to student readiness, interest, and learning profile enhances
  student success” (p. 31).

Effective curricular and instructional designs for gifted and talented students are
dependent upon educators effectively implementing differentiated instructional strategies
aligned with these principles (Georgia Department of Education, 2017). The philosophy
of differentiation and the tenets that guide educating gifted and talented students in
Georgia are based on the understanding that they are a diverse population of learners.

When teachers know and understand their students, they can design lessons to address the
students’ individual needs.

Three areas of modification advocated by the State of Georgia (2017) to facilitate
differentiation for gifted and talented learners are content, process, and products.

Tomlinson and Imbeau (2010) described content as being “what teachers want students to
learn from a particular segment of study” (p. 18). Whereas, the process “describes
activities designed to ensure that students use key skills to make sense of, apply, and transfer essential knowledge and understandings. Products are vehicles through which students demonstrate and extend what they have learned” (Tomlinson & Imbeau, 2010, p. 18). To effectively differentiate curriculum and instruction to meet the needs of gifted and talented learners, modifications need to be made in one or all three areas as advocated by Tomlinson and Imbeau (2010).

According to the GaDOE (2016), the key to effective programming for gifted students is the differentiation of the curriculum and instruction. When differentiation is used, “curriculum goals, outcomes, and activities may be tailored for gifted learners to accommodate their needs” (Georgia Department of Education, 2016, p. 19). Based on the GaDOE’s statement, it may be assumed if GT students’ curriculum and instruction are not differentiated, then their needs will not be met. A good resource for gifted and talented programs is the Georgia Resource Manual for Gifted Services where attributes of an effective differentiated curriculum were identified as seen in Table 5
Table 5

*Differentiated Curriculum for Gifted Learners*

<table>
<thead>
<tr>
<th>Area of Differentiation</th>
<th>Attributes</th>
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<tbody>
<tr>
<td><strong>Content</strong></td>
<td>Complex and challenging subject matter that:</td>
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<td></td>
<td>• requires intellectual struggle</td>
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<tr>
<td></td>
<td>• utilizes primary documents</td>
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<tr>
<td></td>
<td>• integrates research skills and methods</td>
</tr>
<tr>
<td></td>
<td>• incorporates relevant and real-life experiences</td>
</tr>
<tr>
<td></td>
<td>• integrates interdisciplinary connections</td>
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<tr>
<td><strong>Process</strong></td>
<td>Instructional strategies are designed to:</td>
</tr>
<tr>
<td></td>
<td>• emphasize higher-order thinking, problem-solving and communication skills</td>
</tr>
<tr>
<td></td>
<td>• foster self-initiated and self-directed learning</td>
</tr>
<tr>
<td></td>
<td>• promote the creative application of ideas</td>
</tr>
<tr>
<td></td>
<td>• model and encourage academic discussion</td>
</tr>
<tr>
<td><strong>Product</strong></td>
<td>Gifted student products should demonstrate a developmentally appropriate capacity for:</td>
</tr>
<tr>
<td></td>
<td>• self-directed learning</td>
</tr>
<tr>
<td></td>
<td>• meaningful collaboration</td>
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<td></td>
<td>• effective problem solving of challenging and complex issues</td>
</tr>
<tr>
<td></td>
<td>• effective communication</td>
</tr>
<tr>
<td></td>
<td>• social and emotional understanding of self-relative to community, culture, and physical environment</td>
</tr>
<tr>
<td><strong>Environmental</strong></td>
<td>Physical setting and work conditions:</td>
</tr>
<tr>
<td></td>
<td>• change the actual place where students work</td>
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<td></td>
<td>• allow flexible time</td>
</tr>
<tr>
<td></td>
<td>• provide opportunities for independent study and in-depth research</td>
</tr>
<tr>
<td></td>
<td>• provide opportunities for mentorship</td>
</tr>
<tr>
<td><strong>Assessment</strong></td>
<td>Gifted learners need various methods and opportunities to document mastery of curriculum such as:</td>
</tr>
<tr>
<td></td>
<td>• pre/post tests</td>
</tr>
<tr>
<td></td>
<td>• self-assessment through rubrics</td>
</tr>
<tr>
<td></td>
<td>• creation of goal-based checklists</td>
</tr>
<tr>
<td></td>
<td>• conferencing, commentary, and qualitative feedback</td>
</tr>
</tbody>
</table>

*Note. This information was adapted from Georgia Resource Manual for Gifted Education Services. Used with permission from Georgia Department of Education.*
Olenchak (2001) conducted a case study of four gifted and talented students aged nine to twelve who received interventions designed to improve differentiation for each student. The results supported differentiation for meeting the needs of gifted and talented students. One of the participants in the study stated, “Differentiation has to mean something more than changing the class around the group’s needs. If it doesn’t, then kids like me may not belong in school at all. Then, where will we go, and what will we do?” (Olenchak, 2001, p. 196). The student’s statement indicated, along with the findings of the study, the needs of gifted and talented students can be met when individualized curriculum and instruction are used based on the needs of the student.

Olenchak (2001) identified numerous curriculum models that encouraged differentiation based on students’ individual interests and needs. One such model was Renzulli’s (1984) *The Enrichment Triad Model* which he situated in the belief that educators should “develop in certain people, at certain times, and under certain conditions” (p. 1) their talents. Renzulli’s (1984) model incorporated assumptions of giftedness including GT learners’ above average abilities, strong task completion, and creativity based on The Three-Ring Conception of Giftedness.

Other models that Olenchak (2001) described as concentrating “on modifications of content, process, and product at a personal level” (p. 186) were criticized for leaving too much to chance since the implementation and instructional strategies were dependent on the choice of the teacher. “To be truly effective, differentiation for gifted and talented students must eventually become personalized” (Olenchak, 2001, p. 195). Recognizing the characteristics of GT learners is requisite to developing a rigorous and challenging
curriculum. For differentiation to be successful, each GT learner’s level of development should be considered to provide higher level activities as part of instruction.

Besides focusing on the needs of the individual learner, some curriculum models designed to provide services for GT learners also encompassed the needs of the students as a group. Olenchak (2001) wrote, “Although differentiation of instruction was certainly embraced indirectly in these models, the emphasis was decidedly on differentiation through curricular adjustments and less aimed at teaching itself” (p. 186). Providing gifted services using the existing facilities and resources available is a satisfactory alternative for many administrators who have budget concerns (Brulles & Winebrenner, 2011).

Differentiation for gifted and talented students required a commitment by the educators to meet their needs, and not all educators understood the nature and needs of GT learners (Mulhern, 2003; Goodhew, 2009). Therefore, appropriate programming with effective differentiated curriculum and instruction was not provided for GT learners unless appropriate training was given to educators (VanTassel-Baska, 2005). Graffam (2006) conducted a case study of two exemplary teachers of gifted learners and concluded that both teachers understood the characteristics of gifted learners, developed positive relationships with their students and incorporated differentiated instruction along with whole-group.

Burris, Heubert, and Levin (2006) conducted a quasi-experimental longitudinal study to determine the effects of providing an accelerated differentiated curriculum in a heterogeneously grouped classroom and found no evidence that high achievers learned
less. On the other hand, The Classroom Practices Survey was used by researchers at The National Research Center for Gifted and Talented to determine to what extent GT students received differentiated instruction. The researchers found that the third and fourth-grade participants reported only minor changes in the regular curriculum (Archambault, et. al., 1993).

Moon, Callahan, Tomlinson, and Miller (2002) introduced strategies for differentiation and differentiated assessment at nine middle schools from four school districts in three states. Data was collected by using The Middle School Teacher Questionnaire and The Middle School Student Content Questionnaire. Teachers indicated that improvement was needed in developing skills in addressing academic diversity in middle school classrooms (Moon, Callahan, Tomlinson, & Miller, 2002). Results showed that teachers’ use of instructional strategies to address diversity was limited (Moon, Callahan, Tomlinson, & Miller, 2002). Furthermore, the responses to the surveys by teachers revealed that accountability may be a factor that contributed to teachers not differentiating due to high stakes testing.

Farkas and Duffett (2008) surveyed 900 third through twelfth-grade teachers and conducted focus groups to determine teacher attitudes on how academically talented learners did in schools. “Teachers believe that holding schools to account for bringing the standardized test scores of underachieving students to proficiency has pulled attention and resources away from high-achieving students” (Farkas & Duffett, 2008, p. 61). The essence of what they found reaffirmed the assertion that accountability and the lack of understanding by educators on how to differentiate may have been inhibitory factors.
The Teacher’s Role in Differentiation

The teacher’s role is an important component when addressing differentiation for gifted students. Boaler (2006) described teaching practices during a four-year longitudinal study of urban math classes by collecting data from approximately 600 hours of classroom observations, student assessments, questionnaires, and interviews. The researcher asserted that the success of the program was a result of the teachers’ equitable practices in the classroom (Boaler, 2006). In addition, other researchers concluded that teacher training and teachers’ practices in classrooms were important indicators of the effectiveness of differentiated curriculum for students in the classroom (Ben-Ari & Kedem-Friedrich, 2000; Davalos & Griffin, 1999; VanTassel-Baska, 2005).

Gentry, Gable, and Springer (2000) challenged educators to be more learner-centered by “using student interests as a basis for designing challenging learning experiences for gifted and talented students” (p. 74). Creating a learner-centered environment in middle schools benefits all students and not just GT students. However, there are constructs in place which may hinder a learner-centered environment. Currently, because a push for accountability and quantitative measures of instruction align with student achievement, it may be difficult for educators to address the individuality of students and design curriculum and instruction based on a learner-centered environment.

To test the effectiveness of a differentiated framework for curriculum and instruction for gifted and talented learners, Callahan, Moon, Oh, Azano, and Hailey (2014), worked with teachers who implemented the curriculum into more than two
hundred third grade classrooms nationally. Prior to the study, students were given the IOWA test of basic skills in reading. At the completion of the unit of study, students were given standards-based post-tests. Comparisons were made between treatment classes where the curriculum was implemented and classes without the curriculum. A significant difference between the treatment classes and the control group ($p < .01$) on post-tests indicated students in the treatment group had higher achievement.

With that in mind, Tomlinson (2014) explained it well, “In differentiated classrooms, teachers begin with two critical “givens”: there are content requirements – often in the form of “standards” … and there are students who will inevitably vary as learners” (p. 3). It would be ideal to provide each student with individualized learning opportunities based on their interests and needs; however, this may not be the reality in middle school classrooms due to accountability requirements.

Grouping Strategies and Gifted Education

Providing gifted services may mean keeping students in a regular heterogeneously grouped classroom in middle schools. Educating gifted and talented students in heterogeneously grouped classrooms can be an appealing option for administrators since it is cost effective and does not require additional classroom space. In addition, students may benefit from the social interactions between all students in the classroom.

Heterogeneous grouping counters the criticism that GT programs, such as special classes or pull out enrichment programs, may be elitist by keeping GT students in their regular schools and classrooms (Goodhew, 2009).
However, various grouping practices that were not strictly heterogeneous have been used by educators to meet the needs of gifted and talented students. Kulik (1992) reported based on an analysis of research on ability grouping, “the reviewers also noted that grouping programs had little or no effect when groups at all levels used the same methods and materials” (p. 12). Regardless of the grouping strategy used, for the needs of gifted and talented students to be met, there must be a difference in the curriculum and instruction provided to the students.

To examine the effects of different curricular implementations (textbook, revised, and differentiated) and grouping strategies (whole, between, and within-class), Tieso (2005) conducted a quasi-experimental study of thirty-one teachers and their students (n = 645) in grades four and five. Achievement data were collected. The findings proved to be statistically significant ($p < .001$) between comparison and revision treatment groups when adjusting for grade level (Tieso, 2005). Further, the results showed that using strategies for gifted learners, including differentiated curriculum and temporary grouping, may have a positive impact on all learners’ achievement in heterogeneously grouped classes (Tieso, 2005).

Conversely, other research findings indicated that gifted students in homogeneously grouped classrooms developed higher metacognitive awareness. Sheppard and Kanevsky (1999) conducted a research study of three students scoring at or above the 94th percentile on the Raven’s Standard Progress Matrices test of mental ability in a heterogeneously grouped fifth grade class with twenty-three other students and three students who scored at or above the 94th percentile on the Raven’s Standard
Progressive Matrices in a homogeneous gifted class. Data was collected using the Mind-Machine Activity Sheet and open-ended interview questions (Sheppard & Kanevsky, 1999). The students in the homogeneous class showed increases in metacognitive skills greater than the students in the heterogeneous class as evidenced by student responses which were cognitively more complex at the end of the instructional tasks (Sheppard & Kanevsky, 1999).

Collins and Gan (2013) conducted a study with the purpose of examining how schools grouped students, how those placements affected student achievement, and the outcomes from heterogeneous grouping for students. Data were collected using detailed student data which linked students to classrooms and test scores to student achievement (Collins & Gan, 2013). Collins and Gan (2013) reported wide variations in grouping practices in schools, and factors used to group students included math and reading scores, gifted and talented, special education, and limited English proficiency. The researchers concluded that homogeneous grouping of students was beneficial when previous test scores were used as the criteria for grouping.

Mulkey, Catsambis, Steelman, and Crain (2005) concluded placing students into classes in middle school which tracked them into high school was not the determining factor for success for students based on test scores and effective measures. “In middle school, “tracked by subject matter, this form of tracking sequesters students into smaller, usually homogeneous, reference groups where they are offered a restricted slate of courses” (Mulkey, Catsambis, Steelman, & Crain, 2005, p. 139) The researchers concluded what happened in the homogeneously grouped classes, the quality of the
instruction, and the effects of the grouping practices may have been more consequential than the actual composition of the classes (Mulkey, Catsambis, Steelman, & Crain, 2005). One area of note was that the high ability students indicated that they were not as confident about themselves when compared to other high ability students (Mulkey, Catsambis, Steelman, & Crain, 2005).

When studying the Together and APart (TAP) project, a program to keep students together in heterogeneously grouped classes, in twelve Israeli junior highs, Linchevski and Kutscher (1998) determined that the average and lower level seventh grade students showed gains in mathematical achievement as measured by test scores. The high ability students, while their gains did not appear to be as great as the lower level students, did not show any adverse effects from the grouping practices. The lower level students showed higher gains in achievement when placed in a heterogeneously grouped classroom versus a homogeneously grouped classroom (Linchevski & Kutscher, 1998).

The quality of instruction and the effectiveness of group interactions among students whether in heterogeneous or homogeneous groups was a significant factor in student learning. Designing programs which move students to higher mental levels can occur in both homogeneously grouped class environments as well as heterogeneously grouped class environments. Researchers found achievement for high ability students was affected by the quality of the interactions among students whether they were in heterogeneous groups or homogeneous groups (Webb, Nemer, Chizhik, & Sugrue, 1998; Webb, Kariane, & Zuniga, 2002). When the interactions were positive among students, the outcomes, as measured on pre-tests, post-tests: hands-on and paper and pencil,
indicated that the interactions between the members of the group were more significant to achievement than the ability level of the group members (Webb, Nemer, Chizhik, & Sugrue, 1998; Webb, Kariane, & Zuniga, 2002). A summary of research studies on differentiation is found in Table 6.

Table 6

*Research Studies on Differentiation*

<table>
<thead>
<tr>
<th>Study</th>
<th>Purpose</th>
<th>Design</th>
<th>Findings</th>
</tr>
</thead>
</table>
| Brighton, Hertberg, Moon, Tomlinson, & Callahan, 2005 | The purpose of the study was to investigate staff development strategies for differentiated instruction for all learners including gifted | • Mixed method study over three years  
• Middle school concept and principles of gifted education were joined in a staff development program focused on differentiated instruction | • To differentiate effectively teachers had to confront their existing beliefs about gifted and talented students.  
• Example: gifted students do not need differentiation |
| Olenchak, 2001               | The purpose was to learn about differentiation from the students’ perspective | • A case study of four gifted and talented students aged nine to twelve who were studied over a one to three-year period | • Supported personalized differentiation for meeting the needs of diverse gifted and talented students |
| Graffam, 2006                | The purpose of this research study was to describe two exemplary teachers of gifted learners to gain an understanding of teacher practices | • Exploratory case study  
• One retired teacher of gifted and one active teacher  
• Classroom observations, visitations, shadowing, participant researcher, and interviews | • “Exemplary teachers of gifted framed individualized and whole-group learning simultaneously” p. 129 |
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<th>Table 6 - continued</th>
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</thead>
<tbody>
<tr>
<td><strong>Linchevski &amp; Kutscher, 1998</strong></td>
</tr>
<tr>
<td><strong>Moon, Callahan, Tomlinson, &amp; Miller, 2002</strong></td>
</tr>
<tr>
<td><strong>Collins, &amp; Gan, 2013</strong></td>
</tr>
<tr>
<td>• Random experimental design</td>
</tr>
<tr>
<td>• 1730 seventh-grade students in 12 Israeli junior high schools</td>
</tr>
<tr>
<td>• Mathematical achievements (actual grades) of students in same-ability classes compared with those of students in mixed-ability classes</td>
</tr>
<tr>
<td>• Teachers need help in developing skills to address diversity in middle school classrooms</td>
</tr>
<tr>
<td>• Accountability may be a factor inhibiting teachers addressing diverse student needs</td>
</tr>
<tr>
<td>• Dallas Independent School District</td>
</tr>
<tr>
<td>• Student level data were used to link students to classrooms</td>
</tr>
<tr>
<td>• Student test scores were used</td>
</tr>
</tbody>
</table>
Table 6 - continued.

<table>
<thead>
<tr>
<th>Authors</th>
<th>The purpose of the research study was to</th>
<th>Quasi-experimental</th>
<th>There was an indication that adapting pedagogy from gifted education, including differentiated curriculum combined with flexible grouping, had a significant impact on students’ mathematics achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tieso, 2005</td>
<td>examine the effects of curricular (textbook, revised, and differentiated) and grouping (whole, between, and within class) practices on students’ mathematics academic achievement</td>
<td>31 teachers and students (N = 645)</td>
<td>P &lt; .001 between comparison and treatment groups</td>
</tr>
<tr>
<td>Boaler, 2006</td>
<td>impact respect, responsibility, and achievement</td>
<td>Four-year longitudinal study</td>
<td>The students achieved equitable outcomes on tests</td>
</tr>
<tr>
<td>Burris, Heubert, Levin, 2006</td>
<td>examine the effects of an accelerated mathematics curriculum in heterogeneously grouped middle school classes</td>
<td>Fifth-grade stanine scores on ITBS Mathematics Concepts subtest, Sequential Mathematics I regents’ exam, and students’ scores on advanced placement calculus exam</td>
<td>Students showed appreciation for the diversity of culture, gender, and attainment levels</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Quasi-experimental longitudinal</td>
<td>The predominant factor was the teacher and the equitable classroom practices</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fifth-grade stanine scores on ITBS Mathematics Concepts subtest, Sequential Mathematics I regents’ exam, and students’ scores on advanced placement calculus exam</td>
<td>No evidence was found that high achievers learned less in heterogeneously grouped accelerated mathematics courses in middle school</td>
</tr>
</tbody>
</table>
### Table 6 - continued

<table>
<thead>
<tr>
<th>Study</th>
<th>Purpose</th>
<th>Methods/Findings</th>
</tr>
</thead>
</table>
| Van-Tassel Baska, 2006 | The purpose was to synthesize the results from seven gifted program evaluation studies conducted in twenty school districts | - Educator surveys  
- Classroom observations  
- Document review, individual interview, and focus groups  
- The effective curriculum was not adequately utilized for gifted learners  
- An area of deficiency noted was differentiation  
- Experiences were not designed to meet the specific aptitudes and interests of gifted learners |
| Farkas & Duffett, 2008 | The purpose was to explore attitudes of third through twelfth grade public school teachers concerning how academically talented students do in school | - A randomly selected national sample of 900 public school teachers in grades three to twelve  
- Five focus groups  
- Most teachers believed that academically advanced students were not a high priority  
- Academic meetings typically focused on low-achieving students  
- Teachers held accountable for test scores diverted attention and resources away from higher-achieving students  
- Respondents stated that high achieving students were bored, underserved, and did not receive adequate resources |

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**Cluster Grouping Delivery Model**

A delivery model approved by the Georgia Department of Education (2016) to meet the needs of gifted and talented students in heterogeneously grouped classrooms frequently used in middle schools is the cluster group. The cluster group delivery model...
is based on the assumptions that students benefit when they interact with other students with similar abilities, and teachers are more likely to differentiate for a group of students rather than just one (Biddick, 2009; Brulles & Winebrenner, 2011, Kulik, 1992; Pierce et al., 2011; VanTassel-Baska, 2005). The cluster grouping delivery model has been a viable option for administrators looking to implement GT programs during times when financial options limited choices, and there were concerns about increased accountability based on test scores (Brulles & Winebrenner, 2011).

A cluster group, as described by the Georgia Department of Education (2016), is formed when “identified gifted students are placed in a group (recommended 6-8 students) into an otherwise heterogeneous classroom” (p. 14). Based on his analysis of research on ability grouping, Kulik (1992) concluded: “within-class programs have a good record of effectiveness in the evaluation literature” (p. 51). The cluster grouping delivery model is one option for middle school gifted and talented students to receive services in heterogeneously grouped classrooms when effectively implemented.

Schuler (1998) conducted the Cluster Grouping Survey in sixty-nine school districts nationally to determine the extent to which cluster grouping was used and how it was being implemented. The responses indicated several differences in the education of gifted and talented students. First, how gifted and talented students were identified varied greatly throughout the United States (Schuler, 1998). Second, the most widely used instructional practices utilized for providing services for gifted learners were content differentiation, critical thinking skills, and content enrichment (Schuler, 1998). Third, the researchers found that ninety percent of participants stated that students’ experiences with
cluster classrooms were very positive (Schuler, 1998). Finally, the respondents noted that highly able students had very positive academic achievement (Schuler, 1998).

Brulles, Peters, and Saunders (2012) researched the gifted cluster grouping delivery model in an urban school district in Arizona in grades two through eight. The purpose of the research assessed the effect of the cluster grouping model on non-gifted students. Based on achievement scores, the researchers concluded that students achieved equally well in classrooms where the cluster grouping model was used and in classrooms without the cluster grouping model (Brulles, Peters, & Saunders, 2012).

As far as the effects of the cluster grouping delivery model on the academic success of gifted and talented learners, research indicated that GT students performed well when appropriate and effective instruction was provided in a heterogeneously grouped classroom using the model (Biddick, 2009; Brulles, Saunders, Cohn, 2010; Teno, 2000). Brulles, Saunders, and Cohen (2010) conducted a comparative case study of classes that used cluster grouping and classes that did not use cluster grouping in an elementary school. Using quantitative data, they reported “student learning was found to be at higher levels from the pre-to the post-assessment when gifted students received services in a gifted cluster class” (p. 344). Positive benefits for learners such as intellectual challenge and support by peers were reported by others when in class grouping was used (Biddick, 2009; Brulles & Winebrenner, 2011; Kulik, 1992; Teno, 2000).

A rationale for using the cluster grouping delivery model included students benefits from being in a group with students of like ability as well as teachers’ abilities to
differentiate curriculum and instruction for a group of students rather than just one (Mulhern, 2003). Gentry (1999) conducted a causal-comparative longitudinal study of cluster grouping using a mixed method design in a rural school district with students who were part of a cluster group from grades two through five. The study had a comparison group of students from a similar school district where there was not a program for gifted and talented students (Gentry, 1999). Data were collected using the IOWA Test of Basic Skills for the test group and the California Achievement Test for the comparison group. In addition, qualitative data were gathered through semi-structured interviews. The results indicated differences between the scores of the comparison group and the test group. At grade four there was a medium effect size ($r^2 = .068$), and grade five there was a large effect ($r^2 = .211$). In addition, Gentry (1999) concluded that teacher perceptions of gifted learners affected teacher performance and choices of instructional practices, and the influence of the teacher was a critical component of success for all learners.

To understand the importance of staff development and the role teachers have when implementing cluster grouping, Gentry and Keilty (2004) conducted a comparative case study and gathered data using teacher interviews, staff evaluations, and student identification data, for two rural and suburban school districts. The researchers concluded that implementing a successful cluster grouping program required dialogue among stakeholders, research, development of a plan of action, implementation of the plan, continued support, and maintenance and growth (Gentry & Keilty, 2004). The findings indicated successful implementation of cluster grouping does not happen accidentally, but it takes planning, training, and continued support for all stakeholders.
Pierce et al. (2011) examined data from two years in a six-year project, Project CLUE (Clustering Learners Unlocks Equity), to determine the impact of cluster grouping when used with specific curriculum on gifted and talented learners’ math achievement. The participants were third graders in heterogeneously grouped classrooms, and teachers had been trained for the program. Factors that were determined to be important to the success of the program included the curriculum, grouping of the students, and the commitment of the teacher. The study supported the belief that gifted students benefited from having time with similar ability level students and having gifted students clustered in a classroom facilitated differentiation by the teacher (Pierce et. al., 2011). Research studies are summarized in Table 7.
Table 7

**Cluster Grouping Research Studies**

<table>
<thead>
<tr>
<th>Study</th>
<th>Purpose</th>
<th>Design</th>
<th>Findings</th>
</tr>
</thead>
</table>
| Gentry, 1999                  | The purpose was to examine the effects of an existing cluster grouping program on achievement | • Causal-comparative longitudinal study  
• Rural district grades two through five  
• Compared with another district that did not have a program for gifted students and had never used cluster grouping | • Difference between scores at comparison and treatment schools  
• Grade 4 medium effect size ($r^2 = .068$)  
• Grade 5 large effect size ($r^2 = .211$) |
| Teno, 2000                    | The purpose was to evaluate after one year of implementation the effectiveness of cluster grouping for gifted learners | • Mixed Methods  
• Personal reflections  
• Teacher interviews  
• Observations  
• Surveys of fourth-grade general education teachers  
• IOWA test of basic skills and California Achievement Test | • Cluster grouping within regular education classrooms can be effective when appropriate differentiation and modification is done |
| Gentry & Keilty, 2004         | The purpose was to analyze and compare staff development practices in schools that successfully implemented cluster grouping | • Comparative case study  
• Teacher interviews  
• Staff evaluations  
• Student identification data | • The startup is not instantaneous  
• Steps to success: conversation, research, a course of action, support, implementation, maintenance |
| Brulles, Saunders, & Cohn, 2010 | The purpose was to compare the achievement of students in cluster grouped classrooms with those in regular heterogeneously grouped classroom | • Comparative action research in the form of a comparative quantitative case study | • Achievement based on pre- and post-test data showed higher levels for students who received services in a gifted cluster class |
Table 7 - continued

<table>
<thead>
<tr>
<th>Study</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brulles, Peters, &amp; Saunders, 2012</td>
<td>The purpose was to evaluate the effects of cluster grouping on non-gifted students</td>
</tr>
<tr>
<td>Pierce et al., 2011</td>
<td>The purpose was to report on the impact of using cluster grouping and a designated curriculum to facilitate gifted learners’ math achievement in an urban elementary school</td>
</tr>
</tbody>
</table>

- Comparative action research
- Quantitative case study
- Achievement scores in mathematics were examined grades 2-8 in an urban district in Arizona
- Data showed that non-gifted students achieved at similar rates in gifted cluster classrooms and those classrooms without gifted cluster groups.
- Grouping was a factor
- Curriculum materials were a factor
- Teacher intentionality was a factor
- Clustering gifted students provided them with access to like ability peers
- Clustering students was a motivation for teachers to differentiate

Chapter Summary

The literature reviewed showed there can be a congruency between the tenets of the middle school philosophy and gifted education (Association for Middle Level Education, 2010; Chance, 1998; National Association of Gifted Children, 2004; National Forum to Accelerate Middle Grades Reform, 2013). However, there were differences in the organization and structure of schools where the middle school philosophy was implemented and schools where it was not implemented (Cook, Faulkner, & Kinne, 2009; McEwin & Greene, 2011; Piccuci, Brownson, Kahlert, & Sobel, 2004). For
instance, schools for young adolescents structured to be developmentally responsive, challenging, empowering, and equitable differed from junior highs designed to mirror high schools (AMLE, 2010).

Research findings affirmed not all middle-level schools embraced the middle school philosophy. However, school where the middle school philosophy was a philosophical framework for the organization and structure of the schools, showed positive outcomes for young adolescents such as academic achievement and emotional support for students (Cook & Faulkner, 2010; Cook, Faulkner, & Kinne, 2009; McEwin & Greene, 2011). Cook and Faulkner (2010) determined from data collected in a case study of two middle schools designated as Kentucky STW that implementing components of the middle school philosophy, particularly common planning time, resulted in a central focus on students.

Furthermore, research supported the assumption that implementation of the middle school philosophy facilitated academic achievement for students even in high poverty schools (Piccuci, Brownson, Kahlert, & Sobel, 2004; Cook, Faulkner, & Kinne, 2009). On the other hand, Falbe’s (2014) research showed no significant difference in student test scores at designated STW when compared to students’ test scores at non-designated STW. Furthermore, benefits other than academics were reported by Weilbacher and Lanier (2012) after studying the impact of gender-specific advisories in one Horizon STW in Illinois. The study’s findings reinforced not only the unique concept of advisories separated by gender but also a foundational concept of the middle school philosophy which is to meet the emotional and developmental needs of young
adolescents. No research studies were found concerning how the needs of gifted and talented young adolescents were met at Georgia Lighthouse STW; however, there were research studies found concerning gifted education at the middle level.

Studies revealed there were significant challenges to meeting the needs of gifted students in middle schools and the regular curriculum and instruction was not challenging enough for gifted and talented learners (Callahan, Moon, & Oh, 2013; Coleman & Gallagher, 1992; Genry, Gable, & Springer, 2000; Rogers, 2007). In the literature there was a variability in how gifted and talented young adolescents were identified as well as differences in the services provided at the middle level (Callahan, Moon, & Oh, 2013; Cohen, 2006; Collins & Gan, 2013; Schneider, 2006; Kulik, 1992; Shuler, 1998).

