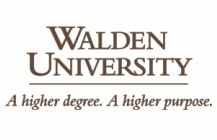

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A Phenomenological Exploration of Teacher Training Regarding Academically Advanced/High-Ability Students

Carrie Olstad Sueker
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COLLEGE OF EDUCATION

This is to certify that the doctoral study by

Carrie Sueker

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

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Walden University
2011

Abstract

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by

Carrie Olstad Sueker

MEd, University of Minnesota, 1992

BA, Gustavus Adolphus College, 1990

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

Teacher Leadership

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Abstract

The needs of academically advanced/high-ability students may not be met in today's schools. When educational needs are not met, students may not reach full potential, may lose intrinsic motivation for learning, and may develop poor work and study habits. The rural school district involved in this study lacks a formal gifted and talented program. The purpose of this qualitative, phenomenological research study was to explore the lived experiences of 15 K-8 teachers in the identified school district via individual interviews. The National Association for Gifted Children's knowledge and skill standards in gifted and talented education served as the conceptual framework for this study**.** The research questions explored teacher training for working with academically advanced students and the skills and knowledge teachers feel they require on this topic. Possible supports and barriers to the implementation of these skills and knowledge were also addressed. Data were analyzed using Moustakas's approach to Husserl's transcendental phenomenology. Three conclusions from the findings indicated that teachers have received very little to no preservice and inservice training on the topic; district teaming situations are a training strength; and regular, on-going training on the topic of academically advanced students is necessary. Recommendations include incorporating a scope and sequence to the curriculum for academically advanced students, implementing state/federal mandates for these students, and integrating this study's conceptual framework into teacher preservice programs and staff development. In addition to contributing to potential positive social change in the school district, the results may inform training practices in other districts, preservice programs, and state policy formation, all of which can impact learning and well-being of academically advanced/high-ability students.

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Dedication

I dedicate this dissertation to my family and friends. Your love, support, and understanding throughout my doctoral studies allowed me to persevere and work toward this personal goal. I am hopeful that my efforts will make a difference in the lives of academically advanced learners. It is important for educators to strive to meet the needs of all students.

To my children, Mitchell and Kaia: May you also continue your passion and love for learning throughout your lives.

Acknowledgments

I would first like to acknowledge and thank my husband, Erik, and my children, Mitchell and Kaia, for their love and support throughout my doctoral journey. The countless hours I spent on my studies at home, in the car, on family outings, at tournaments, late at night, and so forth would not have been possible without their understanding, encouragement, and patience. I also thank them for their willingness to listen to my thoughts and ideas and to provide me with feedback.

Thank you to my parents, Harley and Sandy, for their love and support throughout my life. Their guidance and modeling provided me with the skills and work ethic to accomplish this dream. To my siblings, Christie, Katie, and Jay: Thank you for always being there for me as well.

In my first course at Walden I met a classmate, Julie. We live over 1000 miles apart, but her home town is only miles away from me. She became a dear friend, from whom I learned a great deal. I am very thankful for her friendship, support, and encouragement.

I would like to acknowledge and thank my school district as well as my study's participants. I greatly appreciate the participants' time and their willingness to share their thoughts and ideas. Also, thank you to the grade level team of teachers that I work with at school. Their encouragement and support are much appreciated.

Finally, thank you to my dissertation committee: Dr. Kelley Jo Walters, Dr. Derek Schroll, and Dr. Mary Howe. I am grateful for their expertise, guidance, and advice throughout this journey.

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Section 1: Introduction to the Study

Today's classrooms contain students with a vast range of academic abilities (Gagné, 2007; Manning, 2006; Tomlinson, 2004). Teachers are presented with the challenge of addressing the needs of learners with a variety of different ability levels, including those with advanced academic capabilities. Thus, the needs of these academically advanced/high-ability students may not be met (Colangelo et al., 2004a, 2004b; Farkas & Duffett, 2008; Rogers, 2002). Legislative mandates that induce pressure to raise standardized test scores may cause teachers to place greater focus on students who need additional support to meet basic standards, while advanced learners may be thought to be fine on their own. Teachers often pick an instructional pace geared to average and below-average ability levels (Gagné, 2007). In addition, many teachers have minimal knowledge and training regarding gifted and talented learners (Farkas & Duffett, 2008; Rogers, 2002).

In Part 2 of a two-part study that analyzed high-achieving students' progress during the era of No Child Left Behind (NCLB), Farkas and Duffett (2008) randomly surveyed 900 third- to 12th- grade public school teachers nationally, concerning academically advanced students. The authors also compiled qualitative data from five focus groups of teachers to add personal examples and detailed experiences to the survey results. Their research data indicated that 63% of teachers surveyed felt the needs of academically struggling students were a top priority in their schools, and 73% surveyed felt their highest achieving students were bored and not being sufficiently challenged. The results from this teacher survey are not surprising, as gifted students may spend most of their time in the general classroom (Hong et al., 2006; Westberg & Daoust, 2003).

According to Hong et al. (2006), “The large majority of gifted and talented students across the nation spend all but 2 or 3 hours per week in general education classrooms” (p. 91). With the wide range of cognitive abilities in any one classroom, teachers need to be equipped with the skills and knowledge to address this diversity, including meeting the needs of academically advanced learners. Based on the aforementioned research, all students deserve to be challenged.

Research demonstrates that the most successful teachers of academically advanced students have also received the most training, but such training is typically lacking (Rogers, 2002). In the United States there is no federal mandate requiring gifted and talented training for prospective teachers in preservice programs. Instead, each state handles its preservice education on gifted and talented differently. Currently in Minnesota there are no requirements for including the topic of gifted and talented in preservice education courses, nor are there any state inservice or professional development requirements in this area (Council of State Directors of Programs for the Gifted & the National Association for Gifted Children, [CSDPG & NAGC], 2007).

The State of the States in Gifted Education Report for 2006-2007 found that one of the greatest areas needing attention in gifted education is appropriate preservice training at the undergraduate level in education. Currently only five states (Kansas, Montana, New York, Oregon, and Virginia) of the 43 states participating in the 2007 State of the States Gifted Education State Survey require any sort of gifted and talented training in initial teacher preparatory programs. The report also identified positive and negative forces on gifted education using a scale from 1 to 7, with 1 being *least in need of attention* and 7 being *most in need of attention*. Minnesota rated "appropriate pre-service

training at the undergraduate level in gifted education" as a 6 and “professional training for general education teachers to provide GT [Gifted and Talented] instruction” as a 6 as well (CSDPG & NAGC, 2007, p. 115). All states seem to be in agreement, as the inservice category had the highest mean score of all identified forces affecting gifted education, and the preservice training category was not far behind.

Practicing teachers’ opinions supported these data. According to Farkas and Duffett (2008), 18% of the 900 teachers surveyed about their own schooling and preservice education stated there was no focus on how to best teach academically advanced students, and another 46% felt there was very little focus. In reference to inservice training, 58% of teachers stated they have had no professional development over the past few years that specifically focused on academically advanced learners. These students and ultimately the nation could be adversely affected if teachers are not equipped with the knowledge and skills to meet the needs of this segment of the student population. Loveless (2008) stressed that America’s top students are often left out of educational debates and discussions, while struggling students are more often the main focus. Numerous resources are dedicated to those students at the low end of the academic spectrum, while high achieving students are often not a part of the equation. A lack of emphasis on teacher training regarding academically advanced students may play a role in academically advanced students being left out of educational discussions.

Contributing to the dilemma may be issues with terminology. Matthews and Foster (2005) declared, “It is politically incorrect in many places to even mention giftedness, much less to devote educational resources to addressing the needs of gifted learners” (p. 23). Farkas and Duffett (2008) stated they used the terminology

academically advanced in their survey, because "prior focus groups indicated this was consistently most comfortable for teachers to use" (p. 50).

The term *gifted* dates back to the late 1800s (National Association for Gifted Children [NAGC], 2008a) when Dr. William T. Harris, Superintendent of Schools in St. Louis, used the term and began designing accelerated programs for academically advanced students. In 1921, Lewis Terman began his famous, longitudinal study following 1500 academically advanced children. His use of the term gifted to describe his study's participants solidified the term into educational vocabulary (NAGC, 2008a). As previously noted, the gifted term can sometimes be problematic. Additionally, value in the gifted term is only gained if a practical outcome and a maximization of learning for a child is achieved (Matthews & Foster, 2005). As such, educating the local community on the terms used for this concept is also important. In order to do so, educators need adequate training to develop a clear, personal understanding of the terminology in order to advocate for this subgroup of learners.

Quality teacher training on the topic of academically advanced/high-ability students is vital in order to meet the needs of these learners (Hansen & Feldhusen, 1994; Rogers, 2002; VanTassel-Baska, 2000, 2006). Addressing the intellectual future of the nation has great potential for social change. The benefits to society can be numerous when the brightest students are optimally challenged.

Statement of the Problem

A rural school district in Minnesota lacks formal gifted and talented programming, as well as a scope and sequence to the curriculum for this subgroup of learners. This problem impacts academically advanced/high-ability students whose

learning needs may not be addressed. Currently at certain grade levels in the district's elementary and middle schools, there are various ability grouping strategies utilized in mathematics and/or reading, but at times there are discrepancies in grouping methods, processes, and the level of instruction from one grade to the next. In addition, some teachers may adjust their curriculum or instruction for a learner upon recognizing his/her advanced abilities, but this process is conducted on an inconsistent basis. The aforementioned practices all lack a systemic approach, as they are not implemented within and across all grade levels, and lack a scope and sequence to the curriculum for these learners from year to year. When educational needs are not met, academically advanced students may not reach full potential, may lose intrinsic motivation for learning, and may develop poor study habits and a poor work ethic (Gagné, 2007; Matthews & Foster, 2005; Rogers, 2002; VanTassel-Baska, 2006).

There are many possible factors contributing to this problem. First, accountability systems focused on meeting basic standards, such as NCLB (2002) may play a role (Caram & Davis, 2008; Clark, 2005; Colangelo et al., 2004a, 2004b; Cronin, Kingsbury, McCall, & Bowe, 2005; Gentry, 2006; Johnsen, 2007; Kenney, 2007; Kingsbury & Hauser, 2004; Loveless, Farkas, & Duffett, 2008; Moon, Brighton, & Callahan, 2003; VanTassel-Baska, 2006; Viadero, 2007). Second, a lack of preservice training on the topic of high-ability students might be a contributing factor (Dixon & Moon, 2006; Farkas & Duffett, 2008; Finn & Petrilli, 2008; Lambert, 2005; Loveless, 2008; Loveless et al., 2008; Matthews & Foster, 2005; Rogers, 2002). A third possible explanation is insufficient investment of time and support into inservice opportunities and professional development concerning high-ability students (Dixon & Moon, 2006; Farkas & Duffett,

2008; Finn & Petrilli, 2008; Loveless, 2008; Loveless et al., 2008; Moon et al., 2003; Rogers, 2002; VanTassel-Baska, 2006; VanTassel-Baska et al., 2008). The fourth probable rationale for this problem may be the public perception of professional development (National Center for Research on Teacher Learning [NCRTL], 2005). A fifth potential factor is equity and elitism issues (Colangelo et al., 2004a; Matthews & Foster, 2005; Rogers, 2002), and lastly, the assumption that high-ability students are able to succeed independently (Dixon & Moon, 2006; Pfeiffer & Stocking, 2000; Rogers, 2002) is another possible contributing factor to the aforementioned problem. Each of these six areas may play a role in the documented lack of use of well-researched instructional methods for high-ability students. This qualitative research study was designed to contribute to the body of knowledge needed to address this problem by exploring the training that teachers receive as well as the skills and knowledge teachers feel they have missed and require on the topic of academically advanced/high-ability students.

Purpose of the Study

The purpose of this qualitative, phenomenolgical research study was to explore the lived experiences of teachers regarding the training they have received to meet the needs of academically advanced/high-ability students in their classrooms. Based on the direction of the study, the central phenomenon of teacher training was generally defined as preservice training, inservice training, and any self-taught knowledge and skills on the topic of meeting the needs of this subgroup of students. In relationship to these training experiences, the skills and knowledge teachers feel they have missed and still require on the topic were also explored. Perceived supports and barriers to meeting the needs of

academically advanced students were also addressed. In order to build on strengths and make improvements to the current system, a clear description of teachers' perceptions and experiences was necessary. Gaining teachers' viewpoints on their training may inform professional development within the school district, may inform training practices in other districts, and may also benefit teacher preparation programs. The study's results could also influence state legislation.

Qualitative Research Questions and Nature of the Study

This qualitative research study contributed to the body of knowledge needed to address the aforementioned problem by exploring the training that teachers have received regarding academically advanced/high-ability students, as well as the skills and knowledge teachers feel they have missed and require on this topic. Possible barriers to the classroom implementation of these skills and knowledge were also addressed. The primary research question for the study was: What are teachers' lived experiences and perceptions of their training on the topic of meeting the needs of academically advanced/high-ability students in the classroom learning environment? Training was further organized into the categories of preservice training, inservice training, and possible self-taught knowledge and skills. Subquestions stemming from this primary research question were:

- Which specific skills and knowledge do teachers feel they have missed and still require training in order to meet the needs of academically advanced/high-ability students in the classroom learning environment?
- Are there barriers that teachers encounter, preventing them from implementing skills and knowledge to meet the needs of academically

advanced/high-ability students in the classroom learning environment? If so, what are these barriers?

This study was conducted in a rural Minnesota school district. To address the qualitative research question, a purposeful sampling of teachers was utilized. Teachers with a broad range of years of experience were interviewed. Fifteen teachers were selected for the study; five from each of these three categories: (a) teachers with 1-5 years of teaching experience in the district, (b) teachers with 6-10 years of teaching experience in the district, and (c) teachers with 11 or more years of teaching experience in the district. In addition to the purposeful representation of teachers' years of experience, gender and grade level taught were also considered. Representation of both elementary and middle school teachers and both male and female teachers were factored into the selection process. Including participants from a range of years of experience as well as grade levels provided a more complete and inclusive picture and avoided a narrow focus of just one perspective. I conducted the interviews and analyzed and interpreted the results. Interview questions aligned with the primary research question and subquestions. The interview guide is included in Appendix A.

This study used a phenomenological approach by gathering and exploring teachers' lived experiences regarding training to meet the needs of academically advanced/high-ability students. A phenomenological approach was chosen based on the desire to focus on the phenomenon of teacher training on the topic of academically advanced/high ability students. The intent of the study was not to focus on the life of an individual as in a narrative approach, or to develop a theory as in a grounded theory approach. Nor was the intent to describe how a cultural group operates as in ethnography,

or to state an in-depth understanding of a bounded case in a case study. Moustakas's (1994) approach to Husserl's transcendental phenomenology was utilized in this study in order to understand the lived experiences of the study's participants.

Individual interviews conducted with each participant were digitally recorded and then transcribed on computer. I organized the coded data using Microsoft Word documents on the computer. Moustakas's (1994) methods for organizing and analyzing data were utilized. Individual textural and structural descriptions were recognized. Textual themes and structural themes were then identified, and finally a synthesis of textural and structural meanings and a description of the essence of the phenomenon were provided.

Another individual may assess the qualitative findings differently than I did, affecting the study's credibility. *Member-checking* was used on my summary of the data and is a "key validation step in research" (Creswell, 2007, p. 155). Allowing the participants an opportunity to state their feelings on the accuracy of the findings will strengthen the credibility of my account. *Peer debriefing* (Creswell, p. 196) was utilized by regular contact with my dissertation committee. Further information and a more detailed discussion of the qualitative methodology can be found in section 3.

Conceptual Framework

The framework used as a benchmark in this analysis was the NAGC's (2008b) Knowledge and Skill Standards in Gifted and Talented Education for All Teachers. This framework represents the common core of knowledge and skills that all teachers should possess on the topic of gifted and talented students. These core standards are based on and derived from the National Gifted Education Standards that were developed by the

CEC-TAG and the NAGC (NAGC, 2008c). The National Gifted Education Standards are designed for universities seeking accreditation of their specialized programs in gifted education. See Appendix B for the National Gifted Education Standards. The Knowledge and Skill Standards in Gifted and Talented Education for All Teachers consists of three main recommendations. The items in parentheses, following each recommendation, correspond to a National Gifted Education Standard strand number, followed by the knowledge and/or skill numbers within each strand. The three recommendations are:

1. Understand the issues in definitions, theories, and identification of gifted and talented students, including those from diverse backgrounds (Strand 1, K2 & K4);
2. Recognize the learning differences, developmental milestones, and cognitive/affective characteristics of gifted and talented students, including those from diverse backgrounds, and identify their related academic and social-emotional needs (Strand 2, K1 & K4; Strand 3, K2); and
3. Understand, plan, and implement a range of evidence-based strategies to assess gifted and talented students, to differentiate instruction, content, and assignments for them (including the use of higher-order critical and creative-thinking skills), and to nominate them for advanced programs or acceleration as needed (Strand 4, K2, S4 & S5; Strand 7, S5; Strand 8, K3 & S3). (NAGC, 2008b).

Ultimately, there will also be commentary to go along with the Knowledge and Skill Standards in Gifted and Talented Education for All Teachers (J. Clarenbach, personal communication, October 26, 2009).

Definition of Terms

The terms *gifted* and *talented* are the traditional and widely-used vocabulary for the topic of this study. There is not simply one definition for gifted or for talented used throughout the volumes of literature on the topic. In addition, the terms gifted and talented may not be widely accepted in some situations due to charges of elitism (Matthews & Foster, 2005). The following are current definitions that are the most fitting for my study's focus. A more in depth discussion of these terms and the ideals that surround them can be found in section 2.

Academically advanced student is used throughout this study and can be defined as: Students who already meet and exceed grade level expectations and standards. Matthews and Foster (2005) defined *advancement* as: "Competence or achievement that is ahead of what is expected for a child's age" (p. 21).

In order to define *high-ability*, the Minnesota Automated Reporting Student System's (MARSS) definition for *gifted and talented children and youth* must first be shared:

> Gifted and talented youth are those students with outstanding abilities, identified at preschool, elementary, and secondary levels. These students are capable of high performance when compared to others of similar age, experience, and environment, and represent the diverse populations of our communities. These are students whose potential requires differentiated and challenging educational programs and/or services beyond those provided in the general school program. Students capable of high performance include those with demonstrated achievement or potential ability in any one or more of the following areas: general

> intellectual, specific academic subjects, creativity, leadership, and visual and performing arts. (MARSS, 2006, p. 1)

From this definition, *high-ability* (*high performance in general intellectual ability or in specific academic subjects*) is further defined as: "*General intellectual ability:* Students who demonstrate a high aptitude for abstract reasoning and conceptualization, who master skills and concepts quickly, and/or exhibit advanced critical thinking capability," (MARSS, 2006, p. 1), and "*Specific academic aptitude***:** Students who evidence extraordinary learning ability in one or more specific disciplines" (MARSS, 2006, p. 1).

Gifted: "Ability level largely exceeds that of most age peers" (Gagné, 2007, p. 94).

Giftedness: "Designates the possession and use of untrained and spontaneously expressed natural abilities (called aptitudes or gifts), in at least one ability domain, to a degree that places an individual at least among the top 10% of age peers" (Gagné, 2003, p. 60).

Mastery model of giftedness: "A mismatch between a child's current developmental level in a given subject area and the educational programming that is usually offered at that student's age and grade level" (Matthews & Foster, 2005, p. 6). "*Advancement* is probably the best description of the mastery model of giftedness" (Matthews & Foster, 2005, p. 21).

Mystery model of giftedness: According to Matthews and Foster (2005), this term Is implicit in those approaches to gifted education in which children are categorized as 'gifted' or 'not gifted' without any explicit links to specific educational programming based on their particular strengths or abilities…we think of this approach as mysterious

because it is very difficult for us to figure out exactly what giftedness means using this model, and what to do about it when it is identified. (p. 5)

Preservice training: Training received in teacher preparation programs. "Provides the fuel and thrust necessary to become an effective teacher" (Matthews & Foster, 2005, p. 341).

Inservice training: Training received by practicing teachers. "Inservice training is what replenishes the source and sustains the momentum" (Matthews & Foster, 2005, p. 341).

Transcendental phenomenology: According to Moustakas (1994), this term is a scientific study of the appearance of things, of phenomena just as we see them and as they appear to us in consciousness. Any phenomenon represents a suitable starting point for phenomenological reflection. The very appearance of something makes it a phenomenon. The challenge is to explicate the phenomenon in terms of its constituents and possible meanings, thus discerning the features of consciousness and arriving at an understanding of the essences of the experience. (p. 49)

Throughout this paper, the terms *academically advanced* and *high-ability* are used to reflect the mastery model ideal of giftedness and the focus on intellectual and academic giftedness. These terms are also in line with the MARSS definition for gifted and talented children and youth. When discussing work conducted by other scholars, the terminology employed most consistently by the author(s) will be used.

Scope and Delimitations

This study was conducted in a rural Minnesota school district. A purposeful sampling of 15 teachers was utilized, including: (a) five teachers with 1-5 years of

teaching experience in the district, (b) five teachers with 6-10 years of teaching experience in the district, and (c) five teachers with 11 or more years of teaching experience in the district. Representation of both elementary and middle school teachers and both male and female teachers were factored into the selection process. Participation in the study was voluntary.

Assumptions

During this study, I made various assumptions. It was assumed that participants would answer all questions openly and honestly and would recollect their lived experiences accurately. It was also assumed that the participants in the study would be representative of the total population of elementary and middle school teachers within the school district.

Limitations

Limitations of the study were considered and recognized, and strategies were developed in order to minimize the drawbacks of these limitations. It is noted that the results of this study may not generalize to other school districts.

I am a teacher at the middle school in the participating school district. I actively collected the data and was the interviewer and data analyst. It was recognized that familiarity with some of the participants could be a possibility, and familiarity with some did occur. Familiarity may have added a hint of a *backyard* nature to the methods (Creswell, 2007, p. 122), which I was mindful of throughout the study. Conducting backyard research was convenient for me, however. It also provided an opportunity to build on strengths and make improvements to my school district. Husserl, as well as

Moustakas (1994) stressed the importance of *Epoche*, or setting aside personal feelings, in order to gain an unbiased perspective of the phenomenon.

Significance of the Study

As stated at the beginning of section 1, teachers are presented with a vast range of learning abilities and readiness levels within the general classroom (Gagné, 2007; Manning, 2006; Tomlinson, 2004). Teachers face the challenge of addressing a variety of needs and may not possess the knowledge, skills, and training to do so. Academically advanced/high-ability learners may not be a focus for teachers in the general classroom, and they tend to be forgotten in the legislation of NCLB (2002) and the high-stakes testing environments in many of today's schools (Caram & Davis, 2008; Clark, 2005; Colangelo et al., 2004a, 2004b; Cronin et al., 2005; Gentry, 2006; Johnsen, 2007; Kenney, 2007; Kingsbury & Hauser, 2004; Loveless et al., 2008; Moon et al., 2003; VanTassel-Baska, 2006; Viadero, 2007). Without a federal mandate requiring gifted and talented training at the preservice and inservice levels, each state handles its training differently.