Equally important, how administrators and educators perceived the needs of gifted and talented students was a significant indicator of the types of programming provided for gifted and talented learners. For example, some research studies indicated educators concentrated on low achieving students because they believed academically gifted students did not need differentiated programs. As a result, teachers made only minor changes to meet the needs of their gifted and talented students (Brighton, Hertberg, Moon, Tomlinson, & Callahan, 2005; Farkas & Duffett, 2008; Pierce et al., 2011). In addition, Van-Tassel-Baska (2006) reported an underutilization of effective curriculum practices for gifted and talented learners. Rogers (2007) concluded from a synthesis of research covering instructional options for gifted and talented learners that one single programming option cannot meet the needs of all gifted and talented learners.
Conversely, researchers found when the needs of gifted and talented students were addressed through differentiated curriculum and instruction, students had positive outcomes (Davalos & Griffin, 1999; Delcourt, Loyd, Cornell, & Goldberg, 1994; Eddles-Hirsch, Vialle, Rogers, & McCormick, 2010). Moreover, several research studies concluded that a differentiated model for meeting the needs of gifted and talented students in heterogeneously grouped classrooms, cluster grouping, was a viable programming option (Biddick, 2009; Brulles, Saunders, & Cohn, 2010; Brulles, Peters, & Saunders, 2012; Gentry, 1999; Teno, 2000).

Nevertheless, researchers reported teachers made only minor modifications in the regular curriculum for gifted and talented students (Archambault et al., 1993; Davalos & Griffin, 1999; Moon, Callahan, Tomlinson, & Miller, 2002). Olenchak (2001) found when personalized differentiation was used for four students aged nine to twelve, the students’ needs were met. A research participant commented that without the differentiated curriculum, “kids like me may not belong in school at all. Then, where will we go, and what will we do” (Olenchak, 2001, p. 196). Finally, research supported specialized differentiated instruction and programs for gifted and talented learners at all levels, including the middle level (Delcourt, Loyd, Cornell, & Goldberg, 1994; Eddles-Hirsch, Vialle, Rogers, & McCormick, 2010; Graffam, 2006; Schneider, 2006).
CHAPTER 3

METHODOLOGY

The following question framed this research study: how are the needs of gifted and talented young adolescents met at three Georgia Lighthouse Schools to Watch © within the middle school philosophy? The purpose of this multiple-case study was to describe how the needs of gifted and talented young adolescents were met at three Georgia Lighthouse Schools to Watch © (STW) by analyzing data collected from interviews, focus groups, and documents. First, data collected about each case were analyzed using single case analyses. Next, the findings from the three cases were analyzed to find similarities and differences between the cases. Lastly, the overall findings were reported on how the needs of gifted young adolescents were met at three Georgia Lighthouse STW.

In Georgia, gifted education was designed based on the assumption that within the gifted population of students there is a diversity of needs. As a result, Georgia’s multiple criteria for identifying, referring, and providing services for gifted learners attempted to address students’ individual needs and differences. It was assumed, to meet the needs of gifted students, a continuum of services with differentiated curriculum and instruction would be offered by the Local Board of Education (LBOE) and each Local Educational Agency (LEA) (Georgia Department of Education, 2017).
Meeting the needs of gifted and talented young adolescents necessitated the design and implementation of programs which offered curriculum and instruction that differed from regular education classes (Georgia Department of Education, 2017). The National Association for Gifted Children and the National Middle School Association published a position paper with a joint acknowledgment that gifted young adolescents have skills, interests, and abilities which differed from their peers (National Association for Gifted Children, 2004). In addition, how to meet the needs of gifted and talented students in Georgia was based on recommendations from the National Association for Gifted Children and was documented in the Georgia Gifted Resource Manual (Georgia Department of Education, 2006). However, it was the LBOE, LEA, and ultimately educators at middle schools who decided how to meet the individual needs of gifted and talented young adolescents.

Research Design and Rationale

The paradigmatic view of this researcher was based on the presupposition that knowledge constructed by the participants on how they met the needs of gifted and talented young adolescents was “the outcome or consequence of [their] human activity” (Guba, 1990, p. 26). The assumptions and beliefs of the researcher were closely aligned with elements of Denzin and Lincoln’s (2011) constructivist-interpretive paradigm. Broido and Manning (2002) posited, “Paradigms shape research at its most basic levels; worldviews frame the types of questions asked and what the answers might look like” (p. 435). Broido and Manning (2002) made the point that researchers identify a paradigmatic view for a research study to make valid methodological decisions. To
emphasize, Denzin and Lincoln (2011) advocated four interpretive paradigms for qualitative researchers: “positivists and post-positivists, constructivist-interpretive, critical (Marxist, emancipatory), and feminist-post structural” (p. 13).

The constructivist-interpretive paradigm was appropriate for this research study since the research was qualitative in nature and the data collected during interviews and focus groups were based on the participants’ experiences when meeting the needs of gifted and talented students. In addition, the researcher was an active participant in the process of collecting data and interpreting the findings which ensured the knowledge created was “reflective of [the participants] reality” (Lincoln, Lynham, & Guba, 2011, p. 104).

Eisner (1997) explained a significant rationale for utilizing constructivism as a research paradigm and gave an explanation for the historical acceptance of qualitative forms of inquiry. “The dominant philosophical orientations of the first fifty years of the 20th century left out, in the views of many educational researchers, too much that mattered” (Eisner, 1997, p. 260). Constructivism became more widely accepted as “a way to understand how humans made sense of the world” (Eisner, 1997, p. 260), and during the latter part of the 20th century qualitative research increased along with an acceptance of different paradigmatic views for doing research (Creswell, 2009; Denzin & Lincoln, 2011).

This multiple case study was conducted based on a qualitative research design. Denzin and Lincoln (2011) stated, “qualitative implies an emphasis on the qualities of entities and on processes and meanings. Qualitative researchers stress the socially
constructed nature of reality” (p. 8). Since the research study was descriptive based on experiences of educators as well as documents analyzed, a qualitative study was appropriate. In addition, qualitative research was used “because a problem or issue,” how the needs of gifted middle school students were met, needed to be “explored” (Creswell, 2007, p. 39).

Yin (2009) explained, “How and why questions are more explanatory and likely to lead to the use of case studies” (p. 9). For this research study, a multiple case study methodology was used to explain and describe how the needs of gifted and talented young adolescents were met at three Georgia Lighthouse Schools to Watch ©. Creswell (2007) described case study research as involving “the study of an issue explored through one or more cases within a bounded system (i.e. a setting, a context)” (p. 73). For this research study, the cases were three Georgia Lighthouse Schools to Watch © and the bounded system or context was the community in which each middle school was located. A multiple case study design was used since each middle school was the subject of an individual case, “but the study as a whole covers several schools and in this way uses a multiple-case design” (Yin, 2009, p. 53). The use of multiple cases within this study contributed to the strength of the findings and the validity of the research (Yin, 2009).

Sample/Participants

Participants were selected through criterion sampling which is a type of purposeful sampling. Purposeful sampling occurred when the researcher “intentionally [selected] individuals and sites to learn or understand” (Creswell, 2015, p. 205) how the needs of gifted and talented young adolescents were met. Denver and Frankel (2000)
wrote, “Purposive sampling strategies are designed to enhance understandings of selected individuals’…experience(s)” (p. 264). Purposeful sampling allowed me to “select information-rich cases [Lighthouse middle schools] strategically and purposefully” (Patton, 2002, p. 243).

The information-rich cases were three Georgia Lighthouse Schools To Watch © randomly selected from a sample of twenty-one schools. According to the National Forum to Accelerate Middle Grades Reform: Georgia (2016), there were twenty-one middle schools listed in Georgia with the designation of a Georgia Lighthouse School to Watch © when the cases were selected for this research study. Currently, seventeen schools are listed as Georgia Lighthouse Schools to Watch © as seen in Table 8; however, the three schools selected continue to be designated as Georgia Lighthouse STW (Georgia Middle School Association, 2017).

Table 8

*Georgia Lighthouse Schools to Watch 2018-2019*

<table>
<thead>
<tr>
<th>Bagley Middle School</th>
<th>Pickens County Middle School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coastal Middle School</td>
<td>Rising Starr Middle School</td>
</tr>
<tr>
<td>Feagin Middle School</td>
<td>Risley Middle School</td>
</tr>
<tr>
<td>Holcomb Bridge Middle School</td>
<td>Riverside Middle School</td>
</tr>
<tr>
<td>Lee Middle School</td>
<td>The STEM Academy at Bartlett</td>
</tr>
<tr>
<td>Lee County Middle School East</td>
<td>Upson-Lee Middle School</td>
</tr>
<tr>
<td>Lee County Middle School West</td>
<td>Waycross Middle School</td>
</tr>
<tr>
<td>Liberty Middle School</td>
<td>Web Bridge Middle School</td>
</tr>
<tr>
<td>Marietta 6th Grade Academy</td>
<td></td>
</tr>
</tbody>
</table>
Yin (2009), wrote, “Each case must be carefully selected so that it either (a) predicts similar results (a literal *replication*) or (b) predicts contrasting results but for anticipatable reasons (*a theoretical replication*) (p. 54). Georgia Lighthouse STW were chosen as cases to study since they are representative of schools where the middle school philosophy is a framework for the organization and structure of the school. Each school was selected based on criteria in the Schools to Watch © Self-Study and Rating Rubric which is aligned with tenets of the middle school philosophy. As a result, the cases represented a literal replication since the structure and organization of each school was assumed to be based on the tenets of the middle school philosophy as described by the Schools To Watch Self-Study and Rating Rubric.

“Even though qualitative investigations typically involve the use of small samples, choice of sample size still is an important consideration” (Onwuegbuzie, A., & Leech, N., 2007, p. 242). Three participating schools were selected and the researcher investigated how each met the needs of gifted and talented young adolescents in depth. Having three participant schools strengthened the findings. Patton (2002) explained “in-depth information from a small number of people can be very valuable, especially if the cases are information rich” (p.244).

Georgia Lighthouse Schools To Watch © were identified from the Georgia Middle School Association (2017) website. Administrators at each school were contacted by email. After the purpose of the research was explained, I introduced myself, provided an overview of the research process, and requested participation. When administrators responded affirmatively, written permission to conduct the research was obtained from
the principal. Approval to conduct research was obtained from the school system of one school, Mountainside. Proper research protocol and requirements of the school systems and schools were followed including obtaining consent forms from all participants. Demographics of each participant school using pseudonyms are listed in Table 9.

Table 9

Demographics of Participant Schools

<table>
<thead>
<tr>
<th>Demographic</th>
<th>Southern Plains Middle School</th>
<th>Parkside Middle School</th>
<th>Mountainside Middle School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total student population</td>
<td>~800</td>
<td>~560</td>
<td>~1000</td>
</tr>
<tr>
<td>White</td>
<td>71%</td>
<td>41%</td>
<td>80%</td>
</tr>
<tr>
<td>Black</td>
<td>21%</td>
<td>48%</td>
<td>3%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>2%</td>
<td>6%</td>
<td>11%</td>
</tr>
<tr>
<td>Multiracial</td>
<td>3%</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Other subgroups</td>
<td>3%</td>
<td>2%</td>
<td>3%</td>
</tr>
<tr>
<td>Free and reduced lunch</td>
<td>46%</td>
<td>100%</td>
<td>16%</td>
</tr>
<tr>
<td>Students eligible for gifted services</td>
<td>16%</td>
<td>16%</td>
<td>22%</td>
</tr>
</tbody>
</table>
Data Collection

The researcher complied with all requirements of Mercer University and each participant school to protect the integrity of the research study. Mercer University's Institutional Review Board (IRB) and the Office of Research Compliance (ORC) approved the research proposal prior to data collection as seen in Appendix H.

The identities of participants were protected by assigning pseudonyms for each participant. Personal data about the participants, including signed consent forms, were maintained in a secure, fireproof, and locked case. All data, including field notes, interview transcripts, and focus group transcripts were stored in the same secured case. In addition, all data stored on a laptop were password protected with the researcher having sole access. Further safeguards were taken by backing up all electronic data on flash drives which were locked and secured in the same case.

Audio-taped, semi-structured one to one interviews with each school’s principal between forty-five minutes and one hour were used to collect data. In addition, audio-taped, one to one interviews were conducted with the gifted lead teacher at Parkside and a teacher familiar with gifted programming at Mountainside each lasted between thirty and forty-five minutes. Focus groups were used at each school with four or five teachers and were between thirty and forty-five minutes. Document analysis was used to gather data.

Brinkmann and Kvale (2015) wrote, “The purpose of the qualitative research interview … is to understand themes of the lived daily world from the subjects’ own perspectives” (p. 27). Creswell (2015) explained, “The one-on-one interview is a data collection process in which the researcher asks questions to and records answers from
only one participant in the study at a time” (p. 217). Additionally, interviews were one of the sources recommended for case study research and conducting interviews allowed me the opportunity to be targeted with my questioning (Yin, 2009). Questions specific to the case study topic of meeting the needs of gifted and talented young adolescents were used. By using one-on-one questioning, participants were given opportunities to provide explanations as further questions arose. Table 10 describes the data collection methods used in this research study.
Table 10

*Data Collection Methods and Participants Using Pseudonyms*

<table>
<thead>
<tr>
<th>Southern Plains</th>
<th>Parkside</th>
<th>Mountainside</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Interviews</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Principal – Ms. Sanders</td>
<td>Principal – Mr. Kline</td>
<td>Principal – Mrs. Parsons</td>
</tr>
<tr>
<td>• Face to face – 1 hour</td>
<td>• WebEx – 45 minutes</td>
<td>• Face to face – 1 hour</td>
</tr>
</tbody>
</table>

Principal – Ms. Sanders
• WebEx – 20 minutes

Eighth grade LA teacher – Ms. Byrd
• WebEx – 30 minutes

6th grade LA teacher – Ms. Brooks
• Face to face – 30 minutes

**Focus Group – Teachers**
6th grade reading/LA and math - Ms. Kelly
7th grade math – Ms. Slader
8th grade reading/LA and social studies – Mr. Jones
8th grade reading/LA – Ms. Hamilton
• Face to face – 45 minutes

Focus Group – Teachers
6th grade English/LA – Ms. Gates
8th grade social studies – Mr. Rivers
6th grade science – Mr. Quartz
6th grade math – Ms. Crystal
7th and 8th grade science – Mr. George
• Face to face – 45 minutes

Focus Group – Teachers
7th grade LA – Ms. Sparks
7th grade science – Ms. Jordan
8th grade accelerated Algebra I – Mr. Barber
6th grade science – Mr. Rhodes
8th grade Georgia History – Mr. Green
• Face to face – 45 minutes

**Documents**
Schools’ websites
School systems’ websites
GaDOE Gifted Resource Manual
School Systems’ Gifted Resource Manuals
The Governor’s Office of School Achievement: Student and School Demographics

Documents
Schools’ websites
School systems’ websites
GaDOE Gifted Resource Manual
School Systems’ Gifted Resource Manuals
The Governor’s Office of School Achievement: Student and School Demographics

Documents
Schools’ websites
School systems’ websites
GaDOE Gifted Resource Manual
School Systems’ Gifted Resource Manuals
The Governor’s Office of School Achievement: Student and School Demographics

There were two interviews of schools’ principals at their respective schools, Southern Plains and Mountainside. After meeting at the school, an interview with the principal of Parkside Middle School was scheduled and conducted by WebEx. Each principal was given the opportunity to read the transcript of their interview and provide clarification information or follow up as needed. A follow-up interview with the principal of Southern Plains Middle School was conducted to obtain clarification and additional data at the request of the researcher.
Open-ended interview questions were used to explore how the needs of gifted and talented young adolescents were met at the schools as experienced and understood by the principals. Questions for were individualized based on knowledge constructed from documents analyzed prior to conducting the interview. During the interviews, follow up questions were used to delve deeper into the context of the discussion based on responses from the interviewees. Questions used to guide the discussions included:

- How are the needs of gifted and talented students met at your school?
- How does the middle school philosophy and requirements for being designated as a Georgia Lighthouse School to Watch © factor into your decisions as a principal?
- Does the level of accountability in the state have any impact on implementing the middle school philosophy and meeting the needs of gifted learners?
- What criteria are used to place gifted students into advanced placement classes?
- What criteria are used to place high achievers into advanced placement classes?
- How are assessments used to meet the needs of gifted learners?

The lead teacher of gifted students at Parkside Middle School was interviewed by WebEx. At Mountainside Middle School, the gifted lead teacher was interviewed in a one to one interview at the school. The principal from Southern Plains Middle School indicated that the school did not have a gifted coordinator or lead teacher; therefore, a teacher knowledgeable about gifted programming at the school was interviewed. The teacher’s interview was begun on WebEx, but due to technical difficulties, the interview was completed by email response.
Kruegar and Casey (2015) explained, “If the study is to gain understanding of people’s experiences…This is usually accomplished with smaller groups [of participants]” in a focus group (p. 83). Focus groups were conducted at each school. The focus groups consisted of four teachers at Southern Plains and four teachers at Parkside. The focus group at Mountainside had five teachers. The number of teachers varied because there were teachers who agreed to participate but due to personal illness or illness in the family could not attend. However, because of time constraints, the focus groups were conducted as scheduled. A small number of participants were selected to gather in-depth data about the teachers’ experiences meeting the needs of gifted students.

The participants in the focus groups were recommended by the principals and were educators of gifted students in sixth, seventh, and eighth grades. The teachers in the focus groups taught gifted students in science, social studies, language arts, advanced content math and/or accelerated math. In addition, the teachers in the focus group at Parkside had experience teaching students using the cluster grouping delivery model.

The questions for the focus group were designed to gain a broad understanding of how the teachers met the needs of gifted and talented students; therefore, they were open-ended.

Questions included:

- Tell me about how you meet the needs of gifted and talented students.
- Describe strategies used in your school to adapt differentiated and challenging curricula and instruction to meet the diverse needs of students with a variety of gifts and talents?
• How are assessments used to evaluate the needs of gifted and talented students?

• Describe some challenges that your school has faced meeting the needs of gifted and talented students?

• Describe some successes that your school has achieved meeting the needs of gifted and talented students.

• Describe staff development opportunities which are available to educators on meeting the needs of gifted and talented students?

Transcripts were sent to participants, and they were given time to “member check” (Shenton, 2004, p. 68) the information. Creswell and Miller (2000) described member checking as “taking data and interpretations back to the participants in the study so that they can confirm the credibility of the information and narrative account” (p. 127). Whereas all participants were given the opportunity to read over transcripts and to provide feedback, not all participants responded to email. Nonetheless, two follow up interviews with participants to obtain clarification were conducted. The depth of information and the quality of data from the original interviews and focus groups were sufficient for valid findings and a credible research study.

Creswell (2007) recommended using multiple sources for data collection when conducting case study research and among those suggested were the use of document analysis. Yin reminded, “Documents must be carefully used and should not be accepted as literal recordings of events that have taken place” (p. 103). The documents used for this research study were found in the public domain or were provided by participants.
Data Analysis

Data analysis was begun during the data collection process when audiotapes from interviews and focus groups were transcribed verbatim. The transcripts were read and reread during a reflective process where “themes inherent within them” (Kohn, & Truglio-Londrigan, 2007, p. 391) were identified. A series of Microsoft Word tables were used to synthesize evidence from the data into an organized and clear representation of the findings (Yin, 2007). In addition, documents were analyzed, along with the transcriptions, and categories and themes were determined for each middle school or case. A descriptive framework was developed based on categories that emerged and evidence was found in the transcripts to support and describe the findings. Creswell (2007) stated, “Analysis [for a case study] consists of making a detailed description of the case and its setting” (p. 163). After data were collected at each school, the transcriptions and the case analysis was completed prior to collecting data at the next participant school. See Figure 1 for steps in the single case analysis.
Next, a cross-case analysis was conducted where categorical themes were identified based on similarities and differences found in the data between the participant schools. The data were further organized into categories based on the middle school philosophy and Lighthouse. A School Self-Study and Rating Rubric was used with permission from The National Forum to Accelerate Middle-Grades Reform as a guide. All participant schools were designated as Georgia Lighthouse Schools To Watch ©.
therefore, it was assumed there would be evidence in the data to support the middle school philosophy. Only categorical themes were identified which were clearly exampled in the data from this research study.

Five categories based on attributes of the middle school philosophy emerged during the cross-case analysis: teams, whole child, academic excellence, social equity, and social-emotional development. In addition, there were two additional categories, assessments and professional learning opportunities, which were clearly observed in the data. Yin explained, when using a multiple case study methodology, a cross-case analysis means “the findings [are] likely to be more robust than having only a single case” (p. 156). Finally, the data were organized into categories and themes which were used to give a thick, rich, description of how three Lighthouse STW meet the needs of gifted and talented students. Figure 2 shows the steps followed during the data analysis process.

![Figure 2](https://example.com/f2.png)

*Figure 2. Steps Used During Data Analysis.*
Researcher Bias

As a qualitative researcher, my role was essential to the success of this research study since I was “examining documents … [and] interviewing participants” (Creswell, 2009, p. 175). Creswell (2009) explained the importance of a researcher’s role in qualitative research when he stated, “Researchers are the ones who actually gather information” (p. 175). Unlike quantitative research where a “protocol-an instrument for collecting data” (Creswell, 2009, p. 175) would be used. This qualitative research required the use of an accepted research design and protocol as well as careful participation by the researcher in the process.

It was important to acknowledge my background as an educator of gifted and talented young adolescents for over twenty years. My experiences allowed me to construct personal knowledge of how to meet the needs of gifted and talented young adolescents. However, my understandings were unique to me, and as a researcher, it was critical for me to report my research findings based on the data collected from the participants. After collecting and analyzing the data, I reported the descriptions of the participants based on the evidence. I accomplished this by maintaining confirmability where I reported, to the fullest extent possible, the experiences of the participants rather than my personal preferences or biases (Shenton, 2004).

Trustworthiness of the Study

Yin (2009) explained, “four tests have been used to establish the quality of any empirical social research” (p. 40). The four tests advocated by Yin were described as the following:
• Construct Validity: identifying correct operational measures for the concepts being studied.

• External Validity: defining the domain to which a study’s findings can be generalized.

• Reliability: demonstrating that the operations of a study such as the data collection procedures can be repeated.

• Internal validity: (not for descriptive or exploratory studies): seeking to establish a causal relationship. (p. 42)

The following components were used to maintain quality and credibility controls for this research study:

• Construct validity was established by using multiple sources of evidence: semi-structured interviews, focus groups, and document analysis.

• External validity was established by using replication logic in the multiple case studies where the same research design and the same data collection protocol were used at each participating school.

• Reliability was established by carefully following the case study protocol and storing data appropriately in a secure and organized manner.

• Internal validity was not applicable to this descriptive multiple case study.

Van Manen (1990) explained, “Human science research is a form of writing” (p. 111) and “depth is what gives the phenomenon or lived experience to which we orient ourselves its meaning” (p. 152). When writing about each case, details and descriptions were used to add clarity and depth of understanding to the research report. To ensure
credibility, the context and setting of each case was described using pseudonyms to maintain anonymity. A clear description of each Lighthouse middle school facilitated transferability as described by Shenton (2004). “The results of a qualitative study must be understood within the context of the particular characteristics of the organization or organizations and, perhaps, geographical area in which the fieldwork was carried out” (Shenton, 2004, p. 70). Creswell (2009) stated, “The value of qualitative research lies in the particular description and themes developed in context of a specific site” (p. 193). Since the cases were Georgia Lighthouse Schools To Watch ©, details were included about each school’s location as well as demographic information to add value to the research.

Summary

A qualitative multiple case study was conducted to describe how Georgia Lighthouse Schools To Watch © meet the needs of gifted and talented young adolescents within the middle school philosophy. The theoretical framework was based on the middle school philosophy, *This We Believe Keys to Educating Young Adolescents*, and the foundations of gifted education in Georgia which were explained in chapter 2. The following question framed my research: how are the needs of gifted and talented young adolescents met at three Georgia Lighthouse Schools to Watch © within the middle school philosophy?

Three participant schools were selected based on a purposeful sampling of schools designated as Georgia Lighthouse Schools To Watch ©. Data were collected using semi-structured one-to-one interviews and focus groups which were audiotaped and
transcribed verbatim. Further data were collected by analyzing appropriate documents. Data from each school were analyzed as a single case. Then, a cross-case analysis was conducted to provide a strong foundation for reporting the overall findings in a thick, rich, description.
CHAPTER 4
FINDINGS

The purpose of this multiple case study was to describe how the needs of gifted and talented young adolescents were met at three Georgia Lighthouse Schools To Watch © (STW). The multiple cases were three Lighthouse STW referred to by pseudonyms, Southern Plains Middle School (SPMS), Parkside Middle School (PMS), and Mountainside Middle School (MMS). First, data were analyzed based on a single case analysis for each school where categories and subcategories were identified and a descriptive framework was developed as seen in Table 11. The findings for each school were organized based on the descriptive framework and described in this chapter. An overview of each school was included at the beginning of the school’s section to establish the context of the case, and the findings were descriptively presented using evidence from the data collected.
Table 11

Descriptive Framework for Reporting Findings

<table>
<thead>
<tr>
<th>Case</th>
<th>Categories and Subcategories</th>
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| Southern Plains Middle School | • Middle School Philosophy and Gifted Education  
                                   • Identification and Grouping of Gifted Students  
                                   • A Continuum of Services  
                                     o Content Acceleration  
                                     o Cluster Grouping  
                                     o Differentiation  
                                     o Inquiry and Project-Based Learning  
                                   • Assessment  
                                   • Professional Learning |
| Parkside Middle School      | • Middle School Philosophy and Gifted Education  
                                   • Grouping of Gifted Students  
                                   • Advanced Content Classes  
                                     o Curriculum Compacting  
                                     o Within Class Acceleration  
                                     o Differentiation  
                                     o Inquiry and Project-Based Learning  
                                   • Assessment  
                                   • Professional Learning |
| Mountainside Middle School  | • Middle School Philosophy and Gifted Education  
                                   • Grouping of Gifted Students  
                                   • Advanced Content Classes  
                                     o Content Acceleration  
                                     o Differentiation  
                                     o Higher Level Learning  
                                   • Assessment  
                                   • Professional Learning Opportunities |

Second, a cross-case analysis was conducted of the data where similarities and differences were identified on how the needs of gifted young adolescents were met at the three participating schools as described in chapter three and discussed further in this
Categories and subcategories for analysis were identified based on the findings from the single case analyses and correlated with *A School Self-Study and Rating Rubric for STW* seen in chapter two. An additional layer of analysis was conducted and the findings were synthesized and reported in this chapter.

**Southern Plains Middle School**

Participant school number one was a Georgia Lighthouse School To Watch located in a county where the northern part is rural and the southern part, the location of the school, is suburban. Many of the students’ parents were employed by businesses located in a nearby city in a neighboring county. The population of the county was approximately 30,000 with a median income near $61,000.00. The per capita income of individuals in the county was around $27,000.00. The school system was found to be the largest employer in the county.

The middle school, which is referred to by the pseudonym Southern Plains Middle School (SPMS), had a population of around 800 students. SPMS is one of two middle schools in the county, and the middle schools were very similar in population, demographics, school structure, and academics. SPMS’s student population was 71% White, 21% Black, 2% Hispanic, 3% multi-racial, and approximately 3% other subgroups. 46% of the school’s population qualified for free or reduced lunches. Students who were eligible for gifted and talented services, based on the Georgia Department of Education’s multiple-criteria, made up 16% of the school’s population or approximately one hundred twenty-eight students. The population of identified gifted students was 81% White, 8% Black, 7% Asian, 3% multi-racial, and 1% Hispanic.
SPMS is part of a school system which qualified as a Strategic Waiver System (SWSS) in 2015. The waivers may be applied to Georgia state laws, GaBOE rules, and certain guidelines. The strategic waivers provided the school system “with greater governance flexibility as a means to increase student achievement” (The Governor’s Office of Student Achievement, 2017, para. 1) based on accountability. Two areas identified in the waiver contract gave SPMS some flexibility in gifted programming and implementation of the middle school philosophy. Two areas specifically referenced were state laws OCGA 120-2-152, Special Education Services which includes children who are classified as intellectually gifted, and, OCGA 20-2-290, an organization of schools and middle school programs.

Middle School Philosophy and Gifted Education at SPMS

When the principal, who is referred to by the pseudonym Ms. Sanders, made this statement at the end of our interview, it seemed to sum up all the preceding points of our conversation. “I am pro gifted, but, I am pro-kid, and I am pro performance. That kinda’ meshes well with middle school. While they are competing ideas, they can also flow together if you can do it right.” Ms. Sanders expressed a strong commitment to all students at SPMS, including students identified as gifted and talented, and she stressed the importance of being a true middle school, particularly one with the distinction of a Georgia Lighthouse School to Watch. “We are middle school. We are [a] lighthouse [school] first.”

It was evident that Ms. Sanders’ beliefs created a climate within the school where tenets of the middle school philosophy, particularly academic excellence and equity,
guided the structure and organization of the school. At one point, Ms. Sanders described the challenge of meshing the tenets of the middle school philosophy and the needs of gifted and talented students together. *Figure 3* is a graphic representation of the categories which emerged when the data collected from SPMS were analyzed through the lens of the middle school philosophy and gifted education as summarized by Ms. Sanders’ words. “It is a juggling act some years, and it looks different from year to year.”

*Figure 3*. Middle School Philosophy and Gifted Education a “Juggling Act.”

She acknowledged there were challenges to incorporating the ideas of gifted education within the middle school philosophy.
Ms. Sanders stated,

    You have on the one hand the middle school concept, and on the other hand, you have very high school minded ways of scheduling to make sure you push those students. So, you have to find equity within the teams.

Ms. Sanders also discussed organizing teams for equal access for all students, including the gifted and talented students. The concept of providing opportunities for all students was important, not just for the gifted population. Ms. Sanders emphasized the “middle group.”

    You know beyond gifted, …, there are certain things we have to do with our gifted students. We want to push them to achieve, but, we want to push that middle group, too.

Meeting the needs of gifted and talented young adolescents within the middle school philosophy at SPMS, while challenging, was accomplished by bringing together tenets of the middle school philosophy, particularly academic excellence, equity, and organization, state requirements for gifted education, and a commitment from the administration and faculty. In Ms. Sander’s words, “You cannot abandon the philosophy of middle school concept and Lighthouse. Um, to make things easier. I mean, I hand schedule every kid in this building.”

Identification of Gifted Students at SPMS

At SPMS students referred to the Gifted Eligibility Team (GET), in accordance with the Georgia Department of Education guidelines, go through the gifted referral process, and for recommended students, testing occurred in the fall of each year. Ms.
Sanders talked about students going through the referral process and she stated, “The students … tested in were already getting accelerated services, so, their schedules didn't change much.” Being identified as gifted and talented, at SPMS, did not dictate specific placement unless the placement met the needs of the student. However, it did mean the needs of the students were met based on required guidelines from the GaDOE merged with the middle school philosophy, particularly the tenet of equity for all students. While Ms. Sanders acknowledged when talking about the gifted and talented students that, “We have to, by law, serve them.” She also explained that grouping of students was determined based on student needs, but, Georgia law and GaDOE rules dictated certain administrative decisions.

Grouping of Gifted Students

SPMS had sixth, seventh, and eighth grades with three academic teams per grade, and, Ms. Sanders stated when talking about gifted and talented students, “We only have enough to scatter across two teams” in each grade. Ms. Sanders was personally involved in grouping every student in the school into appropriate classes based on student needs and assigned them to a team based on rankings. The rankings were determined based on standardized test scores and teacher recommendations. Ms. Sanders explained, We look at standardized assessments. But you know, if you are in a classroom, there is a different performance ranking that you cannot see on paper. We look at behavior, self-direction, those type of things. Some of it’s data-based and some of it is a gut feeling that you just have about kids. Because kids on paper and kids in person are two different kids sometimes.
Furthermore, the gifted students were not placed on one team, and the gifted and talented students were not grouped homogeneously together. They were placed in classes with students who were not identified as gifted and talented. Their classmates may be high achievers, and as Ms. Sanders stated, “We want to push that middle group, too.”

The needs of gifted and talented young adolescents at SPMS were addressed in classrooms populated with students who were carefully placed by Ms. Sanders. She explained,

So, I place each kid on teams. I don't allow computers to do that. I know where your behaviors [kids are] going. I know where your gifted kids are going. I know where your science kids are going, math kids. I know where your English/language arts kids are going.

Each traditional three or four teachers academic team was organized to reflect the school’s overall diversity of race and gender. In addition, Ms. Sanders balanced the distribution of students on teams by including above grade level, on grade level, and below grade level students dispersed equally among teams. As a result, gifted and talented students at SPMS had opportunities available to them based on individual needs.

A Continuum of Services

Academic options for gifted and talented students at SPMS were designed to be equitable and to provide a continuum of services based on individual students’ needs. The models used for gifted services, accelerated math and cluster grouping, were organized within the GaDOE guidelines where “content, teaching strategies, pacing, process, skills, and assessments, [differed] from courses typical for students at that grade
level” (GaDOE, 2017, p. 13). Services for gifted and talented students were individualized to reflect tenets of the middle school philosophy, equity and academic excellence, while meeting the needs of the students. Students being served by advanced content were eligible gifted students, as well as students, identified based on standardized test scores and teacher recommendations which included “that kid in the middle who wants to take a shot” according to Ms. Sanders.

Accelerated Content. The accelerated curriculum model in math was guided by the Georgia Standards of Excellence for middle school math and was used to meet the needs of students who were identified as academically gifted in math. Table 12 shows the academic track that students who qualified followed starting in the sixth grade. Teachers participating in a focus group on gifted programming at SPMS talked about the accelerated math classes they taught. Mr. Jones, a pseudonym, explained, “Acceleration based on … it’s not the material they master, it is the speed in which they get the material.”

Table 12

SPMS Accelerated Mathematics Track

<table>
<thead>
<tr>
<th>Grade</th>
<th>Course</th>
<th>Mandated Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>6th Grade</td>
<td>Accelerated Mathematics 6/7A</td>
<td>Georgia Milestones – 6th grade standards</td>
</tr>
<tr>
<td>7th Grade</td>
<td>Accelerated Mathematics 7B/8</td>
<td>Georgia Milestones – 7th grade standards</td>
</tr>
<tr>
<td>8th Grade</td>
<td>Honors Coordinate Algebra</td>
<td>Georgia Milestones – 8th grade standards</td>
</tr>
<tr>
<td></td>
<td></td>
<td>End of Course Test – 20% of final grade</td>
</tr>
</tbody>
</table>
Students on the accelerated track progressed through sixth-grade math standards and half of the seventh-grade math standards in sixth-grade and the other half of the seventh-grade standards and all the eighth-grade standards in the seventh grade. Then, the students took a ninth-grade honors coordinate algebra in the eighth grade.

An advantage expressed by Ms. Slader was “accelerated is good for achievement.” Ms. Kelly added to the discussion, “I think that having the accelerated models that we do now instead of just cluster groups … I think that’s going to be beneficial for our kids moving into high school.” Ms. Slader’s point that “they do best in that accelerated secluded environment together” reinforced the opinion of the group that accelerated classes had a benefit for students academically. When talking about students in her accelerated math class, Ms. Slader continued:

When they start to look at eighth-grade math they are extremely intimidated.

And, then, by the end of a unit … they can actually do those things. And, when you see that in them. That’s one of my favorite things. I love teaching that math class.

Mr. Jones reiterated the opinion when he stated, “I like when they are self-contained. Just because it is easier in math. Especially with whole group instruction.”

Teachers expressed concerns about meeting the needs of gifted and talented students in accelerated classes. When talking about accelerated classes, Ms. Hamilton stated, “Accelerated … good for achievement, but, not the best thing as far as personality, socialization, and all those things.” There were concerns expressed that accelerating
students may not give them the opportunity to understand concepts in depth. Ms. Slader described her experiences when she said,

And, I feel like, honestly, we are now bringing that from the high school level down to the middle school level, and, instead of me having time to do some special projects with my students, and, take them deeper and investigate more, we are just doing more.

A statement Ms. Sanders made during our interview addressed the influence of high school standards on courses at the middle school level as well. “I think you give them the rigor that is required of a course, and, we have to teach it just like a high school course whether you are gifted, or you are a high achiever, or, that kid in the middle.”

Math was the only content area that had standards for an accelerated curriculum in the Georgia Standards of Excellence at the middle school level. However, at SPMS, there was a Science, Technology, Engineering, and Math (STEM) team where students went further and deeper into the science curriculum. In addition, students had accelerated science curriculum in sixth and seventh grade designed by the educators at SPMS to prepare students for a high school physical science class in the eighth grade. The principal stated, “Just because you are a gifted student does not guarantee you a spot on that team.” When placing students on the STEM team, just like the placement on other teams, Ms. Sanders explained, “We look at multiple criteria, basically, to determine who the students are.” The two teams where identified gifted and talented students were placed were the accelerated math team and the STEM team.
Cluster Grouping Delivery Model. Gifted students, usually a group of six to eight, were placed into heterogeneously grouped classrooms in academic areas such as science, social studies, language arts, or math. At SPMS, cluster grouping was a delivery model used to fulfill the state requirements for identified gifted students where a student received at least five segments per week of gifted education services with a teacher who had a gifted education endorsement. Ms. Sanders explained how gifted and talented students’ needs were met using the cluster grouping delivery model. “Basically, we have a cluster … within the classroom. They’ll get accelerated. They’ll go beyond the standards.” During a focus group, a teacher, Ms. Kelly, illustrated how cluster grouping worked on her team.

I actually teach on a team where we have accelerated content for math and science, however, for language arts they are not. They are heterogeneously grouped. So, I have a cluster group of students. Approximately seven or eight in one class and seven or eight in another.

The configuration of the teams at SPMS provided opportunities for gifted students to take classes with accelerated content, such as math, and then to be heterogeneously grouped in other classes through cluster grouping. In addition, some gifted students were in the accelerated classes, but, they were served and their needs met in cluster groups. At SPMS, the goal was to meet the needs of the clustered gifted students through advanced content and to move all students forward academically. Ms. Sanders expressed this goal when she said, “There are certain things we have to do with our gifted students. We want to push them to achieve, but, we want to push that middle group, too.”
When considering cluster grouping, teachers in the focus group identified areas that presented a challenge to them when meeting the needs of gifted and talented students. The academic heterogeneity of students in the class was an area of concern for one teacher who stated, “Sometimes when you are trying to help the gifted do something different you lose some of your other kids and vice versa.” Mr. Jones explained, “I have found in the cluster group model sometimes those kids will get lost because they don’t need you as much as the other ones who do need you.” In addition, he noted during the discussion, “The needs of the others become more apparent.” Ms. Slader, described her experiences with cluster grouping.

I have taught many of those classes, and I have also taught heterogeneous classes with gifted clusters. Homogeneously, I’ve witnessed much more growth within the gifted subgroup. When the majority of the class is gifted, there is often a higher level of healthy competition and comfortability.

Some students were served in cluster groups in content areas which were not necessarily the student’s area of giftedness. This occurred when there was one teacher on the team with a gifted endorsement in only one content area. Ms. Sanders expressed a goal of hers to have a gifted endorsed teacher on each team. “One of the things that we did pursue, and I pushed two years ago, was to have gifted certified teachers on every team.” Having more educators with a gifted endorsement would allow the dispersion of identified gifted students on all academic teams to be served through cluster grouping, however, that also presented challenges for meeting students’ needs when the number of gifted endorsed teachers were limited. Ms. Kelley expressed her concern.
I am serving students, for instance, that have a gifted label, and, I am trying to do accelerated type tasks differentiated in my classroom. Whereas, but, honestly their gifts are more of a math or science base, and, I am asking them to write at such a level that is not where their giftedness lies.

Teachers in the focus group acknowledged challenges to meeting the needs of gifted students in heterogeneously grouped classrooms through cluster grouping, however, they also shared successful strategies they used to meet the needs of gifted students using differentiation.

Differentiation. Recognizing that gifted students have different needs and are a diverse population of students, teachers differentiated instruction by giving students more choice, less scaffolding of instruction, different assignments, and varying rates of instruction. An eighth-grade teacher, Ms. Slader, remarked,

One challenge I’ve faced is differentiating within even a homogenous mix of gifted students. They are all gifted, but they are definitely not all the same. They are still at different levels of readiness and development.

In addition, teachers agreed their expectations for gifted students were different.

Mr. Jones elaborated on how the characteristics of gifted and talented students in his classes were a guide for his instruction.

There is a different approach with gifted kids than there is with, um, regular education kids. In just, you know, they still need instruction. And, a lot of times they are just ready to go. They don't necessarily think that they need the help, but, because they are … we learn it. Let's keep going. I think that the main, uh, way
to reach those kids is to set those high expectations and realize that they are in
different places for different students.

Ms. Kelly explained how differentiation worked in her class.

The gifted students’ work is differentiated within the regular room by their
assignments. They have a different assignment. Um, usually one that is more in
depth. There are rubrics that I use for grading their writing. They are usually
more detailed … um, they also have, um, greater choice.

Ms. Slader explained challenges she had in her classroom when using differentiation.

I meet their needs through differentiation. I do think it is a little harder in math
sometimes to meet their needs in a classroom where there are different levels.
Because, like, the assignments can't be that different you know. Um, and, so,
that's kinda a struggle for me.

Inquiry and Project Based Learning. Teachers explained when gifted students
were given the opportunity to create new knowledge by real-world applications and
project-based learning at SPMS their needs were met. To facilitate Project Based
Learning at SPMS, real-world experts were brought to the school to collaborate with
teachers and students. Ms. Sanders explained, “We do PBLs, and so, they go a lot deeper
into the science curriculum. We basically bring in community experts to solve real-world
problems.” Ms. Kelly noted,

I think with the gifted students when I’ve seen the most success … this year …
has been when we have done inquiry-based learning. We are also a STEM team,
we do a lot of science, technology, engineering, and math, activities.
In addition, partnerships between local colleges and businesses were created when PBL was used. The curriculum and instruction designed for student inquiry and PBLs were interdisciplinary and teachers incorporated standards from other content areas. For example, Ms. Kelly remarked, “They have been studying natural disasters and tornadoes in the science room. We've used that as our basis for the writing.”

The teachers talked about inquiry-based learning and PBL meeting the needs of gifted and talented students by creating challenging learning opportunities, enhancing leadership and research skills, and providing choice. Positive outcomes were observed and described by the teachers for all students, including the gifted students when using inquiry-based and PBL. *Figure 4* shows a compilation of terms used by teachers when they described inquiry and project-based learning and the positive outcomes observed for gifted and talented young adolescents.

*Figure 4.* Terms Used by Faculty to Describe Inquiry and Project Based Learning
Both strategies were used in accelerated classes as well as cluster grouping classrooms; therefore, PBLs and inquiry-based learning were considered effective options for meeting the needs of gifted and talented students at SPMS. Mr. Jones commented,

I think that the best type of education for gifted kids is when it is strictly inquiry based. When they can do hands-on, and, like, learn it by themselves. We give them the foundation, and, they get to run with it.

The science teams at SPMS were required to complete a PBL activity for each unit of study guided by the Georgia Standards of Excellence. PBL activities were correlated to the Georgia Standards of Excellence for math, science, social studies, and language arts. In addition, they were interdisciplinary and inclusive. Ms. Kelly described the inclusiveness of PBLs in her classroom.

The skills that we use when we do project-based learning: time management, leadership skills, research skills, those are skills that every student needs, and, so, we do incorporate those for all of our students.

Project-based learning was an important component of the curriculum and instruction at SPMS. Students were recognized for their projects and a local television station did stories to keep the community informed of students’ accomplishments. In addition, students and teachers collaborated with businesses and universities to solve real-world problems.

SPMS started a STEM program in the fall of 2017. Students entered the program in their sixth-grade year and will continue through the eighth-grade. Students accepted into the program made a commitment to handle in-depth and accelerated math and
science curriculum, hands-on activities, challenging projects, and, creative problem-solving activities. The application process included teacher recommendations, an engineering challenge, and a math assessment. Students who participated in the STEM program were required to complete STEM projects and compete in regional and national STEM competitions. Examples of inquiry-based and project-based learning are listed in Table 13.

*Examples of Project Based and Inquiry Learning*

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<thead>
<tr>
<th>Project</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Museum Panels</strong></td>
<td>All students in the class created panels for a museum contest. Gifted and high achieving students were given fewer guidelines, and they worked independently. It was an evaluative level assignment.</td>
</tr>
<tr>
<td><strong>Models</strong></td>
<td>Community experts in different fields were brought in to help students solve real-world problems. It started with the STEM group and will expand out within the grade and across grades.</td>
</tr>
<tr>
<td><strong>Prototype to Cover Lunch Counters</strong></td>
<td>Students researched how much aluminum foil was used in the cafeteria and determined the cost and waste. The students developed a prototype as an option to use in place of aluminum foil. The school worked with a company, and the students created a rubber type of synthetic material to be reused and washed each day in the cafeteria.</td>
</tr>
<tr>
<td><strong>Soil Conservation</strong></td>
<td>Students collaborated with an agricultural college to restructure the college’s driving green. The students did soil samples, researched turf grass, turf, shade, and other components of turf management. Cost calculations were made based on sod, seed, area, and irrigation. The students reported their findings, the cost, and their recommendations to the college.</td>
</tr>
<tr>
<td><strong>Tractor Angel</strong></td>
<td>This was a Samsung challenge where students designed a product to be used on older tractors that do not have flip over signaling devices. The tractor angel automatically notifies authorities when a tractor gets to a certain incline or flips over. The students won $25000.00 in the challenge.</td>
</tr>
<tr>
<td><strong>Science, Technology, Engineering, and Math Activities</strong></td>
<td>On the STEM team activities are incorporated into all the units based on the standards. Interdisciplinary units are implemented, for example, writing assignments are completed in the ELA class on natural disasters, such as tornadoes, to reinforce science and ELA standards.</td>
</tr>
</tbody>
</table>
Assessment

Standardized assessments, such as the Georgia Milestones, created an environment where concern about test scores impacted meeting the needs of gifted students. Ms. Hamilton expounded on the topic when she said, “Because at the end of the year, like, our assessment is going to be based on the Georgia Milestones. And, we have certain protocols and cut off points, and, we got to move this bunch.” In addition, teachers talked about feeling the pressure imposed by accountability from standardized testing. Ms. Hamilton continued, “I know personally, I fall victim, too. I'm worried about my eighth grader who is on a third-grade reading level, you know, like, I'm not worried about my eighth grader who is on a twelfth-grade reading level.” The pressure to move students to a higher level on the Georgia Milestones, according to Mr. Jones meant “the overwhelming needs of the low student sometimes can overshadow, I think, the needs of the gifted student.”

Teachers identified the academic needs of their gifted and talented students by assessing their progress. “Assessments pretty much drive the instruction,” stated an eighth-grade language arts teacher, Ms. Kelly. She explained, “Informal formative assessments should guide your lesson, your discussions, and any assignments.” Common summative assessments, created and administered by teachers at SPMS, were used as a tool to monitor gifted students’ academic needs and to determine their level of content mastery.
Mr. Jones elaborated,

I think that's what makes us a good school is that all of our kids are being monitored where they are, and, because we know where they are, we can help them get to where they need to go.

Ongoing assessments in the classroom gave teachers information on students’ needs in real-time. Mr. Jones said formative assessments were “just kinda checking progress at whatever rate we gotta go at it. You know you have to differentiate it at different rates too, but, just making sure that we kinda have our hand on the pulse.”

Formative assessment strategies were used to move gifted students to higher academic levels and to evaluate their immediate needs. The importance of assessing the needs of gifted students was emphasized when Ms. Kelly explained,

Because I do find that gifted students are not necessarily ones, they’re not going to ask for help. So, if I'm not progress monitoring constantly, then, there might be students that are struggling that I wouldn't necessarily know about because they are quiet, and, you know, usually give the impression they are working.

In addition, project-based assessments, open-ended questioning, and differentiated rubrics were used by teachers to assess gifted students at different levels.

Professional Learning Opportunities

A professional learning opportunity for educators at SPMS, specific to meeting the needs of gifted learners, was gifted endorsement classes typically offered through the Regional Education Service Agency (RESA) or a local university. Ms. Sanders stated,
I think at one point we had 50% of our teachers were gifted, and, that was two years ago. So, we've had some fluctuations with teachers moving in and out. We haven't really pursued that avenue lately, but I'm looking at the numbers this year.

Other professional learning opportunities at SPMS promoted equity within the school and focused on moving all students forward academically with an emphasis on students in the middle. Ms. Slader stated, “We have had a lot of training on differentiation.” With a strong emphasis on differentiation, educators were given professional learning opportunities on instructional strategies. Ms. Sanders described a professional learning opportunity presented by an expert brought to the school.

I wanted … how you move those kids. Not just high kids, but those middle kids. And, things you can do in the classroom, uh, reading and writing strategies. You know, we talked about strategies with the highest effect size and those types of things, the bang for your buck.

Recent GaDOE requirements emphasized professional learning at the school level. SPMS was organized into teams and academic groups, and, the primary opportunities for professional learning were among educators in the school communities. Mr. Jones elaborated,

I think just offering additional opportunity, like, we have PLCs in our school within our teams and across content areas. So, like, I know that on that accelerated team when they are meeting they are going to be discussing their issues, and, I mean, the team was designed with acceleration in mind you know.
Teachers on an academic team collaborated and had opportunities specific to their individual needs, or, science teachers had professional learning opportunities specific to their content. Aligning with the middle school philosophy and the team concept, teachers on teams addressed specific learner and educator needs during team meetings.

Summary

The tenets of the middle school philosophy and the requirements for being designated as a Georgia Lighthouse school were guides for school structure and organization at SPMS according to Ms. Sanders. She was committed to doing what was best for all students even though it was a “juggling act” at times. “While they are competing ideas [middle school philosophy and gifted education] they can also flow together if you can do it right,” she stated. One way it was “done right” was when the needs of gifted students were recognized and opportunities were provided to meet their needs. In addition, to merge the “competing ideas” of middle school and gifted education, the organization of the school was fluid based on the changing needs of the student population and school resources. Ms. Sanders elaborated on this point,

So, you come back next year and talk to me, it's going to look totally different though, but, I think that's how you design your teams based on student need not just what you've been doing from year to year. That's the easy way out, so.

Equity, academic excellence, and organization were three areas where the middle school philosophy was stressed by Ms. Sanders. Moreover, the needs of gifted students were met within the guidelines of the GaDOE. However, the individual needs of gifted students were considered when organizing teams and placing students into classes.
Careful consideration was made to achieve equity and to provide academically excellent learning opportunities for all students.

Meeting the needs of gifted students was not based on a label of giftedness, but based on what students needed. Equal numbers of students scoring above grade level, on grade level, and below grade level, were placed on each team. Gifted students were dispersed on two teams due to the number of students eligible for services and the number of teachers with the gifted endorsement.

Services included an accelerated content track offered to students who were academically gifted in math in the sixth, seventh, and eighth grade. In addition, students with a high interest in math and science were served in a STEM program in sixth, seventh, and eighth grade. Gifted eligible students were also served in cluster groups of six to eight students in all academic areas where the class was otherwise heterogeneously grouped. The content for the gifted clustered students was advanced and differentiated to meet the needs of the students.

Teachers met the needs of gifted students by differentiating content, teaching strategies, and the processes students used to demonstrate mastery. Formative and summative assessments were used to determine students’ levels of mastery and teachers made accommodations based on individual needs. Even though professional learning opportunities, other than classes for gifted endorsement were not specifically tailored to meeting the needs of gifted students, educators on academic teams and professional learning communities collaborated and addressed the needs of gifted students.
The needs of gifted and talented students were challenging to meet, however, the administrators and educators at SPMS addressed the challenge through knowledge and intentionality. The continuum of services offered for all students, including gifted and talented students, was designed to meet individual needs. Administrators and teachers purposefully created learning environments where the needs of students were assessed and differentiated strategies were used to meet their needs.

Parkside Middle School

The second participant school was a Georgia Lighthouse School to Watch referred to by the pseudonym Parkside Middle School (PMS). Parkside Middle School is in a rural southern town that has a population of approximately 14,000 people. Thirty-four percent of the town’s population are persons in poverty with the town’s per capita income around $16,000. The largest employers in the city are in education and healthcare. The surrounding county is rural with a total population of around 35,000.

Parkside had a student population of five hundred sixty in grades sixth, seventh, and eighth. The race/ethnicity demographics of the student population were 48% Black, 41% White, 6% Hispanic, 3% multi-racial, and 2% Asian, American Indian, or Hawaiian/Pacific Islander. Sixteen percent or approximately ninety students were identified as gifted and were being served in advanced content classes. The race/ethnicity demographics of gifted and talented identified students were 69% White, 20% Black, 4% Asian, 2% Hispanic, and 5% multi-racial.

Students at Parkside received free breakfast and lunch based on The Community Eligibility Provision of the United States Department of Agriculture. The school was
organized into two academic teams per grade with teachers on the teams teaching a combination of math, social studies, language arts, or science. All teachers were highly-qualified in their content area as determined by the Georgia Professional Standards Commission (GaPSC), and the participant teachers each had a gifted endorsement.

Middle School Philosophy and Gifted Education at Parkside

The principal of Parkside Middle School, referred to by the pseudonym Mr. Kline, summed up the process by which administrative decisions were made when he said, “The filter that every decision we make goes through … Is this the best thing for the child? And, that’s what Lighthouse is about. We bought into that.” Mr. Kline explained administrators and faculty at PMS “buy into” the “holistic” view of educating students including gifted and talented students. He explained that “one test on one day … is not what drives our decisions. We try to look at the whole child.” Components of the middle school philosophy including, “the social … emotional and academic” needs of students were considered when decisions were made. Mr. Kline explained, “There is a lot in middle school that we need to know” about the students to meet their needs, and those elements are not measured on tests. He added, “Because a lot of those life skills … you are never going to see on a Georgia Milestones test.”

The tenets of the middle school philosophy and the requirements for being designated as a Georgia Lighthouse STW were not only implemented but were expressed as foundational beliefs by Mr. Kline.
When describing the components of Georgia Lighthouse Mr. Kline explained,

They [Lighthouse Schools To Watch] focus on the academics and the structure, but they also look at what you are doing for that whole child. What are you doing for your faculty? Are you collaborating and not just thirty-six individual classrooms? That is what a lot of our decision making is based on.

Using the middle school philosophy as a framework when making decisions to meet the needs of all students, including gifted and talented students, was something the school leaders “bought into.” Mr. Kline explained how being a Georgia Lighthouse STW and following the foundational constructs of the middle school philosophy provided opportunities to meet the needs of gifted students.

That’s one thing I really like about the middle school model that we have here. If a kid is a very good ELA student but struggles in math, they may be identified gifted and be in the accelerated part of that ELA group in sixth grade. So, they would go to a co-taught math class … so, they get just a little more individualization … we have a lot of flexibility with that. But, that is intentional.

Looking at the “whole child” and structuring classes to allow for flexibility based on individual needs of students was a concept adhered to at PMS. To meet the needs of gifted students, different options were available based on the individual needs of a student. Mr. Kline reiterated not everything about a child can be determined based on a test score.

You know we have some kids that have the capabilities. And, we take them out of the regular ed classes … put them in that accelerated content. Not only have
we seen changes in their behavior, but we see academic improvement … just being in that little bit of a different environment … so, we really do like the flexibility of having as many accelerated and gifted classes as we can to give those kids a challenge.

Recognizing that gifted students have special needs Mr. Kline said, “We have to make cognizant decisions, but we are very aware that we have to serve our gifted kids too and they are very different … our gifted children are very different.” Keeping with the middle school philosophy of teaming and collaborative teaching Mr. Kline explained how the placement of teachers who meet the needs of gifted students was critical. Teachers responsible for meeting the needs of gifted students were strategically placed to facilitate success. Mr. Kline expounded,

We try to keep their doors as close to each other as we can so they are talking about their kids. They are talking about their lessons, uh, that kind of thing. We still have that middle school model where there is an entire sixth-grade team … We try to keep those teachers as close together as we can. So, when they are talking in the hallways, when they are in the middle of planning, and they want to go bounce an idea off of somebody … it’s … as convenient as we can. So, they can go reach out and touch each other.

The nature and needs of gifted middle school students were considered when deciding on the best options available at PMS to meet their needs. Components of the middle school philosophy such as teaming, collaboration among teachers, and addressing students’ social-emotional needs were considered. Mr. Kline stated, “There is a lot in
middle school that we need to know about the kids: the changes their bodies are going through, the self-esteem issues, figuring out who I am, how to plan.” In addition, by recognizing that students were individuals and not just a number from a test, the special needs of gifted students were met. For example, Mr. Kline observed,

It might not be a test score… kids…are incredibly bright and very unique and different…you put them with the right teachers and they do really well…they do some creative and wonderful things in the classroom and they have those opportunities. It’s not just based on test scores.

There were challenges described by Mr. Kline to meeting the needs of gifted students within the middle school philosophy in the age of accountability. External influences, such as College and Career Ready Performance Index (CCRPI) scores were considered by administrators. Mr. Kline reflected,

There is such a drive you can get wrapped around that CCRPI and student achievement number and closing that achievement gap you can lose sight of those top-end kids … at the end of the day … we’re going to do what’s best for each kid.”

Taking that into consideration, Mr. Kline commented that meeting the needs of gifted students “has to be intentional.” At PMS the intentionality came from the recognition that gifted students have unique needs and the administration took a “holistic” approach to educating the “whole child.”
Grouping of Gifted Students

To have flexibility in meeting the needs of gifted and talented young adolescents, Mr. Kline’s goal was to have all academic teachers with a gifted endorsement. In recent years, five teachers with gifted endorsement were transferred from the school and moved to other schools in the school system. With fewer gifted endorsed teachers, the options for placement of gifted students into different academic areas decreased. As a result, the composition of the teams, as well as the number and needs of gifted students necessitated a change in the configuration of the teams where gifted students were placed. Mr. Kline explained,

But, we really go back to last year. We really had to go to a gifted team … some of those teachers taught sixth and seventh graders and the other gifted team taught seventh and eighth graders … this year we made a few moves … so, I could get back to getting those gifted teams to each grade level.

When students identified as gifted entered sixth grade at PMS, they were placed on teams and into academic classes based on their area of giftedness. On the one hand, gifted students who performed well in all academic subjects in elementary school were placed in advanced content classes for math, science, social studies, and language arts. On the other hand, some students identified as gifted were only placed into academic classes for which they qualified based on test scores, teacher recommendations, and performance. For instance, a student needed an 85 or above average in a class to be placed in the advanced content for that subject the next school term. As a result, an
identified gifted and talented student was served in one, two, three, or four advanced content academic classes based on the student’s needs.

At Parkside, each grade level had two academic teams with teachers who taught students in one or more subjects: science, social studies, English/language arts, or math. Gifted students were grouped on one academic team in each grade and taught by teachers who had in-field gifted endorsements. For example, a certified teacher highly qualified in science with the in-field gifted endorsement would be qualified to serve identified gifted and talented students in science.

To meet the GaDOE requirements for serving gifted students at the middle school level, students received a minimum of five segments, or one class each day for five days, in an advanced content academic class. At PMS, this requirement was met when students were placed into at least one advanced content class on one team in each grade. In addition, students who were identified as high achievers based on scores from Georgia Milestones testing, academic performance, and teacher recommendations, were placed on the team and into classes with identified gifted students.

Advanced Content Classes

The gifted lead teacher referred to by the pseudonym Mrs. Byrd explained, “I know that there is a lot of conversation about how we meet the needs of all kids. We are very cognizant that … our gifted learners do have special needs.” The “special needs” of gifted learners were met through the advanced content model in academic classes such as English/language arts, science, social studies, and math. At Parkside, advanced content classes had identified gifted students and high achievers grouped in a classroom together
based on achievement and performance. In the advanced content classes, teachers used instructional strategies which were designed to meet the needs of gifted students and were different from the curriculum in regular education classes. Ms. Gates, a sixth-grade language arts teacher in the focus group commented, “We have a specific program where we work very hard to try to meet their needs.”