I did not uncover any studies that examined Minnesota teachers regarding preservice training received on the topic of gifted and talented students, nor did I locate any studies on gifted and talented inservice training for teachers in Minnesota. This void in the literature signaled a need for this research.

Although this study did not focus solely on the impact that a lack of teacher training can create for one demographic group of academically advanced/high-ability student, it is important to note the significance of appropriate challenge and educational

programming in schools for children of low socioeconomic status (SES; Burney & Cross, 2006; Lambert, 2005; VanTassel-Baska, 2006). As stated by Burney and Cross (2006):

> In homes with the benefit of higher socioeconomic status and/or higher level of parent education, the young child with high potential may be provided with early intellectual stimulation, outside enrichment opportunities, and resources to develop independent learning. Not all students experience such advantages. It is vital that schools provide advanced educational options in grades K-12 because these are likely the only opportunities for gifted students from poverty to develop their talents. (p. 14)

If teachers lack the skills and knowledge to address the needs of academically advanced/high-ability students, advanced and accelerated opportunities may not be a focus in school. This lack of opportunity is detrimental to all academically advanced students and possibly devastating to academically advanced students of low SES.

The study's results support positive social change aimed at bringing forth awareness and an understanding of the present status of teacher training: (a) preservice, (b) inservice, and (c) self-taught skills and knowledge on the topic of academically advanced/high-ability students. The study's findings include noted training strengths and recommendations for improvement in district professional development, as well as recommendations for preservice education reform. Therefore, in addition to contributing to potential positive social change in the participating school district, the results may inform training practices in other schools and in teacher preparation programs, and may also impact policy formation at the state level. Ultimately, the study's results could affect the learning and well-being of academically advanced/high-ability students. Addressing

the intellectual future of the nation has great potential for social change. The benefits to society are numerous when the brightest students are optimally challenged, enabling the country to better serve its citizens and to participate more effectively in a global economy and society (Finn & Petrilli, 2008; VanTassel-Baska, 2006).

Organization of the Remaining Sections of the Study

Section 2 consists of a review of literature relevant to this study. After an initial introduction to the literature review, section 2 will provide a background of the study's definitions of terms, and a rationale for the use of the terms academically advanced and high-ability student; highlight instructional strategies for this subgroup of learners; explain possible reasons for a lack of wide-spread use of instructional best practices for academically advanced/high-ability students; detail the conceptual frameworks used in the study as well as standards/recommendations for teacher training on the topic of gifted and talented; share motivation theory specific to this type of learner; and will conclude with a rationale for the chosen qualitative methodology.

Section 3 will introduce, explain, and justify the study's methodology and research design; list the research questions; detail the context for the study and my role as the researcher; explain the procedures and ethical considerations for gaining access to and selecting the participants; describe the data collection procedures, tools, and analysis process; and clarify the methods used to address the quality and credibility of the study.

Section 4 will explain the processes by which the data were generated, gathered, and recorded; describe the systems for keeping track of the data and the developing understandings; provide a detailed description of the findings and the emergent themes,

patterns, and relationships; include evidence to assure the accuracy of data; and provide references to attached appendices.

Section 5 will provide a brief overview of the issue being addressed; explain why and how the study was conducted; summarize and interpret the findings; present noted training strengths and recommendations for improvement in district professional development; present recommendations for preservice education reform; relate and differentiate the study's findings with the findings of the literature review; detail the implications for positive social change; provide recommendations for action as well as recommendations for further study; reflect upon my experiences throughout the research process; and end with a conclusion statement.

Section 2: Literature Review

The following review of the literature was conducted from 2008-2010 and includes an examination of peer-reviewed articles and journals, scholarly books, reports, and other documents as well as personal discussion and email correspondence with experts in the field of gifted and talented education. Initially, an exploration of best instructional practices for academically advanced/high-ability students took place. Upon discovering that these practices, including strategies such as homogeneous ability-grouping, curriculum compacting, differentiated instruction (DI), and different types of acceleration were not widely put into practice (Colangelo et al., 2004a, 2004b; Dixon & Moon, 2006; Farkas & Duffett, 2008; Rogers, 2002; VanTassel-Baska, 2006), I studied the literature to determine why this lack of implementation may be occurring.

The review uncovered possible explanations and factors that may be contributing to this lack of use of instructional strategies. First, accountability systems focused on meeting basic standards, such as NCLB may play a role (2002; Caram & Davis, 2008; Clark, 2005; Colangelo et al., 2004a, 2004b; Cronin, Kingsbury, McCall, & Bowe, 2005; Gentry, 2006; Johnsen, 2007; Kenney, 2007; Kingsbury & Hauser, 2004; Loveless et al., 2008; Moon, Brighton, & Callahan, 2003; VanTassel-Baska, 2006; Viadero, 2007). Second, a lack of preservice training on the topic of high-ability students might be a contributing factor (Dixon & Moon, 2006; Farkas & Duffett, 2008; Finn & Petrilli, 2008; Lambert, 2005; Loveless, 2008; Loveless et al., 2008; Matthews & Foster, 2005; Rogers, 2002). A third possible explanation is insufficient investment of time and support into inservice opportunities and professional development concerning high-ability students (Dixon & Moon, 2006; Farkas & Duffett, 2008; Finn & Petrilli, 2008; Loveless, 2008;

Loveless et al., 2008; Moon et al., 2003; Rogers, 2002; VanTassel-Baska, 2006; VanTassel-Baska et al., 2008). A fourth probable rationale for this problem may be the public perception of professional development (National Center for Research on Teacher Learning [NCRTL], 2005). A fifth potential factor is equity and elitism issues (Colangelo et al., 2004a; Matthews & Foster, 2005; Rogers, 2002), and lastly, the assumption that high-ability students are able to succeed independently may also play a role in the documented lack of use of well-researched instructional methods for high-ability students.

In order to determine what next steps might need to be taken to increase the use of these well-researched, instructional best practices, the focus of the literature review then turned to teacher training, both preservice and inservice training, on the topic of academically advanced/high-ability students. Quality teacher training is a vital support structure necessary to meet the needs of these learners (Hansen & Feldhusen, 1994; Rogers, 2002; VanTassel-Baska, 2000, 2006).

The key terms *teacher training* and *gifted* were used in a search of SAGE Collection: Education to further explore teacher training. The 572 results were sorted by relevance. Of the first 200 of the 572 studies, those occurring within the past 5 and also 10 years were then grouped and analyzed further. Twenty-eight of these studies occurred within the past 10 years. Relevance declined significantly, however, after approximately the first 10 articles. In order to examine methods used, additional searching and sorting took place. Adding the key term *qualitative*, along with teacher training and gifted, yielded 97 total results. Thirty-eight of these studies were conducted within the past 10 years. Replacing the word, qualitative with the term *quantitative* in this search then

produced 92 articles, 24 of which took place within the past 10 years. An additional search using Thoreau Education and the key terms, teacher training and gifted, brought up many of the same articles as well as a few new ones of interest. In addition to SAGE, Thoreau Education searched Educational Resource Information Center (ERIC), Teacher Reference Center, Academic Search Premier, and Education Research Complete.

Of the articles located through the search process using the terms teacher training and gifted, none were located that explored general teachers' perceptions of their preservice and inservice training regarding gifted education. Three of the located studies (Bain, Bourgeois, & Pappas, 2003; Diket & Abel, 2001; Newman, Gregg, & Dantzler, 2009) dealt indirectly with inservice and preservice education, but did not focus on teachers' perceptions of their training. Bain et al. (2003) quantitatively surveyed teachers of gifted and talented students regarding the gifted theoretical models they employed in their classrooms. Newman et al. (2009) used a mixed methods design to analyze a summer, preservice enrichment program designed for those interested in gifted and talented specialization, and Diket and Abel (2001) utilized a mixed methods approach to explore the use of concept maps as an assessment tool in gifted specific preservice programs.

In a few studies, teacher training was one component, but not the major focus of the study. For example, three articles focused on attitudes of teachers toward gifted students, with recommendations for teacher training stemming from the attitudes (Geake & Gross, 2008; Lee, Cramond, & Lee, 2004; McCoach & Siegle, 2007). A study conducted in Korea by Lee et al. (2004) was a replication of a study conducted by Tannenbaum (1962) and later replicated by Cramond and Martin (1987) in the United

States. Lee et al. (2004) focused on preservice and inservice teachers' attitudes toward intelligence. This quantitative study's results were similar to the earlier studies in the United States and in other similar studies conducted in Australia: Both preservice and inservice teachers displayed "anti-intellectualism, sport-mindedness, and gender bias" (p. 42). The authors advised that improvements to preservice and inservice training are necessary in order to better understand gifted learners as well as to provide teachers with an awareness of their own attitudes toward these students.

Delcourt, Cornell, and Goldberg (2007) investigated programs for gifted students and then offered advice for teacher training. Four hundred and sixty second-and-third grade students participated in the study. Two hundred and ninety were enrolled in a specific gifted program, 50 were high-achieving students not enrolled in a gifted program, and 120 did not fall into either of these two categories. Quantitative measures were used to analyze academic and affective outcomes. Higher achievement was evidenced by students in the gifted programs and there was no significant difference across the groups concerning perceived social acceptance. It was recommended that teacher training should include academic as well as affective and emotional considerations for students.

Shaunessy (2007) also used quantitative methods. The author utilized a survey method to analyze teacher attitudes toward technology. In order to provide meaningful adaptations to the curriculum for gifted students via the use of technology, the author presented suggestions for technology training for teachers of the gifted. Nugent and Shaunessy (2003) also offered recommendations for teacher training, but reviewed the literature on preservice programs, staff development, and graduate programs to suggest

addressing gifted and talented teacher training through the use of films. The authors presented a list of films that would help teachers as well as future teachers better understand the diversity of gifted learners as well as their social and emotional characteristics.

Lambert (2005) compared the new teaching standards in England with the research-based qualities and skills that are necessary to successfully meet the needs of high-ability pupils. From this comparison, the author was interested in impacting curriculum development for teacher education programs. Lambert found that the new standards were lacking in their approach to meeting the needs of high-ability students in the classroom. One of the recommendations presented by the author was to survey new teachers about the quality of the training they received to teach this group of students in a diverse ability classroom.

The remainder of section 2 will **s**hare background information concerning the study's definition of terms, including the rationale for the use of the terms academically advanced and high-ability student; describe instructional strategies that can be used to better meet the needs of academically advanced/high-ability students, as well as discuss possible reasons for a lack of wide-spread use of these instructional best practices; detail the conceptual frameworks used in this study; and conclude with the rationale behind the chosen qualitative methodology.

Rationale for the Use of the Terms Academically Advanced and High-Ability

The terms *gifted* and *talented* are the traditional and widely-used vocabulary for the topic of this study. There is not simply one definition for gifted and talented used throughout the volumes of literature on the topic. In addition, the terms gifted and

talented may not be widely accepted in some situations due to charges of elitism: "It is politically incorrect in many places to even mention giftedness, much less to devote educational resources to addressing the needs of gifted learners" (Matthews & Foster, 2005, p. 23). In some circumstances, overcoming the hurdle of terminology could be an important first step in order to gain appropriate educational programming for this subgroup of learners. A clear understanding of the ideals and intentions of these terms is important. Two sets of ideas on the definitions for gifted and talented, similar in some respects yet different in others, will be compared and summarized.

Differentiated Model of Giftedness and Talent

Gagné's (2007) differentiated model of giftedness and talent (DMGT) included a distinct difference between giftedness and talents. Gagné defined *gifted* as "ability level largely exceeds that of most age peers" (p. 94), and viewed this as an innate ability. *Talents* are then defined as "systematically developed skills" (Gagné, 2007, p. 94). There are four natural ability domains for giftedness: (a) Intellectual (IG), (b) Creative (CG), (c) Socioaffective (SG), and (d) sensoriMotor (MG). Academics, arts, business, leisure, social action, sports, and technology make up the talent fields. According to the author, professionals in gifted education have emphasized one gift, intelligence (IG) and one talent, academic (AT). "Thus, intellectually gifted individuals are not necessarily gifted creatively, socially, or physically" (Gagné, 2007, p. 94). Gagné also described both external and internal catalysts that influence gifts and talents. Catalysts can be intrapersonal and environmental. Rogers (2002) discussed these catalysts by stating:

> If it (potential) is obstructed, then the child will remain gifted but will be what we call an underachiever (that is, not talented). If, however, the internal and external

> components of the catalyst enhance and help to develop the child's potential, the child will become talented and will demonstrate his potential through performance. (p. 34)

Rogers (2002) stated that it is possible to be gifted but not talented, and that there is no such thing as an overachiever. "No one can do more than they have the capacity to do" (p. 35).

According to Gagné (2007), a child who falls in the top 10% of same age peers in a particular domain or field is considered gifted and/or talented, and so the labels only apply when the ability level far exceeds that of most of the child's peers. Gagné defined levels of talents and giftedness in his metric-based system in the following manner: a child within a domain in the top 10% of the same aged peers is considered mildly gifted; a child within a domain in the top 1% is moderately gifted; a child who is 1:1000 within a domain is highly gifted; a child who is 1:10,000 within a domain is exceptionally gifted; and a child who is 1:100,000 within a domain is extremely gifted. The author recommended that educators should first focus on the mildly gifted, who make up about 90% of the gifted and talented population. If the moderately gifted are then also considered, constituting approximately another 9%, then 99% of the gifted and talented population is represented. Gagné (2007) stated that he believes that the mildly gifted already far exceed their peers in their ease and speed of learning and would benefit greatly with appropriate curriculum and instruction.

Gagné (2007) also noted that instructors and coaches in music and sports have long recognized that unique, appropriately paced, accelerated, and individualized practices and training were necessary for the highly and exceptionally talented musicians

and athletes. The same practices should be applied in academics. The author then addressed consequences of unchallenging curriculum, such as a decrease in motivation, the reinforcement of laziness, preventing lessons that can be learned when faced with challenges, and averting the development of good study habits. Appropriate educational programming is essential for gifted and talented students. A study coauthored by Vallerand, Gagné, Senécal, and Pelletier (1994) focused on motivation. Participants included 69 gifted students in enrichment programs and 66 regular elementary students. All students were enrolled in the same school. Based on the quantitative analysis of two motivational related questionnaires, one of the recommendations of the study was that gifted students need to be presented with appropriate challenge to develop positive perceptions of competence.

Mastery Model of Giftedness - Matthews and Foster

Matthews and Foster (2005, 2006) took a similar, yet slightly different approach than Gagné. They support a mastery model of giftedness that involves a mismatch between the student's ability level and the curriculum and instruction for the student's grade level. Without modifications, the child's development will be hindered. The mastery model primarily focuses on the academic domain, but also could involve the arts, music, and athletics. The mastery model emphasizes finding the best educational match for a student and allowing students to work in Vygotsky's (1978) zone of proximal development.

The authors defined the term *advancement* as "competence or achievement that is ahead of what is expected for a child's age and is similar to precocity in that way" (Matthews & Foster, 2005, p. 21) and stated that *advancement* is the best manner to

describe their mastery model of giftedness. It simply means that the child is academically advanced for his age. The authors continued that "because 'gifted' is the term that is used in most educational jurisdictions, we tend to use it in our work and in our book. We use it somewhat interchangeably with other terms such as 'high-ability learner' and 'advanced learner'" (p. 21). Therefore, the mastery model framework and terminology may be helpful in gaining support for gifted and talented programming.

Terminology may be a hindrance in school districts that do not have formal gifted and talented programs, gifted and talented coordinators, formal identification of gifted and talented learners, or vertical alignment/scope and sequence to an academically advanced/high-ability student's learning from school year to school year. "It is politically incorrect in many places to even mention giftedness, much less to devote educational resources to addressing the needs of gifted learners" (Matthews & Foster, 2005, p. 23). The authors addressed the political issues that accompany gifted education, and they emphasized that the mastery model has fewer problems associated with it as it deals with finding the best match of services with learning needs. It becomes more difficult for others to state that the process is elitist or unfair, when it is about meeting students' learning needs. The mastery model approach may be more likely to be supported and funded. Matthews and Foster (2005) cautioned against viewing all children as gifted, however. "By seeing all children as gifted, we rob the word of any useful meaning and greatly reduce the chances that we will address the learning needs of those who are exceptionally advanced" (p. 25). If taking an approach that all students are gifted in some fashion, the needs of the most advanced may be overlooked.

In contrast to their mastery model of giftedness is their *mystery model of giftedness* (Matthews & Foster, 2005, 2006). The mystery model labels students as *gifted* or *not gifted*, without specific ties to programming based on needs and abilities. Thus the term *mystery* is used, as it is not clear as to what must be done to appropriately educate students under this model. Matthews and Foster (2006) stated that Gagne's DMGT is a blend of both the mystery and mastery models. The authors asserted that gifted and talented programs should be "encouraging and inclusive, working to support the optimal development of all children, while at the same time paying particular attention to those who are exceptionally capable" (Matthews & Foster, 2005, p. xv). In reference to the exceptionally capable, the authors noted that significant adaptations must be made to educational programming for these learners. Gifted students are in agreement. A survey study of 871 elementary to high school aged gifted students, conducted across nine school districts in North Carolina, also found that adaptations to educational programming are important to the gifted learners (Gallagher & Harradine, 1997). Recommendations of the study included quality training for teaching staff to meet the needs of gifted learners, and the design of a more differentiated curriculum within subject areas that are heterogeneously grouped.

Matthews and Foster (2005) are in agreement with Gagné's (2007) previously mentioned, possible outcomes of an unchallenging curriculum. "We do these children a disservice if we allow them to go through years of schooling without real and appropriate challenges that can help them learn how to work hard, to persevere through challenges, and to surmount obstacles" (Matthews & Foster, 2005, p. 19). In reference to the myth that remaining status quo is the safest option for students, Colangelo et al. (2004a) stated,

"Doing nothing is not the same as 'do no harm.' Choosing not to accelerate is itself an intervention. The evidence indicates that when children's academic and social needs are not met, the result is boredom and disengagement from school" (p. 7). VanTassel-Baska (2006) maintained that a high-quality education for gifted learners "is a right, not a privilege" (p. 209). Rogers (2002) echoed these sentiments by stating that appropriate challenge in school will enable children to remain motivated to learn for a life time.

As was stated by Matthews and Foster (2005), using the terms *academically advanced* and *high-ability* may be better accepted, perhaps because it is more easily observable to teachers and parents when a child shows mastery of a topic on a pre-test, or when a child tests above grade level on a growth-measured assessment, or when a child masters material very rapidly and is ready to move onto new learning. Therefore, educating the local community on the terms used for this concept is important. In order to do so, educators need adequate training to develop a clear, personal understanding of the terminology in order to advocate for this subgroup of learners.

In the current study's problem statement, the terms *academically advanced* and *high-ability* have been used versus *gifted*. Farkas and Duffett (2008) used the wording of academically advanced in their national survey of 900 teachers. "Prior focus groups indicated this was consistently most comfortable for teachers to use" (Farkas & Duffett, 2008, p. 50). The majority of the literature that forms the basis for the problem statement uses the term gifted, however. When discussing work conducted by other scholars, the terminology employed most consistently by the author(s) will be used.

Instructional Strategies for Academically Advanced/High-Ability Students

Numerous instructional strategies for academically advanced/high-ability students are detailed in the literature. Strategies such as homogeneous ability-grouping, awareness of students' readiness levels, curriculum compacting, differentiated instruction (DI), and different types of acceleration are a few of the strategies that could be put into more widespread use in my school district. A brief description of these best practices will now be provided.

Acceleration

In May of 2003 at the University of Iowa, scholars and educators created a national report on acceleration. The Templeton Foundation supported their efforts, which culminated in a 2-volume report entitled, *A Nation Deceived: How Schools Hold Back America's Brightest Students.* In Volume 1, a variety of methods and instructional strategies to meet the needs of the high-ability learner were examined. Although all methods have their place and importance, acceleration was found to be the most effective educational strategy for high ability learners, yielding the most profound effect on their learning and achievement. Myths surrounding acceleration were dispelled and realities were supported by research. The authors of the report stressed that these findings were not based on personal opinion or bias (as criticisms of acceleration often are), but are supported by a plethora of research. "It [acceleration] is strongly supported by decades of research, yet the policy implications of that research are ignored by the wider educational community" (Colangelo et al., 2004a, p. 11). The authors also stated that to their knowledge there are no other learning processes supported so heavily by research yet utilized so little in education.

Volume 2 of the report provided the research studies to validate the ideas presented in Volume 1. A meta-analysis of acceleration studies provided stunning results. Acceleration produced a median effect size of 0.80 (Colangelo et al., 2004b, p. 15). Eight tenths is considered a large effect size. The authors professed that when America says no to acceleration it is saying no to excellence and yes to mere basic competence.

> America's school system keeps bright students in line by forcing them to learn in a lock-step manner with their classmates…Stay in your grade. Know your place. It's a national scandal. And the price may be the slow but steady erosion of American excellence. (Colangelo et al., 2004a, p. 1)

This lock-step manner is evident in much of the elementary and middle level educational programming throughout the participating school district.

The report attempted to dispel myths regarding acceleration and fears surrounding it. Eighteen different types of acceleration were described, with acknowledgement that each situation must be treated on an individual basis. What may be best for one student or one school, may not work for another. Acceleration is about matching learning to the learner, and enjoying learning at readiness levels. It is not about pushing a child too hard, or forcing material inappropriate for the learner. Acceleration is also cost-effective, which is important to note with today's educational budget dilemmas.

Gagné (2007) concurred with the findings of Colangelo et al. (2004a, 2004b): "On one hand, we find a wealth of research data demonstrating their [acceleration strategies] value and quasi-total lack of any detrimental effects; on the other hand, most educators and parents express strong resistance toward their use," (Gagné, 2007, p. 105). Quality teacher training that provides an understanding of instructional best practices for high-

ability learners is vital. The author continued by stating that popular enrichment services, such as pull-out classes are more difficult to administer, implement, and are costlier than acceleration options. Pull-out programs provide a part-time solution to a full-time problem, and they are often not in line with what is going on in the regular classroom (Gagné, 2007).