Curriculum Compacting. According to the GaDOE (2017) curriculum compacting allows a teacher to eliminate concepts and standards which “a student has already mastered” (p. 20). At Parkside when curriculum compacting was used a student was “allowed to pursue alternative curriculum options” (GaDOE, 2017, p. 20). This was a strategy used by teachers to meet the needs of gifted students in the advanced content classes based on a learner’s readiness and individual needs. Students who mastered standards quickly or who entered the classroom with a strong background knowledge of a topic were not held back while other students in the class mastered the standard. For students who were ready, they were given the option to move forward and to advance to a higher academic level. A Parkside science teacher, Mr. Rivers, explained,

I also do … curriculum compacting, so the students who have mastered the standard and … the material for that standard … can … start … on the next thing we are going to do … while the rest of the class is catching up on that standard.

Curriculum compacting met the individual academic needs of gifted learners by giving them the opportunity to “accomplish more than what [was] prescribed,” according to Mr. George, a science teacher in the focus group. In addition, when teachers compacted the
Within Class Acceleration. The GaDOE (2017) described acceleration as moving a student to a higher grade for one or more subject areas or having a student skip a grade level. Acceleration for students at Parkside meant teachers were moving them to higher academic levels while they remained in grade-level classes and followed grade-level content standards. To accomplish acceleration, Parkside teachers used the higher-level curriculum, content, and instructional strategies.

Teachers at Parkside did not use the Georgia Standards of Excellence for accelerated math in sixth and seventh grade. Instead, grade-level standards were used since the students “take the sixth-grade milestones like every other sixth grader” according to a sixth-grade teacher, Ms. Crystal. Following grade-level standards, teachers who taught gifted students in sixth and seventh grade were allowed flexibility when meeting the needs of the students in advanced content math. In other words, teachers chose to accelerate content, materials, or instruction, based on individual needs of students rather than a mandated accelerated process based on Georgia Standards of Excellence.

Teachers used instructional strategies to accelerate gifted students based on individual needs. For example, Ms. Crystal elaborated,

I just pull those seventh-grade standards where appropriate. For instance, the sixth-grade standard is, um, writing and solving one-step equations. Seventh grade is writing and solving two-step equations, and I usually teach the gifted kids
their one-step equations. They get it just like that, and that is no challenge for them. So, usually, I can take them up at least one level sometimes multi-step equations, so, that is just one example.

*Figure 5* shows a compilation of how teachers in the focus group described meeting the needs of gifted students when using acceleration strategies in their classes.

<table>
<thead>
<tr>
<th>Acceleration in the Classroom</th>
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<tbody>
<tr>
<td>• Push students to the next level</td>
</tr>
<tr>
<td>• Take students up to the next level</td>
</tr>
<tr>
<td>• Do something a little bit higher</td>
</tr>
<tr>
<td>• Bring in seventh grade standards in the sixth grade</td>
</tr>
<tr>
<td>• Prepare students for high school</td>
</tr>
<tr>
<td>• Students complete eighth grade math and ninth grade math simultaneously</td>
</tr>
<tr>
<td>• Provide a challenging curriculum</td>
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*Figure 5.* Content Acceleration. Strategies used by teachers in their classrooms.

In addition, Ms. Crystal explained how she accelerated students after they demonstrated readiness to move to a higher level. “Then, I also, um, accelerate skills, for, um, certain ones. Not everyone is ready, but as they show proficiency, I assign additional skills for gifted students.” Part of meeting the needs of gifted students using acceleration, for some teachers, was to prepare students for the high school. Mr. George elaborated when he said, “Like if I am teaching chemistry, I will pull high school standards down…Just to accelerate them, and it prepares them better for high school, too.”
Differentiation. A social studies teacher, Mr. Rivers, remarked that “even within your gifted classes you are going to have some varying abilities.” He further described how he differentiated within his classroom to meet the individual needs of students with different reading abilities by giving students reading passages based on their Lexile reading scores. In addition, the needs of gifted learners at PMS were met when teachers provided different levels of instructional guidance through scaffolding, adjusted the pace of instruction, and gave students different learning materials.

Mrs. Byrd explained, “I teach at what I consider a gifted level and I drop down to differentiate for any of my advanced content students who are struggling to meet those demands.” She continued, “I run all my advanced classes like they are just all gifted kids and then scaffold down or scaffold up as the case may be.” A science teacher, Ms. Quartz, differentiated her lab activities by providing guidance based on the individual needs of her students. “When we are doing lab activities, um, my gifted students, um, would do open inquiry labs. Whereas, the others will do directed inquiry.”

Differentiation was based on the individual needs of students and not a label given to a student at the completion of the school’s eligibility process following GaDOE guidelines at Parkside. All students were individuals with individual needs, even gifted learners, and there was a commitment expressed by teachers to meet the needs of students regardless of a label. Mrs. Byrd noted, “Just because a kid is making 85 doesn’t make that child gifted.” She described a student using a pseudonym who was not labeled gifted but exhibited unique abilities.
Clare is not labeled gifted, but she shines nearly above all others in her impressive vocabulary, in her passion for reading, in her willingness to question, in the products that she will create. She actually moved in from another country … and she moved from another state a year or two ago and never has been tested for gifted. I think it is more fair to the student … I don’t want to say to ignore that label but to see what is going on in the classroom. So, consider that label, but that label isn’t the determining factor.

Gifted students who did not earn an 85 or above in an academic subject during a grading period were put on probation and given another grading period to achieve an 85 or above to continue with gifted services. Several teachers described how the needs of students on probation were addressed based on the individual needs of the student. For example, Mr. George stated, “It’s individual because what one kid needs another kid might need something different. Mr. Rivers added, “It just kind of depends on the student.”

Teachers met with the student on probation and talked with the student’s parents to determine what the student’s needs were. It was noted by Mr. George that, “I shouldn’t say a lot of our kids, but I have many gifted kids that are just disorganized … They have the ability, but … they have a hard time getting all of their information in the right spot.” To meet the needs of students some teachers tutored them individually. For example, Ms. Gates explained, “We have zero period. They come in early to make up work or let us tutor them. I’ve kept some in for lunch, and just whatever we can do to help them. We try.”
Inquiry and Project Based Learning. When asked how they meet the needs of gifted and talented students, the teachers in the focus group immediately talked about inquiry-based learning activities and projects. Ms. Quartz explained how inquiry-based labs gave gifted students opportunities to make choices and try new things while doing research. She explained how students solved a problem or tested a variable by using trial and error which involved “designing their own experiments.” Teachers described students using higher level thinking skills during hands-on projects where they “really step up” according to Mr. George.

In addition, Ms. Gates met the needs of gifted learners by using projects that were “kinesthetic.” Students in her class made a movie about a horror story they read. She stated the students “got to act and be silly.” She added, “My favorite thing that we do is genius hour on Friday where they get to do inquiry-based learning.” The projects teachers used to meet the needs of gifted learners gave students options and choice. Furthermore, the products were diverse based on the strengths of the students.

Mr. Rivers used inquiry-based learning where students developed research skills using primary and secondary sources “and [wrote] about them.” In addition, he said students chose their topic and the product.

I give them a choice menu … but, no matter what they choose, they have to research it. And, whether they are using technology or going to the library, so, they have to do a lot more … writing and a lot of independent stuff where they have to research it and analyze things on their own.
Mr. George described his enthusiasm and excitement when a gifted student experienced a struggle but ultimately came up with a solution to the problem.

When I see a child that has struggled at the beginning of the year to even start on a science fair project, and, then, when they turn it in it’s, like, awesome. I’ve seen them go over the struggle. They’ve understood the scientific method and gone above and beyond what I expected and that’s just exciting.

All the teachers used inquiry-based learning opportunities for gifted students which provided students with choice, hands-on activities, research options, and independence. A language arts teacher, Ms. Gates, described her experience.

One of my favorite things was when we did TED talks … They got on stage … I just thought that was really rewarding to have them pick a topic they’re really interested in and get up there and act like they are a real TED talk presenter. That was awesome to see them really shine. A lot of kids here who are shy and quiet really stepped out on that one, and I love that.

When completing inquiry-based learning activities designed by the teachers, students developed communication skills by presenting projects in front of audiences and collaborated with other students to create products. Mrs. Byrd described a synthesis project that her eighth graders did to analyze three different songs based on specific literary devices and then “through a project of their choice they could present this to what we called an authentic audience.”

So, I had invited people from the local educational community and our business community at large plus parents … I had one girl create an original painting
where the three characters in the song were symbolically captured, um, and then I had one guy create a musical composition to match the tone of each one of the three selections, so, um, just to kinda give them open reign … here are my criteria. Now you show me however you want to show me. Fascinating. Really, really, fascinating.

*Figure 6* shows a synthesis of how teachers described using inquiry-based and project-based learning in their classes with examples and characteristics.

*Figure 6. Synthesis of Teacher Descriptions of Inquiry and Project-Based Learning*

**Assessment**

To meet the academic needs of gifted students at PMS teachers used diagnostic assessments to determine a student’s level of mastery of the standards and to plan effective instruction. Based on diagnostic assessments, teachers compacted the curriculum, accelerated the student, provided enrichment activities, or remediated the
student. Ms. Quartz stated, “The diagnostics really help with the curriculum compacting, or like, learning contracts…so, you know exactly where they are.” In addition, formative assessments were used frequently during instruction by Ms. Gates to determine “who needs some help scaffolding to get to that level they need to be.”

The use of technology to assess students and provide instantaneous feedback was used by Mr. Rivers as an effective means to assess the academic needs of gifted students. He stated, “I use a lot of formative assessment, at least two or three times a week, and the technology, so, it’s hands on. You can instantly see the results.” Diagnostic and formative assessments were used to provide teachers with information which gave them the ability to meet the needs of gifted students in their classes. Ms. Crystal explained, “Those frequent formative assessments are really important and also really informative.”

Not only did teachers use diagnostic and formative assessments, but they also used “real world application…problem-based decision-making kind of problems and assessments,” according to Mr. Kline. Teachers assessed students by giving them opportunities to demonstrate mastery of the standards by completing projects and applying what they learned. To meet the students’ needs through assessments, Mr. Kline explained,

Mrs. Byrd has done a really good job with the gifted department…getting them to see outside…it’s not just a unit test here and there…There are different ways you can assess those kids. Giving the kids a lot to say in how they demonstrate learning and mastery to the teacher.
Professional Learning Opportunities

Teachers who met the needs of gifted learners at PMS in the sixth, seventh, and eighth grade, worked together, supported each other as a team, and met at least once a month. Mrs. Byrd described her role in the process.

My role is to coordinate with the gifted teachers, um, making sure we get a chance to share strategies and share challenges and discuss successes. And, not just successes…but just see how we can help our kids meet their academic and social-emotional needs.

In addition, teachers had professional learning opportunities on differentiation. Ms. Crystal explained the professional learning opportunities addressed “how to meet the needs of the higher performing students and the lower performing students.” Furthermore, the teachers attended professional development on vocabulary development, but Ms. Quartz stated, “I don’t know that we’ve had anything recent that was specifically for gifted students.”

However, the structure of the teams, as well as the commitment from the administration and the teachers to meet the needs of gifted learners created opportunities for collaboration and professional learning. For example, Mr. Kline described Mrs. Byrd’s commitment to gifted learners and expanding “real world application” and “problem-based decision making” into the classrooms of gifted learners.

I know in the last four years…when she was going to UGA, and she’s always in my office with this is what we’ve got to do…you’ve got to start pushing it to your
teachers. You’ve got those gifted teachers and you are observing in their classrooms start pushing it to kids.

Summary

The principal of Parkside emphasized that meeting the needs of gifted and talented students required making a “cognizant decision … It really has to be intentional…because…you can get wrapped around that CCRPI and student achievement number and closing that achievement gap. You can lose sight of those top-end kids”. To keep the needs of the “top end kids” from becoming lost, the administration and educators tasked with meeting the needs of gifted students made it a priority. Gifted students’ needs were not determined by one test on one day or a specific label. Students were viewed as having a myriad of multi-dimensional needs and as individuals. At Parkside, within the middle school philosophy of educating the “whole child,” each identified gifted student was served in advanced content classes using not only test scores but also teacher recommendations to give students “those opportunities.” It’s not just based on test scores,” according to Mr. Kline.

The middle school concept of teaming was an important consideration at Parkside for meeting the needs of gifted students. Science, social studies, language arts, and math teachers were placed in classrooms close to each other facilitating access and collaboration. Based on the number of gifted eligible students and the number of teachers with gifted endorsements, decisions were made about the configuration of teams and placement of gifted students. Gifted students were grouped on one academic team in each grade level where advanced content classes were offered in science, math, language
arts, and social studies. The curriculum and instruction in the advanced content classes were designed to be more rigorous than on grade level classes.

Teachers in the advanced content classes used curriculum compacting, enrichment, or acceleration to meet the needs of gifted students. In addition, student choice and project-based learning was a large part of meeting the needs of gifted students in the advanced content classes. In some instances, the needs of a gifted student were best met in an appropriate academic class off the team. For example, a student in an advanced content class in language arts needed an on level or co-taught math class with two teachers on another team, and that option was available.

Formative and summative assessments were used to assess the needs of gifted learners and facilitated differentiation of content and teaching strategies. Assessments, other than paper and pencil and multiple choices, such as projects or problem-based learning, were options for gifted learners where they demonstrated mastery of the content and standards. After assessing students’ individual needs, a strategy used by teachers involved bringing in high school standards and accelerated students to higher academic levels based on student readiness. Another way that instruction was differentiated was through student choice which met the needs of students who were not only academically gifted but students who were creatively or artistically talented.

Professional learning opportunities helped meet the needs of gifted and talented young adolescents at Parkside when educators collaborated and through a commonality of purpose worked to meet their needs. The intentionality of meeting the needs of gifted students at Parkside, while a challenge, was guided by the gifted coordinator, the
principal, and other educators at Parkside. Structuring the school within the framework of the middle school philosophy and Lighthouse, Mr. Kline incorporated tenets such as educating the “whole child” to meet the needs of gifted learners. There were challenges acknowledged by educators at Parkside, in the age of accountability, to meeting the needs of gifted students. However, Mr. Kline emphasized that it was an achievable goal and within the middle school philosophy and the tenets of Lighthouse “we have a lot of flexibility with that. But, that is intentional.”

Mountainside Middle School

The third participant school, referred to by the pseudonym Mountainside Middle School (MMS), was a Georgia Lighthouse School to Watch located about thirty miles from a major city in a county with a population of approximately 221,000 people. The median income of residents in the county was $92,000 with the per capita income around $38,000. Approximately six percent of the population of the county were persons in poverty.

Mountainside Middle School opened in 2002 to help alleviate overcrowding of two of the counties other middle schools. MMS had a student population of approximately one thousand with 80% White, 11% Hispanic, 3% Black, 3% multi-racial, and 3% Asian. Students were placed into classes on hallways that were organized by grade level. The school was going through a transition. During the next school term, students will be placed on teams with teachers from each academic content area, science, social studies, language arts, and math. Approximately 16% of the student population qualified for free or reduced lunches. Students eligible for gifted services after
completing the gifted referral process were 22% of the student population or two hundred twenty students. The ethnic/racial demographics of the identified gifted and talented students were 84% White, 6% Asian, 5% Hispanic, 3% Black, and 2% multi-racial.

MMS was part of a school system approved as a Strategic Waiver School System (SWSS) in 2015. Two areas identified in the waiver contract gave MMS flexibility in gifted programming and implementation of the middle school philosophy. As part of the waivers granted, MMS exercised discretion in the models used to serve gifted students. In addition, teachers without gifted endorsement could teach eligible gifted students.

Middle School Philosophy and Gifted Education at MMS

The principal of Mountainside Middle School (MMS) referred to by the pseudonym Mrs. Parsons, talked about the “journey” taken by administrators and faculty of MMS when they moved from a school structure which was departmentalized, like a junior high, to a middle school based on the middle school philosophy and Lighthouse Schools to Watch©. Prior to being designated as a Georgia Lighthouse School to Watch©, the needs of gifted learners were met using a pull-out model. After the administrators implemented “true teaming,” teams organized with science, social studies, math, and language arts teachers grouped together, the pull-out model was discontinued. Instead, gifted students were placed on all teams where their needs were assumed to be met, and all teachers were teaching gifted students. Over time, the administration, along with the faculty, observed a drop in the school’s College and Career Ready Performance Index (CCRPI) score and determined “we are not growing our kids academically” particularly gifted and special education, according to Mrs. Parsons.
In response, after a period of data analysis and contemplation, the school was restructured back to grade level hallways. Strategies designed to meet the needs of gifted and special education learners were implemented. There was a vision of returning to teaming with some changes in place. Mrs. Parsons stated, “And, so, we’ve been trying to figure out how we can get the best of both worlds.” The assumption was the best of both worlds would meet the needs of gifted learners while educators implemented tenets, particularly “true teams,” of the middle school philosophy.

The journey began when the previous administrators and teachers at MMS explored options and tenets of the middle school philosophy. The journey involved “a lot of professional learning … as well as education into the “teams … along with the middle school Forum Lighthouse Schools.” The result was a school structure where “every classroom had a house and every house had a team, and, then, every team had a community.” Mrs. Parsons reflected that “It had a team of sixth grade, a team of seventh grade, and a team of eighth grade in that hallway…They went from sixth to seventh to eighth and they were all a part of that revolution community.” The “philosophy behind all that … was a great philosophy,” according to Mrs. Parsons. The positive components of the school organized into communities inside a school with “closed teams” was seen when the students felt “welcome in sixth grade” according to Mrs. Parsons, and with improved “discipline” along with teachers having a sense of ownership for the students on the team.

Ms. Brooks, a 6th grade language arts teacher, commented in an interview, “The team concept is really where you take five homerooms, and they sorta’ cluster together
and those five teachers sorta’ have ownership of those students.” The teams, as structured at MMS, had positive components, when fully implemented. However, “The pure teams or the schools within the schools” as described by a teacher also presented some challenges. The administrators noticed a downward trend in the school’s CCRPI scores. Mrs. Parsons stated, “Our CCRPI was dropping…our achievement scores were dropping…I was, like, so what is going on with this?” In response, the school leaders began a journey to uncover the cause of the downward trend in scores and to look for opportunities to meet the needs of all students.

The journey continued as a team of school leaders were tasked with the job of exploring the problem, dropping CCRPI scores, by delving into the data. The leadership team did research by “looking at other districts, looking at other states, um, how they were best meeting the needs and brought that information back,” added Mrs. Parsons. Furthermore, “With all of our assessments and everything…we were teaching straight to the middle.” Mrs. Parsons also noted that the End of Grade Assessment (EOG) data from the Georgia Milestones indicated that the middle-level scores were good, “I mean, we’re, like, 90th percentile…across the board. Doing okay, but my gifted advanced or the accelerated…was really low compared to the number of gifted advanced kids and segments we have in our building.”

With that knowledge, Mrs. Parsons and the leadership team began a new journey to find out how to meet the needs of students in the top and bottom percentiles. According to the data and the analysis by the leadership team, the students in the middle were doing well. However, the gifted learners were not showing growth according to the
data, and the leadership team concluded to increase the CCRPI scores and to meet the
needs of gifted learners, a change was needed. The leadership team continued the
process of educating themselves on what other schools were doing to meet the needs of
the gifted population of students and proposed options.

Mrs. Parsons noted, “We really spent some time over the summer with our
leadership team really looking at the data, looking at our schedule, uh, looking at our
teams and figuring out what was best to meet the needs of all of our kids.” With the
realization that “something was missing for our gifted advanced and our special ed”
According to Mrs. Parsons, “we ended up … specializing a little more this year.” The
school structure moved away from the pure teams, and with the reorganization, the
hallways were organized based on grade levels.

Mrs. Parsons commented, “I don’t want to go away from teaming, but right now, I
have to back up and punt and figure out how we can do this better because we’re not
meeting the needs of our students.” Whereas, there was more specialization of teachers
who taught gifted students in advanced content classes and teachers who taught special
education the school continued in transition. The journey involved changes for the next
school term based on lessons learned according to Mrs. Parsons.

So, we went away from a little bit of team, and that is what we’ve missed so much
this year. It has been a very interesting journey, um, because I’ve had teachers
come up and say, we just don’t feel like we’re connected because even though we
have grade levels we don’t meet with our four or five content teachers and discuss
those kids. We don’t know them as well because that teacher is down the hall,
and we don’t have our teams. Which is great, because I needed them to come to that realization … I think that my personal philosophy on what we do for our students, for our kids, is in tune and just straight in line with what the middle school philosophy is. And, that is looking at the whole child and not just at, um, achievement by itself…Whereas to me, the middle school philosophy is a huge piece of what we should be doing for all students.

To meet the needs of gifted students at MMS, within the middle school philosophy, the leadership team continued to learn and moved in a new direction. When deciding on how to meet the needs of gifted students, Mrs. Parson stated, “I very much listen to the teachers about what they want for their school. This is not my school.” The journey was a collaborative effort between all the stakeholders: administrators, teachers, parents, and students.

The process involved a change in the structure of the school from pure teams and communities within the school to students grouped in hallways based on grade levels and more specialization for gifted and special education students. For the next school term, Mrs. Parson concluded, “The realization for the majority of my teachers is that they have missed the true teaming, so we are back to this point where I am building, um, teams again.” The challenge was to combine the positive tenets of pure teams with enough specialization to meet the needs of gifted learners.

Grouping of Gifted Students

Students identified as eligible for gifted services were served in advanced content classes with students identified as high achievers and/or in accelerated math. When
MMS is restructured into academic teams for the next school term, gifted students will be dispersed on each team where they will be served in advanced content classes. In addition, a strategic waiver from the Georgia Department of Education gave Mrs. Parsons options for placement of gifted learners by allowing teachers without gifted endorsement to serve gifted students.

We still have that IE² [systems under the IE² flexibility option became known as Strategic Waivers School Systems] where we could teach gifted advanced without having to have that gifted advanced add-on or course...Just because they were gifted endorsed were they going to be teaching that gifted position...Looking at really and truly how they can grow students especially at the higher level because it is so much more difficult to grow them at that higher level.

Mrs. Parsons shared the question she contemplated when grouping gifted students.

How can we stay specialized without creating elitist teams? I will not do that. I just totally am against having that one team of gifted advanced. That’s not the way that I need them to understand all kids.

A student identified as gifted and talented based on the GaDOE eligibility criteria was served at MMS for a minimum of five segments per week in science, social studies, English /language arts or math. Students were placed in one or more advanced content classes based on individual needs. An option for placement was the accelerated math track starting in the sixth grade. Placement into the accelerated track for math, for a rising sixth grader, was determined based on the Iowa Acceleration Scale, criteria from
parents, teachers, and the student. Once determined eligible for the accelerated math track, the student was served based on the Georgia Standards of Excellence for accelerated math in the sixth, seventh, and eighth grade.

Eligible gifted students were placed into advanced content classes with students identified as high achievers based on a set of criteria. Ms. Brooks elaborated,

The fifth-grade teachers do a pretty good job of identifying those kids that need that extra, that can handle it. Especially those ones that are advanced that are not gifted. They generally belong there. In fact, sometimes they are higher achieving than the gifted kids.

Placement was determined based on a set of criteria which when calculated constituted a point system. Mrs. Parsons described some components used when determining the placement of gifted and high achieving students into advanced content areas:

- Is the student eligible for gifted services?
- Is the student moving up or down a level?
- Does the student need math or reading literacy?
- What were the student’s previous two years Milestones scores?
- What is the student’s current class average?
- Does the student grasp new concepts?
- Does the student require recovery or retesting?
- Does the student require minimal directions?
- Does the student consistently complete classwork and homework?
• Does the student go above and beyond?
• Does the student produce high-quality work?

Teachers completed a spreadsheet where each student was assessed based on the criteria. Then, the results were used by the administrators. Mrs. Parsons expounded on the process used to recommend students for placement in advanced content classes for the following academic year.

So, anyway, all of that is produced here, and then, it gives you the scores. Um, for the teams we’ve created it goes back here. So, this child now, it drops in, so, they now have an ELA placement, a math placement, a science placement, and a social studies placement, and then, we also have a fifth academic. Does that child need enrichment or do they need a literacy reading or a literacy math for an extra support? That helps give us our numbers for what types of sections or segments we need.

To meet the needs of gifted learners at MMS, students were grouped based on teacher recommendations, Milestones test scores, and in the case of the accelerated track, the Iowa Acceleration Scale and parental consent. In addition, the needs of a gifted learner were met on each academic team in the content area in which the learner was identified as being successful.

Advanced Content

The desire to meet the needs of gifted learners at MMS was evidenced in educators’ descriptions of advanced content classes. The journey continued while the leadership team, teachers, and students, were going through a transitional phase. Mrs.
Parsons described how the instruction for gifted learners was organized when the school was structured into “pure teams” and why there was a need for change.

We had teachers, the concept was good, I think that they had at least a gifted person on every grade level that was supposed to be assisting all of those teachers on how to teach at a gifted level or advanced level, but it wasn’t happening…We were teaching straight to the middle.

As a result, changes were made to offer specialized courses for meeting the needs of gifted learners. Specialization involved moving back to grade level hallways. Ms. Brooks noted, “There is at least a gifted teacher that is teaching accelerated gifted advanced classes at every subject.” According to Mrs. Parsons, for the next school term, as the school moves back to more teaming, “There will be at least one segment gifted advanced with other students who are on-level on this team 6th, 7th, and 8th, grades.”

Teachers who taught students in the advanced content classes were carefully selected by the leadership team. Mrs. Parsons described teachers who taught students in advanced content classes as being strong in building relationships. Additionally, she noted, “They know gifted content. They know how to grow those kids…They have high expectations.” As a result, the intent to meet the needs of gifted learners involved making decisions to place teachers and students in advanced content classes based on individual needs and characteristics of both teachers and students.

The needs of gifted and talented young adolescents in science, social studies, ELA, and math, were met using the advanced content model. Eligible gifted students were grouped into classes with identified high achievers where the curriculum and
instruction were designed to be different from on grade level classes. Ms. Brooks described the difference between on level classes and advanced content classes when she said, “I do think I really have two separate planners, and two separate, the standards are the same of course, but you know, that, um, just a different approach.” The educators teaching students in advanced content classes engaged them at a higher level, and according to Ms. Sparks, “Advanced gifted content shouldn’t necessarily be more work, it just should be more rigorous and you should be asking more of them.” Teachers designed lessons to meet the needs of gifted learners by implementing different teaching strategies in advanced content classes.

Teachers at MMS described how they designed and implemented instruction to meet the needs of gifted learners in the advanced content classes in a variety of ways. Ms. Sparks explained, “I basically work through advanced content that spirals up to ninth all the way up to tenth grade standards, um, based on the individual needs of the class.” The classes were designed around grade level standards since the students take the Georgia Milestones at the end of the school year. However, the teachers met the needs of students in the advanced content classes by going deeper into the concepts or moving to higher academic levels. A sixth-grade science teacher, Mr. Rhodes, commented, “So, I really take the standards, teach them what they need to know first, and then we dive deeper into what they are interested in.” Opportunities for gifted learners to delve deeper into concepts or to rise higher was based on teachers’ curriculum choices and their understanding of the unique needs of gifted learners in advanced content classes.
Accelerated Content. One way that the needs of students who were mathematically gifted were met at MMS was through the accelerated content track which began for students in the sixth grade as seen in Table 14. Curriculum for accelerated math courses in sixth and seventh grade followed the pacing guides from the Georgia Standards of Excellence for sixth and seventh grade accelerated math. Mrs. Parsons explained that the accelerated math track was “huge” and a major commitment for students. When students were in the fifth-grade, parents were involved and educated about the components of the math track.

We’re inviting parents at our fifth-grade feeder schools to come in before they ever step foot in our schools and meet with our high school AP our high school counselor, so they can understand…You need to think about it if you’re going to put this child into the accelerated track.

Prior to entering the sixth-grade students were evaluated for placement into the program. The process of identifying students for the accelerated track involved using the protocols of the Iowa Acceleration Scale (Acceleration Institute, n.d.) which required evidence from:

- Teacher/parent checklists
- Student/checklists
- Psychological testing/standardized testing
- Anecdotal evidence
- Student work and school history, and
- Curriculum-based assessments
Students in the accelerated math track completed all the sixth-grade content standards and half of the seventh-grade standards while in sixth grade. In seventh grade, the students finished the seventh-grade standards and completed all the eighth grade. Once a student entered eighth grade he/she was in an advanced high school level class with content from all the ninth grade and half of the tenth-grade year. “So…they do…stuff you and I did back in tenth and eleventh grade and there really is some Algebra II in there. So, that’s kinda’ the course itself is so challenging” remarked an eighth grade accelerated math teacher, Mr. Barber.

Table 14

**MMS Accelerated Mathematics Track**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Course</th>
<th>Mandated Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>6th Grade</td>
<td>Accelerated Mathematics 6/7A</td>
<td>Georgia Milestones</td>
</tr>
<tr>
<td>7th Grade</td>
<td>Accelerated Mathematics 7B/8</td>
<td>Georgia Milestones</td>
</tr>
<tr>
<td>8th Grade</td>
<td>Honors Coordinate Algebra</td>
<td>Georgia Milestones 8th Grade End of Course</td>
</tr>
</tbody>
</table>

In the eighth-grade eligible students were taking high school level math and earning high school credits as well as taking the end of course test. For students completing the accelerated math track, “it is really going to put them at a very high-level math class by the time they graduate from high school” according to Mrs. Parson.

In the eighth grade, a high school level physical science class was offered to students who needed an accelerated option for science. Students who moved through an
advanced content in science in sixth and seventh grade and met the criteria for placement had the option to take a high school level physical science. The school system previously required all eighth-grade students to take a ninth-grade physical science class. After implementing the Georgia Standards of Excellence in science, the school system realized “they are not closely aligned to the eighth-grade curriculum and to the high school curriculum” observed Mrs. Parson. As a result, two different courses were offered. One physical science course was aligned to the eighth-grade standards whereas the other course was more rigorous and aligned with high school standards with higher level chemistry and math. Mrs. Parsons noted,

Where they had made everybody in eighth grade do high school physical science, I have kids who are struggling big time...The central office created a separate spreadsheet, um, for criteria which gives us a cut score on which students, um, definitely show that they are going to be able to handle that high school physical science.

Differentiation. Ms. Sparks made the point that “even within a gifted advanced class you’ve got” students who do well on tests and are “pretty smart,” but “you also have that insanely just profoundly gifted kid that is just over the top, so you have to make adjustments and differentiate within that class too.” Understanding the diversity of gifted learners and recognizing that differences existed created opportunities for teachers at MMS to meet the needs of gifted learners and make individualized changes. Differentiation for teachers at MMS involved constructing learning environments where gifted students were challenged to move to higher academic levels when ready, given
choices in assignments, worked at individualized paces, collaborated, and demonstrated critical thinking.

Students’ choosing assignments was one way teachers differentiated for gifted learners based on interest and readiness. Lessons were “self-paced” in Mr. Rhodes’ science classes. When students demonstrated content mastery, opportunities were provided for “in-depth” research in areas that they chose. Differentiation based on a student’s learning style was used as well, and “If they want to look and write stuff down, but that goes back to that choice” he also shared. “There is always a list of usually four to five different things that the kids can choose” for assignments in Ms. Sparks seventh-grade language arts classes. In addition, she stated, “Sometimes it has to do with a musical element…There’s a writing choice…There is always an artistic choice. Student choice is probably one of the bigger things that happens in my room for my gifted kids.”

Student choice met the needs of gifted and talented young adolescents by challenging them to grow in areas of strength such as music, writing, or art, as well as subject content.

In addition, when teachers “ask those what else questions it helps them pick” the topic that they want to delve more deeply into according to Mr. Rhodes. “Through the choices that we give them” the needs of students who master the standards at different rates were met according to a science teacher, Ms. Jordan. She described how differentiation based on choice was used in her classes, “If they know it by Tuesday, then on Wednesday and Thursday, they are able to explore what they want to.” For students who mastered the standards quickly, their needs were met when they delved deeper into the concepts based on interest, whereas students who required more time to achieve a
level of mastery had additional opportunities for their academic needs to be met through remediation. “It is self-paced…but as long as we get those initial standards first, then they are really able to go wherever they want” continued Ms. Jordan.

By understanding where students were academically and knowing how to move students up to higher academic levels based on individual needs, the teachers at MMS met the needs of gifted learners. Content from higher grade levels was presented to students who needed more challenging material. Mr. Barber explained he brought in Algebra II level math problems for “the ones that I feel can handle that challenge…I give them that higher level content.”

Teachers met the individual needs of gifted learners by creating opportunities for students to achieve higher level academic skills and to move beyond grade level standards. To meet the students’ needs “I kinda’ see where they are and see how far I can take them” added Mr. Barber. Teachers first understood where students were academically, then, gave “them harder material” based on individual needs according to Mr. Barber.

An eighth-grade social studies teacher, Mr. Green, explained that “a good way to, uh, differentiate with multiple learners” was to allow students to explore “multiple perspectives” through the use of primary sources. Multiple perspectives from different primary sources were examined based on a student’s level of cognition and ability to communicate ideas. As a result, the complexity of the assignment created opportunities for students with differing abilities to express ideas based on individual strengths. In addition, by utilizing “collaboration” Mr. Green created an environment where students’
were exposed to multiple peer perspectives. Ms. Sparks described a challenge to meeting the needs of gifted students through differentiation, “Sometimes it is difficult because you will have a class of brilliant students and then there will be a couple who are just, like, they were certified gifted at such a young age. But, I don’t see it”. She explained when meeting the needs of students through differentiation, “It’s about them” not about a label. By understanding the students in their classes and looking at students’ individual needs, the teachers met the needs of gifted learners even though it was challenging.

Higher Level Learning. The needs of gifted learners were met by teachers at MMS when they increased expectations for student mastery, changed the course content, modified instructional strategies, and challenged students to think at a higher level. Ms. Sparks’ language arts class was “dubbed as brain pain” because she encouraged the students to complete assignments which challenged them to grow intellectually. Teachers’ high expectations for gifted learners led them to initiate learning possibilities for students where they creatively demonstrated independent ideas. Ms. Sparks described the students’ initial reaction to her challenge.

“All of the work was based on ninth and tenth-grade spiral language arts standards, and you could literally see, like, the steam coming out of their ears. And, they were just like, are you serious right now?” Ms. Sparks was serious and the students’ needs to experience higher order thinking were met. The instructional plan to critique photos by M. C. Esher was executed over a two-week period, and students felt successful. Ms. Sparks reflected the students’ sentiment, “And, they’re, like, that was the hardest thing I’ve ever done in my life, but I like it.”
Mr. Barber encouraged students to “think for themselves, or learn how to go after information.” His commitment to instruct students on how to build knowledge independently reinforced his belief that students could “pretty much figure anything out if they just put in that little bit of effort, and so, that’s one of my favorite places to see success.” Meeting the needs of gifted students through problem-solving based on information in primary documents was a strategy used by Mr. Barber. He stated his approach was “to train my students to think more like a historian using activities that I would imagine that people would not get until reaching the collegiate level.” He used higher level thinking lessons to encourage students “to take risks” and to take ownership of their own learning, as well as to become confident learners. Mr. Rhodes observed,

Some kids are starting, who at the beginning of the year every single word that they would come across they would come up and ask me, is this right? Is this right? Yes, it is right…so, seeing them being able to, you know, I got this. I know it’s right, so I can move on to the next thing. I like doing that.

The process of meeting the needs of gifted learners in the teachers’ classes consisted of an array of strategies. Ms. Brooks described assignments where students learned “persuasive techniques…they learn, like, fifty-five different techniques of propaganda, and they recognize them…they do research, and then play, like, a deductive reasoning game.” In addition to speaking opportunities, such as an oratorical competition where the students wrote a speech and delivered it, Ms. Brooks explained, “I do a lot of vocabulary work. They complain about it, but I hear from them in high school that it helped them out, you know, um, successes.” Students also had opportunities for
competitive activities like the academic bowl where “they learn[ed] a lot” according to Ms. Brooks. Gifted students used research skills and collaborated to “answer the question, uh, whether the reconstruction period hindered the healing process in the post-civil war period” by analyzing “cartoons from a number of Harper’s Weekly Magazines from the late 1860s and 1870s.”

Mr. Green elaborated on the process when he said, “so, we are training them to think more like a historian.” In addition, students “created” a dichotomous key in Ms. Sparks science classes “from scratch.” Ms. Brooks used cartoons where the students identified idioms and “their origins.” She used a different instructional approach to teach idioms in the advanced content class and the students “report[ed] out what they mean and where they came from.” Mr. Green remarked, “It’s not about grades, and thirty years from now you’re not even going to remember what kind of grade you got in eighth grade, but, um, you will remember you did something cool.”

Assessment. Assessments at MMS were part of the journey of change. After the leadership team analyzed data to determine possible causes for the dropping trend in CCRPI scores, they reported students in the top percentiles and students in the bottom percentiles were not showing as much academic growth as students in the middle. Students scoring in the middle, students who demonstrated proficient mastery or level three as measured by the Georgia Milestones, were doing well. Mrs. Parsons stated, “The data showed we were teaching to the middle.” Science and social studies were no longer assessed on the Georgia Milestones, and Mrs. Parson stated, “I know nobody likes assessment but at the same time…it is very hard…in sixth and seventh grade science and
social studies for us to really measure growth on our students.” The change in standardized assessments prompted Mrs. Parson to consider ways to help science and social studies teachers find “answers on if they are growing their kids in the content.” The Georgia Milestones testing provided information on students in math and language arts in sixth, seventh, and eighth grade.

Ms. Brooks reflected on the levels of difficulty in Georgia’s previous standardized assessment the Criterion-Referenced Competency Test (CRCT) which was discontinued after the 2013-2014 school term, and the Georgia Milestones Assessment System which was begun during the 2014-2015 school term.

I think the Milestones testing is more difficult. I think it is good. I think that the CRCT got very, very, easy. The longer it was around, the more people knew what to expect, and teachers knew and kids knew and it got to be a little inflated. I think, uh, some parents thought, oh, they exceeded in everything, so they should be in the advanced or gifted classes. I think this Milestones is considerably harder with the writing, uh huh, and that holds a lot of kids back.

Since science and social studies content were not assessed on the Milestones to obtain data on student growth, the science and social studies teachers will be creating assessments to be used as pre- and post-measures. Mrs. Parson explained the teachers will “be looking to build…their own pre-post-test assessments.”

When considering ways to meet the needs of gifted learners, Mrs. Parsons determined that changes were needed in the assessments created and given by teachers. A group of lead teachers, selected by the administration, analyzed teacher made
assessments in each content area and reported the assessments were designed to measure learner outcome at the middle level. Not only were teachers teaching to the middle, but they were also assessing middle-level content. The assessments were not evaluating higher level content for students in the top tier learning categories. Teachers were doing a really good job assessing and meeting the needs of students in the middle, but changes were needed in how to assess gifted students’ content mastery at the higher level and to meet their academic needs.

After conducting a period of research, Mrs. Parsons and the leadership team decided teachers would be educated in creating assessments to assess higher level thinking skills based on the Depth of Knowledge (DOK) guidelines from the GaDOE. Teachers were instructed on how to write assessment questions on the higher quadrant of the DOK, extended thinking, and how to determine the DOK level of a question in an assessment. Science, social studies, ELA, and math teachers, known by Mrs. Parsons to be “very good assessment makers,” reviewed assessments by other teachers. The process facilitated teachers creating assessments which evaluated higher level thinking skills to meet the needs of gifted learners.

Mrs. Parsons shared, the understanding of teachers “evolved” and the teachers have begun to realize “we’re not using all level ones or quadrant one questions, or you know, they know that we had to increase the rigor in our questioning in the classroom and on our assessments.” For accelerated math, Mr. Barber stated that assessments in his classes “are pretty standard.” However, even in accelerated math, Mr. Barber used “multiple choice, and then, the second day is free response…I try to give them exposure
to all kinds of test questions, but its pretty rigorous.” Ms. Jordan described how she differentiated her assessments for students in her advanced content science classes and explained she identified the DOK levels of the questions on the test.

I just finished my test for tomorrow and trying to make sure that I don’t just give more…I have the fewest questions on my advanced gifted level tests, and they are hard…and, making sure there are different types of questions like multiple responses so not just one correct answer, but several correct answers and they have to get them all.

Mr. Green reminded he used different types of assessments.

I mean it doesn’t have to be pencil paper type test. A Socratic seminar could be an assessment. A Document Based Question (DBQ) could be an assessment, um, you can use all kinds of stuff …It is nice to mix it up. The kids appreciate it.

“We certainly write more, [and have] fewer paper-pencil tests. More project-based assessments or reports” added Ms. Brooks. Using different types of assessments to meet the needs of gifted students was a strategy that the teachers used. As a result, they were incorporating higher level questioning, multiple answer questions, and alternative assessments such as project-based, primary documents, and DBQs.

Professional Learning Opportunities

Learning as professionals was an important component for administrators and educators at MMS. When the school made the transition from a middle school organized like a junior high to a true middle school based on the middle school philosophy and the requirements for the Georgia Lighthouse Schools to Watch professional learning and
collaboration were used. Exploring and learning was part of the process. As the school became structured like a middle school, “the previous principal” and teams of teachers did “a lot of professional learning through Ron Clark Academy, according to Mrs. Parson. The process included professional learning in the tenets of the middle school philosophy found in *This We Believe*.

Professional learning included teachers and staff studying how other school districts and states were “best meeting the needs” of gifted learners. The collaboration was part of the professional learning opportunities at MMS where teachers and staff shared and learned from each other. Utilizing data from assessments and in-depth research provided information which was disseminated to educators at the school. For example, Mrs. Parson stated the “instructional grad coach has been meeting with each content team and making sure they understand” the process of evaluating and recommending students for advanced content classes. Furthermore, the instructional technology specialist instructed teachers on the different types of questions which will be on the Georgia Milestones tests.

According to Mrs. Parson, teachers had an opportunity for collaborative professional learning during a “district collaboration day.”

I had them meet as a vertical team, um, I let them choose where they wanted to meet. But, they had several tasks, and that was, they each had to bring a gifted/advanced assessment…and an on-level assessment…I wanted them to switch…I wanted them to provide feedback, um, and specific feedback on, um, the rigor of the questions.
Professional learning was used to meet the needs of gifted students when educators had opportunities to build knowledge of the characteristics of gifted learners, instructional strategies to use, and how to increase the “rigor” of questioning and assessments in the classroom.

Summary

Components of the middle school philosophy such as “teaming” and “relationship building,” as well as educating the “whole child” aligned with Mrs. Parsons’ “personal philosophy on what we do for our students.” The complexities of structuring a true middle school and meeting the needs of gifted students was an impetus for the leadership team to learn best practices for middle school and gifted education. The educators at MMS expressed a commitment to meeting the needs of gifted learners, and the leadership team sought to discover what worked at other schools and in other states.

The school organization and structure was not “true teams” of teachers and students but hallways where teachers and students were grouped based on grade level. However, Mrs. Parsons was building teams of teachers and students for the next school term. The leadership team’s plan was to bring back components of the middle school philosophy, particularly teaming, and to implement successful strategies for meeting the needs of gifted students.

Eligible gifted and high achieving students were placed into advanced content classes based on a specific set of criteria, test scores, and academic performance. The curriculum and instruction in the advanced content classes were differentiated to meet the needs of individual students by giving students choice on assignments based on interest
and readiness. Students who mastered concepts and standards quickly conducted research and delved into concepts more deeply or did accelerated lessons to master higher level standards. In addition, students completed higher-level learning materials and lessons based on primary sources and solved problems using analysis.

Students who qualified for the accelerated math track in the sixth grade based on the Iowa Acceleration Scale (Acceleration Institute, n.d.), Milestones Test scores, and academic success, received an accelerated math curriculum based on the Georgia Standards of Excellence (GSE). Accelerated options in science were offered in the eighth grade where a high school level physical science class was available to eligible students. Besides accelerated math, students in the advanced content classes were given accelerated high school standards to master when teachers designed lessons and projects based on higher level standards.

Formative and summative assessments were used to evaluate the needs of gifted students and to determine their level of mastery. To meet the needs of gifted students through assessment, teachers at Mountainside received professional learning in critiquing and writing assessment questions based on the four Domains of Knowledge (DOK). Teachers identified the DOK level of questions on assessments, then they built assessments based on higher level thinking skills. In addition, teachers collaborated on assessment creations, and for science and social studies teachers, pre- and post-tests were authored to evaluate student academic growth.

Professional learning opportunities facilitated understanding for educators of the middle school philosophy, Lighthouse, and how to meet the needs of gifted learners. In
addition, through collaborative efforts, the graduation coach and the instructional
technology specialist instructed teachers on assessments and DOK questioning.
Professional learning occurred for administrators on best practice and meeting the needs
of students and teachers through face to face meetings. Mrs. Parsons explained,

I meet with students sixth, seventh, and eighth grade on a regular basis to find out
what we are doing good. What can we do better? Uh, what do you like? What
do you not like? So, I meet with them on a regular basis and with parents, um,
and with teachers.

Meeting the needs of gifted students and implementing the middle school philosophy had
a level of complexity and challenge as described by educators at MMS. In a sense, it is a
balancing act. “I am trying to balance it … I'm not sure. We will see, but, anyway that
has been a lot,” Mrs. Parson revealed when talking about organizing teachers and
students into teams while meeting the needs of gifted students. At Mountainside Middle
School there was an acknowledgment by the educators that gifted students have unique
needs and a commitment by the leadership team and educators to work collaboratively to
meet their needs while implementing the middle school philosophy.

Cross-Case Analysis

Attributes and characteristics from *This We Believe: Keys to Educating Young Adolescents* (Association for Middle Level Education, 2010) and *Schools to Watch © Self Study and Rating Rubric* (National Forum to Accelerate Middle Grades Reform, 2013) were used as guides for the cross-case analysis. The findings were presented in the
categories of teams, whole child, academic excellence, social equity, and social-
emotional development since these were the attributes that emerged during the cross-case analysis. Furthermore, similarities and differences found in the data between participant schools’ gifted program delivery models, curriculum, instruction for meeting the needs of gifted and talented young adolescents, assessments, and professional learning were discussed in this section.

Table 15 shows examples of evidence in the data which demonstrated the attributes of teams, whole child, academic excellence, social equity, and social-emotional development. For example, when the principal from Southern Plains MS talked at length about how she achieved social equity at her school, then social equity was identified as a category for analysis. Other participant schools were found to have the attribute if the terms were used by a participant, or if it was inferred based on evidence.
Table 15  
*Attributes of Middle School Philosophy and Georgia Lighthouse Schools to Watch*

<table>
<thead>
<tr>
<th>Social Equity</th>
<th>Southern Plains MS</th>
<th>Parkside MS</th>
<th>Mountainside MS</th>
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<tbody>
<tr>
<td>“When you're talking about social equity”</td>
<td>“We have to make cognizant decisions. But, we are very aware that we have to serve our gifted kids, too, and they are very different, and our special ed kids are very different. Our gifted children are very different, too. They have different issues and different problems, but still, their needs are [important] just as our special ed kids [and] our struggling students.”</td>
<td>“I just totally am against having that one team of gifted advanced.”</td>
<td>“Each person still has their house or their homeroom time... they don't necessarily teach that child... but they have that time to build that relationship with those students. Every child has someone.”</td>
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<td>“To make sure we have equity on the third team.”</td>
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<tr>
<td>“We are not going to limit those opportunities just for that STEM team and those gifted kids. It is going to be done across the board for all kids.”</td>
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<tr>
<td><strong>Teams</strong></td>
<td>“You know, make sure we have teams that are set up that I would put my child on any team and opportunities for all kids.”</td>
<td>“We still have that middle school model where there is an entire sixth-grade team.”</td>
<td>“Going back to the teams, great ideas, um, great community, the kids feel so welcome in sixth grade instead of being a part of a “Oh my god those eighth graders.”</td>
</tr>
<tr>
<td>“You design your teams based on student need.”</td>
<td>“We try to give them time to collaboratively plan.”</td>
<td>“There is a gifted team in each grade and they will take care of all the gifted students... that collaboration piece.”</td>
<td>“So, what we ended up coming up with was the fact that we love the team base. We didn't want to lose that, but at the same time we felt like there was something that was missing for our gifted advanced and our special ed.”</td>
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<tr>
<td>“You have to find equity within the teams.”</td>
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<tr>
<td><strong>Whole Child</strong></td>
<td>“We try to pull that in there too because kids on paper and kids in person are two different kids sometimes. So, we look at multiple criteria, basically, to determine who the students are.”</td>
<td>“We are much more holistic we understand the importance of that one test on one day, but it is not what drives our decision. We try to look at the whole child.”</td>
<td>“That is looking at the whole child and not just at, um, achievement by itself.”</td>
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</table>
Table 15 – continued

**Academic Excellence**

“You talk about academic excellence… you identify kids that have missed the boat somewhere that we want to push and give them opportunities.”

“You’ve also got to look at those kids that are three and stretching them and getting them to four and most importantly challenging those kids that are four.”

“Looking at really and truly how they can grow students especially at the higher level because it’s so much more difficult to grow them at that higher level.”

**Social Emotional**

“That might not be the best thing as far as personality [and] socialization and all of those things.”

“What the social…emotional… The changes their bodies are going through, the self-esteem issues, figuring out who I am, how to set goals, how to plan, because a lot of those life skills that you are never going to see on a Georgia Milestones test.

“We can help our kids meet their academic and social-emotional needs.”

“The buzzword, the social-emotional needs, but, I feel like that is so funny because everybody is talking about the social-emotional needs.”

“We expect our kids to be respectful of themselves and others and more than anything care for each other and care for themselves.”

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**Social Equity**

To achieve social equity each middle school provided a myriad of educational resources and options for all students including gifted and talented learners.

Opportunities were provided based on individual needs of students and not a specific label. All students at Parkside MS “have those opportunities, [and] it's not just based on test scores.” In the same manner, students at Southern Plains MS “get the same opportunities. If the kid works hard, regardless if you have that label or not,” noted Ms. Sanders. Additionally, Ms. Sanders emphasized equity at Southern Plains Middle School when she said, “It is going to be done across the board for all kids.” A language arts teacher at Mountainside Middle School described how opportunities such as academic
bowl and an oratorical contest are “offered to the whole school” and not just gifted and talented students.

There were three teams at each grade level at Southern Plains and the eligible gifted students were placed on two teams. Yet, Ms. Sanders explained that equity was achieved when on the “third team, to balance our gifted programs, the high achieving students are going on there as well. And, they have the same options.” According to Mrs. Parsons, she will not choose to have “one team of gifted advanced,” because “that's not the way that I need them to understand all kids.” At Mountainside, students were grouped by grade level, however, the leadership team’s plan was to have academic teams for the next school term.

On the other hand, at Parkside “there is a gifted team in each grade, and they will take care of all the gifted students,” indicated Mr. Kline. Equally important, Mr. Kline emphasized, “When I got here my goal was to try to get every teacher in content area gifted [endorsed]” to have more flexibility and options for placing gifted students. In addition, teachers who taught gifted students at Parkside also taught classes of students who were on grade level, therefore while the gifted students were placed on one team due to student numbers and resources, equity was achieved through the heterogeneity of the overall student population on the team.

Academic Excellence

Educators at the three participating schools explained how they created equity by challenging all students to achieve academic excellence. For example, the answers discovered by the leadership team at Mountainside when Mrs. Parsons asked the
question, “Are we really doing what we need to be doing for them, uh, to be able to succeed at the higher levels are they getting the content and the higher-level skills?” led the school on a quest for academic excellence for higher level learners. Based on the data analyzed by the leadership team, Georgia Milestones scores and CCRPI scores, the academic excellence was evident for students in the middle level.

For higher level learners, the answer to the question was that the school could do more. The educators at Mountainside made a strong commitment to academic excellence for all students, and the school was in a transitory, learning, and implementation, phase. Ms. Sanders emphasized, “We tout to our parents that we want our kids to be high achievers absolutely, we want them to perform at the highest levels absolutely.” The lessons learned and the strategies implemented contributed to academic excellence for all students and provided greater opportunities for gifted students.

Comparatively, Parkside MS and Southern Plains MS created opportunities for gifted students to achieve academic excellence through the continuum of services provided, the programs offered, and the implementation of varied teaching strategies in the classrooms. Ms. Sanders explained, “I think you give them the rigor that is required of a course.” Likewise, Mr. Kline stated, “I mean they focus on the academics.” At each school, project-based learning was a strategy used which increased opportunities for gifted learners to achieve higher level learning skills. Similarly, Mr. Kline expounded, Applying that to a real-world problem and I think that’s where our kids really make that connection between what they are learning in the books and how they
are going to be able to use that…and, I think that’s very important for not just regular kids but also gifted kids.

In the same way, Ms. Sanders talked about changes in the science department where “community experts” were brought in to help students “solve real-world problems.” He continued, “Um, it’s kinda overtaken the whole science department.” Problem Based Learning (PBL), project-based learning, along with educators who were “really challenging our students to think on a higher level” even though the students “are not used to [it]” moved students to achieve academic excellence according to a teacher from Mountainside.

Whole Child

While academic excellence was an important goal for educators at each of the participant schools, all participants emphasized how decisions about gifted students were not made based solely on test scores, academic achievement, or a label. In other words, “kids on paper and kids in person are two different kids sometimes” according to Ms. Sanders. The sentiment was also expressed by Mr. Kline when he said, “I mean they focus on the academics and the structure, but they also look at what are you doing for that whole child?” In answer to the question, gifted students were given options to meet their individual needs at Parkside. For example, Mr. Kline explained,

That’s one thing I really like about the middle school model that we have here. If a kid is a very good ELA student but struggles in math, they may be identified gifted and be in the accelerated part of that ELA group in sixth grade, so, they
would go to a co-taught math class where I have two teachers. So, they get just a little more individual [instruction]. We have a lot of flexibility.”

Looking at the “whole child” included learning who the student was and how multi-dimensional that can be. Ms. Sparks illustrated the point when she said,

You run into the situation where you have, like, the twice exceptional student where they are in a co-taught math class because they have maybe some type of processing disability, but then, they can write like a college student.

Creating opportunities for gifted learners based on who they are, rather than a label, was one way the needs of gifted students were met at each of the participant schools. Ms. Sanders elaborated on the importance of seeing the “whole child” and looking beyond the label.

Um, you have less parents who are pushing for that label. Because back, you know, traditionally, you didn't get those extra things unless you had that label, you weren't given the attention to. Our parents understand now. They get the same opportunities.

Meeting the needs of the “whole child” at the participant schools meant careful placement of gifted students based on individual needs into the appropriate academic classes. To accomplish this, each principal used not only test scores, but also feedback from teachers, and student performance. With multiple criteria in place, Ms. Sanders pointed out that she “hand schedule[d] every kid in this building.” Like the way students were placed at Southern Plains, Mrs. Parsons explained students at Mountainside were placed into classes after “we pull in a lot of the criteria.”
Similarly, students at Parkside were placed into classes based on individual needs which were assessed beyond test scores. Ms. Byrd stated, “That is a really interesting thing to be labeled gifted.” She then asked the question, “What does it really mean?” Her point was that she considered the “label” but she recognized the needs of the whole child since being “gifted” for one student was different from being “gifted” for another student. She added, “I don't want to say to ignore that label, but to see what is going on in the classroom. So, to consider that label, but that label isn't the determining factor.” When meeting the needs of gifted students and educating the “whole child” the educators at the participant schools used multiple criteria to understand who the student was and what his/her individual needs were.

Social-Emotional Development

Part of educating the “whole child” was meeting his/her social-emotional needs, and understanding the needs of gifted learners can often be a challenge. Nonetheless, educators at the participant schools recognized the unique needs of gifted middle school students and implemented strategies to meet their needs. For example, Ms. Byrd revealed,

I get them, and I think because I get them, I'm able to craft an environment where not only they can learn, but where they can love to learn. And, where they are safe to struggle, and it is okay not to be perfect. And I think that [gifted] kids don't necessarily always feel that with their teachers.
Similarly, Ms. Slader explained how she advocated for gifted learners.

About like, when sometimes our gifted students are ignored, or, and, I'm not saying anybody does it in particular, or, for any reason or on purpose. But, sometimes when they, opportunities are not there for them like they should be. I, that is one thing I will stand up for because I feel like they deserve the best just like everyone else does.

Mr. Kline talked about the unique needs of middle school learners when he said, “So, they just grow up in different spots and different ages and mature in different ways.” His awareness of the nature and needs of young adolescents and how they change physically, socially, and emotionally, provided him with guidance when making decisions on how to meet their needs. In addition, the insight that the needs of “gifted children are very different, too,” means that special attention was paid to meeting the social and emotional needs of gifted adolescent students.

Mrs. Parsons spoke about “building relationships” and how each student at Mountainside had at least one person, his or her “house or homeroom teacher,” who took an interest in his or her social-emotional development. The climate of the school was one where students “build relationships” not only with their teachers but also with one another. In addition, according to Mountainside’s counseling department, they provided “a comprehensive counseling program that promotes…optimal personal and social skills.” Similarly, the counseling department at Southern Plains MS wrote, “We strive to promote a positive educational atmosphere.”
Each school had a diverse selection of clubs, organizations, and athletic activities, which students took part in to meet their social and emotional needs. Many of the clubs were for students with special interests such as the mountain bike club, the math team, junior thespian, or art attack (see Appendices J, K, and L). The participant schools’ connections courses were exploratory in nature and gave students an overview of different areas of interest to them. For example, band, chorus, or theater arts were connections classes at Southern Plains Middle School. Athletics were offered at all the schools, and in addition to the between schools’ competitive sports at Mountainside, intramural sports were also offered.

To meet the social-emotional needs of gifted students the schools offered a wide array of options designed to address individual student interests. The students had teacher advocates and supporters from administrators who understood their unique and diverse needs. Counseling options were available at each school for students who needed additional support, and the athletically gifted had options as well.

Teams

Moreover, an important component for meeting the social-emotional needs of gifted students was the implementation of teaming and how the teams were configured. Parkside MS and Southern Plains MS were organized into academic teams in sixth, seventh, and eighth grades. Mr. Kline reasoned that the collaboration piece was an important rationale for having teams.
So, we give them time … to collaboratively plan …I don't know if they are aware of this, but we try to keep their doors as close to each other as we can. So, they are talking about their kids.

Parkside, a smaller school, had two academic teams in each grade, and gifted students were served by gifted endorsed teachers in one or more academic area on the team. Whereas, Southern Plains had three teams in each grade and gifted students were served by gifted endorsed teachers on two teams. To “balance” the teams, Ms. Sanders placed high achieving students on all three teams. According to Ms. Sanders, the opportunities for students on all teams were equitable, “I would put my child on any team and opportunities for all kids.”

Conversely, Mountainside MS was organized by grade level and did not have “true teams.” Mrs. Parsons explained, “I think right before I came, in the year before I came in … every classroom had a house and every house had a team, and, then, every team had a community.” However, Mountainside transitioned away from “true teams” over the last three years. According to Mrs. Parsons, she and the leadership team had to “back up and punt and figure out how we can do this better.” The school’s organization was grade level classrooms on each hallway, but components of the communities were still in place. Each student had his/her “house or homeroom.”

Collaborative decision making based on research and the desire to meet the needs of gifted students brought about “a shift in, um, a mindset” according to Mrs. Parsons. The “shift in … mindset” led Mrs. Parsons to “build” teams again for the next school term, and was illustrated when she said,
The realization for the majority of my teachers is that they have missed the true teaming, so we are back to this point where I am building, um, teams again. And, so we've been trying to figure out how we can get the best of both worlds.

The “best of both worlds” will be classes specialized enough to meet the needs of gifted students “without creating elitist teams because I will not do that,” explained Mrs. Parsons.