Kronborg and Plunkett (2007) presented the options of grade skipping and accelerated learning for very able learners as well. The Select Entry Accelerated Learning (SEAL) Program was described in their article. This program was integrated into regular, government run schools in Victoria, Australia. According to the authors, evaluative studies have been conducted on the SEAL program and "positive social and academic benefits were found, with no resentment or envy from non-participating mainstream students" (p. 81). The SEAL program homogeneously grouped high-ability students for some of their core classes, as well as mainstreamed these students in other classes. Students chose to accelerate their learning into fewer years, or to delve deeper into areas of interest and finish school with their same-aged peers. Social and emotional aspects were carefully considered in the SEAL program, and importance was placed upon ensuring that students continued to feel a part of the traditional school experience.

Another example of acceleration put into practice was found in the work of Clark (2005), superintendent of schools in Meridian School District No. 2 in Idaho. Her district used Northwest Evaluation Association (NWEA) scores to measure students' individual growth. Analysis of NWEA scores in the district revealed that the highest achieving students' scores showed the least amount of growth in comparison to other student groups. It was decided that the brightest students also need assistance to progress in their

learning; therefore the school district needed to make some system-wide changes to best meet the needs of all students. The district's new goal was growth for all students. The removal of grade level boundaries for enrollment in mathematics, and curriculum adjustments district-wide were two positive outcomes of this district's test score analysis.

Grouping Practices

Tieso (2003) reviewed literature spanning the years 1931 through 2003 on instructional and curricular recommendations for high-ability students. Through the analyses of many empirical studies, the author emphasized that ability grouping must return to favor in education. Tieso's expansive literature review demonstrated that ability grouping along with revision of curriculum could produce considerable student achievement growth. Tieso also pointed out flaws in various research studies that made claims against ability grouping.

Adams-Byers, Whitsell, and Moon (2004) conducted a qualitative study that examined 44 gifted students' perceptions of homogeneous instructional grouping formats in comparison to heterogeneous formats. The students in grades 5 through 11 completed questionnaires and interviews during a summer gifted and talented program. In general, students felt the homogeneous classrooms provided greater challenge and were better for them academically. Results were not conclusive on which grouping format better met gifted students' social needs. The students found social benefits from both types of grouping formats. The study suggested that both heterogeneous and homogeneous instructional formats should be made available for gifted students.

Finsterwald, Neber, and Urban (2001) conducted a meta-analysis of 12 studies involving cooperative learning with high-achieving students. Searching for literature to

analyze brought forth awareness to the authors that there was a lack of available studies on the topic. Finsterwald et al. found that academic gains were greater when high achievers worked in homogeneous, cooperative groups versus individually or in heterogeneous cooperative groups. The studies available to analyze were limited, however, and the authors stated that further research must be done to make this a conclusive finding.

Matthews and Kitchen (2007) used a case study design to analyze perceptions of 471 gifted students and 59 teachers from three different schools that all used a school-within-a school approach for its identified gifted students. The authors found that teachers and students were very satisfied with the academics in their schools. Both teachers and students expressed some concerns with the relationship between the gifted program and the school as a whole.

Saleh, Lazonder, and De Jong (2005), however, found contrasting results to the previously mentioned studies concerning grouping. The authors studied the effects of homogeneous grouping on low-, average-, and high-ability students. These three homogeneous groups, as well as a heterogeneous group, were taught the same plant biology lessons. Saleh et al. found that high-ability students made the same progress whether they were homogeneously or heterogeneously grouped. It is important to note that the groups were taught the same lessons, in the same manner, and there was no adjustment to pace or complexity.

Montgomery (2007) is also a proponent of heterogeneous classroom grouping. She argued that this structure is in the best interest of all learners. In order to accommodate all ability levels in one classroom, differentiated instruction was

emphasized. Differentiation types and practices were compared and contrasted. Developmental differentiation and inclusion was the method of favor for the author.

An extensive meta-analytic study conducted by J. Kulik and C. Kulik (1991, 1992, 1993), however, consistently demonstrated that ability-grouping benefits are directly proportionate to the amount of curricular adjustment given to the group. J. Kulik (1991) described three types of grouping programs. *Type I* involved grouping students without changing the curriculum, similar to the previously mentioned method of study done by Saleh et al. (2005). *Type II* grouping programs adjusted the materials to student ability levels, and *Type III* grouping modifications were so pronounced that a student's rate of progression through school was increased. J. Kulik (1991) aired frustration that ability grouping research findings could often be misrepresented. "Most evaluations have focused on Type I programs. . . . Our children will be the losers if reviewers continue to twist research findings to fit their personal and political philosophies" (p. 67). Based on the findings of Kulik and Kulik (1992), resulting achievement levels are directly related to the amount of curricular adjustment given to ability-grouped students.

Awareness of Students' Readiness Levels

Vertical alignment of curriculum as well as an understanding of this alignment is important in order to best educate students. Some teachers may have the mindset expressed by Burgard (2000): "The students seemed to be just a group of boys and girls that came into my room at the beginning of the year and left at the end, coming from nowhere and headed for somewhere" (p. xvii). Unfortunately, teachers may not consider what students already know or what they need to know for where they are headed.

Burgard stressed the importance of truly knowing one's students, and the value in understanding the system in which the classroom functions.

The National Middle School Association also emphasized the need to know our learners and meet students at their ability levels. Erb (2001) emphasized that having the same expectations for all students will not equate to having high expectations for all learners. In order to strive to meet all students' needs, educators must account for the various abilities, interests, requirements, and backgrounds of their learners, as well as be prepared to differentiate when needed. Therefore, awareness of students' learning needs is important to all students, including those with advanced capabilities.

Differentiated Instruction (DI)

There is not simply one definition for differentiated instruction (DI). According to Tomlinson (2004), DI involves insuring that learning is matched to students' readiness levels, interests, and preferred learning styles. In order to do so, assessment of students' needs must be conducted on a regular basis. If these processes are adhered to, appropriate growth, motivation, and self-efficacy will be present in the learner.

Wormeli (2005) explained DI similarly to Tomlinson, but also emphasized that DI is doing what is as fair and appropriate for each student. The author stated that DI involves the use of best practices as well as instructing students how to effectively manage material that may be undifferentiated.

Both Tomlinson (2004) and Wormeli (2005) emphasized that differentiation involves knowing your students and understanding their learning needs. Differentiation requires educators to adapt activities and lessons to learners' readiness levels. Both

authors found DI to be a highly effective teaching strategy in order to maximize student learning.

VanTassel-Baska (2006) conducted a mixed methods study that evaluated gifted programs in 20 urban, suburban, and rural school districts. The author noted that differentiation practices geared to the interests and academic levels of gifted and talented learners were inadequate in these districts. The findings suggested that in order for regular education teachers to understand the needs of the gifted students in their classrooms and to feel ownership into their education, time for regular and gifted staff to plan together was essential. Collaboration among staff is necessary for high quality differentiation to occur.

In Part 2 of a two-part study that analyzed high-achieving students' progress during the era of No Child Left Behind (NCLB), Farkas and Duffett (2008) randomly surveyed 900 third- to 12th- grade public school teachers nationally, concerning academically advanced students. The authors also compiled qualitative data from five focus groups of teachers to add personal examples and detailed experiences to the survey results. An astonishing 83% of the 900 teachers surveyed by Farkas and Duffett stated that differentiated instruction was very difficult or somewhat difficult to implement. This statistic illustrates the importance of quality inservice training on the topic of differentiated instruction.

Curriculum Compacting

Curriculum compacting, a common instructional strategy found in the literature, is a technique that allows students to move on to new learning after already mastering the regular classroom instruction. Curriculum compacting can be used in any curricular area

and grade level. Mastery of a topic could be evidenced through a pre-test, for example. This technique allows opportunities for high-ability students to learn new material and work at a pace and level more suited to their capabilities. According to Reis and Renzulli (2004), for the teacher, curriculum compacting involves:

- defining the goals and outcomes of a particular unit or segment of instruction,
- determining and documenting which students have already mastered most or all of a specified set of learning outcomes, and
- providing replacement strategies for material already mastered through the use of instructional options that enable a more challenging and productive use of the student's time. (p. 124)

Replacement strategies could involve accelerating the topic area, enriching the topic area, or allowing for student choice within or outside the content area. The element of *choice* is a common theme amongst the research concerning best practices for the high-ability learner. Choice is also a component of the Learner Centered Psychological Principals (LCCP). The LCCP support striving to meet the needs of all learners and were developed through an analysis and synthesis of notable learning theories and years of related scholarly research. The 14 LCPP are interdependent and can be applied to all people, at any age. LCPP 8, "Intrinsic motivation to learn," discusses the importance of allowing students to make decisions and to provide them with opportunities for personal choice (American Psychological Association Board of Educational Affairs [APABEA], 1995, p. 3). All ages and levels of learners appreciate the opportunity for input into instructional decision-making. Curriculum compacting can introduce an element of choice for learners, contributing to increased intrinsic motivation.

Stamps (2004) explained a variety of methods that could be used to inspire and challenge all students, including high-ability children who already may have mastered the material being taught. A mixed methods case study involving 70 first grade students, as well as their teachers and parents in two, rural Alabama schools provided the data to support the instructional strategies shared by Stamps. Use of curriculum compacting in the classroom kept the high-ability students motivated. This strategy allowed learners to demonstrate mastery of grade-level curriculum and to move on to material more fitting to their ability levels.

In reference to state testing, some educators may worry that students who skip grade level material or move through it very rapidly may not fare as well on high-stakes, state testing. Reis, Westberg, Kulikowich, and Purcell (1998) addressed this issue by analyzing 336, second- through sixth-grade, high-ability students' achievement test scores. One hundred, ninety-five students participated in curriculum compacting; 141 participants did not and served as the control group. Multivariate analysis of covariance was used on three different instruments, one of which was the Iowa Test of Basic Skills. No significant difference was noticed between the control and experimental groups' test scores.

No matter what instructional strategies are utilized, teachers need to be mindful that advanced work should not be extra work to do, but it should often be used in place of mastered material, and in place of much of the general assignments (K. Rogers, personal communication, June, 2009).

Possible Reasons for a Lack of Use of Instructional Best Practices

Although the preceding instructional strategies have a strong and supportive research basis, these strategies may not be widely utilized (Colangelo et al., 2004a, 2004b; Dixon & Moon, 2006; Farkas & Duffett, 2008, Rogers, 2002; VanTassel-Baska, 2006). Teachers may recognize academically advanced/high-ability students in their classrooms, however, adaptations to educational programming may not be made for these students. After a review of relevant research, Dixon and Moon (2006) pointed out that although practicing teachers and preservice teachers may recognize the needs of high-ability students, the knowledge and skill level necessary to meet these students' needs is often quite minimal. Rogers (2002) is in agreement with these findings: "It is my belief, after more than 25 years of consulting with schools, that most public schools are not doing even a minimally adequate job of managing the education of gifted and talented learners" (preface, para. 2). She also stated that it is her belief that in some instances the neglect is due to an incorrect assumption that all students can learn to the same academic levels. In addition, Rogers (2009) emphasized that the purposeful attempt to level the playing field is limiting what academically advanced students can do and learn.

A search of the literature uncovered possible reasons for the lack of use of instructional best practices for academically advanced/high-ability students, even though teachers may recognize that these learners are present in their classrooms. These reasons included: (a) accountability systems focused on meeting basic standards, such as NCLB (2002); (b) lack of preservice training on the topic of high-ability students; (c) insufficient investment of time and support into inservice opportunities and professional development concerning high-ability students; (d) the public perception of professional

development; (e) equity and elitism issues; and (f) the assumption that high-ability students are able to succeed independently. Research regarding each of these areas will now be summarized.

Accountability Systems Focused on Meeting Basic Standards

Accountability systems focused on meeting basic standards, such as NCLB (2002) have been problematic for high-ability students (Caram & Davis, 2008; Clark, 2005; Colangelo et al., 2004a, 2004b; Cronin et al., 2005; Gentry, 2006; Johnsen, 2007; Kenney, 2007; Kingsbury & Hauser, 2004; Loveless et al., 2008; Moon et al., 2003; VanTassel-Baska, 2006; Viadero, 2007). High-ability students deserve to be challenged and to show what they are capable of achieving as well. For example, Clark's (2005) district in Idaho analyzed students' test scores and found that the highest achieving students' scores showed the least amount of growth in comparison to other student groups. Despite the NCLB's lack of emphasis on academically advanced/high-ability students, this Idaho school district focused on the learning needs and readiness levels of all students by removing grade level boundaries in mathematics.

Loveless et al. (2008) conducted a two-part study analyzing high-achieving students' progress during the era of NCLB. Part 1 of the study involved an analysis of National Assessment of Educational Progress (NAEP) data. In Part 2 of the study, Farkas and Duffett (2008) randomly surveyed 900 third- to 12th- grade public school teachers nationally concerning academically advanced students, and also compiled qualitative data from five focus groups of teachers to add personal examples and detailed experiences to the survey results. A pattern emerged from the analysis conducted in Part 1: big gains in achievement were made by low-achievers, but lesser gains were evidenced by high-

achievers. The authors pointed out that these trends have been noticed over time during implementation of accountability systems in general, not solely during the introduction of NCLB (Loveless et al., 2008).

Modifying NCLB (2002) may aid in the implementation of instructional practices for academically advanced/high-ability students. "Perhaps through the right 'growth model' we can provide incentives to schools to focus on low performers, and high performers, too, and also everybody in between" (Finn & Petrilli, 2008, p. 12). According to Farkas and Duffett (2008), 55% of the 900 teachers surveyed favored changing NCLB to include publicizing test scores of academically advanced students. Fifty-nine percent favored changing NCLB to require schools to ensure a certain proportion of students reach an advanced level on state tests; similar to current requirements stating a certain percentage of students must reach proficiency (p. 69). Gagné (2007) declared that there is a problem with priorities. The author noted that the number one priority in education seems to be increasing the number of students who pass state tests and move to the next grade level.

Public Perception of Professional Development

Another dilemma that teachers face in meeting new expectations and demands of educational reform lies with the public. "Although reform has changed expectations for teachers, the public perception has not changed" (National Center for Research on Teacher Learning [NCRTL], 2005, para. 9). Public opinion may be that teachers' time is better spent in the classroom, versus in professional development. Thus, optimal teacher learning is also dependent upon support, such as resources and time, provided by policymakers and the public at large.

Equity and Elitism Issues

Equity issues may be another reason that instructional practices for high-ability students are rarely implemented (Colangelo et al., 2004a; Matthews & Foster, 2005; Rogers, 2002). Lack of knowledge and understanding of high-ability students' academic and social-emotional needs may contribute to this problem. Equitable, fair education should not involve delivering the same instruction to all students. "Educational equity does not mean educational sameness. Equity respects individual differences in readiness to learn and recognizes the value of each student" (Colangelo et al., 2004a, p. 2). The authors emphasized that acceleration, for example, is an equalizer. It is not dependent on wealth; in fact the school building is the one place where all children can be given an equal opportunity. "While some have criticized academic acceleration as an intervention for children of wealth, nothing could be further from the truth. In fact, it is parents of economic means who can afford to provide for acceleration if a school doesn't" (Colangelo et al., 2004a, p. xi). True equity in learning would mean shifting from focusing primarily on all students meeting basic standards to focusing on growth for all learners and addressing the readiness levels of all students. As explained previously in the literature review, gifted terminology can compound equity and elitism issues, and can at times, hinder appropriate educational programming for academically advanced/high-ability students.

The National Middle School Association and the National Association for Gifted Children presented a joint position statement on the topic of combining equity and excellence. "Equity refers to the opportunity of every learner to have supported access to the highest possible quality education. Excellence refers to the need of every learner for

opportunity and adult support necessary to maximize his or her learning potential" (NAGC, 2008d, para. 1). Perhaps more exploration into beliefs toward giftedness and equity issues is necessary, so that through education, attitudes may be shifted. Without a transformation in attitude regarding equity and excellence, it would be reasonable to argue that advocacy efforts may bring about little change.

Assumption That Academically Advanced/High-Ability Students Succeed Independently

Dixon and Moon (2006), Pfeiffer and Stocking (2000), and Rogers (2002) discussed the assumption held by some educators that high-ability students will be fine on their own. This belief by educators may contribute to the lack of implementation of instructional best practices for high-ability students.

> Without an appropriate educational plan, gifted children often lose their excitement for learning because they must wait-sometimes for many years-so that others can learn what the children with advanced development already know. This is not appropriate education. Gifted children have the right to be given schoolwork that is motivating and challenging. Asking them to 'slow down while others catch up' is not fair to them. (Rogers, 2002, p. 5)

Comparing this situation to athletics would be similar to stating that the top athletes should sit on the sidelines and watch while those who need the most help with basic fundamentals are the focus of coaches. This practice is not tolerated in sports and should not be tolerated in academics either.

Pfeiffer and Stocking (2000) discussed possible results of teachers believing the myth that children with high intellectual abilities can succeed independently and do not require curricular modifications or special considerations. The authors stated that poor behavior and a lack of interest in school may result when an advanced student's needs are not addressed. Problem behaviors may then be focused on versus remedying the actual issue.

Contributing to the belief that academically advanced/high-ability students are able to succeed independently is the issue of strengths versus deficits in a student's learning. Dixon and Moon (2006) offered the notion that because the needs of gifted students are present due to strengths and not deficits, sympathy for these students may not be forthcoming. When planning professional development opportunities, negative attitudes toward giftedness and the assumption that gifted students are able to succeed independently must be sorted out before meaningful progress can be made for these students.

Lack of Preservice Training on Academically Advanced/High-Ability Students

In the United States there is no federal mandate requiring gifted and talented training for prospective teachers in preservice programs. Therefore, each state handles its preservice education on gifted and talented differently. Consequently, it has been noted that there is a lack of preservice training on the topic of high-ability students (Dixon & Moon, 2006; Farkas & Duffett, 2008; Finn & Petrilli, 2008; Loveless, 2008; Loveless et al., 2008; Matthews & Foster, 2005; Rogers, 2002). The State of the States in Gifted Education Report for 2006-2007 found that one of the greatest areas needing attention in gifted education is appropriate preservice training at the undergraduate level in education.

Currently in Minnesota there are no requirements for including the topic of gifted and talented in preservice education courses, and only five states (Kansas, Montana, New York, Oregon, and Virginia) of the 43 states participating in the 2007 State of the States Gifted Education State Survey require gifted and talented training in initial teacher preparatory programs (CSDPG & NAGC, 2007). The amount of this required training is quite minimal in some cases. The report also identified positive and negative forces on gifted education using a scale from 1 to 7, with 1 being *least in need of attention* and 7 being *most in need of attention*. Minnesota rated appropriate preservice training as a 6.

Practicing teachers' opinions supported these data. According to Farkas and Duffett (2008), 18% of the 900 teachers surveyed about their own schooling and preservice education stated there was no focus on how to best teach academically advanced students, and another 46% felt there was very little focus. These students and ultimately the nation could suffer if teachers are not equipped with the knowledge and skills to meet the needs of this segment of the student population. Loveless (2008) stressed that America's top students are often left out of educational debates and discussions, while struggling students are often the main focus. Numerous resources are dedicated to those students at the low end of the academic spectrum, while high achieving students are often not a part of the equation.

In the school building where I am employed, student teachers (preservice students) do a special education classroom rotation, but do no such rotation for modifications and accommodations needed for the academically advanced/high-ability student. Dixon and Moon (2006) stated that often preservice educational experiences on the topic of advanced students were absent or minimal; possibly involving a brief

exploration of a chapter in a textbook, lead by a faculty member with little background on the topic.

Teachers often pick an instructional pace geared to average and below-average ability levels (Gagné, 2007), which poses a problem as gifted students may spend most of their time in the general classroom (Hong et al., 2006; Westberg & Daoust, 2003). According to Hong et al. (2006), "The large majority of gifted and talented students across the nation spend all but 2 or 3 hours per week in general education classrooms" (p. 91). With the wide range of cognitive abilities in any one classroom, teachers need to be equipped with the skills and knowledge to address this diversity, including meeting the needs of academically advanced learners. Preservice programs are an important place to begin this learning.

Lack of Inservice Education of Academically Advanced/High-Ability Students

In the United States there is no federal mandate requiring gifted and talented inservice training for teachers. It has been documented that there is insufficient investment of time and support into inservice opportunities and professional development concerning high-ability students (Dixon & Moon, 2006; Farkas & Duffett, 2008; Finn & Petrilli, 2008; Loveless, 2008; Loveless et al., 2008; Moon et al., 2003; Rogers, 2002; VanTassel-Baska et al., 2008). Currently in Minnesota there are no state inservice requirements in the area of gifted and talented (CSDPG & NAGC, 2007). Additionally, Minnesota teacher license renewal does not include any clock hour participation requirements on the topic of gifted and talented (Minnesota Department of Education, 2009).

In addition to preservice education, the State of the States in Gifted Education Report for 2006-2007 found that another area requiring attention in gifted education is appropriate inservice training. The report identified positive and negative forces on gifted education using a scale from 1 to 7, with 1 being *least in need of attention* and 7 being *most in need of attention*. Minnesota rated appropriate inservice training as a 6. All states seem to be in agreement, as the inservice category had the highest mean score of all identified forces affecting gifted education, and the preservice training category was not far behind.

In relation to inservice training, VanTassel-Baska et al. (2008) followed 71, third through fifth grade teachers over a 3-year period. Thirty-seven teachers were randomly assigned to the experimental group and 34 to the comparison group. The experimental group attended regular professional development activities on differentiated instruction. All participants were observed in their classrooms during the 3 years. The teachers in the experimental group received statistically significant higher ratings on the observation scale. The authors found that instructional improvement due to professional development takes 2 to 3 years to come to fruition. The research results of VanTassel-Baska et al. also defended the idea that on-going support is necessary in order for teachers to continue to implement the new learning into practice. Perhaps time and support are not emphasized enough, thereby contributing to a lack of implementation of instructional practices for academically advanced/high-ability students.

As found by VanTassel-Baska et al. (2008), quality professional development is a necessity in order to address high-ability student instruction. Hawley and Valli (2007) explained 10 design principles of effective professional development. These principles

are driven by student needs and related teacher needs. Principle 2: “Professional development should be primarily school based and built into the day-to-day work of teaching” (Hawley & Valli, 2007, p. 122) is vital in order for new learning to be incorporated into teaching practice. The needs of students beyond grade-level standards should be regularly discussed during the school day, and strategies to enable these students to reach their potentials need to be incorporated into a teacher’s daily routine. Providing teachers with choice and input into their training could empower them to take greater ownership into their own learning (Hawley & Valli, 2007). The importance of principle 8: “Professional development should be continuous and ongoing, involving follow-up and support for further learning” (Hawley & Valli, p. 128) is crucial. Without this principle, professional development concerning high-ability students may not be internalized and practiced. In order for professional development concerning instructional practices for high-ability students to be effective, these design principles should be followed.