Data from participant schools indicated that selecting teachers to teach gifted students, and placing gifted students on teams, was complex. However, each administrator expressed a commitment to meet the needs of gifted students while implementing teaming. Mrs. Parsons explained how the number of gifted identified students can affect placement decisions as well. “We don't have enough gifted identified. We might have forty-two kids that might be gifted identified. That's two classes, but because of my number of allotments … I need more seats.” At Southern Plains, the number of teachers with gifted endorsement was a determining factor for Ms. Sanders when she organized teams and decided where gifted students were placed. “If I had more [gifted endorsed teachers], I'd push them across all three teams.” Decisions by Mr. Kline on how to organize the teams to meet the needs of gifted students were influenced by the number of gifted endorsed teachers as well. He explained how changes occurred after “they came [and] took five of my [gifted endorsed] teachers away in one year.”

We really go back to last year. We really had to go to a gifted team. Some of those teachers taught sixth and seventh graders, and the other gifted team taught
seventh and eighth graders. This year we made a few moves around. I could get back to getting those gifted teams to each grade level.

Comparatively, at Southern Plains, the organization of the school and the teams “looks different from year to year.” Ms. Sanders “look[ed] at the numbers” of students eligible for gifted services as well as the number of teachers who were gifted endorsed. “So, I think at one point we had 50% of our teachers were gifted, and that was two years ago. So, we've had some fluctuations with teachers moving in and out.”

In contrast, based on the school system’s strategic waiver from the GaDOE, gifted students at Mountainside were served by some teachers without the gifted endorsement. However, Mrs. Parsons reflected, “I think that they had at least a gifted person on every grade level that was supposed to be assisting all of those teachers on how to teach at a gifted level or advanced level, but it wasn't happening.” Consequently, Mrs. Parsons was “building” teams for next school term and considering qualifications of teachers who will be teaching gifted students and how they will be organized on teams. For example, when describing teachers to be placed on teams where the needs of gifted students will be met, she said, “This group is high in building relationships … They know gifted content … They have high expectations.”

Meeting the needs of gifted students while creating learning communities of teachers and students on teams required “balance,” according to Mrs. Parsons. “It is a juggling act some years,” stated Ms. Sanders. “It really has to be intentional,” emphasized Mr. Kline.
Gifted Program Service Delivery Models

To determine students who were eligible for gifted services, students went through the referral and eligibility process as conducted by the Gifted Eligibility Teams (GET) at each school. Students qualified based on mental ability and achievement or three of four categories: mental ability, achievement, creativity, and/or motivation as described by the Georgia Department of Education (see Appendices D and E). Each participant school provided services for eligible gifted students by following guidelines in the Georgia Resource Manual for Gifted Education Services, as well as guidelines established by each LBOE. Equally important, within the guidelines, each leadership team autonomously decided how to meet the needs of gifted students at each school. As a result, there were similarities and differences in the gifted services provided at the participant schools to meet the needs of gifted young adolescents as seen in Table 16.
Table 16

Gifted Program Service Delivery Models

<table>
<thead>
<tr>
<th>Service Delivery Models</th>
<th>Southern Plains MS</th>
<th>Parkside MS</th>
<th>Mountainside MS</th>
</tr>
</thead>
</table>
| **Accelerated Math Track** | • 6th grade – 6/7A  
• 7th grade – 7B/8  
• 8th grade – Honors Coordinate Algebra | • 6th grade – 6/7A  
• 7th grade – 7B/8  
• 8th grade – Honors Coordinate Algebra | • 6th grade – 6/7A  
• 7th grade – 7B/8  
• 8th grade – Honors Coordinate Algebra |
| **Accelerated Science** | • 8th grade  
• high school physical science | • 8th grade  
• high school physical science | • 8th grade  
• high school physical science |
| **Advanced Content** | • science, social studies, language arts, math  
• 6th, 7th, 8th  
• eligible gifted students and identified high achievers | • science, social studies, language arts, math  
• 6th, 7th, 8th  
• eligible gifted students and identified high achievers | • science, social studies, language arts, math  
• 6th, 7th, 8th  
• eligible gifted students and identified high achievers |
| **Cluster Grouping** | • science, social studies, language arts, math  
• 6th, 7th, 8th  
• heterogeneously grouped | • 6th, 7th, 8th  
• Problem Based Learning (PBLs) |
A delivery model used by two of the participant schools, Parkside MS and Mountainside MS, was the advanced content model where the curriculum and instruction were designed to differ from on level classes. At both schools, eligible gifted students were grouped with students who were identified as high achievers in science, social studies, language arts, and/or math classes in 6th, 7th, and 8th grade. Parkside MS used teacher recommendations, test scores, and students’ academic performances to determine in which academic classes gifted students were served.

For example, when a student was eligible for gifted services and excelled in language arts, then the student was served in language arts. Some students were served in all advanced content classes while other students were served in as many classes in which they exhibited a success. Likewise, gifted and high achieving students at Mountainside MS were placed into advanced content classes through a point system based on a set of criteria created by teachers and administrators.

In contrast, one way the needs of gifted students were met at Southern Plains MS was by placing them into classrooms using the cluster group delivery model. Six to eight gifted students were placed in otherwise heterogeneously grouped science, social studies, language arts, or math classes. Another way that the needs of gifted students were met at Southern Plains MS was in the STEM program which gave students options in Problem-Based Learning and an accelerated science and math curriculum.

Southern Plains MS and Mountainside MS had an accelerated math track based on the Georgia Standards of Excellence where students completed all the sixth, seventh, and eighth on grade level standards by the end of seventh grade. In the eighth grade,
students in the accelerated track took high school Coordinate Algebra. Furthermore, another option for gifted students at Mountainside was an advanced content class in eighth-grade math where they went “a little deeper with 8th grade standards and there are a few extra standards that the on level 8th graders won’t cover. Ideally, these students would be prepared for Accelerated Algebra I as a 9th grader,” according to Mr. Barber. All participant schools had an accelerated science option for students in the eighth grade where students took high school level physical science with more chemistry and math standards than the on-grade level physical science class.

The participating schools had a continuum of services used to meet the needs of gifted learners. Advanced content classes were offered at Mountainside MS and Parkside MS, whereas Southern Plains MS used the cluster grouping model. In addition, Southern Plains and Mountainside had an accelerated math track for mathematically gifted students, and all three participant schools had accelerated physical science for students in the eighth grade. Students at Southern Plains MS were also served in a STEM program which goes “further and deeper into the science standards even though there's not a per se Georgia track for accelerated science in middle school,” according to Ms. Sanders.

Curriculum and Instruction for Meeting the Needs of Gifted Adolescents

The service delivery models gave schools a framework for meeting the needs of gifted students based on guidelines from the GaDOE (2017) Georgia Resource Manual for Gifted Education Services, decisions from the LBOEs, and guidance from the leadership teams at each participant school. Nevertheless, deciding how gifted students were served in classrooms and how to meet their individual needs was done by teachers.
The teachers understood that educating gifted students was challenging and that their nature and needs as adolescents were unique. In addition, they had “different” needs as gifted learners. Randomized quotes from educators at all three participant schools concerning their gifted students may be seen in Appendix M. The quotes highlighted educators’ understandings of the characteristics of gifted learners and described some of the educators’ challenges to meeting their needs.

Meeting the needs of gifted adolescents may be demanding at times. It is accomplished when educators implement a variety of instructional strategies in their classrooms (see Appendices N, O, and P). Inquiry-based learning, differentiation, higher level learning, project-based learning, PBLs, and curriculum compacting were strategies used by educators at the three participating schools as seen in Figure 7.

Figure 7. Instructional Strategies Used to Meet the Needs of Gifted Adolescents
Project-based learning was a strategy used by educators at all participant schools to meet the needs of gifted adolescents. “Time management, leadership skills, research skills” were skills which project-based learning developed in gifted students according to Ms. Kelly. Mr. Jones stated that he used “some project-based themes” in his lessons. He added, “I like those a good bit” for meeting the needs of gifted students. In the same way, Mr. Rhodes mentioned that he did “some special projects,” and, the projects “take them deeper” into the content, and gave students the opportunity to “investigate more.” Project-based learning “allowed them [gifted and talented students] an opportunity to thrive. I think and to show their, um, skills and their leadership skills,” according to Ms. Jordan. Moreover, Mr. George stated, “I like to do projects with them, hands-on, give them choices of their projects.”

In fact, student choice was an important component of not only project-based learning but also other instructional strategies used to meet the needs of gifted students. For example, Ms. Sparks revealed, “For me, student choice is probably one of the bigger things that happens in my room for my gifted kids.” Ms. Sparks elaborated on the type of choices she gave her students. “There's always a writing choice,” and “there is always an artistic choice.” Students were given “a project of their choice,” shared Mr. Rhodes. Student choice was incorporated to meet the individual needs of gifted students, and “gifted students are usually given more choice.” Ms. Quartz identified a process she used, “I give them a choice menu.”

Having a choice in how to demonstrate mastery of concepts as well as what topics to study permitted gifted students to use their requisite knowledge and understanding to
grow academically. Another rationale for using student choice was articulated by Ms. Kelly, “I think giving them that choice makes it more appropriate for whatever their interests are.” Designing lessons to address individual student interests guided a science teacher from Mountainside, Mr. Rhodes, as he covered the content standards, and then, the students “go deeper into the standards based on student choice.”

The needs of gifted adolescents were met not only through project-based learning and student choice, but also when inquiry and higher-level questioning were incorporated into the lessons. A social studies teacher from Southern Plains MS, Mr. Jones, admitted, “I think that the best types of education for gifted kids is when it is strictly inquiry based. Where they get to do inquiry-based learning.” Social studies teachers from each participant school identified ways that they used inquiry-based learning in lessons using “primary and secondary documents.” For example, an eighth-grade social studies teacher, Mr. Rhodes, explained he used primary documents and Document Based Questions (DBQs) to “train them to think more like a historian.” For a language arts teacher at Southern Plains MS, Ms. Hamilton, she noted, “When I've seen the most success lately this year um, has been when we have done inquiry-based learning.”

Project-based learning, choice, and inquiry-based learning were elements of Problem-Based Learning (PBL) which was implemented by bringing “in community experts to solve real-world problems” at Southern Plains MS. Ms. Sanders explained, “Um, it's kinda' overtaken the whole science department.” PBLs met the needs of gifted adolescents by incorporating projects, choice, and real-world learning opportunities.
A rationale for using PBLs was addressed by a math teacher at Southern Plains MS, Ms. Slader, when she said, “I think it just gives them something that's just more real and memorable um, you know the kind of thing that they might remember twenty years down the road.” Besides being, real-world and memorable, PBLs met the needs of gifted learners by promoting problem-solving skills, collaboration, and interdisciplinary learning. Mr. Kline elaborated on how PBLs were used at Parkside MS. “We try to give them as much real-world application as we can, um problem-based decision-making kind of problems.” In addition, gifted students “find greater buy in” to the learning process when involved in PBLs according to a teacher from Southern Plains MS. The “buy in” involved bringing gifted adolescents into the process of learning and recognizing their needs. Mr. Kline expressed his opinion when he said, “They lose interest. They get bored very quickly. We don't want that … I want them to learn to be lifelong learners.”

“Lifelong” learning was a skill that educators promoted by implementing instructional strategies, such as project-based learning and PBLs, which fostered higher-level learning for gifted adolescents. For instance, a social studies teacher at Mountainside. Mr. Green, wanted his students to understand “it’s not about standardized tests. It’s not about report cards. It’s a life-long process of learning.” Similarly, a math teacher, Mr. Barber, encouraged students to “think for themselves” through lessons and strategies he used in his classroom.

Likewise, a science teacher, Ms. Quartz, used lessons where gifted students were “given much less guidelines, and, so, they … decide. They … do more evaluation type, um, level work.” Teachers “pull high school standards down and do something a little bit
higher” at Parkside according to Ms. Crystal. In addition, classwork “based on ninth and tenth grade” standards were used for seventh graders by Ms. Sparks at Mountainside. She stated, “I don’t know if it was the first time, or they just weren’t used to it, or I just kinda’ scared them. I don’t know, but I gave them” high school standards.

When higher level thinking skills were emphasized, gifted students were “determined and learning how to just figure anything out” in Mr. Barber’s classroom at Mountainside. Furthermore, students gained confidence as learners and understood their work was “right” and “move[d] on to the next thing” in Mr. Rhodes’ sixth-grade science classes at Mountainside. At Southern Plains teachers explained, “We are really challenging our students to think on a higher level,” and Ms. Kelly added, “They are not used to [it].” Ms. Byrd described how she finds higher level learning options for her gifted students. “I enjoy a day full of … just trying to meet their needs. Making sure I am finding challenging materials.”

The process of finding “challenging materials” for gifted adolescent students also involved matching the curriculum and instruction with the needs of the individual learner through differentiation. Understanding that gifted adolescent students were “very different,” and within a population of gifted students, there was a diversity of needs to be met, presented a challenge for educators. Ms. Sparks explained it when she said,

A lot of times people think if you have a gifted advanced class, you know, you just have your gifted advanced class and you just teach, you know, this lesson, or whatever. But, we have all levels even within our gifted advanced classes just like we would have in a co-taught classroom on level.
Differentiating curriculum and instruction in an advanced content classroom with eligible gifted students and high achieving students required the educators to have a plethora of instructional strategies in place. For example, Ms. Byrd assessed the individual needs of her students and used “small group instruction” … curriculum compacting, where a student could “totally skip something,” or allowed students to progress at a “different pace” to meet their individual needs. Ms. Quartz explained how she differentiated using curriculum compacting in her classes.

I also do, um, some curriculum compacting, so, the students who have mastered the standard, and they know, um, the material for that standard, they will do an acceleration where they can either start, um, on the next thing we are going to do or, um, an enrichment activity while the rest of the class is catching up on that standard.

Equally important, gifted students placed in heterogeneously grouped cluster classrooms at Southern Plains MS had their individual needs met through differentiation. “The gifted student's work is differentiated within the regular room by their assignment,” explained Ms. Kelly. She further noted that assignments for gifted students in her class were “more in-depth” with “more choice” and she also created different “rubrics” to assess their projects.

On the other hand, a math teacher from Southern Plains, Ms. Slader, revealed, “It is a little harder in math sometimes to meet their needs in a classroom where there are different levels.” Likewise, Mr. Jones acknowledged, “I have found in the cluster grouping model sometimes those kids will get lost because they don't need you as much
as the other ones who do need you.” Nevertheless, he also stated, “Overall, I think that the main, uh, way to reach those kids is to set those high expectations and realize that they are in different places for different students.”

When meeting the needs of gifted students in advanced content or in cluster classrooms educators looked past the gifted “label,” and according to Ms. Slader from Parkside, recognized that differentiation must be “individual because what one kid needs another kid might need something completely different.” Therefore, “consider that label, but that label isn't the determining factor,” stated Ms. Byrd. When students were “labeled” gifted in elementary school “they carry that label all the way through middle school,” noted, Ms. Jordan, a science teacher from Mountainside. Furthermore, “just because a kid is making 85 doesn't make that child gifted you know,” reminded a teacher from Parkside, Ms. Byrd. Of equal importance, when differentiating for gifted learners a language arts teacher, Ms. Kelly, from Southern Plains noted, “They are all gifted, but they are definitely not all the same.”

Assessments

Different types of assessments were used to meet the needs of gifted adolescents in the sixth, seventh, and eighth grades at the participating schools as seen in Table 17. Standardized assessments, such as the Georgia Milestones tests, were used when deciding where gifted students would be served, but they were not the only criteria used for placement. The principals at the participant schools used multiple criteria when assessing gifted students’ academic needs such as teacher recommendations and student
performance. Educators at the participant schools utilized a diversity of formative and summative assessments to effectively meet the academic needs of their gifted students.

Table 17

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<thead>
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<th>Assessment Strategies Common in the Research Findings for Participant Schools</th>
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<td>Continuous formative assessments and progress monitoring</td>
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<td>Diagnostic and Pre-tests</td>
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<td>Document Based Questions (DBQ)</td>
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<td>Standardized Assessments: Georgia Milestones and End of Grade (EOG)</td>
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Ms. Sanders shared when placing gifted students,

> We look at, of course, we look at standardized assessments. That's one of the things. But you know, if you are in a classroom, there is a different performance ranking that you cannot see on paper.

Also, at Southern Plains teacher recommendations from “the year prior” were used “to assign a performance ranking” whereby the academic needs of the student were assessed.

At Parkside, Mr. Kline explained, “It might not be a test score. I mean we've had some kids, you know this, kids have test anxiety or kids that just don't test well.” Whereas at Mountainside, Mrs. Parsons stated, “We pull in a lot of the criteria,” to decide how to best meet the needs of a gifted student. The criteria consisted not only of standardized test scores but also of several student characteristics evaluated by each student’s academic teachers based on a point system.
To determine eligibility for students entering the accelerated math track at Mountainside in the sixth grade, students were assessed using the Iowa Acceleration Scale along with other criteria such as teacher, parent, and student input. At Southern Plains, students were assessed for placement into the accelerated math track in the fifth grade using standardized test scores and teacher recommendations. For the STEM program at Southern Plains, students completed an application process and were assessed based on standardized test scores, teacher recommendations, and an engineering challenge.

In the classroom, teachers used assessments to understand the academic needs of gifted students and determined appropriate strategies to meet their needs. For example, diagnostic assessments were used to evaluate a student’s level of mastery or background knowledge of a topic or content standard. With the information from diagnostic assessments, teachers accelerated students to higher academic standards, provided enrichment opportunities, or remediated as needed. In addition, teachers “scaffold up or scaffold down” depending upon the needs of the student. Also, pre-tests and diagnostic tests were used by teachers to determine a student’s readiness to move on to the next standard so students could “skip” what they already knew.

For example, a seventh-grade science teacher, Mr. George, from Parkside described how diagnostic assessments were used in his classroom. “I like to start with diagnostic assessments, … to see who needs to, you know, to be accelerated, and then enriched, or, who needs some help scaffolding to get to that level they need to be at.”
Additionally, a language arts teacher from Mountainside, Ms. Sparks, used pretesting to “find out what they are familiar with and what they know, and then I try to push them up to those higher-level standards those higher-grade level standards.” Pre-tests and diagnostic assessments were used by teachers prior to implementing strategies such as curriculum compacting, enrichment, and content acceleration to meet the needs of their gifted students.

Formative assessments were used to assess student progress during instruction and teachers identified academic needs in real-time. A social studies teacher from Southern Plains MS, Mr. Jones, illustrated the rationale for using formative assessments when he stated,

I think everyone does a lot of formative assessments for everybody though, too.

You know, and, just kinda checking progress at whatever rate we gotta go at it.

You know you have to differentiate it at different rates too, but, just making sure that we kinda have our hand on the pulse.

“Socratic seminars,” and “Document Based Questions (DBQ)” were used as formative as well as summative assessments by a social studies teacher, Mr. Green, at Mountainside.

“You can use all kinds of stuff when you have it. It is nice to mix it up. The kids appreciate it,” he noted. In the same way, a social studies teacher at Parkside, Mr. Rivers’ students “do a lot more reading, uh, primary sources, secondary sources, and … write about them.” In fact, “Those frequent formative assessments are really important and also really informative,” according to Ms. Crystal.
Formative and summative assessments were used to evaluate gifted students’ mastery of the content as well as to determine their academic needs. Utilizing assessments gave teachers information about the student to “see where they are,” according to Ms. Quartz, a science teacher at Parkside. Besides identifying where students were academically, they “really help with curriculum compacting, or like, learning contracts,” she added. Furthermore, “common assessments” were used by educators at Southern Plains as a “major way of assessing” students to guide instruction.

Also, a language arts teacher at Southern Plains, Ms. Kelly, made the point that assessments for gifted students were different in her class. “Usually, theirs is much more open-ended, but not only is the assessment sometimes different, but again, I usually have a different rubric for them going into a project.” Assessments other than “multiple choice” gave gifted students opportunities to demonstrate mastery of a standard by using projects, open-ended responses, or higher-level questioning at all the participant schools. Mr. Kline shared, “It's not just a unit test here and there … There are different ways you can assess those kids giving the kids a lot of say in how to demonstrate learning and mastery to the teacher.” Students demonstrated mastery and knowledge through “project-based” assessments, PBLs, open-ended discussions, and writing in addition to “paper and pencil.” A science teacher, Ms. Jordan, remarked, “We always have actually written assessments, but also some project-based component to it.”

Furthermore, beyond the classroom, students were assessed based on standardized test scores such as Georgia Milestones and End of Grade (EOG). To prepare gifted students for the higher-level questioning found on the Georgia Milestones, a math teacher
at Mountainside, Mr. Green, gave “them an exposure to all kinds of test questions, but it's pretty rigorous ones though.” In addition, a Mountainside science teacher, Ms. Jordan, was “making sure there are different types of questions, like, multiple responses, so not just one correct answer, but several correct answers, and they have to get them all.”

Along with utilizing test questions which required students to choose “multiple responses,” teachers at Mountainside used Domain of Knowledge (DOK) guidance when creating written questions for tests, as well as verbal questioning in the classroom. A social studies teacher at Mountainside, Mr. Green, explained when building a test, he incorporated questions “with a variety of DOK.” Mrs. Parsons stated that educators “should be adding a little more rigor … at least some higher-level thinking questions of some sort at that advanced gifted.”

Professional Learning Opportunities

Courses required in the program for gifted endorsement were designed to help educators meet the needs of gifted and talented students. Educators with a gifted endorsement met the eligibility requirements of the Georgia Professional Standards Commission (GaPSC) as described in Appendix Q. In addition, they successfully completed a course of study at either a Georgia Regional Educational Agency (RESA) or a Georgia university. A typical course of study included Nature and Needs of Children Who Are Talented and Gifted, Methods and Materials for Children Who Are Talented and Gifted, Curriculum for Children Who Are Talented and Gifted, and Assessment of Children Who Are Talented and Gifted (Valdosta State University, 2018).
Gifted endorsement classes were designed for educators to build knowledge of gifted and talented students and to increase understanding of how to meet their needs. Educators teaching gifted and talented students at Southern Plains and Parkside had in-field gifted endorsements. Conversely, at Mountainside, the school system had a strategic waiver whereby some teachers serving gifted students did not have the gifted endorsement. Nevertheless, Mountainside’s leadership team of teachers did extensive professional learning through “research outside of our school looking at other districts, looking at other states, um, how they were best meeting the needs and brought that information back,” according to Mrs. Parsons.

The leadership team at Mountainside collaboratively researched how to meet the needs of gifted students, as well as lower level students, and using data collected from “other districts’ and “other states” created professional learning for educators. For example, how to assess students at a high level was an area where educators learned through cross grade content PLCs. Mrs. Parsons explained, “I have four contact leads, um, you know, ELA, science, social studies, that I meet with on a regular basis.” The lead educators worked with other content area teachers to facilitate their understanding of how to “build” assessments with more “rigor” and higher DOK questions. Mrs. Parsons described how the teacher’s level of understanding has grown.

That has evolved because after the first few times that they turned those, um, turned in those assessments, they themselves started realizing. Oh, we're not using all level ones or quadrant one questions, or you know, and they know that
we had to increase the rigor in our questioning in the classroom and on our assessments.

In addition, the instructional technology specialist was involved in professional learning by working with teachers and “showing them a lot of types of questions that were going to be on the EOGs.” Furthermore, Mrs. Parsons explained her intent in designing professional learning opportunities where educators constructed their own knowledge. “They have to come to that realization on their own, so I'm willing to take that chance and be a little bit more intentional and plant those seeds, um, so that they can increase the rigor of their assessments.”

The goal of increasing “rigor” on assessments and using higher level questioning techniques in classrooms was pursued through professional learning opportunities at Mountainside. In addition, meeting the needs of higher level learners was facilitated through “intentional” dissemination of strategies within the PLCs and through a leadership team of educators. Equally important, understanding of the characteristics of students placed into advanced content classes, based on the school’s criteria, was promoted when the graduation coach worked with teachers according to Mrs. Parsons. “My instructional grad coach has been meeting with each content team and making sure they understand, cause, we had to tweak some things last year.”

At Parkside, the professional learning community of teachers who teach gifted and talented students was led by the gifted coordinator, Ms. Byrd. The gifted PLC which was across grade levels and content areas met “one of the last Friday’s of the month.” Ms. Byrd elaborated about the PLC. “We get a chance to share strategies, and share
challenges, and discuss successes, and not so great successes, and just see how we can help our kids meet their academic and social-emotional needs.”

Furthermore, Mr. Kline noted Ms. Byrd did “a good job” of disseminating information on best practices to teachers of gifted and talented students. For instance, educators at Parkside were building knowledge on how to give gifted and talented learners authentic or project-based assessments. Ms. Byrd “has really pushed that. I know in the last four years. I remember when she was going to UGA,” reported Mr. Kline. In addition, educators were given professional learning opportunities on “differentiation” and “vocabulary development.” These opportunities were not “specifically for gifted students,” according to a teacher. However, he added they included “how to meet the needs of the higher performing students and the lower performing students.”

Another way that professional learning occurred at Parkside was between teachers on teams. By sharing information on “lessons” and their “kids,” educators whose classrooms were “close together” collaboratively learned to meet the needs of their gifted students. Mr. Kline observed that the administrators “give those teachers the opportunity to collaborate with another. He further stated, “Gifted teachers [are] working on lesson plan strategies, ideas, formative assessments, those kind of things.”

Likewise, educators at Southern Plains MS had PLCs … “within our teams and across content areas,” shared Ms. Slader. As a result, teachers “are going to be discussing their issues.” Among “their issues” were the needs of gifted and talented students. For example, Mr. Jones commented, “Every time you are meeting, hopefully,
you are discussing that, and, I think that happens a lot.” On the other hand, “The needs of the others become more apparent,” remarked Ms. Kelly. She continued, “The overwhelming needs of the low student sometimes can overshadow, I think, the needs of the gifted student.” With that in mind, she emphasized, as an educator and an advocate for gifted students, she “stand[s] up” for their needs in her professional learning community.

Another professional learning opportunity presented to educators at Southern Plains involved ELA and special education teachers. Ms. Sanders brought in an individual who worked with teachers on “how to move” students. In other words, instructional strategies to move students from one level to the next on the Georgia Milestones tests were covered. Ms. Sanders elaborated, “One of the topics I wanted her [to cover] was how you move those kids. Not just high kids, but those middle kids.” The professional learning opportunity was designed to be “personalized” and involved teachers addressing “actual issues” they encountered, particularly with “special education and low achievers.” When referring to the professional learning opportunity she attended, a language arts teacher stated, “Our language arts department just had some professional development about reading strategies and about moving a lot. And, our principal always says you want to improve those scores. You got to move the middle.”

Professional learning opportunities to meet the needs of all learners, including gifted and talented students, was “a lot of training on differentiation” at Southern Plains Middle School according to Ms. Slader. In addition, teachers on campus were taking a course at the RESA concerning gifted education. “It's called something like, drive in
something with gifted,” she added. Furthermore, following GaDOE guidelines, much of the professional learning opportunities were “job-embedded” and “in-house” during this school term. Ms. Sanders stated, “There is more focus on what's going on in school versus just sending teachers to workshops.”

Options for professional learning included “in-house” and “job-embedded” opportunities to meet the needs of gifted students. For example, collaboration and communication between educators on teams’ facilitated dissemination of ideas and strategies used to meet the needs of gifted learners. In addition, how to “differentiate” curriculum and instruction was a common topic for professional learning and included how to “differentiate” for higher level learners. Courses offered at RESA and Georgia universities were designed to provide educators with a path to gifted endorsement. Furthermore, teams of educators created Professional Learning Communities to share strategies to “meet the emotional and academic needs” of their gifted students.

Summary

Findings from the cross-case analysis showed participant schools were organized based on the middle school philosophy and the tenets of Georgia Lighthouse Schools To Watch ©. For example, the principals indicated a belief in social equity, academic excellence, educating the whole child, meeting a child’s social-emotional needs, and the team concept. In addition, the schools offered a continuum of service delivery models to meet the needs of gifted young adolescents such as advanced content classes, cluster grouping, accelerated math track, STEM program, and accelerated science.
Furthermore, a differentiated curriculum and instruction were utilized to meet the needs of gifted students which included project-based learning, PBLs, primary and secondary documents, and higher-level learning strategies. Assessments were used to meet the needs of gifted learners by using diagnostic testing, formative, summative, and project based. Also, professional learning in PLCs occurred “in-house” and was “job-embedded” which facilitated meeting the needs of gifted students along with additional training opportunities such as “differentiation.” Courses offered at RESA and Georgia universities met the requirements of the GaPSC for gifted endorsement for educators.
CHAPTER 5
DISCUSSION, IMPLICATIONS, RECOMMENDATIONS, AND FUTURE RESEARCH

The purpose of this research study was to describe how gifted and talented students’ needs were met at three Georgia Lighthouse Schools To Watch © within the middle school philosophy. Using a qualitative multiple case study design, data were collected through one to one interviews with principals of the three participant schools, focus groups of teachers at each participant school, one to one interviews with two teachers from two participant schools, and document analysis. The study answered the following question: how are the needs of gifted and talented students met at three Georgia Lighthouse Schools to Watch © within the middle school philosophy?

Chapter 1 is an introduction to the study with an explanation of the problem this study addressed. Namely, research indicated the middle school years were when gifted and talented young adolescents were most underserved (Brighton, Hertberg, Moon, Tomlinson, & Callahan, 2005; Callahan, Moon, and Oh, 2013; Tomlinson, 1992, 1995). Furthermore, a brief overview was given of the theoretical framework for this study which was based on the tenets of the middle school philosophy as seen in This We Believe: Keys to Educating Young Adolescents and STW A School Self-Study and Rating Rubric as well as the foundations for gifted education in Georgia.
Chapter 2 is a literature review where the historical context of the middle school philosophy, Schools To Watch ©, Georgia Lighthouse Schools To Watch ©, and educating gifted and talented students was explained. Furthermore, the components of the theoretical framework for this study, middle school philosophy and gifted education, were described in detail. In addition, research studies were reviewed on middle school, STW, differentiation, education of gifted and talented students, as well as cluster grouping and the findings were synthesized.