Hawley and Valli (2007) also noted that positive results take time when changes to educational practices are made. If worthwhile change is to be evidenced, three to five years of quality professional development are necessary, along with support throughout the process. Professional development and school improvement initiatives need long-term commitments, with greater support for and follow-through on their implementation. Time for teachers to discuss new learning is vital. The data from VanTassel-Baska et al. (2008) suggested that professional development takes time as well. Two to 3 years are recommended for significant change to take place. VanTassel-Baska et al. also found that

classroom observation of new instructional practices is an important aspect of putting theory into reality.

In addition to the preceding professional development recommendations, according to longitudinal studies conducted by the NCRTL (2005), the traditional inservice and workshop day alone are not sufficient for teachers to learn and internalize pedagogy to improve student achievement. In order to optimize learning for teachers, the NCRTL recommended 10 "new conditions" in order to "learn to teach in new ways." Among these are: (a) opportunities to work with teaching peers; (b) principal advice and support; (c) non-evaluative observations by peers in order to provide feedback for teachers; (d) being a part of a learning community; (e) time and mental space in order to make changes to instructional methods; and (f) professional development as an integral part of a teacher's day, and not simply an add-on activity (NCRTL, 2005, para. 12). Optimal teacher learning comes from ongoing professional development that is integrated with classroom practice and extended beyond a 1-day workshop. Professional development concerning high-ability students should follow the NCRTL's guidelines.

As professed by Lieberman and Miller (2007), witnessing the results of professional development in our students and in their achievement will motivate teachers to continue in their efforts. Once results are evident, instructional strategies that make a difference in the lives of high-ability students are more likely to be continued.

Conceptual Framework

Locating preservice education standards and/or recommendations for all teachers' training on the topic of gifted and talented proved to be challenging. I conducted an exhaustive search of this topic. In addition to reading peer-reviewed articles, books, and

searching the literature electronically, I contacted many individuals, both through email and in person at gifted and talented conferences. Examples of those contacted were the gifted and talented specialist for the state of Minnesota, the specialists of the five states that do have preservice gifted and talented requirements, individuals at the NAGC, individuals connected with state and federal legislature, and approximately 10 well-known gifted and talented experts primarily in the United States, as well as a few from another country. Those contacted were gracious and extremely helpful to me. This comprehensive search pointed out that there is a scarcity of standards/recommendations for preservice training on the skills and knowledge that all teachers should possess on the topic of gifted and talented students. However, standards are necessary. As stated by VanTassel-Baska and Johnsen (2007):

> Standards provide a structure that allows for a commitment to common values and rules. Because standards reduce divergence in a field, specific educational problems can be more easily solved by practitioners. Moreover, standards offer a focus and direction for new research efforts that link seminal ideas about a concept to ways of studying it. Standards, then, provide criteria for selecting problems for which solutions may be assumed and function as consensus-building agents within institutions. (p. 182)

Initially, what was uncovered in regard to preservice education was the NAGC's (2008e) Position Statement for Preservice Teacher Education Programs. It was posted in 1997. The NAGC stressed the importance of preparing teachers to work with high-ability students by authoring a position statement for preservice teacher education programs regarding the needs of gifted learners. The NAGC supports excellence and equity for all

learners, and understands that one-size fits all instruction may not meet the needs of the diverse body of learners found in today's classrooms. In its position statement, the NAGC stated its support for the Interstate New Teacher Assessment and Support Consortium (INTASC) standards for preservice teachers, but also listed additional factors that are crucial to optimal learning for gifted students. The factors that preservice teacher education programs must address are:

> (a) characteristics of high-ability learners, including those from culturally and economically diverse backgrounds and those who underachieve; (b) recognition of needs of high-ability learners in classroom settings; (c) understanding the interrelationship between appropriate instructional challenge, student motivation, and student achievement in high-ability students; (d) proactive development of meaningful learning experiences well beyond grade-level expectations; (e) continual assessment of student progress and adaptation of instructional options based on assessment data; (f) appropriate use of a variety of instructional strategies to provide advanced and extended learning opportunities; (g) management of multitask classrooms; and (h) approaches to reporting student progress that stress individual student growth rather than only comparison to a grade-level norm. (NAGC, 2008e, para. 6)

Because the NAGC's (2008e) Position Statement for Preservice Teacher Education Programs dates back to 1997, the search continued for preservice education standards and/or recommendations for all teachers' training on the topic of gifted and talented.

Also uncovered were recommendations by Matthews and Foster (2005). The authors offered 11 items to focus on in preservice programs:

> (a) facilitation of communication skills, such as active listening; (b) working with paraprofessionals, specialists, volunteers, administrators, support staff, teacher aides, mentors, and other support personnel; (c) fostering students' self-regulatory abilities; (d) individualizing instruction, pacing and modifying instruction, and monitoring students' progress; (e) electing and developing materials that address the diverse needs of students; (f) interacting with parents of special needs students, and determining how they can be effectively involved in their child's education; (g) assessing, managing, and preventing problem behavior; (h) balancing group and individual needs; (i) promoting social development of students, particularly those who are experiencing difficulty with their peers; (j) being aware of changing technology and potential benefits in meeting student needs; and (k) developing a foundation of information pertaining to assessment practices, material, curriculum approaches, and identification and placement procedures. (Matthews & Foster, 2005, p. 342)

I continued my exploration, searching for standards with a research base to support and justify their implementation into preservice education.

Rogers (2007) synthesized all of the published gifted and talented research studies and related literature spanning the years from 1861 to the present time. Rogers identified 55 gifted and talented topic areas and noted the number of research studies and the number of literature articles for each area. She then compiled the findings into 10 best practices in gifted education. These 10 items address academic and psychological differences for gifted and talented learners, and deal with curriculum adaptation, instructional delivery, and instructional management for gifted and talented learners.

Rogers condensed these 10 areas into five main themes or lessons. These five lessons or "reconsiderations" (p. 382) are:

> (a) Gifted and Talented Learners Need Daily Challenge in Their Specific Areas of Talent; (b) Opportunities Should Be Provided on a Regular Basis for Gifted Learners to Be Unique and to Work Independently in Their Areas of Passion and Talent; (c) Provide Various Forms of Subject-Based and Grade-Based Acceleration to Gifted Learners as Their Educational Needs Require; (d) Provide Opportunities for Gifted Learners to Socialize and to Learn With Like-Ability Peers; and (e) For Specific Curriculum Areas, Instructional Delivery Must Be Differentiated in Pace, Amount of Review and Practice, and Organization of Content Presentation. (Rogers, 2007, pp. 383-390)

Rogers (2009) then organized these five main themes into her "Ten Best Practices in Gifted Education: Greatest Effect for Least Effort!" The first best practice involved daily challenge in talent area(s). The effort in accomplishing this practice may be the rearranging of students, but providing academic challenge can be done without additional monetary cost or need for additional personnel. The effect size was approximately 1/3 to 1/2 additional year's growth in the area of talent.

The second best practice involved rigorous challenge in all academic areas. There should be a scope and sequence to the rigorous challenge provided for gifted and talented students. "Relieving kids from learning things they already know will reduce stress" (Rogers, personal communication, June, 2009). The effort in accomplishing this practice may include funding for differentiated instruction training for teachers; and finding, developing, and funding for necessary materials and resources. The benefits will be less

boredom and less stress associated with boredom, positive academic self-esteem, and improved higher-order thinking.

Rogers's (2009) third best practice was in regard to opportunities to work independently and be unique. Gifted learners need to be taught the skills to do independent study work. The effort needed for this best practice involves teaching the skills, supervising, and also facilitating. The benefits include increased motivation to learn, interest in topic, an improvement in academic risk-taking, and improved self-efficacy. Rogers (2009) also pointed out that the effect size can be zero for independent study, because often a standardized assessment is used to measure a very specific form of learning, which is not measureable by the assessment. The author also noted that recent studies have shown up to 3 and 1/3 years additional growth in a specific subject area due to the individual pacing on independent work. Rogers also pointed out that research conducted regarding on-line computer courses yielded an effect size of .74 across all academic areas, and an effect size of .40 in regard to self-efficacy.

The author's fourth best practice dealt with the teaching of concepts, issues, problems, principles, and generalizations in a whole-to-part sequence. Whole-to-part learning is crucial for long-term memory of gifted learners, versus a more constructivist approach of learning piece by piece in order to construct the whole. The effort involved in accomplishing this practice is training teachers and finding materials and resources to teach in this manner. The benefits include greater critical and creative thinking, enhanced motivation to learn, and increased transfer of learning.

Double or triple-time pacing in math and science, Rogers's (2009) fifth best practice, was noted as important because faster pacing can increase retention of material

and the accuracy of what is remembered. This is due to gifted students' faster rate of learning. Implementing this practice will involve the training of teacher(s) to instruct at an accelerated pace. The learning effect size in the subject area was 3/5 to 4/5 of an additional year's growth.

The sixth best practice involved elimination of excess drill and review. Once material is mastered, gifted learners need to review only two to three more times in spaced intervals. The effort involved with putting this into practice will be training teachers to eliminate excess drill and repetition, and training regarding what can then be done during this practice time, as well as additional, necessary resources. The benefits include new learning, increased motivation for learning, and greater accuracy of retained information.

The seventh best practice detailed by Rogers (2009) was exposure to content beyond grade level in specific area(s) of talent. There are a number of ways to accomplish this best practice and the effort involved is mostly in organization and management. The effect size growth ranged from 1.9 to 5.9 additional grade equivalent months of growth with benefits also noted in self-esteem and socialization.

Shortening the number of years spent in the K-12 system is Rogers's (2009) eighth best practice. The effort is primarily in managing and organizing this practice for a student well beyond grade level in many academic subjects. The effect size ranged from 2/5 to a full year's additional growth across all subjects. Socialization may improve as well.

The ninth best practice involved opportunities to socialize and to learn with like ability peers. There are a number of different methods of grouping available. The effort

will be in daily implementation of the chosen practices. The effect sizes of this practice ranged from 2.6 grade equivalent months to 4/5 of an additional year's growth.

And lastly, the tenth best practice described by Rogers (2009) involved opportunities to be credited for prior learning. The effort involved in this practice will be the necessity of a coordinator to assess growth, monitor progress, and manage the system. According to the research conducted by Rogers's (2007) these best practices will provide academic and psychological benefits for academically advanced learners.

Upon further searching for standards, another recent document was discovered. The National Gifted Education Standards for University Teacher Preparation Programs (Johnsen, VanTassel-Baska, & Robinson) was published in 2008, however, this publication is geared toward preparing teachers to teach in gifted education. The National Gifted Education Standards are designed for universities seeking accreditation of their specialized programs in gifted education. These National Gifted Education Standards were developed by the CEC-TAG and the NAGC. The standards are a "program of study in gifted education for educators or would-be educators seeking their initial preparation in this field" (Johnsen et al., 2008, p. xiv), versus standards for all preservice teachers. See Appendix B for the NAGC – CEC Teacher Knowledge & Skill Standards for Gifted and Talented Education (NAGC, 2008c).

At the direction of an expert in the field of gifted and talented education, I discovered standards that had just been finalized. These standards, the NAGC's Knowledge and Skill Standards in Gifted and Talented Education for All Teachers (2008b), were used as a benchmark in this study. This framework represents the common core of knowledge and skills that all teachers should possess on the topic of gifted and

talented students. These core standards are based on and derived from the National Gifted Education Standards that were developed by the CEC-TAG and the NAGC (NAGC, 2008c). As previously mentioned, the National Gifted Education Standards are designed for universities seeking accreditation of their specialized programs in gifted education, and can be found in Appendix B. NAGC's Knowledge and Skill Standards in Gifted and Talented Education for All Teachers (2008b) consists of three main recommendations. The items in parentheses following each recommendation correspond to a National Gifted Education Standard strand number, followed by the knowledge and/or skill numbers within each strand. The three recommendations are:

1. Understand the issues in definitions, theories, and identification of gifted and talented students, including those from diverse backgrounds (Strand 1, K2 & K4);
2. Recognize the learning differences, developmental milestones, and cognitive/affective characteristics of gifted and talented students, including those from diverse backgrounds, and identify their related academic and social-emotional needs (Strand 2, K1 & K4; Strand 3, K2); and
3. Understand, plan, and implement a range of evidence-based strategies to assess gifted and talented students, to differentiate instruction, content, and assignments for them (including the use of higher-order critical and creative-thinking skills), and to nominate them for advanced programs or acceleration as needed (Strand 4, K2, S4 & S5; Strand 7, S5; Strand 8, K3 & S3). (NAGC, 2008b)

Ultimately, there will also be commentary to go along with the Knowledge and Skill Standards in Gifted and Talented Education for All Teachers (J. Clarenbach, personal communication, October 26, 2009).

Motivation Theory Specific to Gifted and Talented Learners

The relationship between academically advanced/high-ability students and their achievement motivation provides a theoretical lens that substantiates the importance of meeting the needs of this group of learners. Dai, Moon, and Feldhusen (1998) proposed that a general social cognitive framework is a valuable theoretical perspective from which to analyze the relationship between achievement motivation and "intellectual and personal development of gifted and talented students" (p. 45). Dai et al. identified and discussed various social cognitive theorists, including Deci and Ryan (1985).

Deci and Ryan (1985) developed the self-determination theory (SDT), which focuses on innate, psychological needs. SDT identifies three needs that are essential for personal well-being and growth throughout an individual's lifetime: (a) competence, (b) relatedness, and (c) autonomy. Competence refers to the feeling of personal capableness and effectiveness. Relatedness refers to feeling a sense of connectedness to others, a cause, or entity, as well as feeling understood by others. Autonomy refers to the feeling of being in control of one's life, actions, and behaviors. According to Ryan and Deci (2000), when these three needs are satisfied, self-motivation and personal well-being are increased. SDT can help educators understand human behavior, but it also assists them in tailoring environments to enhance motivation.

Ryan and Deci (2000) pointed out that individuals will be motivated for activities that hold interest and challenge for them. They stated that "optimal challenges facilitate

intrinsic motivation" (p. 70). The SDT competence need relates to meeting the needs of academically advanced students as well as the importance of teachers being equipped with the skills and knowledge to provide curriculum and instruction at an appropriate readiness level for these learners. When students are continually presented with material that they have already mastered, motivation may be decreased. Bandura (1989), another social cognitive theorist, also addressed the importance of meeting students at their readiness levels. The author stated that if standards are too easy, little effort may be put forth and interest may not be piqued. If standards are much too difficult, discouragement may set in; but if standards are difficult yet within reach, learners may become motivated as well as satisfied with the accomplishments and the effort put forth to achieve the standards.

Instruction geared to the proper level for learners may increase feelings of capableness and effectiveness. Therefore, teachers require an understanding of the characteristics of academically advanced/high-ability learners as well as the instructional best practices necessary to maximize their learning. Dixon and Moon (2006) reminded readers that educators should strive to develop the abilities of all students by providing standards that are appropriate to the various ability levels of learners. Without appropriate challenges, students may not reach their full potentials and may not be prepared for possible opportunities in the future.

Many recent studies have used the SDT as a framework for their research as well. A search of Education Research Complete alone uncovered 42 articles published in the past five years using the SDT. Chizhik (2009), for example, used the self-determination theory to understand and clarify the results of a mixed methods study evaluating a middle

school level playwriting program in eighth grade classrooms. Participants, all from the same school, were primarily Latino students from an urban, low-SES neighbourhood. Eight classrooms comprised the experimental group, while the control group consisted of four classrooms. One classroom, in each of the experimental and control groups, was a gifted and talented specific grouped class. The students enrolled in the playwriting program performed better on a district-wide standardized test of writing achievement than did students in the traditional language arts classes. Standage, Duda, and Ntoumanis (2006) used the framework of the SDT and a quantitative approach to analyze instructional methods of teachers. The authors' research results included a list of teacher instructional strategies that were considered autonomy supportive as well as autonomy impeding for students.

A gifted specific study conducted by Vallerand et al. (1994) also used Deci and Ryan's (1985) theories as a framework for their study of 69 gifted students in enrichment programs and 66 regular elementary students. All students were enrolled in the same school. Results of the quantitative analysis of two motivational related questionnaires showed that gifted students perceived themselves as being more highly motivated and competent in comparison to how the regular students perceived themselves in regard to motivation and competence. The authors suggested two practical implications from their research: (a) gifted students need to be presented with appropriate challenge to develop positive perceptions of competence, and (b) gifted students also need to be given positive feedback for their efforts and accomplishments.

Rationale for Qualitative Methodology

Qualitative methodology was chosen over quantitative methodology for this study in order to best explore the training that teachers possess as well as the skills and knowledge teachers feel they have missed and require on the topic of academically advanced/high-ability students. In contrast, Shaunessy (2007) conducted quantitative research in an analysis of the attitudes of teachers of the gifted toward information technology. The author utilized a survey method. Conducting a mass survey using a Likert scale in the present study may not provide the rich description that a qualitative study can yield. As stated by Merriam and Associates (2002), "Qualitative researchers are not interested in people's surface opinions as in survey research, or in cause and effect as in experimental research; rather, they want to know how people do things, and what meaning they give to their lives" (p. 19). In order to note training strengths and recommendations for improvement in district professional development, as well as recommendations for preservice education reform, quantitative data may not provide the necessary detail. A full description of training as provided by teachers is necessary. This detail may inform training practices in other schools and in teacher preparation programs, and may also impact policy formation at the state level.

Details of the qualitative methodology will now be provided in section 3. After an initial explanation of the qualitative tradition used in the study, Moustakas's recommendations for conducting research using transcendental phenomenology will be described. Section 3 will also provide an account of the methods used for data collection and data analysis, and will explain the importance of the implemented qualitative trustworthiness methods.

Section 3: Methodology

This section will introduce, explain, and justify the research design and will restate the research questions. The context for the study and my role as the researcher will be detailed, as well as the procedures and ethical considerations for gaining access to and selecting the participants. A description of the data collection procedures, tools, and analysis process will be explained. The section will culminate with a clarification of the methods used to address the quality and credibility of the study.

Purpose of the Study

The purpose of this qualitative, phenomonolgical research study was to explore the lived experiences of teachers regarding the training they have received to meet the needs of academically advanced/high-ability students in their classrooms. Based on the direction of the study, the central phenomenon of teacher training was generally defined as preservice training, inservice training, and any self-taught knowledge and skills on the topic of meeting the needs of this subgroup of students. In relationship to these training experiences, skills and knowledge teachers feel they have missed and still require on the topic were also explored. Perceived supports and barriers to meeting the needs of academically advanced students were also addressed. In order to build on strengths and make improvements to the current system, a clear description of teachers' perceptions and experiences was necessary. Gaining teachers' viewpoints on their training may inform professional development within the school district, may inform training practices in other districts, and may also benefit teacher preparation programs. The study's results could also influence state legislation.

Qualitative Tradition Used and Justification for Its Selection

This study used a phenomenological approach by gathering and exploring teachers' lived experiences regarding the phenomenon of teacher training on the topic of academically advanced/high ability students. "A phenomenological study focuses on the essence or structure of an experience" (Merriam & Associates, 2002, p. 7). The intent of the study was not to focus on the life of an individual as in a narrative approach, or to develop a theory as in a grounded theory approach. Nor was the intent to describe how a cultural group operates as in ethnography, or to state an in-depth understanding of a bounded case in a case study. In this research, I was interested in exploring an experience shared by a group of individuals. Creswell (2007) suggested choosing phenomenology to discover the meanings that individuals attribute to an experience. The author instructed that interviews should be conducted, set procedures must be followed, and in the end, a rich description of the phenomenon could result. I followed Creswell's (2007) suggestions through the use of Moustakas's (1994) approach to Husserl's transcendental phenomenology.

Husserl introduced and originated this tradition of philosophy at the beginning of the twentieth century. "He (Husserl) cannot be considered as continuing a tradition that had taken shape before him" (Sokolowski, 2000, p. 211). Moustakas (1994) recognized and appreciated Husserl's work. Moustakas, in reference to his own work stated, "In this reflective meditation on transcendental phenomenology, I especially recognize Edmund Husserl, who stood alone, a determined self-presence, pioneering new realms of philosophy and science" (p. 25). Moustakas gave much credit to Husserl and his efforts.

Moustakas's (1994) approach to Husserl's transcendental phenomenology was utilized in order to understand the lived experiences of the study's participants. Four basic steps were employed. These steps align well with the necessary components of the Walden qualitative dissertation rubric. Step 1 is imperative to reduce prejudgment and bias that could be present in the researcher. It involves the use of *Epoche*, "allowing things, events, and people to enter anew into consciousness, and to look and see them again, as if for the first time" (Moustakas, 1994, p. 85). Epoche allows the researcher to view the research topic in a new light, with a fresh and open mind.

Step 2 focuses on *Reduction*, which allows the participants to go back to their own experiences. In order for participants to do so, the researcher must first use *bracketing* to focus only on the topic and question at hand; incorporate *horizonalizing*, which entails accepting all statements with equal value placed upon them; then organize the horizons into themes; and finally organize the horizons and themes into a *textural* description (Moustakas, 1994, p. 97).

Step 3 utilizes *imaginative variation* (Moustakas, 1994, p. 98), which involves the conditions behind the experiences, and results in the *structural* component of phenomenology. Step 4 entails a synthesis of meanings and essences (Moustakas, 1994, p. 100). This step integrates the textural and structural facets into a description of the whole experience of the phenomenon.

Moustakas (1994) discussed hermeneutics and heuristics, two additional types of phenomenological study. A focus of hermeneutic methodology is on the historical, political, and aesthetic conditions that surround experiences. Although this focus could have added an interesting component, history, politics, and art were not purposefully

woven into the present study. Participants may have addressed these components as they shared their lived experiences, however. In addition, Sokolowski (2000) stated, "Hermeneutics originally stressed the structures of reading and interpreting texts from the past" (p. 224). Heuristic research involves "transcription of interviews, notes, poems, artwork, and personal documents" (Sokolowski, 2000, p. 19). Additional artifacts were not incorporated into this study. Therefore, I did not feel that hermeneutics or heuristics were fitting for use in my study.

Paradigm

Upon analyzing personal views and basic sets of beliefs, I approached this study from both postpositivist and constructivist paradigms. Aspects of both of these approaches seemed to align with personal views and beliefs. The scientific approach of the postpositivist paradigm, rooted in logical steps, is fitting of the processes that were followed in the study's research methods. Creswell (2007) emphasized the relationship between the "analytical steps" of phenomenology by Moustakas (1994) and the postpositivist approach (p. 20). However, also understanding the importance and reliance of the study on the participants' views of teacher training, a constructivist paradigm also seemed fitting. Hatch (2002) discussed the process of the researcher and participants constructing the study's findings together, which is emphasized in a constructivist paradigm.

Moustakas (1994, pp. 180-182) provided methodological recommendations for conducting qualitative research using transcendental phenomenology. These recommendations align well with the Walden dissertation rubric. Moustakas's (1994)

guidelines are comprised of four main parts: methods to prepare for research, to collect data, organize, analyze, and synthesize data; and to conclude the study.