Chapter 3 is a detailed description of the methodology of this study. A qualitative multiple case study was used where three cases were chosen based on purposeful sampling from twenty-one designated Georgia Lighthouse STW. Data were collected using interviews with three principals, two teachers, focus groups of teachers from each participant school, and document analysis. Data were analyzed based on the “context and description” of each case, categorical themes “within each case”, and “themes that are similar and different in cross-case analysis” (Creswell, 2007, p. 172-173).

Chapter 4 is where the context and description of each case were presented. In addition, my research findings were explained based on the data that were analyzed and organized into categories and subcategories. Findings were reported from the cross-case analysis with five categories found to be common between the cases based on the middle school philosophy and four categories identified as similar between the cases related to gifted education.
Discussion

Chapter 5 is a discussion of this study’s research findings correlated with prior research as described in chapter two. The discussion was organized into the following categories framed by attributes of the middle school philosophy and the tenets of STW: (1) organizational structures and processes, (2) social-emotional development, (3) social equity, and (4) academic excellence. The categories were chosen based on attributes in A School Self-Study and Rating Rubric for Schools To Watch ©. In addition, in this chapter: implications from this study were addressed; recommendations based on research findings were made; areas for future research were identified; and a conclusion was drawn.

Organizational Structures and Processes

The research findings supported the assumption there were benefits for gifted and talented young adolescents such as academic excellence when schools were organized based on the middle school philosophy. Furthermore, evidence from the data showed educators made cognizant decisions to organize and structure the participant schools to provide options for meeting the needs of gifted and talented young adolescents. In addition, findings from this research study indicated the principals’ beliefs about educating young adolescents and creating a successful middle school were aligned with the middle school philosophy and the tenets of Lighthouse. Comparatively, attributes of the middle school philosophy such as organizational structures and processes, social-emotional development, social equity, and academic excellence, were reported by
researchers to be significant to students’ academic achievement as well as educators collaborative focus on students (Cook, Faulkner, & Kinne, 2009; Cook & Faulkner, 2010).

Tomlinson (1992) celebrated the idea that the tenets of the middle school philosophy and the goals of gifted education, when acknowledged and addressed, allowed students to be “enriched by them” (p. 233). My research revealed challenges middle school leaders faced when meeting the needs of gifted and talented young adolescents in middle schools with five hundred, eight hundred, and one thousand young adolescents each with individual needs. In fact, my research showed the intentionality of the leadership teams and the teachers which informed their decisions on how they met the needs of gifted and talented young adolescents. The intentionality exhibited by educators created a climate where the organizational structures and processes of the schools were designed to meet the needs of all students.

The principals at the participant schools described how they followed guidelines from the Georgia Department of Education and the Local Boards of Education when they made decisions on how to structure their schools to meet the needs of gifted students within the middle school philosophy. Prior findings from surveys of educators at middle schools revealed a variability in services for gifted and talented young adolescents and reinforced the assertion that meeting their needs was challenging (Callahan, Moon, & Oh, 2013). Furthermore, Rogers (2007) concluded there was not a single set of strategies that worked well at every school and under every circumstance. Based on my research findings, there was not a “one size fits all” approach to meeting the needs of gifted and
talented young adolescents. Educators from the participant schools used varying organizational structures and processes to meet the needs of gifted and talented young adolescents framed by common attributes of the middle school philosophy.

Social-Emotional Development

An important component of meeting the social-emotional needs of gifted and talented young adolescents was having advocates who not only understood their needs but who spoke up and spoke out for them. This was evident at Southern Plains when educators who worked to meet the needs of their gifted and talented students were proponents of their success. For instance, at Parkside, educators of gifted and talented students met at least once a month and talked about the needs of their students. They shared successes, challenges, and instructional strategies. Cook and Faulkner (2010) concluded that when educators met on a regular basis and collaboratively planned their central focus was on the students they taught.

In Cohen’s (2006) view, “The purpose of gifted education is to support creative development so that the child can move toward the highest levels, developing both self and field” (p. 96). The essence of Cohen’s argument was that meeting the needs of gifted and talented students required more than just giving them opportunities to develop mentally, but their social and emotional development was critical as well. In fact, other researchers concluded social aspects of a GT student’s educational experiences were a critical component of their academic achievement (Eddles-Hirsch, Vialle, Rogers, & McCormick; Mulkey, Catsambis, Steelman, & Crain; Webb, Nemer, Chiznik, & Sugrue, 1998). Even though their needs were unique, the fact they were “transescents,” as well as
gifted, added an additional layer to meeting their social and emotional needs. For instance, Coleman, Micko, and Cross (2015) found gifted students did not want to appear different, and a teacher from Southern Plains suggested they did not want to look like “nerds” in middle school.

At Parkside Middle School and Southern Plains Middle School, the concept of grouping educators and students into smaller learning communities or teams was a concept of the middle school philosophy which was implemented to facilitate meeting the social and emotional needs of all students. At all participant schools students had at least one teacher or advisor in their “homeroom” who functioned as an advocate for him or her. For example, being on a team provided students with opportunities to build relationships. For gifted and talented students that included time with other transescents who were not identified as gifted and talented, as well as opportunities to be with peers of similar abilities.

While the configuration of the teams differed among the participating schools, one thing they had in common was the students on the teams were identified gifted and non-gifted identified. Biddick (2009) agreed after assessing GT students who spent time in a heterogeneous group of peers that they benefited socially. On the other hand, Rogers (2007) asserted that GT students gained academically from learning with like ability peers. Whether with like ability peers or in a heterogeneous group, GT students were provided with activities that were designed to help them feel challenged and successful at the participant schools. Beyond the classroom, gifted and talented students’ social-emotional needs were met with extracurricular activities based on student interests.
Social Equity

The educators at participant schools looked for ways to group gifted and talented students to achieve the best outcome for the “whole child” while achieving social equity. According to the National Association for Gifted Children (NAGC) (2009), “Grouping gifted children is one of the foundations of exemplary gifted education practice” (p. 1). Various grouping options were advocated by the NAGC including part-time ability or performance grouping as well as full-time ability grouping.

However, in the Schools To Watch © Self Study Rubric (National Forum to Accelerate Middle Grades Reform, 2013) it is stated “to the fullest extent possible … gifted and honors students participate in heterogeneous classes” (p. 6). The essence of both arguments, even though they seemed contradictory, was to create social equity while meeting the needs of gifted and talented young adolescents. In other words, middle schools should be “socially equitable, democratic, and fair, [and] provide every student with high-quality … learning opportunities [which will] keep positive options open for all students” (National Forum to Accelerate Middle Grades Reform, 2013, p.6). Those “positive options” included flexible grouping opportunities for all students at the participant schools based on individual student’s needs.

Tomlinson, Moon, and Callahan (1998) admonished that heterogeneity “must ensure that such settings carefully and systematically attend to the needs of diverse” (p. 10) populations of middle school students. Moreover, research indicated that gifted students were successful in heterogeneously grouped academic settings in which their needs were addressed (Burris, Heubert, & Levin, 2006; Linchevski & Kutscher, 1998).
Similarly, teachers at Southern Plains who taught six to eight gifted and talented students in otherwise heterogeneously grouped cluster classrooms took steps to keep GT students’ needs from being “lost.”

However, “sometimes when you are trying to help the gifted do something different you lose some of your other kids and vice versa” according to a teacher who taught gifted students in a cluster classroom. In fact, an essential attribute for successful middle schools is for educators to advocate for “every student’s right to learn” and to provide them with “challenging and relevant learning opportunities” (Association for Middle Level Education, 2010, p. 13). The educators at the participant schools indicated their goals were to provide all students with “challenging and relevant learning opportunities.” Nevertheless, some educators indicated it was difficult, at times, when students were grouped heterogeneously to meet the needs of gifted and talented students.

In some instances, to meet students’ academic needs in an equitable manner participant schools implemented grouping options based on student ability or performance. Even temporary or flexible grouping practices were reported to have a positive impact on the achievement of gifted students (Tieso, 2005). Furthermore, gifted students grouped with like ability peers for instruction or in special programs experienced academic gains and satisfactory educational outcomes (Collins & Gan, 2013; Delcourt, Loyd, Cornell, & Goldberg, 1994; Kulik, 1992; Sheppard & Kanevsky, 1999).

Comparatively, the principal from Southern Plains was a strong proponent of “social equity” and structured the school to balance high achieving students, middle level, and lower level learners on all teams. However, due to the number of identified gifted
students, they were placed on two academic teams. Even so, she not only utilized the cluster grouping delivery model with heterogeneously grouped classrooms, but she also offered an accelerated math track and a STEM team for gifted and non-gifted identified students. In other words, flexible grouping options were utilized and opportunities were provided to all students, and, in doing so, she created equity in the school.

Academic Excellence

Academic excellence was more than a phrase or a caption for the educators that participated in my research study. Their words showed they had a passion for educating gifted and talented students. Furthermore, the actions they described indicated an understanding and a desire to academically grow their students in the top percentiles. Moreover, they used “different approaches” with their gifted learners based on individual needs to promote academic excellence.

For instance, Ms. Byrd, a language arts teacher at Parkside, based on her statements as well as the comments from her principal, appeared to be a gifted educator and not just an educator of gifted students. She assessed the individual needs of her students and implemented strategies to meet the needs of her gifted students as well as her students with exceptional gifts and talents who did not have the gifted label. Indeed, she was a leader of other teachers of gifted adolescents, and she was an advocate for academic excellence for gifted and talented students in her school.

What teachers believed about gifted and talented learners guided their choices when designing curriculum, instruction, and lessons to meet their needs according to researchers (Brighton, Hertberg, Moon, Tomlinson, & Callahan, 2005; Farkas & Duffett,
An educator from Mountainside believed “advanced gifted content shouldn't necessarily be more work, it just should be more rigorous, and you should be asking more of them.” Based on her statement, she believed her gifted and talented students’ needs were unique and as a result, she adopted a different approach to educating them.

In the same way, a language arts teacher from Parkside, Ms. Byrd, understood the needs of her gifted and talented students and created “an environment where not only they can learn, but where they can love to learn.” It was supported by my research findings that a rich learning environment could be constructed for gifted and talented young adolescents and was reinforced by educators’ statements in my data. However, it was not accidental that the learning environments were meeting the needs of gifted students. It was intentional.

The gifted educators promoted excellence through the differentiated curriculum and instruction they implemented in their lessons. The strategies used by these educators, to meet the needs of their GT students, aligned very well with the GaDOE’s recommendations for differentiated curriculum for gifted learners. The educators’ strategies and practices reported in chapter four were correlated with the GaDOE’s recommendations for gifted education using a matrix as seen in Table 18.
Table 18

*A Differentiated Curriculum for Gifted Learners*

<table>
<thead>
<tr>
<th></th>
<th>Southern Plains MS</th>
<th>Parkside MS</th>
<th>Mountainside MS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Content</strong></td>
<td>Complex and challenging subject matter that:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Requires intellectual struggle</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>• Integrates research skills and real-life experiences</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>• Integrates interdisciplinary connections</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td><strong>Process</strong></td>
<td>Instructional strategies are designed to:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Emphasize higher-order thinking, problem-solving and communication skills</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>• Foster self-initiated and self-directed learning</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>• Promote creative application of ideas</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>• Model and encourage academic discussion</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td><strong>Product</strong></td>
<td>Gifted student products should demonstrate a developmentally appropriate capacity for:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Self-directed learning</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>• Meaningful collaboration</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>• Effective problem solving of challenging and complex issues</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>• Effective communication</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>• Social and emotional understanding</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
In other research studies, gifted and talented students reported their experiences in classrooms were not always challenging or interesting (Gentry, Gable, & Springer, 2000). A math teacher at Southern Plains, Ms. Slader, observed “sometimes our gifted students are ignored” by other educators. Educators at the participant schools acknowledged there were challenges to meeting the academic needs of gifted and talented young adolescents in the age of accountability. For example, a reading teacher at Southern Plains Middle School, Mr. Jones, admitted, “I'm worried about my eighth grader who is on a third-grade reading level, you know, like, I'm not worried about my eighth grader who is on a twelfth-grade reading level.”

Educators may not have the training to differentiate for higher level learners, or they may not understand that gifted and talented learners’ needs call for different approaches in the classroom (Archambault et. al., 1993; Farkas & Duffett, 2009; Moon, Callahan, Tomlinson, & Miller, 2002; VanTassel-Baska, 2006). With that in mind, the eighth grader who read on a twelfth-grade reading level did not need to be forgotten or ignored. In fact, it was students like the one described here that prompted Mrs. Parsons at Mountainside to ask what more her school could do to move the high ability students forward academically. With strong intent, and through a process of exploration and learning, Mountainside’s educators were striving to meet the academic needs of gifted and talented students. They facilitated their students’ cognitive growth by differentiating the curriculum and instruction to a higher level in order to achieve academic excellence.

An expectation in the Schools To Watch © Self-Study and Rating Rubric was that all students at exemplary middle schools would “meet high academic standards,” and the
schools would be “academically excellent” (National Forum to Accelerate Middle Grade Reform, 2013, p.2). This directive was taken seriously by each educator who participated in this research study, and they implemented strategies to “move” students to higher academic levels. In the process, there was an acknowledgment that “growing” students at the top academically was a challenge, but it was a challenge that educators saw as an opportunity to meet their needs.

Implications

The implications of this research study are applicable to organizational policies and educational practices used to meet the needs of gifted and talented young adolescent students in Georgia Lighthouse STW. Furthermore, the knowledge created and the conclusions derived from the evidence in the data may be “transferable even where it is not formally generalizable” (Flyvbjerg, 2011, p. 301) to other middle schools. Moreover, evidence from this multiple case study and the conclusions drawn may be considered when understanding how to meet the needs of gifted and talented adolescent students in other Georgia middle schools. Stake (2010) explained that the “quality of evidence in … educational fields is a personal matter…it should not be thought that evidence-based research depends mainly on measurement.” In other words, qualitative data from this research study may be used to draw limited conclusions about educational policies and practice for gifted and talented young adolescents at Georgia middle schools.

Above all, the implications of this study add value to the body of knowledge of gifted education in Georgia middle schools. Educators can apply the knowledge by understanding and comparing the context of their schools with the demographics of the
participant schools explained in chapter four. While the findings of this case study are not generalizable in the same way that quantitative measures such as surveys are, Denscombe (2010) emphasized: “it is possible to consider the implications of the findings from the specific case(s) for other examples of the kind of thing being studied.” Denscombe’s point was since three Georgia STW were the specific cases, then the implications were applicable to other middle schools with similar context and demographics.

Findings from this research study have several implications: a) to inform leaders at Georgia’s middle schools that meeting the needs of gifted and talented students requires intentional steps by all educators, b) to illuminate educators about the complexities of meeting the needs of gifted and talented young adolescent students, and c) to contribute to the limited research base for educating gifted and talented young adolescents.

The findings from this multiple case study showed school leaders who understood the special physical, developmental, social-emotional, and academic needs of gifted and talented young adolescents, and they took intentional steps to meet their needs. They were successful. The findings from this research revealed that the needs of gifted and talented young adolescents were met when school leaders made cognizant choices about how teams were organized, into which classes gifted and talented students were placed, as well as what curriculum and instruction were implemented. For example, to the fullest extent possible, school leaders at the participant schools matched the characteristics of
teachers with the needs of gifted and talented students when academic teams were organized as well as when decisions were made about course offerings.

The evidence from this study illustrated when leadership teams paid attention to the data, teachers, parents, and students, they made good choices for their gifted and talented students. The key, as expressed by the principals’ comments, was to be informed when making changes and to constantly get better at meeting students’ needs. Each principal at the participant schools explained how their school structure will “look different next year.” The leadership teams at the participant schools were constantly monitoring the overall success of the students in their schools, not just academically, but based on the needs of the “whole child.” For the leadership teams, it was not simply rhetoric. It was a philosophy put into action.

Also, educators recognized that parent involvement was important to meeting the needs of GT adolescents as seen in my study, and parents were informed about educational opportunities available to their children. For example, fifth-grade parents and students were given information about the accelerated mathematics track and advanced content classes prior to students entering sixth grade. In addition, a parent was contacted by educators at Parkside when a student’s grade dropped below an 85 average. The parents and teachers developed an individualized plan for the student to facilitate success.

The participant schools offered a continuum of services designed to meet the diverse needs of gifted and talented students such as advanced content, accelerated mathematics, and cluster grouping. Whereas, it was important for gifted and talented
students to have classes designed to meet their academic needs. The findings from this research study revealed what educators did in classrooms had a direct impact on whether the needs of gifted and talented young adolescents were met. For example, teachers, who understood their gifted and talented students had unique academic needs from their on-grade level peers, implemented lessons and strategies which addressed students’ differences.

Educators participating in this research study used a variety of ongoing assessments, both formative and summative, as guides for differentiating curriculum and instruction. Moreover, differentiated instructional strategies were implemented based on individual students’ needs by giving students’ choice. In addition, PBLs, project-based learning, independent research, and time for students to independently explore topics of interest were used to meet students’ needs. Other options were available and integrated into a student’s opportunity for learning, such as STEM or writer’s workshop, and were matched to a student’s area of interests and strengths. Students with profound gifts and talents had options to accelerate grades or content as needed or to pursue independent course(s) of study in areas of giftedness.

Based on statements made by teachers during interviews and focus groups, it was concluded effective teachers of gifted and talented students understood the students they taught. Moreover, they were ready for the challenges and they enjoyed them. Being ready meant having training and content knowledge along with a desire and commitment to meet the needs of gifted and talented young adolescents.
Findings illustrated being part of a professional learning community of educators, who taught gifted and talented students, helped them meet the needs of their students. For instance, teachers of gifted and talented students at Parkside met collaboratively once a month and shared successes, challenges, strategies, research, best practices, and they supported each other. Furthermore, one teacher was a gifted teacher coordinator who served as a liaison between the teachers, administrators, and parents. Meeting the needs of gifted and talented students was challenging, and this research indicated when educators had support from administrators and colleagues it helped them meet the needs of their students.

Recommendations

I recommend more professional learning opportunities designed to help educators understand the nature and needs of gifted and talented learners as well as how to differentiate to meet their needs. My findings reaffirmed conclusions from research studies which found training was needed to help educators develop skills in meeting the needs of gifted and talented students (Coleman & Gallagher, 1992; Moon, Callahan, Tomlinson, & Miller, 2002). Furthermore, other researchers suggested teachers must confront their beliefs about educating gifted and talented students before they can learn to effectively meet their needs (Brighton, Hertberg, Moon, Tomlinson, & Callahan, 2005). For instance, research indicated educators who believed gifted and talented students were as high priority as other students were more likely to implement effective curriculum and instruction for them (Farkas & Duffett, 2008; Van Tassel Baska, 2006).
According to a report by the Education Reform Commission to Governor Nathan Deal Office of the Governor (2015),

Teachers must be specifically trained to differentiate instruction at high levels, to fulfill the teaching roles of facilitator and guide and to accommodate the variety of giftedness that students bring into a classroom. (p.43)

Findings in this research reinforced the commission’s results. For example, leadership at one of my participant schools actively provided learning opportunities for educators on how to differentiate up for higher-level learners. Furthermore, how to assess students using higher level questioning was an area in which educators at a participant school were being trained. I agreed with the NAGC (n. d.), strategies such as enrichment, acceleration, and curriculum compacting, can be used with all students, therefore, they are good options for professional learning. However, my research findings revealed educators needed to recognize different strategies for higher-level learners and to be instructed on how to implement the different strategies.

For some schools funding is an issue, however, professional learning funds from Title II Part A of the Elementary and Secondary Education Act (ESSA) can be used by LEAs to provide training in how to teach and address the needs of students with different learning styles, particularly students with disabilities, students with special learning needs (including students who are gifted and talented), and students with limited English proficiency (GaDOE, 2016a, p. 61).
Furthermore, in-house professional learning is emphasized in the state of Georgia as well as learning from peers in PLCs and may be cost effective. For instance, professional learning presented by educators who are effective in meeting the needs of gifted and talented students, when they are compensated in time and resources, is an option. Moreover, professional learning was an area where improvement was needed. Indeed, for professional learning to be successful there needed to be continued support among colleagues and from leadership as educators implemented strategies and actively met the needs of gifted and talented learners.

I also recommend school leaders and educators look closely at a gifted and talented student who is not performing well to assess the student’s needs and to determine best practices for meeting his or her needs. Findings from my research study indicated school leaders and educators at the participant schools did well matching students with high academic ability and high achievement with classes to meet their needs. Nevertheless, my research showed some students identified as gifted and talented were served in classes where they did not appear to be successful.

For example, a science teacher talked about students in his class with the gifted “flag” who did not appear to be gifted in science. Furthermore, another science teacher explained that some students identified as gifted and talented did not excel in her science class. Whereas the students may have been misplaced, it was possible that there were other factors affecting the students’ academic success.

These findings were reinforced by other teachers who stated they served students in content areas that may not have been the student’s area of giftedness since they were
the only gifted endorsed teacher on the academic team. My research found that gifted educators in my study did well meeting the needs of gifted and talented students through differentiation. However, when students were served in areas that appeared to not match their area of giftedness, the teachers indicated the students’ needs may not have been fully met.

**Future Research**

The research findings provided an overview of how the needs of students identified as gifted and talented based on GaDOE’s multi-criteria were met at three Georgia Lighthouse Schools To Watch ©. However, future research is needed to focus on the needs of gifted and talented students who are often missed because they qualify based on creativity, academic ability, and/or motivation and who do not exceed in areas of achievement. Furthermore, future research is needed to better identify, refer, and serve students who are typically underrepresented such as “economically disadvantaged students, culturally and linguistically different students, students with disabilities, and [students] from ethnic minorities” (Georgia Department of Education, 2006, p. 1).

Another path for future research is to explore the availability of options for gifted and talented students in areas such as fine arts, career, technology, and agriculture. These are courses where gifted and talented students can be served according to GaDOE (2017). For schools to receive Full-Time Equivalency (FTE) credit for serving identified gifted students, the teachers need to be gifted endorsed or qualify based on a system’s strategic waiver, and teachers in non-academic areas may not choose to take courses for the gifted endorsement. In addition, these students represent a small percentage of the student
population, therefore, administrators may not have a strong financial impetus to provide specific services in non-academic areas.

According to the GaDOE, identified gifted and talented students in middle schools have an FTE weight of 1.6656 when they are served based on DOE guidelines even if the service does not fit the student’s area of giftedness. LEAs are concerned about funding, and they make choices based on available money and resources when educating gifted and talented students. As a result, serving gifted and talented students in non-academic classes is more difficult to justify. Therefore, future research is implicated in this area.

A longitudinal case study of one of my participant schools will provide valuable knowledge for middle schools and for gifted educators. The leaders at the school took a journey to implement the middle school philosophy and to become a Georgia Lighthouse STW, and they were successful. Then, the leadership team observed students in the middle academically were doing very well as measured by their growth on the Georgia Milestones, and they observed benefits for all students when the school was a “true” middle school. However, they also determined, based on quantitative data from CCRPI scores and Georgia Milestones scores, that the students at the top levels and the students at the bottom levels were not showing as much academic growth as the students in the middle. After researching best practices from other school districts and other states, the leadership team chose to move away from some of the tenets of middle school and to become more specialized in certain areas. Now, the leadership team is transitioning back to the tenets of middle school and implementing strategies to academically grow learners
at both ends of the learning spectrum. The outcome for gifted and talented students based on the changes implemented will be valuable to future research.

Conclusion

The needs of gifted and talented young adolescents were not met simply because they showed up at middle schools possessing high academic ability or because their area of giftedness allowed them to soar creatively. Their needs were met because educators “get them.” As a result of understanding who their gifted and talented students were and what they needed, educators actively worked to meet their needs. Moreover, educators organized schools around the middle school philosophy, and even though it was not easy, the leadership teams did “it right” and provided appropriate services for their gifted students. It was “intentional” that the needs of gifted and talented students were met by educators at three Georgia Lighthouse Schools To Watch ©. The lesson learned was the needs of gifted and talented young adolescents were met when cognizant decisions were made by educators to provide a continuum of gifted services and to implement appropriately differentiated curriculum and instruction. Meeting the needs of gifted and talented young adolescents was not accidental. It was “intentional.”
References


Association for Middle Level Education. (2010). This we believe: Keys to educating young adolescents. Westerville, OH: Association for Middle Level Education.


McEwin, C. K., & Greene, M. W. (2011). *The status of programs and practices in America’s middle schools: Results from two national studies.* Westerville, OH: Association for Middle Level Education.


APPENDICES
APPENDIX A

SUCCESSFUL SCHOOLS FOR YOUNG ADOLESCENTS
APPENDIX B

SCHOOLS TO WATCH ©

A SCHOOL SELF-STUDY AND RATING RUBRIC
Schools To Watch®
A School Self-Study and Rating Rubric®

Instructions:

The Schools To Watch Program is a copyright protected program of the National Forum to Accelerate Middle Grades Reform. Criteria established by the National Forum is used as the basis for the Forum's Schools To Watch Program, which focuses on school improvement efforts characterized by a continuous trajectory toward success. The following Self Study and Rating Rubric may be used freely by any middle grades or secondary school to study and rate its practices. No adaptations to this self-study and rubric may be used without written permission from the Schools To Watch Committee and Board of the National Forum to Accelerate Middle Grades Reform. The rubric will take 20-25 minutes to complete.

This is a continuing-improvement tool as well as a mandatory self-rating for schools interested in applying for a state Schools To Watch designation. Schools applying for a STW state designation should be consistently averaging scores between 3.4 and 4.0 in all sections and components.

The rubric is divided into four domains: Academic Excellence, Developmental Responsiveness, Social Equity, and Organizational Structures and Processes. Under each domain there is general criteria followed by concrete, expected examples of excellence. Self-rate each general and detailed component. Your self-ratings should reflect your perceptions for your whole school, not for your specific classroom, grade level, or subject. The ultimate goal is to be consistently excellent and rate a well-evidenced score point 4 in every component (general and detail) of every section. Even when that ultimate goal is reached, a true high performing middle school will continue to seek ways to improve as new challenges arise.

A 4 in any general and detail component means the practice is highly and completely implemented, systemic, coherent in every classroom, by every teacher, across the school.
A 3 in any general and detail component means that there is a high degree or maturing quality of implementation that is systemic, but it may not be coherent or of the highest quality in every classroom and by every teacher, but certainly by most, 75 percent or better.
A 2 in any general and detail component means that there is a mixed, fair, immature quality of implementation. A 2 also means that practices may include many teachers but not the majority. The program may be too new to have realized accountable results or to be evaluated as effective.
A 1 in any general and detail component means that the practice may just have gotten started, (very immature), or is only practiced by a handful of practitioners.
## Academic Excellence

High-performing schools with middle grades are academically excellent. They challenge all students to use their minds well.

<table>
<thead>
<tr>
<th>General Criteria</th>
<th>Detailed Evidence of Criteria</th>
<th>Self-Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. All students are expected to meet high academic standards.</td>
<td>• Expectations are clear for students and parents.</td>
<td>4 3 2 1</td>
</tr>
<tr>
<td></td>
<td>• Teachers provide students with exemplars of high quality work that meet the performance standard or level so that students know what high quality work should be like.</td>
<td>4 3 2 1</td>
</tr>
<tr>
<td></td>
<td>• Students revise their work based on meaningful feedback until they meet or exceed the performance standard or level.</td>
<td>4 3 2 1</td>
</tr>
<tr>
<td>2. Curriculum, instruction, assessment, and appropriate academic interventions are aligned with high standards.</td>
<td>• The vision guides what students should know and be able to do, and it is coherent.</td>
<td>4 3 2 1</td>
</tr>
<tr>
<td></td>
<td>• Students, teachers and families understand what students are learning and why. In any class and at any time, students can explain the importance of what they are learning.</td>
<td>4 3 2 1</td>
</tr>
<tr>
<td></td>
<td>• The curriculum is rigorous, non-repetitive, and moves forward substantially.</td>
<td>4 3 2 1</td>
</tr>
<tr>
<td></td>
<td>• Work is demanding and steadily progresses.</td>
<td>4 3 2 1</td>
</tr>
<tr>
<td>3. The curriculum emphasizes deep understanding of important concepts and the development of essential skills.</td>
<td></td>
<td>4 3 2 1</td>
</tr>
<tr>
<td></td>
<td>• Teachers make connections across the disciplines to reinforce important concepts and assist students in thinking critically and applying what they have learned to solve real-world problems.</td>
<td>4 3 2 1</td>
</tr>
<tr>
<td></td>
<td>• Teachers incorporate academic and informational literacy into their course work (i.e., reading, writing, note taking, research, listening, and speaking).</td>
<td>4 3 2 1</td>
</tr>
<tr>
<td>4. Instructional strategies include a variety of challenging and engaging activities that are clearly related to the grade-level standards, concepts, and skills being taught.</td>
<td></td>
<td>4 3 2 1</td>
</tr>
</tbody>
</table>
| | • To reach students, teachers draw from a common subset of instructional strategies and activities such as:  
  • Direct instruction  
  • Cooperative learning  
  • Project-based learning  
  • Simulations  
  • Hands-on learning – integrated technology | 4 3 2 1 |

4 = High quality, complete, mature, and coherent implementation – NEARLY PERFECT, LITTLE ROOM FOR IMPROVEMENT  
3 = Good quality, maturing but not fully implemented by all – GOOD QUALITY BUT STILL ROOM FOR REFINEMENT and IMPROVEMENT  
2 = Fair quality, mixed implementation, immature practice, sporadic by some – SIGNIFICANT IMPROVEMENT NEEDED  
1 = Poor quality, low level of implementation, new program, by a few – CONSIDERABLE STRATEGIC PLANNING, CONSENSUS BUILDING AND IMPROVEMENT NEEDED
## Academic Excellence (continued)

<table>
<thead>
<tr>
<th>General Criteria</th>
<th>Detailed Evidence of Criteria</th>
<th>Self-Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Teachers use a variety of methods to assess and monitor the progress of student learning (e.g., tests, quizzes, assignments, exhibitions, projects, performance tasks, portfolios, student conferences).</td>
<td>• Teachers use common, frequent assessments to benchmark key concepts and the achievement of their students.</td>
<td>4 3 2 1 Average</td>
</tr>
<tr>
<td></td>
<td>• Students learn how to assess their own and others' work against the performance standards, expectations, or levels.</td>
<td>4 3 2 1</td>
</tr>
<tr>
<td>6. The faculty and master schedule provide students time to meet rigorous academic standards.</td>
<td>• Students are provided more time to learn the content, concepts or skills if needed.</td>
<td>4 3 2 1 Average</td>
</tr>
<tr>
<td></td>
<td>• Flexible scheduling enables students to engage in academic interventions, extended projects, hands-on experiences, and inquiry-based learning.</td>
<td>4 3 2 1</td>
</tr>
<tr>
<td>7. Students are provided the support they need to meet rigorous academic standards.</td>
<td>• Teachers know what each student has learned and still needs to learn.</td>
<td>4 3 2 1 Average</td>
</tr>
<tr>
<td></td>
<td>• Students have multiple opportunities to succeed and receive extra help as needed, such as:</td>
<td>4 3 2 1</td>
</tr>
<tr>
<td></td>
<td>o co-teaching or collaborative resource model,</td>
<td>4 3 2 1</td>
</tr>
<tr>
<td></td>
<td>o support and intervention classes,</td>
<td>4 3 2 1</td>
</tr>
<tr>
<td></td>
<td>o before- and after-school tutoring,</td>
<td>4 3 2 1</td>
</tr>
<tr>
<td></td>
<td>o homework centers</td>
<td>4 3 2 1</td>
</tr>
<tr>
<td>8. The adults in the school are provided time and frequent opportunities to enhance student achievement by working with colleagues to deepen their knowledge and to improve their standards-based practice.</td>
<td>• Teachers collaborate in making decisions about rigorous curriculum, standards-based assessment practice, effective instructional methods, and evaluation of student work.</td>
<td>4 3 2 1 Average</td>
</tr>
<tr>
<td></td>
<td>• The professional learning community employs coaching, mentoring, and peer observation as a means of continuous instructional improvement</td>
<td>4 3 2 1</td>
</tr>
</tbody>
</table>
Social Equity

High performing schools with middle grades are socially equitable, democratic, and fair. They provide every student with high-quality teachers, resources, learning opportunities, and supports. They keep positive options open for all students.