In order to prepare for research, Moustakas (1994) advised to first formulate the study's question, conduct a literature review, secure research participants, and develop topics, instructions, and questions to be used during the interviews. When ready to begin data collection, Moustakas (1994) emphasized to first use the process of Epoche in order to be prepared to view the collected data with a fresh and nonbiased mind. In order to set personal thoughts and possible biases aside, the use of a journal was recommended. This process can aid the researcher in processing through his/her own thoughts regarding the topic. Next the researcher must bracket the study's topic and question, which involves focusing solely on the study's focal point without being distracted by other matters. After these processes are completed, the qualitative interviews can be conducted.

To organize, analyze, and synthesize the data, Moustakas (1994) first detailed the rationale of identifying individual textural and structural descriptions of participants' accounts of the experience. Next, these individual descriptions should be formed into a composite of textural descriptions and a composite of structural descriptions. Once this has been accomplished, a synthesis of the textural and structural meanings should take place.

The fourth method of Moustakas's (1994) approach to transcendental phenomenology is to summarize the study, note the implications of the results, and detail its outcomes. It is important to relate the study's findings to the findings of the literature review and to present possible future research that may stem from the results. Lastly the

researcher should relate the study to personal and professional goals and share the implications for potential positive social change.

Research Questions and Subquestions

This qualitative research study explored the training that teachers receive regarding academically advanced/high-ability students, as well as the skills and knowledge teachers feel they have missed and require on this topic. Possible barriers to the classroom implementation of these skills and knowledge were also addressed.

The primary research question for the study was: What are teachers' lived experiences and perceptions of their training on the topic of meeting the needs of academically advanced/high-ability students in the classroom learning environment? Training was further organized into the categories of preservice training, inservice training, and possible self-taught knowledge and skills. Subquestions stemming from this primary research question were:

- Which specific skills and knowledge do teachers feel they have missed and still require training in order to meet the needs of academically advanced/high-ability students in the classroom learning environment?
- Are there barriers that teachers encounter, preventing them from implementing skills and knowledge to meet the needs of academically advanced/high-ability students in the classroom learning environment? If so, what are these barriers?

Interview questions were developed to align with the primary research question and subquestions. The interview guide can be found in Appendix A.

Description and Justification for the Context of the Study

The research took place within the context of a school district, specifically with teachers of Grades Kindergarten through 8. I was/am employed in the chosen school district. This context was selected due to its convenience and also due to the desire to build on strengths and make improvements within the participating school district. The phenomenon of interest was teachers' lived experiences and perceptions regarding their preservice and inservice training, as well as self-taught knowledge and skills they have received in order to meet the needs of academically advanced/high-ability students in the classroom learning environment.

Locating standards and/or recommendations for *all* teachers' training on the topic of gifted and talented proved to be challenging. After much searching, the conceptual framework that was used as a benchmark in this exploration is the NAGC's (2008b) newly developed Knowledge and Skill Standards in Gifted and Talented Education for All Teachers. This framework was selected due to its focus on all teachers, not just teachers specializing in the field of gifted and talented.

As stated previously, transcendental phenomenology was the methodology used in this study. Individual interviews were conducted with each participant. Hatch (2002) advised that it is acceptable for interviews to be the only means of data collection in some studies. The author also noted that interviewing may be the finest and perhaps only method to discover what a person believes and feels. The segments to follow will provide details regarding the interviewing process.

Participant Criteria and Selection

This study was conducted in a rural Minnesota school district. To address the qualitative research questions, a purposeful sampling of teachers was utilized. Teachers with a broad range of years of experience were interviewed. Fifteen teachers were selected for the study, five from each of these three categores: (a) teachers with 1-5 years of teaching experience in the district, (b) teachers with 6-10 years of teaching experience in the district, and (c) teachers with 11 or more years of teaching experience in the district. In addition to the purposeful representation of teachers' years of experience, gender and grade level taught were also considered. Representation of both elementary and middle school teachers, and both male and female teachers were factored into the selection process. Including participants from a range of years of experience as well as grade levels provided a more complete and inclusive picture, and was utilized to avoid a narrow focus of just one perspective.

In order to identify and select participants, a list of the district's kindergarten through grade 8 teachers was used. The superintendent of schools agreed to allow me to obtain this list from the participating district. Teachers' names were organized into three groups based on the years of experience criteria explained above. This grouping could be called a *stratified, purposeful sample*. Hatch (2002) defined this type of sample to include "individuals selected to represent particular subgroups of interest" (p. 98). In addition, a fairly even split of gender and grade levels was sought. A random number system was utilized to select from the list of eligible teachers. Contacts were made until 15 teachers agreed to participate in the study.

Ethical Considerations

Permission to conduct research was sought from the Institutional Review Board (IRB) at Walden University. After permission was granted (approval #05-14-10-0376235), possible participants were contacted. It was made clear to these individuals that they were in no way obligated to accept the invitation to participate in the research, and that if they did accept the invitation, they could withdraw from the study at any time. Proper informed consent procedures were followed. Confidentiality was also granted to participants. Each individual was reminded that my notes and recordings would be used in the study, and that these materials would be kept in a secure location. Participants were notified that all Walden dissertations can be accessed for public viewing. It was also necessary for me to delete the name of my current place of employment in the curriculum vitae.

Hatch (2002) discussed the importance of giving back to participants. "Giving back something of substance needs to be considered as qualitative projects are planned" (p. 66). The potential benefits to teachers, students, and the school district as a whole was shared with the participants. I plan to provide the school district with noted training strengths and recommendations for improvement in district professional development. Ultimately sharing these results with the participating district could affect the learning and well-being of academically advanced/high-ability students.

Hatch (2002) also discussed the importance of making plans for leaving the scene when the research is completed. I am still a teacher in the study's school district and do not plan to leave the scene.

Role of the Researcher

I am a teacher in the rural school district in Minnesota where the study was conducted, and carried out all facets of the study, including the role of interviewer and data analyst. Although this convenience sample choice was necessary in order to provide recommendations for the participating school district, the backyard nature of the study and its interviews could have been a challenge. I know many of the people from the participant pool for the study. Creswell (2007) cautioned that researchers may put their jobs at risk if research findings are uncomplimentary.

The idea of Epoche (Husserl, 1931; Moustakas, 1994) was purposeful, including setting aside personal experiences and biases in order to see the data in a fresh and new light. At times, a researcher's own experiences and perspectives may prevent all aspects of the data from being realized in the findings. Epoche is an important initial step of data collection. It is interesting however, that if hermeneutic phenomenology had been chosen, bracketing is not a focus. Lopez and Willis (2004) emphasized that a researcher's personal experiences are a valuable inquiry component and add to the significance of a study that follows a hermeneutic approach.

Methods of Establishing Working Relationships With Participants

The fact that I am a fellow teaching colleague in the school district may have increased the comfort level of the participants. Rubin and Rubin (2005) affirmed that people may find the researcher more trustworthy if both parties have something in common. Participants may also be more apt to share with the researcher if they are familiar with him/her and the project. After potential participants were informed of the study's purpose and benefits, I was hopeful that teachers would agree to participate.

Participation was not a significant time commitment on the part of any one teacher. In order to increase the comfort level for participants, I asked each teacher to give input concerning an interviewing location. Hatch (2002) discussed the fear that some participants may have of being overheard. I remained conscious of this possibility and made sure that participants were comfortable with the chosen interviewing location.

Upon interviewing, participants were reminded that there were no right or wrong answers. It was stressed that their experiences and perceptions are valuable and are important means of improving current practices that affect academically advanced/high-ability students. Moustakas (1994) suggested that the interview should begin with social conversation in order to help the coresearcher feel comfortable. The use of the term *coresearcher* may impart a feeling of teamwork and togetherness for the participants during the study. As suggested by Rubin and Rubin (2005), the name and phone number of my committee chair was also presented to the members of the study. Providing this contact information may add a feeling of reassurance for participants.

Participants were told in advance that their feedback would be sought concerning my final interpretations of the data. This process called *member-checking* (Creswell, 2003, p. 196) allowed me to determine if the study's emergent themes were accurate representations of the participants' views. Allowing the participants an opportunity to state their feelings on the accuracy of the findings should strengthen the study. This team-based approach should add to the comfort level of participants as well as to our working relationship. In addition, the use of the term, coresearcher, as explained above may add a feeling of importance for the participants.

My Experiences and Biases Related to the Topic

Moustakas (1994) and Creswell (2007) stressed bracketing, or setting aside personal feelings, in order to gain an unbiased perspective of the phenomenon. "This introspection and acknowledgment of biases, values, and interests (or reflexivity) typifies qualitative research today" (Creswell, 2003, p. 182). Due to Creswell's recommendation to include personal statements in research, some of the background for the interest in this study will be shared.

The high-stakes testing environment in today's schools, as well as in the middle school where I am employed, emphasizes the need for all students to meet basic standards. Due to the tremendous pressure on districts to make certain all students meet grade level standards and pass state tests, emphasis may not be placed on those students who have already mastered the basics, or who are well beyond grade level expectations. I became frustrated with the resulting lack of focus on academically advanced/high-ability students. A system-wide approach is necessary to adequately meet these students' needs. Based on my experiences, it is my belief that improvements should be made at the preservice and inservice levels, in order for teachers to improve in meeting the needs of academically advanced students.

Data Collection Procedures

To begin the data collection process, careful thought and consideration of personal feelings about the study took place. These thoughts were recorded in a journal. Husserl (1931) acknowledged that is it difficult to "set aside all previous habits of thought, see through and break down the mental barriers which these habits have set along the horizons of our thinking" (p. 39). After setting aside prejudgments and biases

via journaling, and bracketing the question, I then began the interviewing process. Moustakas (1994) advised that interviewing involves using open-ended questions prepared in advance of the interviews; however, these questions may be modified as the interview progresses and as the participant details his/her experiences. Hatch (2002) also discussed this structured, yet flexible interview process. As suggested, I developed an interview guide, which can be found in Appendix A. Hatch (2002) recommended that questions in an interview guide be clear, neutral, respectful, open-ended, use language familiar to participants, and must produce responses that are tied to the study's main research questions. The main interview questions were shared with the participants in advance of the formal interview. Remembering events from preservice training may take some thought. The hope was that with advance knowledge of the main questions, participants would have more to share during the interview.

A digital voice recorder was used to record the interviews. Janesick (2004) recommended that the researcher conduct a voice test on the recording device first by stating the date, location information, and the participant's name. I followed this advice, which also documented important interviewee information on the recording. The audio interviews were downloaded and saved on a computer. The voice recorder could be played back at half speed without voice distortion, which aided in the transcription process. In addition to the audio recording of the interviews, I kept notes of nonverbal indicators that were not picked up on tape.

Back-to-back interviews were avoided, and transcription took place as soon as possible after each interview, as suggested by Rubin and Rubin (2005). In addition to transcribing right away, the entire interview was transcribed. Any possible reduction of

information took place later, once themes were developed, as recommended by Hatch (2002). Creswell (2007) presented a general data analysis spiral in which data collection and analysis are interwoven and "not distinct steps in the process" (p. 150). I utilized this approach. Further details of the analysis process will now be explained.

Data Analysis

In order to best organize the qualitative data for analysis, practical advice from Hahn (2008) regarding analyzing qualitative research using a computer was followed.

> Qualitative research is time consuming and the data are complex. . . . Without diligent project management, qualitative researchers may forget critical data, spend far too much time looking for things they lost, and miss the most important themes that are embedded in their data. (Hahn, 2008, p. 3)

The major steps of Hahn's that were conducted to manage the qualitative research data via a computer Microsoft Word document will be explained in section 4. Ultimately, the computer assisted, data managerial process resulted in 141 pages of coded and organized data. This process significantly helped me with the remainder of the analysis process.

Throughout the computer aided analysis process, many qualitative data analysis strategies were employed. Upon examining the interview data, advice from Hatch (2002) and Rubin and Rubin (2005) was followed in addition to the transcendental phenomenology steps set forth by Moustakas (1994). Inductive thinking was used in the analysis. The inductive thinking process begins with an examination of the specific information, which then allows generalizations to be made.

The data were read numerous times. Moustakas's (1994) process of *horizonalizing* was followed, which entails accepting all statements with equal value

placed upon them. As suggested by Rubin and Rubin (2005), codes were developed that addressed the research questions as well as the conceptual frameworks used in the study. Some of the aspects of the conceptual frameworks used in the study were not present in the interview transcripts. However, as explained by Hatch (2002), a lack of data can also provide answers to research questions.

I used the coding outline model as explained by Rubin and Rubin (2005), as well as the coding abbreviation method of Janesick (2004). Codes were typed in a parallel column on the Microsoft Word analysis document. Codes were color-coded within the text. After all participant demographic data were structured within a Table of Contents in the word document; and after all codes were topic and alphabetically sorted, and organized within a Table of Authorities in the word document, the next step of analysis took place. Frequency of each code was noted and results were arranged within tables and spreadsheets. Each of the main research questions for the study was then addressed one at a time by analyzing the Table of Authorities as well as the before mentioned tables and spreadsheets. Theme names were developed by me or written as *in vivo codes*, which are names taken from the exact words of the participants (Creswell, 2007, p. 153). It was found that a few of the experiences shared by participants did not fit the emerging themes. The manner in which to receive additional training is the topic area where a few participants felt differently than the majority of the interviewees. Detailing these discrepant cases will add credibility to the study. “Because real life is composed of different perspectives that do not always coalesce, discussing contrary information adds to the credibility of an account for a reader” (Creswell, 2003, p. 196). See Appendix C for a list of developed codes. See Appendix D for a segment of the transcribed and coded

data, which includes two interviews. See Appendix E for a one page example of the Table of Authorities, which sorts codes.

The coded horizons were first organized into *textural* themes (Moustakas, 1994). Powerful participant quotes that supported the themes were selected. Next, *imaginative variation* (Moustakas, 1994) was used, which involved focusing on the conditions behind the experiences, resulting in *structural* themes. Again, powerful participant quotes that supported the themes were selected. After composite textural and structural themes were developed, they were integrated into a description of the whole experience of the phenomenon.

Methods to Address Qualitative Trustworthiness

It is important to have one or more strategies for establishing the quality or validity of research in order for one's study to be accepted and respected by a reader. I clarified biases; provided a rich, thick description of the data; presented possible discrepant information; used member-checking; and used peer-debriefing. Creswell (2003) recommended that researchers detail the steps they used to account for the accuracy of their results.

As stated previously, the use of Epoche and bracketing were used to clarify biases and to approach the data collection and analysis with an open mind, acknowledging prejudgments that may have been present. Providing a rich, thick description allows readers to decide if they can transfer information to other settings. Also stated previously, it was found that some of the experiences shared by participants did not fit the emerging themes. Detailing these discrepant cases adds credibility to the study.

Feedback on my interpretation was obtained from the participants. This process called *member-checking* (Creswell, 2003, p. 196) allowed me to determine if the study's emergent themes were accurate representations of the participants' views. Allowing the participants an opportunity to state their feelings on the accuracy of the findings strengthens the study. Peer-debriefing was also implemented through regular contact with my dissertation committee.

Summary

Section 3 introduced, explained, and justified the methods and research design; listed the research questions; detailed my role as the researcher; explained the procedures and ethical considerations for gaining access to and selecting the participants; described the data collection procedures, tools, and analysis process; and clarified the methods used to address the quality and credibility of the study. Section 4 will further detail data collection and tracking methods and will provide a thorough description of the study's findings.

Section 4: Results of the Study

In order to best address the research questions for this study, a qualitative approach was utilized. Transcendental phenomenology (Husserl, 1931; Moustakas, 1994) was the chosen qualitative tradition. Section 4 will explain the processes by which the data were generated, gathered, and recorded; describe the systems for keeping track of the data and the developing understandings; provide a detailed description of the findings and the emergent themes, patterns, and relationships; include evidence to assure the accuracy of data; and provide references to attached appendices.

Participant Demographics

This study was conducted in a rural Minnesota school district. A purposeful sampling of teachers was utilized. Teachers with a broad range of years of experience were interviewed. Fifteen teachers were selected for the study, five from each of these three categores: (a) teachers with 1-5 years of teaching experience in the district, (b) teachers with 6-10 years of teaching experience in the district, and (c) teachers with 11 or more years of teaching experience in the district. Five of the participants were male, and 10 were female. An even split of gender was sought; however, the number of possible female participants far outweighed possible male participants in the school district's pool of grade K-8 teachers.

Six participants were teachers in grades K-4, and nine participants were teachers of grades 5-8. Again, I sought to have an even split of teachers between the elementary and middle school levels in the district, but in order to access more male participants, a few more middle level teachers were selected for the study in comparison to elementary teachers. The number of male teachers in the district in grades K-4 is relatively low.

While striving to attain this balance among gender and instructional level of teachers, I also had to factor in accomplishing the above-mentioned balance of years of experience among participants.

There are also other interesting demographic items to note. Ten of the 15 participants hold masters degrees. Eight attended Minnesota schools for their undergraduate teacher training; six received their training in other states: South Dakota, Kansas, Iowa, North Dakota, South Carolina, and Nebraska; and one participant received undergraduate training in Canada. Nine of the 15 participants also have experience teaching in a different district, with six teachers spending their entire careers thus far in the participating district.

These demographic data were easily sorted and obtained via the use of a Table of Contents within my three-column, coded, Microsoft Word document of interview transcriptions. I followed the step by step directions of Hahn (2008) to set up this three-columned transcript document. Further detail of this process will be provided in this section.

Data Collection

As explained in section 3, an interview guide was followed during each of the 15 individual interviews. The interview guide can be found in Appendix A. The main interview questions were shared with the participants in advance of the formal interviews.

A digital voice recorder was used to record the interviews. In addition to the audio recording of the interviews, I kept notes of nonverbal indicators that were not picked up on tape. The audio interviews were downloaded and saved on a computer. Transcription took place by listening to the interviews on the digital voice recorder at half speed. The

digital voice recorder eliminated voice distortion during playback, which was helpful during the transcription process.

Back-to-back interviews were avoided, and transcription took place as soon as possible after each interview, as suggested by Rubin and Rubin (2005). Entire interviews were transcribed. Reduction of nontopic information took place later.

After transcription was completed, an organizational method was necessary in order to properly manage the high volume of transcribed data. “To find the gold the miner must systematically sift through piles of unsorted material to isolate the precious metal” (Hahn, 2008, p. 5). I sought a systematic method to analyze the research data in order to fully understand the individual and collective thoughts of the participants. “Piles and files of data can quickly lead to chaos if they are not intelligently managed” (p. 8). Hahn’s straightforward approach to using features of Microsoft Office was utilized for this purpose.

First, the entire transcribed document was converted into a three-column table. In doing so, each paragraph of transcribed data also became an individual row on the document. The purpose of each of the three columns was to: (a) identify the row (paragraph) number; (b) house demographic data and the codes, which were color-coded as well; and (c) hold the transcribed data, which had the related and noteworthy participant quotes also color-coded.

Next, demographic data were sorted and then displayed in a table using the Table of Contents feature. Hahn (2008) led the reader through detailed steps of how to complete this process (pp. 100–104). The transcribed data were then read through very carefully and codes were listed in the second column of the document. The codes were color-coded

and marked within the second column. Related and noteworthy participant quotes were then color-coded in the third column to match the color of the corresponding code. All codes and noted quotes then had to be marked in order to later be sorted into a Table of Authorities. Hahn detailed this process as well (pp. 99-101). At the end of the transcribed three-columns of data, I inserted a Table of Contents, which sorted and detailed all participant demographic data. Corresponding page numbers were included for easy reference back to the transcribed data. I then inserted a Table of Authorities, which sorted all codes alphabetically by major topic. Again, page numbers were included for easy reference back to the transcribed interview data. See Appendix C for a list of developed codes. See Appendix D for a segment of the transcribed and coded data, which includes two interviews. See Appendix E for a one-page example of the Table of Authorities, which sorted codes.

Data Analysis Findings

Each of the study's research questions was addressed by analyzing the sorted codes. Textural themes as well as structural themes were then developed. The findings will now be discussed in detail in relation to each of the study's research questions.

Primary Research Question

The primary research question driving this study was: What are teachers' lived experiences and perceptions of their training on the topic of meeting the needs of academically advanced/high-ability students in the classroom learning environment? Training was further organized into the categories of: preservice training, inservice training, and possible self-taught knowledge and skills.

Preservice Training. In regard to preservice training, 12 of the 15 participants were coded as "none." They stated they did not have any preservice training on the topic. One participant stated, "No specific training that I recall. Not in my undergrad at all." Three participants were coded as "little." They felt they had a little bit of training on the topic. The small amount of training may not have been impressive. "I don't think I ever had anything that really addressed the gifted, and if it was it was a little canned part of a three credit course. It didn't have a lot of starch to it." None of the participants were identified by the code "some" or "extensive" in regard to preservice training.

Two participants coded as "none" also added that not only was there no training on the topic of academically advanced students, the emphasis was on the other end of the spectrum. "Not to my remembrance. There was training on ELL [English Language Learners], special education and pretty in depth on those specialties, but academically advanced, nothing, or nothing memorable." Again in reference to preservice training another participant stated, "So, it was all concentrating on those that aren't getting it – what should you do, what should you say. That is where more of the focus is."

Noteworthy demographic data relating to undergraduate training is that two of the three participants with little preservice training received their training outside the state of Minnesota. One of these three participants was trained in a Minnesota school. This Minnesota trained participant was in the 1-5 year category for years of experience in the district. The other two participants had 6-10 years and 11 or more years of experience. Of the 12 participants who said they had no preservice training on the topic, eight of these teachers were trained in Minnesota and four were trained outside of Minnesota.

Inservice Training. In regard to inservice training, nine of the 15 participants were coded as "none." They stated they have not had any inservice training specifically dealing with academically advanced students. Six participants were coded as "little." They felt they had a little bit of inservice training on the topic. "I don't remember any inservice that was directed toward advanced learners. We had some really renowned experts on differentiated instruction. But, it was thrown at you real quick, and then what do you do with it now? I wouldn't characterize it as real structured." None of the participants were identified by the code "some" or "extensive" in regard to inservice training.

Eight of the 15 participants discussed differentiated instruction training given by the district. Half of them did not feel this counted as inservice training for academically advanced students. "I don't remember having anything during inservice here beyond the past few years of differentiated instruction. But, that is not geared specifically toward academically advanced students." Another participant found the differentiated training to be more geared toward learning styles. "We had some differentiation but nothing specific. I don't remember thinking of it as, 'Oh, this can really help my gifted kids;' more of how are you a learner. Are you hands-on?" After stating there has been very little training for academically advanced students other than some Great Books training years ago, one participant again noted the imbalance of training received: "whereas on the other side of the coin, we really have tried so many things for the lower end."

Noteworthy demographic data relating to inservice training are that of the nine participants that have had no inservice training, five of these nine teachers were the five

participants with 1-5 years experience in the district. Two of these nine had 6-10 years, and two had 11 or more years experience.

Self-Taught Knowledge. In regard to self-taught knowledge, four of the 15 participants were coded as "none." They acknowledged that they did not have any self-taught knowledge on the topic. Time could be a contributing factor. "It [topic of academically advanced students] is very interesting to me, but I haven't really ever had the time to sit down and study it." The remaining 11 participants were coded as "little." They expressed that they had a little bit of self-taught knowledge specifically dealing with academically advanced students. Many of these 11 noted that they felt this self-taught knowledge was gained through experience: "assumptions," "self-teaching," "common sense," and "experimentation." As one participant stated, "I feel better about teaching the advanced math now, but I have learned a lot myself." None of the participants were identified by the code "some" or "extensive" for self-taught knowledge.

Noteworthy demographic data for self-taught knowledge were that all four participants who stated "none" had 1-5 years experience in the district. Of the 11 stating that they had a little self-taught knowledge, one had 1-5 years experience in the district. All of the participants with 6-10 years and 11 or more years of experience in the district shared that they feel they have a little self-taught knowledge on this topic.

Subquestions

Subquestion 1. Subquestion 1, stemming from the primary research question was: Which specific skills and knowledge do teachers feel they have missed and still require training in order to meet the needs of academically advanced/high-ability students in the classroom learning environment? A variety of responses was shared. A third of

participants felt they needed current research on the topic in general. One-fifth of participants desired training on how to manage and work with these learners in the regular classroom setting. One-fifth also felt they needed training on how to truly identify these learners. Other noted necessary training areas included: acceleration, curriculum for these learners, a definition of gifted and talented, grading procedures, how these learners think, motivation, how to help these learners realize that advanced work is not more work, and training that would allow teachers to "see it in action."

In an effort to address this first subquestion, participants were also asked, "How would you like to receive training to become skilled and knowledgeable in this area?" A few teachers specified a preference for location of training; either attending conferences and workshops out of district, or staying in district for training. One participant who preferred receiving training out of district stated:

> I have always felt that I have gotten something good at every conference I have gone to. When they are here, it is kind of interrupting your own day. If we had more opportunities to go places for training, there might be something to be said about that. To get out of your own settings; maybe it is more meaningful for your mind if you go somewhere.

However, the major training theme that emerged was not location, but was the importance of the training being on-going. The vast majority of teachers stressed the necessity of on-going training with follow-up and support. Below are some of their thoughts:

> "Incorporating as you go. . . . I don't think there is a quick fix to it."

"Time to plan and learn, not just 1 day with unclear expectations of what to do next; time to observe others; planning together."

"It is something that we should do through curriculum meetings on a regular basis throughout the year."

"I just thought the 1 day just didn't do anything for me."

"We aren't given time to figure out how to apply what we have learned with much of the training in our district."

> I just think they need to offer it every year. And, why can't we have a speaker on that once in a while? Why do we always have to have a speaker on the lower end? I don't know. It just seems that that is very few and far between - a speaker on advanced learners. I have been here 6 years and there has never been a speaker on the advanced learner. It would be a very interesting topic. I think that they'd have more than enough participants.

Another theme regarding the avenue to receive training stemmed around working with colleagues. "We really have some incredibly talented people in our system, but it is like we don't ever really share." In reference to the enormous amount of time spent discussing methods to raise achievement levels of lower ability students, one participant stated, "I like the idea of teachers getting together to discuss lesson plans and talk about what is best for ALL types of kids." Another participant noted, "I think seeing other teachers doing tiered lessons would be helpful, and help planning a tiered lesson with someone else."

A few participants added an interesting component to the training: make the training optional. As one participant acknowledged,

> I would like to work just with people who want to and who are interested. When you get people in there who don't want to do it, it really brings you down and it takes away from you wanting to learn. So, to really get people who want to learn it is important. If there are extra funds set aside or not, it is just people there who want to be there; not just because they might get extra money. Making training optional would really be a benefit. Throughout the district you get told you have to do something, but when other people don't want to learn it, it can become a very negative experience for you. I felt I took so much more out of it that way. So getting people that want to learn it is important.

Another participant discussed an optional study group idea in which interested individuals could read current research on the topic and then meet to discuss the articles.

Subquestion 2. Stemming from the primary research question, subquestion 2 asked: Are there barriers that teachers encounter, preventing them from implementing skills and knowledge to meet the needs of academically advanced/high-ability students in the classroom learning environment? If so, what are these barriers? This final research subquestion was addressed in the interviews by asking participants, "Please tell me about any supports as well as any barriers you have encountered in meeting the needs of these students in the classroom learning environment." Unfortunately, the amount of time detailing barriers far outweighed the sharing of supports.

***Supports*.** The supports that participants discussed were:

- District is in a college town, providing additional opportunities for students
- Homogeneous grouping that takes place in certain subjects at some grade levels

- Opportunities for students via internet use in the regular classroom setting
- Awards and recognition given to advanced students is a motivator for them
- Music programs provide opportunities for advanced students
- The past development of a professional learning community (PLC) on the topic of gifted and talented
- Response to intervention (RtI) could be a support if district chooses to use the data in that manner
- Some of the district's teachers are knowledgeable on this topic
- A feeling that overall, teachers believe we have advanced students in the system
- Colleagues and teaming situations currently in place
- The district would most likely not say no to ideas that teachers would like to implement in their classrooms to meet the needs of these students

Of the above supports, homogeneous grouping was shared the most frequently by participants. One middle school level participant discussed grouping reading strategies classes by achievement as well as an effort to tier activities within his class, while other K-4 teachers discussed guided reading groups at the elementary level as a support. Elementary participants also shared the positive aspects of paced math groups, and middle school teachers mentioned leveled math classes as a support for advanced students. "The paced math groups that are done in 3rd grade and the guided reading groups are a support."

Supports and barriers. A few of the above listed supports were shared as barriers as well, however. RtI and its emphasis on low achieving students was stated as a possible

barrier to academically advanced students. “RtI is not necessarily a support yet, but it could be if we take it that way.” Although colleagues and teaming situations provide support for teachers in their efforts to meet the needs of academically advanced students, other teachers can also be a barrier. Some participants felt that other teachers view meeting these students’ needs as more work for them, so they (teachers) are then not supportive of the concept. In regards to teachers being a barrier, one participant stated, “And maybe a little bit, and I hate to say this, is teacher apathy: ‘Sounds like work. I can’t be bothered. I can’t really incorporate anything that is going to be more work for me in the long run.’ That is another thing that we battle with.” As another participant stated, “In our grade level meetings we talk about kids who are struggling and it can be a complaint session. It is frustrating. But, that is our focus; we talk about kids who are struggling. So, colleagues can be a barrier, too.”

Although some participants mentioned that the district would be supportive of teachers’ interest in striving to meet the needs of academically advanced students, participants acknowledged that the district could also be viewed as a barrier: “It feels almost like they want you to improve, but they are not going to help you.” In reference to meeting the needs of academically advanced students one participant declared, “I feel like sometimes the district has put it all on us.” The district being viewed as a barrier goes beyond simply a lack of inservice training provided on the topic. Other perceived barriers that the district presents include: a lack of a K-12 systemic approach to the academically advanced learners, a lack of a curricular scope and sequence for these students, scheduling issues, as well as the district’s lack of a plan in place for these learners. One

participant elaborated on his frustration with a lack of a district plan for academically advanced students:

> There is rigidity to curriculum and scheduling. You could go so far as saying there isn't any structural plan from our district to address this situation. It is basically random. There is not some kind of plan in place or a philosophy or approach in place to do something about it. If you want to go really negative… if there is not a plan in place then you don't even acknowledge it and acknowledge that it is an issue. I think it is really wrong to not acknowledge it. It can appear in our district that we don't acknowledge it. We have so many other things that we are worried about, and sometimes we say we have to worry about AYP and other pressing needs, and those advanced kids are going to be ok because they are advanced. They are learners like everyone else in the building and they have their own needs, too. So, to not have a plan for them is very frustrating. I think it is a huge barrier and it shows a lack of leadership in the sense that if it is only happening randomly by concerned teachers and parents and it is not part of our school's continuous improvement plan then I think that is wrong and something should be done about that. I think it is a barrier that there is not much leadership in this area… I am pretty passionate about this concept. If there is not a plan in place, there is not an issue that there is a need in the first place. We aren't living our mission statement of meeting the needs of all learners.

***Barriers*.** Even though there were many, a list of all barriers mentioned and discussed is provided below. These thoughts and ideas are all interesting and worth noting. Presenting this list also provides a voice for all participants to be heard. A

summary as well as the most pertinent emerging themes will also be provided. The below list is not based on importance or frequency as discussed during the interviews. The list is in the order codes were sorted using symbols and phrases in Microsoft Word. Numbers have been used in place of bullets to aid in summarizing and detailing emergent themes.

1. Large numbers of students, with a variety of ability levels, in one classroom
2. Little support in the classroom to meet the varying needs of all learners
3. The RtI initiative
4. Too much money and emphasis placed on low achieving students
5. District places meeting the needs of academically advanced students all on the teachers' shoulders
6. Lack of training; teachers do not know what to do to best meet the needs of these students
7. High numbers of English Language Learners (ELL) in the regular classroom setting
8. Lack of funding designated for academically advanced students
9. Elementary teachers are generalists in regards to the preservice training they have received
10. Schools organized by grade and by age
11. Grading/scoring students doing advanced and different work in the regular classroom setting
12. Too many "housekeeping" items taking up teachers' time, instead of time to focus on curriculum and instruction to best meet the needs of students

13. Lack of a systemic approach throughout the district to meet the needs of these students
14. Lack of a scope and sequence to the curriculum for these learners
15. No district plan or program for academically advanced/high-ability learners
16. More technology and computer access is needed
17. Academically advanced students may feel that they are being given more work to do when teachers try to meet their needs
18. The assumption that these students will be able to succeed independently and that we do not need to worry about them
19. NCLB legislation
20. No federal or state mandate for improving the achievement of students on this end of the achievement spectrum
21. Parents
22. High numbers of special education students in one class
23. Scheduling structure of the school day
24. Stuck in the grade level curriculum mind-set versus a student needs based curriculum mind-set
25. Other colleagues
26. Teaching to the state tests
27. Time

I analyzed the above 27 barriers and noted the numbers of participants who discussed each barrier. Based on this analysis, five barrier themes were identified. Those

themes are: (a) variety of learners in one classroom with little support; (b) focus/emphasis on low achieving students across the nation, state, and within the participating school district; (c) lack of district emphasis on academically advanced students, ranging from a lack of inservice training on the topic to not having a recognized district plan for meeting the needs of these learners; (d) lack of preservice training on the part of teacher education programs; and (e) a solution to these barriers will likely involve thinking differently, or "thinking outside of the box."

These barrier themes are displayed in Table 1. Below each theme heading, the corresponding barriers are identified to denote which of the 27 barriers were involved in the development of that theme. Themes b, c, and d as listed above also had support in their development from data stemming from the primary research question.

Table 1. Barrier Themes

	Variety of Learners in One Classroom with Little Support	**Focus/Emphasis on Low Achieving Students Across the Nation, Across the State, and Within the School District**	**Lack of District Emphasis**	**Lack of a Preservice Training Emphasis from Teacher Education Programs**	**Outside of the Box Thinking is Needed (Perhaps a solution will involve "thinking outside of the box.")**
1	X				
2	X				
3		X			
4		X			
5	X		X		
6			X	X	
7	X				
8		X	X		
9					
10					X
11					X
12					
13			X		
14			X		
15			X		
16					
17					
18					
19		X			
20		X			
21					
22	X				
23					X
24					X
25					
26		X			
27					

Time could be noted as another barrier theme, however I decided that time may be a consequence stemming from other themes. For example, the focus and emphasis placed on low achieving students today could be the driving force behind a lack of time

to devote to meeting the needs of academically advanced students. And, as quoted previously by one participant, “I feel like sometimes the district has put it all on us.” Without a district plan, necessary training, and district guidance, it can become overwhelming for teachers to devote time to decide how to meet the learning needs of academically advanced students.

It is also important to note that working to improve the achievement of low academic students is a worthy and needed cause. This was stated by participants and came through in the interview data. Participants also made it clear that ALL students’ needs should be deemed important.

Discrepant Cases and Nonconfirming Data

I did not identify any noteworthy discrepant cases or nonconfirming data, but found that participants presented a variety of thoughts, with many common ideas. One minor area where I noted discrepant data was regarding methods to receive necessary types of training. Although most participants preferred training to be in district, one participant preferred the opportunity to go elsewhere for training. A second participant recognized that leaving the district for training could be beneficial, but also acknowledged that staying in-house worked better based on family needs at this point in her life.

Evidence of Quality

I used a variety of strategies to assure accuracy of the findings. I clarified my biases; provided a rich, thick description of the data with many pertinent quotes to support the findings; presented discrepant information, which was detailed in the

previous segment; used member-checking; and exercised peer-debriefing. These strategies are further explained.

The use of Epoche and bracketing was used to clarify biases and to approach the data collection and analysis with an open mind, acknowledging prejudgments that may have been present. In a journal, I logged my thoughts, ideas, and opinions regarding each of the research questions. I was mindful not to bring these thoughts and feelings out in the interviews.

The rich, thick description of the research methods and findings allows readers to decide if they can transfer these results to other settings. The detailed explanations of the organization and sorting of the interview transcripts and codes, as well as the thorough account of the data provide a strong foundation to assure the accuracy of the findings. Inclusion of pertinent participant quotes provides the necessary support to justify the study's emergent themes. As stated in the previous segment, it was found that some of the experiences shared by participants did not fit the emerging themes. Detailing these discrepant cases adds to the credibility of the study. Peer-debriefing was also implemented through regular contact via email and phone with my dissertation committee.

The process called *member-checking* (Creswell, 2003, p. 196) allowed me to determine if the study's emergent themes were accurate representations of the participants' views. The option of an upcoming member-checking opportunity was shared with each participant during the interviews. After the data were analyzed and themes were identified, each participant was invited via email to partake in the member-checking process. In the email, member-checking was again defined, participants were

reminded that member-checking is an optional activity, and the process was explained. Nine participants indicated they were interested in participating. A follow-up email was sent to these interested individuals. A paper copy of a portion of the data analysis and emerging themes was then sent via district mail to each of these willing participants. These paper copies were not hand delivered to participants in order to protect their confidentiality. After reading through the analysis, seven participants provided feedback. The paper copies were returned to me via district mail. Allowing the participants an opportunity to state their feelings on the accuracy of the findings provided me with valuable feedback, strengthening this study.

Two participants shared feedback personally. One simply stated, "It was interesting to read. Everything looks great. I agree with your findings." The other shared, "I really enjoyed reading this. It was a pleasure to read. I really respect your writing. You are a good writer. I am impressed by how you organized the findings and tied them to so many relevant participant quotes." This participant also pointed out a spelling error that was made.

Three participants wrote comments by hand and sent them to me. Their thoughts are shared below:

"Nice Work!"

"Wow! Very interesting! My views are accurately represented. Thank you!"

"This reflects very important and accurate information. I hope it helps make some changes for academically advanced students in our district."

Two participants corresponded with me via email regarding their thoughts. One stated,

> Well done. I feel that my thoughts were represented and it looks like there was a lot of agreement amongst the subjects as to the core concerns regarding gifted/talented training, etc. Hopefully, this can lead to changes within our district that will benefit this neglected group!

After reading through the data analysis segment, another participant stated via email that she felt the primary research question could be clearer by reminding the reader that the focus is on the K-8 levels. The primary research question is: What are teachers' lived experiences and perceptions of their training on the topic of meeting the needs of academically advanced/high-ability students in the classroom learning environment? This participant felt it would have been better stated as "What are teachers' lived experiences and perceptions of their training on the topic of meeting the needs of academically advanced/high-ability students in the K-8 classroom learning environment?" Adding this grade level description of the classroom would remind the reader that this study did not address meeting the needs of academically advanced students at the high school level. The participant added that in the math content area at the middle school, alignment of courses and consideration of students' ability levels takes place. This practice helps to prepare students for the various math opportunities present at the high school level. As this participant stated, "It seems the math is doing some alignment. It'd be nice if all classes were able to do the same. Our school district is not addressing the needs of all students with the same equity."

This concludes section 4. Section 5 will continue to describe and summarize the research findings via Moustakas' qualitative method of transcendental phenomenology. This final section will also provide a brief overview of the issue being addressed; explain

why and how the study was conducted; summarize and interpret the findings; relate and differentiate the study's findings with the findings of the literature review; detail the implications for social change; provide recommendations for action as well as recommendations for further study; reflect upon my experiences throughout the research process; and end with a conclusion statement.

Section 5: Summary, Conclusion, and Recommendations

Overview of Study

Within today's classrooms, students' academic abilities can vary tremendously (Gagné, 2007; Manning, 2006; Tomlinson, 2004). Teachers are presented with the challenge of addressing the needs of learners with a vast range of ability levels, including those with advanced academic capabilities. The needs of these academically advanced/high-ability students may not be met (Colangelo et al., 2004a, 2004b; Farkas & Duffett, 2008; Rogers, 2002).

In order to address this problem, I initially conducted an exploration of the literature regarding instructional best practices that can be used to meet the needs of academically advanced/high-ability students. Upon discovering that these strategies, such as homogeneous ability-grouping, curriculum compacting, differentiated instruction (DI), and different types of acceleration are not widely put into practice (Colangelo et al., 2004a, 2004b; Dixon & Moon, 2006; Farkas & Duffett, 2008; Rogers, 2002; VanTassel-Baska, 2006), I studied the literature further to determine why this may be occurring.

An extensive review uncovered possible explanations and factors that may be contributing to this lack of use of instructional strategies. The six possible explanation themes that emerged from this review were: accountability systems focused on meeting basic standards, such as NCLB (2002; Caram & Davis, 2008; Clark, 2005; Colangelo et al., 2004a, 2004b); a lack of preservice training on the topic of high-ability students (Dixon & Moon, 2006; Farkas & Duffett, 2008; Finn & Petrilli, 2008); insufficient investment of time and support into inservice opportunities and professional development concerning high-ability students (Loveless et al., 2008; Moon et al., 2003; VanTassel-

Baska et al., 2008); the public perception of professional development (National Center for Research on Teacher Learning [NCRTL], 2005); equity and elitism issues (Colangelo et al., 2004a; Matthews & Foster, 2005; Rogers, 2002); and the assumption that high-ability students are able to succeed independently (Dixon & Moon, 2006; Pfeiffer & Stocking, 2000; Rogers, 2002). Each of these six areas may play a role in the documented lack of use of well-researched instructional methods for high-ability students.

In order to determine what next steps might need to be taken to increase the use of these well-researched, instructional best practices, the focus of the literature review then turned to teacher training: preservice and inservice teacher training, as well as any self-taught knowledge teachers might have on the topic of academically advanced/high-ability students. Quality teacher training is a vital support structure necessary to meet the needs of these learners (Hansen & Feldhusen, 1994; Rogers, 2002; VanTassel-Baska, 2000, 2006).

Upon searching for research articles on teacher training using the terms teacher training and gifted, none were located that explored general teachers' perceptions of their preservice and inservice training regarding gifted education. Three of the located studies (Bain et al., 2003; Diket & Abel, 2001; Newman et al., 2009) dealt indirectly with inservice and preservice education, but did not focus on teachers' perceptions of their training. In a few studies, teacher training was a minor component of the study, but not the major focus. For example, three articles focused on attitudes of teachers toward gifted students, with recommendations for teacher training stemming from these attitudes (Geake & Gross, 2008; Lee et al., 2004; McCoach & Siegle, 2007).

Based on this gap in the literature, the purpose of this qualitative, phenomonolgical research study was to explore the lived experiences of teachers regarding the training they have received to meet the needs of academically advanced/high-ability students in their classrooms. The central phenomenon of teacher training was generally defined as preservice training, inservice training, and any self-taught knowledge and skills on the topic of meeting the needs of this subgroup of students. In relationship to these training experiences, skills and knowledge teachers feel they have missed and still require on the topic were also explored. Perceived supports and barriers to meeting the needs of academically advanced students were also addressed. In order to build on strengths and make improvements to the current system, a clear description of teachers' perceptions and experiences was necessary. Gaining teachers' viewpoints on their training may inform professional development within the school district, may inform training practices in other districts, and may also benefit teacher preparation programs. The study's results could also influence state legislation.

Quality teacher training on the topic of academically advanced/high-ability students is vital in order to meet the needs of these learners (Hansen & Feldhusen, 1994; Rogers, 2002; VanTassel-Baska, 2000, 2006). Addressing the intellectual future of the nation has great potential for social change. The benefits to society are numerous when the brightest students are optimally challenged, enabling the country to better serve its citizens and to participate more effectively in a global economy and society.

A qualitative, phenomenological exploration was conducted in a rural school district in Minnesota. To address the qualitative research question, a purposeful sampling of teachers was utilized. Fifteen kindergarten through grade 8 teachers were interviewed.

Five of the teachers had 1-5 years teaching experience in the district, five had 6-10 years teaching experience in the district, and five had 11 or more years of teaching experience in the participating school district. Representation of male and female teachers, as well as a fairly even balance of elementary and middle school teachers was achieved. Individual interviews lasted from between 45 minutes to almost 2 hours. Interview questions aligned with the primary research question and subquestions. The interview guide can be found in Appendix A.

These interviews were digitally recorded and notes were also taken by hand during the process. The audio interviews were downloaded and saved on a computer. Each interview was transcribed in full. The voice recorder could be played back at half speed without voice distortion, which aided in the transcription process. A Microsoft Word data managerial process, as detailed by Hahn (2008), assisted me in coding and organizing my data. The coding and data managerial process resulted in a 141 page, coded and organized document of data that was then ready to be further examined and dissected.

Research Questions

The primary research question for the study was: What are teachers' lived experiences and perceptions of their training on the topic of meeting the needs of academically advanced/high-ability students in the classroom learning environment? Training was further organized into the categories of: preservice training, inservice training, and possible self-taught knowledge and skills. Subquestions stemming from this primary research question were:

- Which specific skills and knowledge do teachers feel they have missed and still require training in order to meet the needs of academically advanced/high-ability students in the classroom learning environment?
- Are there barriers that teachers encounter, preventing them from implementing skills and knowledge to meet the needs of academically advanced/high-ability students in the classroom learning environment? If so, what are these barriers?

The interpretation of the research findings will now be detailed.