<table>
<thead>
<tr>
<th>General Criteria</th>
<th>Detailed Evidence of Criteria</th>
<th>Self-Rating</th>
</tr>
</thead>
</table>
| 1. To the fullest extent possible, all students, including English learners, students with disabilities, gifted and honors students, participate in heterogeneous classes with high academic and behavioral expectations. | Faculty and administrators are committed to helping each student produce proficient work.  
Evidence of this commitment includes tutoring, mentoring, enrichment assignments, differentiated instruction, special adaptations, supplemental classes and other supports.  
Accelerated, short-term interventions for students with similar needs are fluid. | **Average** |
| 2. Students are provided the opportunity to use many and varied approaches to achieve and demonstrate competence and mastery of standards. | Teachers differentiate instruction in order to give each student equal opportunity to comprehend the standards-based curriculum.  
Teachers provide a variety of learning experiences so all students have opportunities to master a challenging curriculum.  
Teachers provide learning activities that represent varying learning styles so all students have opportunities to master standards. | **Average** |
| 3. Teachers continually adapt curriculum, instruction, assessment, and scheduling to meet their students' diverse and changing needs. | The faculty is always seeking ways to improve programs, curriculum, and assessment to better meet student needs.  
Teachers assess mastery continuously and modify their instruction to meet current needs.  
The master schedule is developed in a way that provides flexibility for teachers to meet specific instructional needs on a daily basis. | **Average** |
| 4. All students have equal access to valued knowledge in all school classes and activities. | To the fullest extent possible, students use technology to do research and analyze data, read more than textbooks, and understand how to solve complex problems.  
To the fullest extent possible, students with disabilities are in regular classrooms.  
Students have access to interest-based classes, activities, or opportunities. | **Average** |
| 5. Students have ongoing opportunities to learn about and appreciate their own and others' cultures. | The school values knowledge from the diverse cultures represented in the school, community, and our nation.  
Materials in the media center represent all of the cultures of the students.  
Families often come and share their traditions and beliefs.  
Multiple viewpoints are encouraged. | **Average** |
## Social Equity (continued)

<table>
<thead>
<tr>
<th>General Criteria</th>
<th>Detailed Evidence of Criteria</th>
<th>Self-Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. The school community knows every student well.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Each student is appreciated and respected.</td>
<td>4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>• Staff members do not use negative labels or discuss students in negative ways.</td>
<td>4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>• Every student has an adult advocate and supporter in the school.</td>
<td>4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>7. To the fullest extent possible, the faculty welcomes and encourages the active participation of all its families and makes sure that all its families are an integral part of the school.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Transportation, meals, childcare, and translation support are provided so all families of diverse cultures and languages can attend school events.</td>
<td>4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>• Efforts are made to eliminate barriers (e.g., transportation, childcare, translation) to attend school events</td>
<td>4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>• Multiple forms of communication are used with families and communication is two way.</td>
<td>4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>• Families have a voice in the decision-making process of the school.</td>
<td>4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>• Opportunities are provided for families to engage in supporting student learning (e.g., parenting classes, literacy programs, accessing information about student progress, making meaningful connections to the curriculum).</td>
<td>4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>8. The school’s reward system is designed to value diversity, civility, service, and democratic citizenship.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• The faculty recognizes the contributions of all its students.</td>
<td>4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>• Awards are not limited to sports and academic honors.</td>
<td>4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>9. To the fullest extent possible, staff members understand and support the family backgrounds and values of their students.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• The school recruits a culturally and linguistically diverse staff.</td>
<td>4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>• The staff members are a good match to the school’s community.</td>
<td>4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>10. The school rules are clear, fair, and consistently applied.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Students and parents are informed of school rules and know exactly what will and does happen if students break the rules.</td>
<td>4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>• Staff members routinely analyze and act upon referral and suspension data to make sure that no one group of students is unfairly singled out by classroom and school staff.</td>
<td>4 3 2 1</td>
<td></td>
</tr>
<tr>
<td>• The school’s disciplinary referrals and suspension rate are low as a result of proactive interventions that keep students engaged, resilient, healthy, safe, and respectful of one another.</td>
<td>4 3 2 1</td>
<td></td>
</tr>
</tbody>
</table>
Organizational Structures and Processes
High-performing schools with middle grades are learning organizations that establish norms, structures, and organizational arrangements to support and sustain their trajectory toward excellence.

<table>
<thead>
<tr>
<th>General Criteria</th>
<th>Detailed Evidence of Criteria</th>
<th>Self-Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. A shared vision of what a high-performing school is and does drives every facet of school change.</td>
<td>• The shared vision drives constant improvement.</td>
<td>4 3 2 1</td>
</tr>
<tr>
<td></td>
<td>• Shared, distributed, and sustained leadership propels the school forward and preserves its institutional memory and purpose.</td>
<td>4 3 2 1</td>
</tr>
<tr>
<td></td>
<td>• Everyone knows what the plan is and the vision is posted and evidenced by actions.</td>
<td>4 3 2 1</td>
</tr>
<tr>
<td>2. The principal has the responsibility and authority to hold the school-improvement enterprise together, including day-to-day know-how, coordination, strategic planning, and communication.</td>
<td>• Lines of leadership for the school's improvement efforts are clear.</td>
<td>4 3 2 1</td>
</tr>
<tr>
<td></td>
<td>• The school leadership team has the responsibility to make things happen.</td>
<td>4 3 2 1</td>
</tr>
<tr>
<td></td>
<td>• The principal makes sure that assignments for staff are clear and explicit and are completed in a timely manner.</td>
<td>4 3 2 1</td>
</tr>
<tr>
<td>3. The school is a community of practice in which learning, experimentation, and the opportunity for reflection are the norm.</td>
<td>• School leadership fosters and supports interdependent collaboration.</td>
<td>4 3 2 1</td>
</tr>
<tr>
<td></td>
<td>• Expectations of continuous improvement permeate the school culture.</td>
<td>4 3 2 1</td>
</tr>
<tr>
<td></td>
<td>• Learning is on-going for everyone.</td>
<td>4 3 2 1</td>
</tr>
<tr>
<td>4. The school and district devote resources to content-rich professional learning, which is connected to reaching and sustaining the school vision and increasing student achievement.</td>
<td>• Professional learning is intensive, of high quality, ongoing, and relevant to middle-grades education.</td>
<td>4 3 2 1</td>
</tr>
<tr>
<td></td>
<td>• Teachers get professional support to improve instructional practice (i.e., classroom visitations, peer coaching, demonstration lessons, etc.).</td>
<td>4 3 2 1</td>
</tr>
<tr>
<td></td>
<td>• Opportunities for learning increase knowledge and skills, challenge outmoded beliefs and practices, and provide support in the classroom.</td>
<td>4 3 2 1</td>
</tr>
<tr>
<td>5. The school is not an island unto itself; it is a part of a larger educational system (i.e., districts, networks and community partnerships).</td>
<td>• Deliberate vertical articulation and transition programs exist between feeder elementary schools and destination high schools.</td>
<td>4 3 2 1</td>
</tr>
<tr>
<td></td>
<td>• The district supports through funding and time its schools' participation in best practice networks, associations, learning communities, and professional learning focused on middle grades improvement and achievement.</td>
<td>4 3 2 1</td>
</tr>
<tr>
<td></td>
<td>• The school and district work collaboratively to bring coherence to curriculum, instruction, assessment, intervention, data collection, analysis, and accountability for student achievement.</td>
<td>4 3 2 1</td>
</tr>
</tbody>
</table>
### Organizational Structures and Processes (continued)

<table>
<thead>
<tr>
<th>General Criteria</th>
<th>Detailed Evidence of Criteria</th>
<th>Self-Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. The school staff holds itself accountable for student success.</td>
<td>• The school collects, analyzes, and uses data as a basis for making decisions. &lt;br&gt;• School-generated evaluation data is used to identify areas for more extensive and intensive improvement. &lt;br&gt;• The school staff intentionally and explicitly reconsiders its vision and practices when data call them into question.</td>
<td>4 3 2 1 Average</td>
</tr>
<tr>
<td>7. District and school staff possess and cultivate the collective will to persevere, believing it is their business to produce increased achievement and enhanced development of all students.</td>
<td>• Barriers are viewed as challenges, not problems. &lt;br&gt;• District and school staff assess and evaluate current programs regularly and adapt them as needed to maximize the level of student mastery.</td>
<td>4 3 2 1 Average</td>
</tr>
<tr>
<td>8. The school staff and district staff partner with colleges and universities.</td>
<td>• A mentoring program for new teachers is in place. &lt;br&gt;• The principal contacts colleges and universities when hiring new teachers.</td>
<td>4 3 2 1 Average</td>
</tr>
<tr>
<td>9. The school includes families and community members in setting and supporting the school’s trajectory toward high performance</td>
<td>• Families and community members are informed about the school’s goals for student success and students’ responsibility for meeting those goals. &lt;br&gt;• Representatives of all stakeholders are engaged in ongoing and reflective conversation and decision making about governance to promote school improvement.</td>
<td>4 3 2 1 Average</td>
</tr>
</tbody>
</table>
APPENDIX C

PERMISSION FROM NATIONAL FORUM TO ACCELERATE MIDDLE GRADES REFORM
Good morning Terry,

You absolutely have permission to use the STW Rubric as part of your dissertation. I contacted our lead researcher, Nancy Flowers, and she sent the following information for you as well. (See blue text below)

If you think to send a copy of your work to me when you are finished, that would be wonderful. We like to keep track of when the STW Rubric and results are referenced.

Thanks so much for checking on this! Best wishes on this venture!

Ericka

The citation that I use when referencing the STW Rubric in our publications is below:

National Forum to Accelerate Middle Grades Reform. (2013). 
APPENDIX D

GEORGIA DEPARTMENT OF EDUCATION RULE 160-4-2.38 EDUCATION

PROGRAMS FOR GIFTED STUDENTS EVALUATION AND ELIGIBILITY CHART
Georgia Department of Education  
Rule 160-4-2-.38 Education Programs for Gifted Students  
Evaluation and Eligibility Chart

- In option A and B, information shall be gathered in each of the four categories.  
- At least one of the criteria must be met by a score on a GaDOE approved nationally normed reference test.  
- Any data used to establish eligibility in one category shall not be used to establish eligibility in another category.  
- If a rating scale is used to evaluate creativity, a rating scale shall not be used to evaluate motivation. If a rating scale is used to evaluate motivation, a rating scale shall not be used to evaluate creativity.  
- Any piece of information used to establish eligibility shall be current within two years.  
- Local school systems must establish policies in regard to the use of data gathered and analyzed by private entities.

<table>
<thead>
<tr>
<th>Category</th>
<th>Option A</th>
<th>Option B</th>
</tr>
</thead>
</table>
| Mental Ability | Student must have a qualifying score in the mental ability AND achievement categories.  
> Grades K-2 99th percentile composite score on a nationally age normed mental ability test  
> Grades 3-12 ≥96th percentile composite score on a nationally age normed mental ability test | Grades K-12 ≥96th percentile composite on a nationally age normed mental ability tests OR 96th percentile on a component score on a nationally age normed mental ability tests (see pg. 27 of manual for add’l information) |
| Achievement    | Grades K-12 ≥ 90th percentile Total Reading, Total Math, or Complete Battery on a nationally normed achievement test | Grades K-12 ≥ 90th percentile Total Reading, Total Math, or Complete Battery on a nationally normed achievement test  
> Grades K – 12 Superior product/performance with a score ≥ 90 on a scale of 1-100, as evaluated by a panel of three or more qualified evaluators |
| Creativity     | Evaluation data required                                                 |  
> Grades K-12 ≥ 90th percentile on composite score on a nationally normed creativity test  
> Grades K-12 Rating scales used to qualify student creativity must equate to the 90th percentile  
> Grades K-12 Superior product/performance with a score ≥ 90 on a scale of 1-100, as evaluated by a panel of three or more qualified evaluators |
| Motivation     | Evaluation data required                                                 |  
> Grades 6-12 Two-year average of a 3.5 GPA on a 4.0 scale in regular core subject of mathematics, English/language arts, social studies, science, and full year world languages (see page 30 of manual for add’l info.)  
> Grades K-12 Rating scales used to qualify student motivation must equate to the 90th percentile  
> Grades K – 12 Superior product/performance with a score ≥ 90 on a scale of 1-100, as evaluated by a panel of three or more qualified evaluators |

Identification of gifted students shall be nondiscriminatory with respect to race, religion, national origin, sex, disabilities or economic background.
APPENDIX E

GIFTED EDUCATION REFERRAL AND ELIGIBILITY CHART
# GIFTED REFERRAL AND ELIGIBILITY CHART

## STEP I
**REPORTED REFERRAL**
A student is referred for consideration by teachers, counselors, administrators, parents/guardians, peers, self or others with knowledge of student’s academic abilities.

**AUTOMATIC REFERRAL**
Students who score at specified levels on nationally norm-referenced tests. The local board of education establishes the score(s) needed for automatic referral.

## STEP II
**STUDENT SEARCH/ELIGIBILITY TEAM**
A decision-making team that uniformly considers information collected on student referrals. The team decides if it is appropriate to proceed with formal evaluation.

- Search/eligibility team gathers more information
- Additional evaluation is not needed. Student continues in regular education programs.

## STEP III
**FORMAL EVALUATION**
Student is referred for Gifted Education Evaluation in Mental Ability, Achievement, Creativity, and Motivation.

## STEP IV
**Eligible**
- Eligibility Team reviews assessment results and makes recommendation
- Gifted Services Option(s) Recommendation: Student(s) may need a RTI follow-up plan

**Not Eligible**
- Regular Education: Student(s) may need a RTI follow-up plan
APPENDIX F

PERMISSION TO REPRINT PUBLIC DOCUMENTS FROM GEORGIA

DEPARTMENT OF EDUCATION
Good Morning,

The information you are referring to is posted as public information on the Georgia Department of Education’s website. It can be copied for inclusion in other documents.

Gail H. Humble, EdS
Program Manager, College Readiness and Talent Development
Department of Curriculum and Instruction
Georgia Department of Education
205 Jesse Hill Jr. Dr.
1766 Twin Towers E
Atlanta, Georgia 30034
404-463-5098
gHumble@doe.k12.ga.us
http://gadoe.org
APPENDIX G

PERMISSION FROM ASSOCIATION FOR MIDDLE LEVEL EDUCATION
Hi Terry,
Thanks for contacting the Association for Middle Level Education. You have permission to use the table on page 14 of *This We Believe: Keys to Educating Young Adolescents* in your dissertation. Please indicate the following:
Used with permission from the Association for Middle Level Education. [www.amle.org](http://www.amle.org)
APPENDIX H

MERCER IRB APPROVAL
Monday, December 4, 2017

Terry Wetherington
1201 Mercer University Drive
School of Education
Macon, GA 31207-0001

RE: A Multiple Case Study of Three Georgia Schools To Watch Gifted Programming (H7113218)

Dear Wetherington:

On behalf of Mercer University’s Institutional Review Board for Human Subjects Research, your application submitted on 19-Nov-2017 for the above referenced protocol was reviewed in accordance with Federal Regulations 21 CFR 56.110(b) and 45 CFR 46.110(b) (for expedited review) and was approved under category(c)(4) 6, 7 per 63 FR 8036a.

Your application was approved for one year of study on 01-Dec-2017. The protocol expires on 01-Dec-2018. If the study continues beyond one year, it must be reevaluated by the IRB Committee.

Item(s) Approved:
new application for student minimal risk study involving interviews and focus groups to describe how three Georgia Schools to Watch fit meet the needs of young adolescent gifted and talented students.

NOTE: Please report to the committee when the protocol is initiated. Report to the Committee immediately any changes in the protocol or consent form and ALL accidents, injuries, and serious or unexpected adverse events that occur to your subjects as a result of this study.

We at the IRB and the Office of Research Compliance are dedicated to providing the best service to our research community. As one of our investigators, we value your feedback and ask that you please take a moment to complete our Satisfaction Survey and help us to improve the quality of our service.

It has been a pleasure working with you and we wish you much success with your project! If you need any further assistance, please feel free to contact our office.

Sincerely,

Amy Chamblin Richardson, Ph.D., CIR, CIRM,
Associate Director of Human Research Protection Programs (HRPP)
Member
Institutional Review Board

"Mercer University has adopted and agrees to conduct its clinical research studies in accordance with the International Conference on Harmonization's (ICH) Guidelines for Good Clinical Practice."
You have been given the opportunity to ask questions and these have been answered to your satisfaction. Your signature below indicates your voluntary agreement to participate in this research study.

<table>
<thead>
<tr>
<th>Research Participant Name (Print)</th>
<th>Name of Person Obtaining Consent (Print)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terry Wetherington</td>
<td></td>
</tr>
<tr>
<td>Research Participant Signature</td>
<td>Person Obtaining Consent Signature</td>
</tr>
<tr>
<td>11/15/17</td>
<td>Date</td>
</tr>
</tbody>
</table>

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APPENDIX J

CLUBS, ORGANIZATIONS, AND ATHLETICS AT SOUTHERN PLAINS MIDDLE SCHOOL
## Clubs and Organizations
- Art Attack
- Beta Club
- Book Club
- Computer/App Club
- Craft Club
- Fellowship of Christian Athletes (FCA)
- Future Career and Community Leaders (FCCLA)
- Fitness Club
- Future Business Leaders of America (FBLA)
- Girl Talk
- History Club
- Inner Beauty Club
- Math Club
- Model United Nations
- Puzzle
- Sign Language
- Sports Talk
- Student Government Association

## Connections Courses
- Art
- Agriculture
- Band
- Chorus
- Computer Literacy
- Drama
- Health
- Intro to Business and Technology
- Spanish
- Theater Arts
- Weight Training

## Athletics
- Baseball
- Basketball
- Basketball Cheerleading
- Competition Cheerleading
- Cross Country
- Football
- Football Cheerleading
- Girls’ Softball
- Girls’ Volleyball
- Golf
- Soccer
- Swimming
- Track
- Wrestling
APPENDIX K

CLUBS, ORGANIZATIONS, AND ATHLETICS AT PARKSIDE MIDDLE SCHOOL
| Clubs and Organizations          | • Academic Bowl                      | • Health Occupation Students of America (HOSA) | • National Junior Honors Society |
|                                 | • Fellowship of Christian Athletes (FCA) | • Math Team                                   | • Robotics                      |
|                                 | • Future Farmers of America (FFA)      | • Model United Nations                         | • Technology Club               |
| Connections Courses             | • Band                                 | • Family and Consumer Sciences                | • Fine Arts                     |
|                                 | • Business and Technology             | • Fast Forward/Reading                        | • Health                        |
|                                 | • Chorus                              | • Fast Forward/Math                            | • Physical Education            |
|                                 | • Healthcare Science                  |                                             | • Weight Training               |
| Athletics                       | • Baseball                            | • Golf                                        | • Track and Field               |
|                                 | • Basketball                          | • Soccer                                      | • Wrestling                     |
|                                 | • Cheerleading                         | • Softball                                    |                             |
|                                 | • Cross Country                        | • Swimming                                    |                             |
|                                 | • Football                             | • Tennis                                      |                             |
|                                 |                                             |                                             |                             |
APPENDIX L

CLUBS, ORGANIZATIONS, AND ATHLETICS AT MOUNTAINSIDE MIDDLE SCHOOL
Mountainside Middle School

<table>
<thead>
<tr>
<th>Clubs and Organizations</th>
<th>Junior Beta</th>
<th>Programming Club</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chess Club</td>
<td>Junior Thespian</td>
<td>Robotics</td>
</tr>
<tr>
<td>DECA</td>
<td>LIMITD</td>
<td>Trivia Club</td>
</tr>
<tr>
<td>Future Business Leaders of America (FBLA)</td>
<td>Mountain Bike Club</td>
<td>Club/Academic Bowl</td>
</tr>
<tr>
<td>Flute Club</td>
<td>National Future Farmers of America (FFA)</td>
<td>Yearbook</td>
</tr>
<tr>
<td>4-H</td>
<td></td>
<td></td>
</tr>
<tr>
<td>History Club</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Homeless Pets Club</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Connections Courses</th>
<th>Chorus</th>
<th>Physical Education (PE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art</td>
<td>Computer Application</td>
<td></td>
</tr>
<tr>
<td>Band</td>
<td>Drama</td>
<td></td>
</tr>
<tr>
<td>Business and Technology Education</td>
<td>Health</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Athletics</th>
<th>Football</th>
<th>Intramurals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basketball</td>
<td>Golf</td>
<td>Track</td>
</tr>
<tr>
<td>Cheerleading</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


APPENDIX M

GIFTED ADOLESCENTS AS DESCRIBED BY EDUCATORS AT PARTICIPANT SCHOOLS
Gifted Learners as Described by Educators at Participant schools

“I really do think my strength is teaching gifted kids. I mean, I think that I get them, and I think, because I get them, I'm able to craft an environment where not only they can learn, but where they can love to learn. And, where they are safe to struggle, and it is okay not to be perfect. And, I think that kids don't necessarily always feel that with their teachers, and so from that aspect, I enjoy a day full of that. Because my struggle becomes just trying to meet their needs.”

“Our gifted children are very different too. They have different issues and different problems.”

“They are all gifted, but they are definitely not all the same.”

“Even within your gifted classes you are going to have some varying abilities, you know.”

“They have maybe some type of processing disability, but then they can write like a college student, so, you get that too.”

“If a gifted student is bored or already knows what you are teaching, it is a waste of time and could even lead to a behavior issue.”

“So, there are some kids who are researching tsunamis … how they are actually started where some kids are still learning what a tsunami is.”

“They still need instruction and a lot of times they are just ready to go.”

“They don't necessarily think that they need the help, but, because they are, like, we learn it.”

“They’re not going to ask for help.”

“Sometimes a gifted learner can be harder to reach because they either already know content, or they just think they do.”

“I've had some students who feel like they are not teachable because they know everything already, and it is hard to serve them when they are so resistant to it.”

“They are different in that most of them want to meet those expectations, want to surpass those.”
“I think they can challenge themselves against other kids, but sometimes their work, they don't put as much as they are capable of putting into it.”

“That was awesome to see them really shine. A lot of kids here, who are really shy and quiet, really stepped out on that one, and I love that.”

“Those students have a very low frustration tolerance and shut down very easily when they feel as though they don't know the next step.”

“They're, so, they want to make sure everything is correct before they move on.”

“Instead of just turning it in and waiting to see what the outcome is, they are very, like, overly contentious about.”

“For a lot of gifted kids grades are so important to them.”

“She wanted to retake a test because she made a 97. I'm like, oh, like, that's not the real world you can't be perfect in everything.”

“It takes them forever to get something done. They want to make sure they get a one hundred on everything.”

“They want to wait for someone to tell them exactly what to do.”

“They don't like the struggle.”

“The accomplishment is so much greater when they have worked for it.”

“They love being able to have a final product that they can show.”

“There is a whole different work ethic that happens with the kids that are in accelerated math and the kids that are maybe in just an on-level class.”

“They can be creative thinkers across the board, and, yes, they have higher expectations, but, their true talents, when we start talking about talents, some of them are more talented.”

“You will have a class of brilliant students, and then, there will be a couple who are just, like, they were certified gifted at such a young age. But, I don't see it.”

“They giftedness has expired.”
“Laughter”

“Then, you have that insanely just profoundly gifted kid that is just over the top.”

“Because, um, you know, they are very talkative. That's a very talkative group of students.”

“Sometimes they have helicopter parents too. You know who want to, uh, dominate their course of instruction.”

“Their parents think they are so unbelievably smart.”

“Parents are sometimes a challenge. That's always a challenge.”

“I have one who the teacher did not recommend to take accelerated, but parents waived in anyway, and it has been a struggle.”
APPENDIX N

SOUTHERN PLAINS MS INSTRUCTIONAL STRATEGIES FOR GIFTED STUDENTS
Southern Plains Middle School Instructional Strategies for Gifted Students

- Inquiry and project based learning
  - Interdisciplinary
  - Options
  - Choice
  - High expectations
  - Go deeper into the subject
  - Evaluation
  - Challenging
  - Solve real-world problems
  - Communication component
  - Hands-on
  - Learn it by themselves
  - Give them the foundation
  - They get to run with it
  - Science, Technology, Engineering, and Math (STEM) activities
  - Higher level
  - Bring in community experts

- Differentiation
  - By assignment
  - Different rubrics
  - Options
  - Choice
  - Different types of writing
  - Different rates of instruction
  - Different levels of scaffolding
  - Different approach
  - Different instruction
  - Accelerated type tasks
  - Less guidelines
  - Student work
APPENDIX O

PARKSIDE MIDDLE SCHOOL INSTRUCTIONAL STRATEGIES FOR GIFTED STUDENTS
Parkside Middle School Instructional Strategies for Gifted Students

- Curriculum compacting
  - Students who have mastered the standard
  - Start on the next thing
- Enrichment activities
  - The rest of the class is catching up
  - Totally skip something
- Differentiation
  - Different projects
  - Provide something different
  - Scaffold down or scaffold up
  - Individual
  - Choice menu
- Label isn't the determining factor
  - Different pace
  - Small group
  - A child with a high Lexile will get a higher Lexile passage
- Acceleration
  - Push to the next level
  - Take eighth grade math and ninth grade math simultaneously
  - Accelerate skills
  - Take eighth grade math and ninth grade math simultaneously
  - Accelerate skills
  - As they show proficiency
  - Do something a little bit higher
  - Prepare for high school
  - Prepare for high school
- Inquiry and project based learning
  - Choose their own topics
  - Present it on stage
  - Engage with the audience
  - Kinesthetic
  - Technology
  - Research
  - Designing their own experiment
  - Challenging
  - Analyze
  - The products were so diverse
  - Create
  - Primary and secondary sources
  - Independent stuff
  - Without so much scaffolding
  - Education community and business community
  - Relevant
APPENDIX P

MOUNTAINSIDE MIDDLE SCHOOL INSTRUCTIONAL STRATEGIES FOR
GIFTED STUDENTS
Mountainside MS Instructional Strategies for Gifted Students

- Differentiation
  - Different approach
  - Self-paced
  - Different assignments
  - Different options to demonstrate knowledge

- Not more work, different work
  - Choice
  - Multiple projects
  - Multiple perspectives
  - Scaffolding

- Higher level learning
  - Oratorical contest
  - Deductive reasoning
  - Research
  - Explore
  - Upping the rigor
  - Multiple projects
  - Higher level content
  - Harder material
  - Choice
  - High school level standards
  - Higher level questioning and assessments

- Engage them at a higher level
  - Academic bowl team
  - Primary and secondary sources
  - Think like a historian
  - Train them to think
  - Student choice
  - Project-based
  - Create
  - Challenge
  - Open-ended discussions
  - Find information
  - Embrace learning
APPENDIX Q

GIFTED IN-FIELD ENDORSEMENT
505-2-.167 GIFTED IN-FIELD ENDORSEMENT

(1) Eligibility Requirements.

(a) To be eligible for the professional Gifted Endorsement, the applicant must hold a level four (4) or higher renewable professional certificate in any teaching field and complete other requirements outlined in GaPSC Rule 505-2-.14 ENDORSEMENTS.

(b) To be eligible for the Supplemental Induction Gifted Endorsement, the applicant must hold a level four (4) or higher Induction certificate in any teaching field and complete other requirements outlined in GaPSC Rule 505-2-.14 ENDORSEMENTS.

(2) In-Field Statement (See Rule 505-2-.40). An individual with the Gifted Endorsement is in-field to provide direct instruction to gifted students only in the grade levels and field(s) of the base certificate(s). Direct instruction may be provided in resource classes, advanced content classes and/or cluster group classes.

(a) Individuals with the Gifted Endorsement are also in-field to serve as a resource teacher for indirect gifted education services in any content area for grades P-12.

(b) Each state-approved curriculum course, with specified certificate fields that are designated as in-field, may be found under Certification/Curriculum Assignment Policies (CAPS) on the GaPSC web site at www.gapsc.com. Authority O.C.G.A. 20-2-200