Interpretation of Findings

Moustakas's (1994) approach to Husserl's transcendental phenomenology was the qualitative research method I used in order to understand the lived experiences of the study's participants. As was explained in detail in section 3, Moustakas's four basic steps were employed, which align well with the necessary components of the Walden qualitative dissertation rubric. Steps 2 and 3, which focus on data analysis and explanation, will now be reviewed in the next paragraph in order to place the interpretation of the findings in this context.

After incorporating Moustakas's (1994) horizonalizing, which entails accepting all participants' statements with equal value placed upon them, I organized the horizons into themes, and finally organized the horizons and themes into the textural description. A textural description focuses on the "what" component of the results, while the structural facet details the "how" portion of the results. The structural component explains the conditions behind the textural descriptions.

Textural Description

The primary research question driving this study was: What are teachers' lived experiences and perceptions of their training on the topic of meeting the needs of academically advanced/high-ability students in the classroom learning environment? Training was further organized into the categories of: preservice training, inservice training, and possible self-taught knowledge and skills.

Teacher training. To summarize the data regarding teacher training, teachers have very little to no training regarding meeting the needs of academically advanced students in the regular classroom environment. Four-fifths of the participants were coded as receiving no preservice training on the topic. The remaining three participants that were coded as receiving very little preservice training on the topic noted that this training was very minimal. None of the participants were identified by the code "some" or "extensive" in regard to preservice training. It was also noted that not only was there no preservice training or very little preservice training on this topic, there was an emphasis on the other end of the academic spectrum.

In regard to inservice training, three-fifths of the participants were coded as "none." They stated they have not had any inservice training specifically dealing with academically advanced students. The other six participants were coded as "little." They felt they had a little bit of inservice training on the topic. None of the participants were identified by the code "some" or "extensive" in regard to inservice training. Eight of the 15 participants discussed differentiated instruction training given by the district. Half of them did not feel this counted as inservice training for academically advanced students,

as differentiation is a method to address all students' needs and differentiated instruction may focus on learning styles.

In regard to self-taught knowledge, four of the 15 participants were coded as "none." These four participants all had 1-5 years experience in the district and acknowledged that they did not have any self-taught knowledge on the topic. Lack of time could be a contributing factor. The remaining 11 participants were coded as "little." They expressed that they had a little bit of self-taught knowledge specifically dealing with academically advanced students. Many of these 11 noted that they felt this self-taught knowledge was gained through experience: "assumptions," "self-teaching," "common sense," and "experimentation."

Subquestion 1: Desired training. Subquestion 1, stemming from the primary research question was: Which specific skills and knowledge do teachers feel they have missed and still require training in order to meet the needs of academically advanced/high-ability students in the classroom learning environment? A variety of responses was shared. A third of participants felt they needed current and up to date research on the topic in general. One-fifth of participants desired training on how to manage and work with these learners in the regular classroom setting. One-fifth also felt they needed training on how to identify these students. Other noted necessary training areas included acceleration, curriculum for these learners, a definition of gifted and talented, grading procedures, how these students think, motivation, how to help these learners realize that advanced work is not more work, and training that would allow teachers to "see it in action."

These desired training areas, as noted by the research participants, illustrate the importance of the conceptual framework used as a benchmark in this study, the NAGC's Knowledge and Skill Standards in Gifted and Talented Education for All Teachers. Additional connections between these noted training areas and their part in the conceptual framework will be further detailed in section 5.

Structural Description

Moustakas's (1994) next step of data analysis and synthesis, *imaginative variation* (p. 98), involves the conditions and circumstances behind the experiences, and results in the structural component of phenomenology.

Subquestion 1: Desired training. In an effort to fully address the first sub question, participants were asked "How would you like to receive training to become skilled and knowledgeable in this area?" This question addressed the structural component of transcendental phenomenology by focusing on the "how" behind the topic areas teachers felt they still required.

A few teachers specified a preference for location of training: either attending conferences and workshops out of district, or staying in district for training. However, the major training theme that emerged was not location, but was the importance of the training being on-going. The vast majority of teachers stressed the necessity of on-going training with follow-up and support. Below are some of their thoughts:

"Incorporating as you go. . . . I don't think there is a quick fix to it."

"Time to plan and learn, not just 1 day with unclear expectations of what to do next; time to observe others; planning together."

"It is something that we should do through curriculum meetings on a regular basis throughout the year."

"I just thought the 1 day just didn't do anything for me."

"We aren't given time to figure out how to apply what we have learned with much of the training in our district."

> I just think they need to offer it every year. And, why can't we have a speaker on that once in a while? Why do we always have to have a speaker on the lower end? I don't know. It just seems that that is very few and far between - a speaker on advanced learners. I have been here 6 years and there has never been a speaker on the advanced learner. It would be a very interesting topic. I think that they'd have more than enough participants.

Another theme regarding the avenue to receive training stemmed around working with colleagues. "We really have some incredibly talented people in our system, but it is like we don't ever really share." In reference to the enormous amount of time spent discussing methods to raise achievement levels of lower ability students, one participant stated, "I like the idea of teachers getting together to discuss lesson plans and talk about what is best for ALL types of kids." Another participant noted, "I think seeing other teachers doing tiered lessons would be helpful, and help planning a tiered lesson with someone else."

A few participants added an interesting component to the training: make the training optional. As one participant acknowledged,

> I would like to work just with people who want to and who are interested. When you get people in there who don't want to do it, it really brings you down and it

> takes away from you wanting to learn. So, to really get people who want to learn it is important. If there are extra funds set aside or not, it is just people there who want to be there; not just because they might get extra money. Making training optional would really be a benefit. Throughout the district you get told you have to do something, but when other people don't want to learn it, it can become a very negative experience for you. I felt I took so much more out of it that way. So getting people that want to learn it is important.

Another participant discussed an optional study group idea in which interested individuals could read current research on the topic and then meet to discuss the articles.

The above participant perceptions are in accordance with the current research, detailed in section 2, regarding best practices for staff development. For example, VanTassel-Baska et al. (2008) conducted a study focusing on 71 third-through fifth-grade teachers over a 3-year period. Roughly half of the teachers were randomly assigned to the experimental group and attended regular professional development activities on differentiated instruction. The other half of the teachers was placed in a comparison group and did not receive this professional development. All participants were observed in their classrooms during the 3 years. Over this time, the experimental group of teachers received significantly higher ratings on the scale used during observations. The authors also noted that improvement in instruction due to the professional development on differentiated instruction did not happen rapidly, but took 2 to 3 years to become evident. The research results of VanTassel-Baska et al. support the views of the participants detailed in this paper's study. As these participants stated, on-going support is necessary

for teachers to implement new learning into practice. Professional development lacking in district follow-up over time does not prove to be beneficial, according to the participants.

Further justifying the participants' listed quotes are the principles for effective design of professional development developed by Hawley and Valli (2007). These principles keep student achievement as well as related teacher needs in the forefront. For example, Hawley and Valli's Principle 8: "Professional development should be continuous and ongoing, involving follow-up and support for further learning." (p. 128) was echoed by participants in the previously listed quotes. To reiterate, one participant summarized her thoughts on the best manner to receive professional development by sharing, "Time to plan and learn, not just 1 day with unclear expectations of what to do next; time to observe others; planning together." If the design principle of "professional development should be continuous and ongoing, involving follow-up and support for further learning" is not followed, any professional development concerning high-ability students may not be internalized and utilized by teachers.

As did VanTassel-Baska et al. (2008), Hawley and Valli (2007) also noted a time component to professional development: "Significant change in educational practice seldom occurs quickly; it is the result of programs designed with a 3-to 5-year professional development component. Ongoing support is especially critical in the first 2 years of implementation" (p. 129). Professional development and school improvement initiatives aimed at improving experiences for and increasing achievement of academically advanced students need long-term commitments, along with support and follow-through from the school district.

Longitudinal studies conducted by the NCRTL (2005) also stated that the traditional inservice and workshop day alone are not sufficient for teachers to implement and sustain new learning into practice. Among the NCRTL's recommendations to optimize learning for teachers are the following necessary conditions: (a) opportunities to work with teaching peers; (b) principal advice and support; (c) nonevaluative observations by peers in order to provide feedback for teachers; (d) being a part of a learning community; (e) time and mental space in order to make changes to instructional methods; and (f) professional development as an integral part of a teacher's day, and not simply an add-on activity (NCRTL, 2005, para. 12). As is evident via the previously listed teacher quotes, this study's participants realized the importance of these professional development best practices as well. Optimal teacher learning comes from ongoing professional development that is integrated with classroom practice and extended beyond a 1-day workshop.

Subquestion 2: Supports and barriers. In order to improve learning experiences and achievement for academically advanced/high-ability students, the structural component of transcendental phenomenology is crucial. A clear understanding of the conditions behind participants' experiences is necessary to enact change. To address the final research subquestion in the interviews, I stated to participants "Please tell me about any supports as well as any barriers you have encountered in meeting the needs of these students in the classroom learning environment." Unfortunately, the amount of time during which participants detailed barriers far outweighed the sharing of supports. Emergent support and barrier themes were detailed and explained in section 4. These structural themes were as follows:

Supports. The supports that participants discussed were:

- District is in a college town, providing additional opportunities for students
- Homogeneous grouping that takes place in certain subjects at some grade levels
- Opportunities for students via internet use in the regular classroom setting
- Awards and recognition given to advanced students is a motivator for them
- Music programs provide opportunities for advanced students
- The past development of a professional learning community (PLC) on the topic of gifted and talented
- Response to intervention (RtI) could be a support if district chooses to use the data in that manner
- Some of the district's teachers are knowledgeable on this topic
- A feeling that overall, teachers believe we have advanced students in the system
- Colleagues and teaming situations currently in place
- The district would most likely not say no to ideas that teachers would like to implement in their classrooms to meet the needs of these students

Of the above supports, homogeneous grouping was shared the most frequently by participants. Middle school participants discussed leveled math classes as well as the practice of sometimes grouping reading strategies classes by achievement test scores. K-4 teachers discussed guided reading groups at the elementary level as a support as well as paced math groupings.

Supports and barriers. Three of the above listed supports specifically were shared as barriers as well, however. RtI, colleagues and teaming situations, and the district and its lack of a plan for academically advanced/high-ability students were each detailed by participants as both possible supports as well as barriers.

Barriers. Even though there were many, a list of all barriers mentioned and discussed by participants was presented and explained in section 4. These thoughts and ideas are all interesting and worth noting. Presenting this list provided a voice for all participants to be heard.

After I analyzed the 27 barriers and noted the numbers of participants who discussed each barrier, five themes were identified. One identified barrier was the variety of learners in one classroom with little support for the teacher managing these students. A second recognized barrier was the focus and emphasis on low achieving students both locally and nationally. It is important to note that participants made it clear that working to improve the achievement of low academic students is a worthy and needed cause. Participants also noted that all students' needs should be deemed important. A third identified barrier was a lack of district emphasis on academically advanced students, ranging from a lack of inservice training on the topic to not having a recognized district plan for meeting the needs of these learners. A fourth emergent barrier was the lack of preservice training on the part of teacher education programs. And lastly, a theme that resonated from the interviews was that a solution to these barriers will likely involve thinking differently, or as stated by participants, "thinking outside of the box." As explained in section 4, time could also be noted as another barrier theme; however, I decided that time may be a consequence stemming from other themes.

Synthesis of Textural and Structural Components

Moustakas's (1994) transcendental phenomenology steps 2 and 3 have just been detailed. Step 2 involved organizing the horizons and themes into a textural description of participants' perceptions. Step 3 involved the conditions behind these experiences and perceptions, and resulted in the structural component of transcendental phenomenology. Step 4 entails a synthesis of these meanings and essences. This step integrates the textural and structural facets into a description of the whole experience of the phenomenon. The assimilation of the textural and structural facets will now be summarized.

The participants in this study received very little or no preservice training specifically focusing on the topic of academically advanced/high-ability students. None of the states in which participants were trained to become teachers have any sort of preservice requirements on this topic. Inservice training for all participants has also been very minimal, at best. In addition, Minnesota does not have any sort of licensure renewal requirements or inservice training commitments on this topic.

Participants would like to receive further training in the areas of: current research on the topic in general, how to manage and work with these learners in the regular classroom setting, how to truly identify academically advanced/high-ability students, acceleration, curriculum for these learners, a definition of gifted and talented, grading procedures, how these students think, motivation, how to help academically advanced/high-ability students realize that advanced work is not more work, and training that would allow teachers to "see it in action." Many of these desired training topics can be found as integral pieces of the NAGC's (2008b) Knowledge and Skill Standards in Gifted and Talented Education for All Teachers, which was the conceptual framework

used as a benchmark in this study, illustrating the importance of the implementation of this framework into teacher training practices. After sharing these desired training areas, participants also established that training must be purposeful in terms of duration, support, and follow-up.

Participants acknowledged that there are supports and barriers in place when striving to meet the needs of academically advanced/high-ability students. Barriers outweighed supports, but supports shared were: school district is in a college town, which provides additional opportunities for students; homogeneous grouping takes place in certain subjects at some grade levels; opportunities are present for students via internet use in the regular classroom setting; awards and recognition given to advanced students is a motivator for them; music programs provide opportunities for advanced students; the past development of a PLC on the topic of gifted and talented; RtI could be a support if the school district chooses to use the data in that manner; some of the district's teachers are knowledgeable on this topic; a feeling that overall, teachers believe we have advanced students in the system; colleagues and teaming situations currently in place; and the district would most likely not say no to ideas that teachers would like to implement in their classrooms to meet the needs of these students. Three of these supports: RtI, colleagues and teaming situations, and the school district were also noted as barriers.

A number of barriers were detailed by participants. Five barrier themes emerged from the data: (a) there are a variety of learners in one classroom with little support; (b) there is a focus/emphasis on low achieving students across the nation, across the state, and within the participating school district; and (c) there is a lack of district emphasis on academically advanced/high-ability students. In other words, there is a lack of district

emphasis placed on the topic of academically advanced students, ranging from a lack of inservice training to not having a recognized district plan for meeting the needs of these learners; (d) there is a lack of a preservice training emphasis from teacher education programs; and (e) outside of the box thinking is needed. Perhaps a solution will involve "thinking outside of the box."

Connection to Conceptual Framework

As was touched on in the textural and structural synthesis and summary above, participants desired training on many of the components found in the framework used as a benchmark in this study, the NAGC's (2008b) Knowledge and Skill Standards in Gifted and Talented Education for All Teachers. This framework represents the common core of knowledge and skills that all teachers should possess on the topic of gifted and talented students. These core standards are based on and derived from the National Gifted Education Standards that were developed by the CEC-TAG and the NAGC (NAGC, 2008c). The National Gifted Education Standards are designed for universities seeking accreditation of their specialized programs in gifted education. See Appendix B for the National Gifted Education Standards. The Knowledge and Skill Standards in Gifted and Talented Education for All Teachers consists of three main recommendations. The items in parentheses following each recommendation correspond to a National Gifted Education Standard strand number, followed by the knowledge and/or skill numbers within each strand. The three recommendations are:

1. Understand the issues in definitions, theories, and identification of gifted and talented students, including those from diverse backgrounds (Strand 1, K2 & K4);

2. Recognize the learning differences, developmental milestones, and cognitive/affective characteristics of gifted and talented students, including those from diverse backgrounds, and identify their related academic and social-emotional needs (Strand 2, K1 & K4; Strand 3, K2); and
3. Understand, plan, and implement a range of evidence-based strategies to assess gifted and talented students, to differentiate instruction, content, and assignments for them (including the use of higher-order critical and creative-thinking skills), and to nominate them for advanced programs or acceleration as needed (Strand 4, K2, S4 & S5; Strand 7, S5; Strand 8, K3 & S3). (NAGC, 2008b)

In the interviews, participants identified necessary skills and knowledge they felt they still required in order to meet the needs of academically advanced/high-ability students in the classroom. The desire for the district to share current research on the topic in general was shared by many. Much of the specifics of what was discussed align with one of the three main recommendations of The Knowledge and Skill Standards in Gifted and Talented Education for All Teachers, reinforcing the need for these standards to be implemented into preservice requirements.

Participants noted that the topics of identification of academically advanced students as well as definitions of gifted and talented were areas in need of clarification. Both of these areas fit into Part 1 in the above skill standards. Understanding how advanced learners think, motivation issues, meeting the various needs of academically advanced learners, and understanding the unsuccessful academically advanced students were also noted by participants and fall into Part 2 of the above standards for all teachers.

In line with Part 3, participants stated a need for further skills and knowledge concerning differentiation, acceleration, meeting these students' needs in the regular classroom, and appropriate curriculum for these learners. Therefore, teacher participants in this study indicated through their identified needed skills and knowledge topics that the three skills and knowledge sets above would be beneficial to include as a part of preservice and inservice education. Incorporating some of these training topics into teacher license renewal requirements could also prove beneficial.

Practical Applications

Although not specifically asked this question, many participants shared their thoughts on possible solution ideas to address meeting the needs of academically advanced/high-ability students. Five major solution idea themes emerged from the data. Each of these themes is detailed below.

State/federal mandate for academically advanced students. Participants expressed concern over the amount of time, effort, and money afforded to students on the low end of the academic spectrum. One participant stated, "If we could take some of those dollars that are put in at the bottom and put it out here for the advanced kids; we are just totally ignoring them." This viewpoint also came through as one of the five major themes regarding barriers to meeting the needs of academically advanced students, which was discussed earlier in section 4. Participants noted that students in need of additional support should certainly be a focus, but stated that these students should not be the sole or primary focus. All students' learning needs must be addressed. In order to be purposeful in our actions with academically advanced students, a change in legislation was suggested. In the closing of her interview as we were standing up to leave, one participant

added, “Until there is state legislation aimed at growing the achievement of these students and/or federal incentive and money tied to NCLB, there will be little change.”

Support. Providing additional support within the participating school district in order to service the needs of academically advanced students was presented. Adding a coordinator position to the district to provide vision and leadership for academically advanced students was the main solution idea that was suggested along the lines of support. Leadership in this area was identified as lacking in the district, so a logical solution that participants noted was to add a “gifted and talented coordinator.”

Paraprofessional staff to work specifically with these students was also proposed in regard to support.

> So, maybe it is paras that we need for these kids and pull them out. We do it for the lower kids; why can’t we do it for the more advanced? Could we just have one para that focuses on these kids to work with these kids each year? I would suggest that to the district. It would make it more appealing for open enrollment. And, that would sure help teachers to meet the kids’ needs and meet the parents’ expectations, too, because it is really hard.

Support for these students through early identification was also recommended. As stated by one participant who teaches at the middle school level,

> They have to be identified early on. You can’t wait to identify them until now. They have been allowed to continue with the regular classroom on and on. They get to the point where they aren’t self-motivated anymore and don’t want to go on. We need to have the doors open so they can go on. They should be able to go beyond grade levels and buildings.

Another solution idea related to identification of students would take place at the classroom level. It was suggested that teachers should make more use of pretests of their curricular units and concepts in order to identify students who may already have mastered curriculum and concepts.

Scope and sequence to the curriculum for academically advanced students. A purposeful scope and sequence to the curriculum for advanced learners from kindergarten through grade 8 was acknowledged as important in the interviews. One participant felt that it was within the district's grasp to identify and organize skill sets that children should progress through in math and reading in the elementary grades. "That is what I think we really need to do is to say, 'If they have mastered that first set of skills, these are the skills that they need to move onto next.'" Having a system like this in place would aid teachers in knowing what to do with students who are already well beyond grade level curriculum. It would also provide a plan that could be followed from school year to school year with children. As stated by this same participant, "What would be the most logical thing to do next? So you are building the next logical set of skills. Otherwise we are just too hit and miss. We need to build those skills. Instead of looking at it as grade levels, look at it as skill sets." Thus, curricular focus should not be placed on age and grade. The participant continued by explaining the drawbacks of viewing curriculum as particular to grade levels:

> And I think we need to stop, when we look at curriculum… we need to stop looking at it as grade level specific. First grade is going to teach this material. Some kids don't fit within that context at both ends. We need to look at the skill sets that need to be taught, versus just a grade level set of materials. Then I think

> we would better meet the needs of our kids if we looked at skill sets versus grades. And you have to fit within that because I don't know what to do with you if you are here or here (motioning toward upper and lower ends). You know… these are the skills that a typical first grader may have, but you may see these ranges of skills. If they are beyond these skills then here is what we do.

This participant emphasized the importance of placing the learning focus on the needs of the students by developing defined, progressive skill sets instead of our current, fixed curriculum for each grade level.

More content specialization at the elementary levels. Another area in which participants felt improvements could be made in order to meet the needs of academically advanced students involved specialization of teachers. "I think of all the more things you are able to do when you concentrate on one area. We bounce around a lot. Sometimes I feel that I am not an expert in one thing." By specializing in a few content areas at the elementary level, this participant sensed that teachers would then have more time and opportunity to better meet the learning needs of academically advanced students in the district.

Lastly, ongoing training was presented as a solution idea. Ongoing training was addressed previously in section 4 in regard to necessary skills and knowledge that teachers feel they still require in order to better meet the needs of academically advanced students. Ongoing training was also detailed in section 5 in the structural description regarding research question number one.

Implications for Positive Social Change

The study's results support positive social change aimed at bringing forth awareness and an understanding of the present status of teacher training: (a) preservice, (b) inservice, and (c) self-taught skills and knowledge on the topic of academically advanced/high-ability students. The study's findings include noted training strengths and recommendations for improvement in district professional development, as well as recommendations for preservice education reform. Therefore, in addition to contributing to positive social change in the participating school district, the results may inform training practices in other schools and in teacher preparation programs, and may also impact policy formation at the state level. Perhaps teacher license renewal requirements in Minnesota could also be impacted through these research findings. Ultimately all of these items could affect the learning and well-being of academically advanced/high-ability students. Addressing the intellectual future of the nation has great potential for social change. The benefits to society are numerous when the brightest students are optimally challenged, enabling the country to better serve its citizens and to participate more effectively in a global economy and society (Finn & Petrilli, 2008; VanTassel-Baska, 2006).

Recommendations for Action

In addition to the participants' own practical application and solution ideas that were previously detailed, I have additional recommendations for action stemming from the research results. As a school district, we should celebrate and enhance the supports identified by participants, as well as address the barrier themes and make efforts to break down these barriers. Regular, on-going professional development in the participating

school district on the topic of academically advanced students is necessary. Integrating the NAGC's (2008b) Knowledge and Skill Standards in Gifted and Talented Education for All Teachers into teacher preservice education programs, as well as insuring that these skill standards are an integral part of staff development for practicing teachers would prove beneficial. To insure that the skill standards become a focus of staff development, incorporating these skill standards into teacher license renewal requirements in Minnesota may be necessary. And finally, I advise that we follow the participants' suggestions as well as the current literature detailed in this paper regarding professional development recommendations. No matter what the professional development topic may be, ongoing, support-laden training with a long-term district commitment is vital.

Recommendations for Further Study

The results of this study prompted ideas for further consideration and investigation. A larger scale project involving more than one school district may result in additional data not evident in this study's findings. Conducting this research in an urban school district may prove valuable as well. Research focusing on the perceptions of the college and university faculty who train future educators may present an informative addition to this study's results. The following questions may also lead to future studies:

- What is necessary to impact federal and/or Minnesota state legislation to stress the importance of achievement growth for all learners?
- What first steps must now be taken in order to implement the participants' solution ideas at the local level?

- What steps need to be taken to incorporate this study's conceptual framework, The Knowledge and Skill Standards in Gifted and Talented Education for All Teachers, into preservice teacher training programs?
- What steps need to be taken to add a teacher relicensure requirement regarding academically advanced/high-ability students?

Researcher Reflection

As I ponder my doctoral journey, I reflect on all that has transpired over the past few years. I have learned a lot on the topic area of study. I now have a greater appreciation for doctoral pursuits as well as for the rigor of the research process.

It was important to keep in mind the end product and big picture of my goal, but also to view the doctoral pursuit as a process. I tried not to let the whole endeavor become overwhelming, but broke the process down into smaller pieces and set manageable and attainable goals along the way, similar to training for a marathon. When I trained for a marathon, it was important to view the race as a process; enjoying the training journey that lead to the actual race day. When training began, it would have been overwhelming for me to dwell on running 26.2 miles, but focusing on weekly training goals designed to prepare a runner to complete a marathon helped me keep everything in perspective. To anyone beginning a doctoral journey: Enjoy the learning process; keep the big picture and the end in mind, but do not become overwhelmed by the overall immensity of the requirements; set manageable goals.

As stated previously, there are many exciting opportunities for positive social change as a result of my research efforts. I cannot state for certain that all of these benefits will transpire, although I am optimistic about the possibilities. If nothing else, I

am hopeful that collective awareness may bring about improved learning experiences, increased and/or sustained passion and joy for learning on the part of academically advanced/high-ability students, and gains in achievement for these learners, both within and beyond the said school district. As stated by one participant in the closing of her interview, "One benefit from participating in this interview, and I think it is great that you are doing this study, is awareness. Just putting a little emphasis on this topic, it really makes me think about what I can do differently in my own classroom." In the future, academically advanced students may have their needs more closely analyzed and addressed in this teacher's classroom, as well as in the classrooms of other teachers impacted by this study. I find this to be a very positive outcome of my efforts.

Before concluding this section, a few participants' quotations will be presented that spurred further consideration and reflection on my part. These quotes fall into three categories: (a) lack of preservice training may contribute to a cycle of little further training, (b) individual teacher traits may need to be considered when working to improve training, and (c) district leadership is a vital and necessary piece of the puzzle when striving to improve the learning experiences for academically advanced/high-ability students. I will share participant input that contributed to each of the above revelations.

When asked what additional training might be needed, one participant shared, "Not being trained on this topic, you are not aware of what is needed." I can relate to the feelings of this person. It may have been difficult for participants to decide what training would be beneficial when little knowledge was possessed on the topic. A lack of preservice training may contribute to a cycle of little further training.

Another participant stated, “I do think some of this all comes from who you are as a person.” She explained that teachers who were academically advanced learners in school may instinctively understand and relate to this type of student. She also stated that although training is important, perhaps some teachers are naturally better at meeting the needs of these students than are other teachers. Therefore, individual teacher traits may need to be considered when working to improve training.

Finally, one teacher emphasized the importance of training leadership at the district level. Without this leadership, changes made by individual teachers may not produce the desired results for academically advanced learners.

> You want to keep that passion for learning going. So, you grab at things. That is what we need training on. If I am going to grab at something, what would be the next best, logical thing to grab at to grow them as learners?

District leadership and a scope and sequence to student learning are vital and necessary pieces of the puzzle when striving to improve the learning experiences for academically advanced/high-ability students.

Concluding Statement

The perceptions and ideas of the participants in this study were thought provoking, and their participation in this research is very much appreciated. It is important to invite teachers to share their views and opinions, as they can lead us toward positive, educational social change. The participating district must focus on its mission statement of developing the potential of *each learner* for success in a changing world.

This study presented the lack of preservice and inservice training that teachers in the participating school district have received on the topic of academically

advanced/high-ability students. The study's results reinforced the importance of making improvements to this training. Participants shared specific topics they would like to become knowledgeable on, as well as methods to receive training. Supports as well as barriers to meeting the needs of academically advanced students were detailed. Participants also shared solution ideas. Inadequate amounts of training, coupled with a lack of vision and leadership on this topic at the federal, state, and local levels can cause teacher frustration. As stated by one participant,

> I noticed 1 day that students I know to be high-achieving were just sitting there; looking bored and to some extent disappointed. That is really frustrating to me as a teacher. I am not reaching the kids on the lower end of the spectrum, some of whom do not seem to want to be there, and I am not reaching the kids that do want to be there, because of the focus on those at the lower end as well as on those that don't seem to care.

Also emphasizing the importance of making improvements to meeting the learning needs of students is the following comment shared by another participant: "There are so few kids that fit within that exact box of what first grade is – both ends of the spectrum." She emphasized the importance of moving away from set grade level curriculum to truly focusing on the needs and readiness of each learner. Her thoughts reach the core of what is hoped will be an outcome from this research: focusing on the needs and readiness of all learners. This study was not about assigning a label to children as either gifted or not gifted. Its underlying intent was to concentrate on a group of students who may be left behind, based on the current educational focus, and ultimately about striving to meet the needs of *all* of our students. As is stated in the participating

school district's mission statement, we should "develop the potential of *each learner* for success in a changing world."

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Appendix A: Interview Guide

I. Welcome - Say hello to participant and introduce myself

"Thank you for taking the time to participate in this study about training teachers have received to meet the needs of academically advanced/high-ability students in their classrooms. Remember that academically advanced students will be loosely defined as students that have already mastered skills and/or content, and/or could move at a more rapid instructional pace."

"Your perceptions are very important. They may help us to build on strengths and make improvements to our district's current system. The results of the study may inform professional development within the school district, may inform training practices in other districts, and may also benefit teacher preparation programs. The study's results could also influence state legislation. Ultimately, I hope the results will help to improve the educational experiences for academically advanced students."

"I want to remind you that you can withdraw your participation at any time. As you are aware, the interview will be digitally recorded and will last about 45 minutes. I will also be taking some notes. Your name will not be used in transcription, but a pseudonym will be used. Do you have any questions?"

"Let's begin."

II. Demographic questions:

1. "Please tell me the type of teacher training you received (i.e. Bachelor program, post baccalaureate program, alternative route to licensure, etc.)"
2. "Please tell me the degrees that you hold."

III. Main questions:

1. “Please tell me about the training you have received on the topic of academically advanced/high-ability students.”

    a. Possible follow-up question topics:

        i. Preservice training

        ii. Inservice training

        iii. Self-taught knowledge

    b. Possible probes:

        i. Please tell me more about…

        ii. Share an example of that please.

        iii. and…

        iv. Then what?

        v. Such as…?

    c. “Is there anything else you would like to share about training before we move on?”

2. “Please tell me about any skills and knowledge that you feel you still require that would help you to meet the needs of these students in the classroom learning environment?”

    a. Possible follow-up question:

        i. “How would you like to receive training to become skilled and knowledgeable in this area?”

    b. Possible probes:

        i. Please tell me more about…

        ii. Share an example of that please.

iii. and…

iv. Then what?

v. Such as…?

c. "Is there anything else about skills and knowledge that you would like to share before we move on?"

3. "Please tell me about any supports as well as any barriers you have encountered in meeting the needs of these students in the classroom learning environment."

    a. Possible probes:

        i. Please tell me more about…

        ii. Share an example of that please.

        iii. and…

        iv. Then what?

        v. Such as…?

    b. "Are there any other supports or barriers that you would like to share?"

4. "Is there anything else on the topic of academically advanced students or training that you would like to share today before we end this interview?"

"Thank you so much for participating in this interview. I greatly appreciate your time and your thoughts!"

Appendix B: NAGC – CEC Teacher Knowledge and Skill Standards for Gifted and Talented Education

Standard 1: Foundations

Educators of the gifted understand the field as an evolving and changing discipline based on philosophies, evidence-based principles and theories, relevant laws and policies, diverse and historical points of view, and human issues. These perspectives continue to influence the field of gifted education and the education and treatment of individuals with gifts and talents both in school and society. They recognize how foundational influences affect professional practice, including assessment, instructional planning, delivery, and program evaluation. They further understand how issues of human diversity impact families, cultures, and schools, and how these complex human issues can interact in the delivery of gifted and talented education services.

K1	Historical foundations of gifted and talented education including points of view and contributions of individuals from diverse backgrounds.
K2	Key philosophies, theories, models, and research that supports gifted and talented education.
K3	Local, state/provincial and federal laws and policies related to gifted and talented education.
K4	Issues in conceptions, definitions, and identification of individuals with gifts and talents, including those of individuals from diverse backgrounds.
K5	Impact of the dominant culture's role in shaping schools and the differences in values, languages, and customs between school and home.
K6	Societal, cultural, and economic factors, including anti-intellectualism and equity vs. excellence, enhancing or inhibiting the development of gifts and talents.
K7	Key issues and trends, including diversity and inclusion, that connect general, special, and gifted and talented education.

Standard 2: Development and Characteristics of Learners

Educators of the gifted know and demonstrate respect for their students as unique human beings. They understand variations in characteristics and development between

and among individuals with and without exceptional learning needs and capacities. Educators of the gifted can express how different characteristics interact with the domains of human development and use this knowledge to describe the varying abilities and behaviors of individuals with gifts and talents. Educators of the gifted also understand how families and communities contribute to the development of individuals with gifts and talents.

K1	Cognitive and affective characteristics of individuals with gifts and talents, including those from diverse backgrounds, in intellectual, academic, creative, leadership, and artistic domains.
K2	Characteristics and effects of culture and environment on the development of individuals with gifts and talents.
K3	Role of families and communities in supporting the development of individuals with gifts and talents.
K4	Advanced developmental milestones of individuals with gifts and talents from early childhood through adolescence.
K5	Similarities and differences within the group of individuals with gifts and talents as compared to the general population.

Standard 3: Individual Learning Differences

Educators of the gifted understand the effects that gifts and talents can have on an individual's learning in school and throughout life. Moreover, educators of the gifted are active and resourceful in seeking to understand how language, culture, and family background interact with an individual's predispositions to impact academic and social behavior, attitudes, values, and interests. The understanding of these learning differences and their interactions provides the foundation upon which educators of the gifted plan instruction to provide meaningful and challenging learning.

K1	Influences of diversity factors on individuals with gifts and talents.
K2	Academic and affective characteristics and learning needs of individuals with gifts, talents, and disabilities.
K3	Idiosyncratic learning patterns of individuals with gifts and talents, including those from diverse backgrounds.
K4	Influences of different beliefs, traditions, and values across and within diverse groups on relationships among individuals with gifts and talents, their families, schools, and communities.
S1	Integrate perspectives of diverse groups into planning instruction for individuals with gifts and talents.

Standard 4: Instructional Strategies

Educators of the gifted possess a repertoire of evidence-based curriculum and instructional strategies to differentiate for individuals with gifts and talents. They select, adapt, and use these strategies to promote challenging learning opportunities in general and special curricula and to modify learning environments to enhance self-awareness and self-efficacy for individuals with gifts and talents. They enhance the learning of critical and creative thinking, problem solving, and performance skills in specific domains. Moreover, educators of the gifted emphasize the development, practice, and transfer of advanced knowledge and skills across environments throughout the lifespan leading to creative, productive careers in society for individuals with gifts and talents.

K1	School and community resources, including content specialists, that support differentiation.
K2	Curricular, instructional, and management strategies effective for individuals with exceptional learning needs.
S1	Apply pedagogical content knowledge to instructing learners with gifts and talents.
S2	Apply higher-level thinking and metacognitive models to content areas to meet the needs of individuals with gifts and talents.
S3	Provide opportunities for individuals with gifts and talents to explore, develop, or research their areas of interest or talent.
S4	Preassess the learning needs of individuals with gifts and talents in various domains and adjust instruction based on continual assessment.
S5	Pace delivery of curriculum and instruction consistent with needs of individuals with gifts and talents.
S6	Engage individuals with gifts and talents from all backgrounds in challenging, multicultural curricula.
S7	Use information and/or assistive technologies to meet the needs of individuals with exceptional learning needs.

Standard 5: Learning Environments and Social Interactions

Educators of the gifted actively create learning environments for individuals with gifts and talents that foster cultural understanding, safety and emotional well being, positive social interactions, and active engagement. In addition, educators of the gifted foster environments in which diversity is valued and individuals are taught to live harmoniously and productively in a culturally diverse world. Educators of the gifted shape environments to encourage independence, motivation, and self-advocacy of individuals with gifts and talents.

K1	Ways in which groups are stereotyped and experience historical and current discrimination and implications for gifted and talented education.
K2	Influence of social and emotional development on interpersonal relationships and learning of individuals with gifts and talents.
S1	Design learning opportunities for individuals with gifts and talents that promote self-awareness, positive peer relationships, intercultural experiences, and leadership.
S2	Create learning environments for individuals with gifted and talents that promote self-awareness, self-efficacy, leadership, and lifelong learning.
S3	Create safe learning environments for individuals with gifts and talents that encourage active participation in individual and group activities to enhance independence, interdependence, and positive peer relationships.
S4	Create learning environments and intercultural experiences that allow individuals with gifts and talents to appreciate their own and others' language and cultural heritage.
S5	Develop social interaction and coping skills in individuals with gifts and talents to address personal and social issues, including discrimination and stereotyping.

Standard 6: Language and Communication

Educators of the gifted understand the role of language and communication in talent development and the ways in which exceptional conditions can hinder or facilitate such development. They use relevant strategies to teach oral and written communication skills to individuals with gifts and talents. Educators of the gifted are familiar with assistive technologies to support and enhance communication of individuals with

exceptional needs. They match their communication methods to an individual's language proficiency and cultural and linguistic differences. Educators of the gifted use communication strategies and resources to facilitate understanding of subject matter for individuals with gifts and talents who are English language learners.

K1	Forms and methods of communication essential to the education of individuals with gifts and talents, including those from diverse backgrounds.
K2	Impact of diversity on communication.
K3	Implications of culture, behavior, and language on the development of individuals with gifts and talents.
S1	Access resources and develop strategies to enhance communication skills for individuals with gifts and talents including those with advanced communication and/or English language learners.
S2	Use advanced oral and written communication tools, including assistive technologies, to enhance the learning experiences of individuals with exceptional learning needs.

Standard 7: Instructional Planning

Curriculum and instructional planning is at the center of gifted and talented education. Educators of the gifted develop long-range plans anchored in both general and special curricula. They systematically translate shorter-range goals and objectives that take into consideration an individual's abilities and needs, the learning environment, and cultural and linguistic factors. Understanding of these factors, as well as the implications of being gifted and talented, guides the educator's selection, adaptation, and creation of materials, and use of differentiated instructional strategies. Learning plans are modified based on ongoing assessment of the individual's progress. Moreover, educators of the gifted facilitate these actions in a collaborative context that includes individuals with gifts and talents, families, professional colleagues, and personnel from other agencies as appropriate. Educators of the gifted are comfortable using technologies to support instructional planning and individualized instruction.

K1	Theories and research models that form the basis of curriculum development and instructional practice for individuals with gifts and talents.
K2	Features that distinguish differentiated curriculum from general curricula for individuals with exceptional learning needs.
K3	Curriculum emphases for individuals with gifts and talents within cognitive, affective, aesthetic, social, and linguistic domains.
S1	Align differentiated instructional plans with local, state/provincial, and national curricular standards.
S2	Design differentiated learning plans for individuals with gifts and talents, including individuals from diverse backgrounds.
S3	Develop scope and sequence plans for individuals with gifts and talents.
S4	Select curriculum resources, strategies, and product options that respond to cultural, linguistic, and intellectual differences among individuals with gifts and talents.
S5	Select and adapt a variety of differentiated curricula that incorporate advanced, conceptually challenging, in-depth, distinctive, and complex content.
S6	Integrate academic and career guidance experiences into the learning plan for individuals with gifts and talents.

Standard 8: Assessment

Assessment is integral to the decision-making and teaching of educators of the gifted as multiple types of assessment information are required for both identification and learning progress decisions. Educators of the gifted use the results of such assessments to adjust instruction and to enhance ongoing learning progress. Educators of the gifted understand the process of identification, legal policies, and ethical principles of measurement and assessment related to referral, eligibility, program planning, instruction, and placement for individuals with gifts and talents, including those from culturally and linguistically diverse backgrounds. They understand measurement theory and practices for addressing the interpretation of assessment results. In addition, educators of the gifted understand the appropriate use and limitations of various types of assessments. To ensure the use of nonbiased and equitable identification and learning progress models, educators of the gifted employ alternative assessments such as performance-based assessment, portfolios, and computer simulations.

K1	Processes and procedures for the identification of individuals with gifts and talents.
K2	Uses, limitations, and interpretation of multiple assessments in different domains for identifying individuals with exceptional learning needs, including those from diverse backgrounds.
K3	Uses and limitations of assessments documenting academic growth of individuals with gifts and talents.
S1	Use non-biased and equitable approaches for identifying individuals with gifts and talents, including those from diverse backgrounds.
S2	Use technically adequate qualitative and quantitative assessments for identifying and placing individuals with gifts and talents.
S3	Develop differentiated curriculum-based assessments for use in instructional planning and delivery for individuals with gifts and talents.
S4	Use alternative assessments and technologies to evaluate learning of individuals with gifts and talents.

Standard 9: Professional and Ethical Practice

Educators of the gifted are guided by the profession's ethical and professional practice standards. They practice in multiple roles and complex situations across wide age and developmental ranges. Their practice requires ongoing attention to professional and ethical considerations. They engage in professional activities that promote growth in individuals with gifts and talents and update themselves on evidence-based best practices. Educators of the gifted view themselves as lifelong learners and regularly reflect on and adjust their practice. They are aware of how attitudes, behaviors, and ways of communicating can influence their practice. Educators of the gifted understand that culture and language interact with gifts and talents and are sensitive to the many aspects of the diversity of individuals with gifts and talents and their families.

K1	Personal and cultural frames of reference that affect one's teaching of individuals with gifts and talents, including biases about individuals from diverse backgrounds.
K2	Organizations and publications relevant to the field of gifted and talented education.
S1	Assess personal skills and limitations in teaching individuals with exceptional learning needs.
S2	Maintain confidential communication about individuals with gifts and talents.
S3	Encourage and model respect for the full range of diversity among individuals with gifts and talents.
S4	Conduct activities in gifted and talented education in compliance with laws, policies, and standards of ethical practice.
S5	Improve practice through continuous research-supported professional development in gifted education and related fields.
S6	Participate in the activities of professional organizations related to gifted and talented education.
S7	Reflect on personal practice to improve teaching and guide professional growth in gifted and talented education.

Standard 10: Collaboration

Educators of the gifted effectively collaborate with families, other educators, and related service providers. This collaboration enhances comprehensive articulated program options across educational levels and engagement of individuals with gifts and talents in meaningful learning activities and interactions. Moreover, educators of the gifted embrace their special role as advocate for individuals with gifts and talents. They promote and advocate for the learning and well-being of individuals with gifts and talents across settings and diverse learning experiences.

K1	Culturally responsive behaviors that promote effective communication and collaboration with individuals with gifts and talents, their families, school personnel, and community members.
S1	Respond to concerns of families of individuals with gifts and talents.
S2	Collaborate with stakeholders outside the school setting who serve individuals with exceptional learning needs and their families.
S3	Advocate for the benefit of individuals with gifts and talents and their families.
S4	Collaborate with individuals with gifts and talents, their families, general, and special educators, and other school staff to articulate a comprehensive preschool through secondary educational program.
S5	Collaborate with families, community members, and professionals in assessment of individuals with gifts and talents.
S6	Communicate and consult with school personnel about the characteristics and needs of individuals with gifts and talents, including individuals from diverse backgrounds.

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Appendix C: List of Developed Codes

I. Preservice Education on the Topic – Pre [Items coded in yellow]
   A. None – Pre.None
   B. Little – Pre.Little
   C. Some – Pre.Some
   D. Extensive – Pre.Ext

II. Inservice – In [Items coded in red]
   A. None – In.None
   B. Little – In.Little
   C. Some – In.Some
   D. Extensive – In.Ext
   E. Another district – In.Elsewhere

III. Self-Taught – ST [Items coded in bright green]
   A. None – ST.None
   B. Little – ST.Little
   C. Some – ST.Some
   D. Extensive – ST.Ext

IV. Needed Knowledge and Skills – NKS [Items coded in turquoise]
   A. Differentiation – NKS.Diff
   B. How much to give – NKS.HowMuch
   C. How they think – NKS.HowThink
   D. How to identiry – NKS.ID
   E. Not more work – NKS.NotMoreWork
   F. Acceleration – NKS.Acc
   G. How to work with them in regular classes – NKS.WorkWithThem
   H. Definition – NKS.Def
   I. Curriculum – NKS.Curr
   J. Motivation – NKS.Mot
   K. Grading – NKS.Grading
   L. See in action – NKS.See
   M. Current research – NKS.CurrentRes
   N. How to best meet needs – NKS.MeetNeeds
   O. Management of it – NKS.Management
   P. Current research and district do legwork – NKS.CurrentRes
   Q. Nonsuccessful Advanced – NKS.Nonsuccessful

V. Avenue to Receive Training on needed topics – RT [Items coded in pink]
   A. Inservice day – RT.In
   B. On-line – RT.OL
   C. Graduate courses – RT.GC
   D. Conference – RT.Conf

E. Apply as you go – RT.ApplyAsGo
F. Ongoing – RT.Ongoing
G. Hands-on – RT.HO
H. Optional – RT.Optional
I. Follow-up – RT.Follow-up
J. Working with colleagues/observing – RT.WorkingWithColleagues
K. Work with Master Teacher – RT.MasterTeacher
L. Training in district – RT.InDistrict
M. Speaker – RT.Speaker
N. Study Group – RT.StudyGroup

VI. When to receive training – WRT [Items coded in violet]
A. Not over summer – WRT.NotSum
B. In our district – WRT.Here

VII. Barriers – Bar [Items coded in blue]
A. Funding – Bar.Fund
B. No Child Left Behind (NCLB)/Low Level Kids – Bar.NCLB
C. English Language Learners Increase – Bar.ELL
D. Myth – Academically Advanced are fine on their own – Bar.Myth
E. Numbers of students – Bar.#s
F. No support in classroom – Bar.NoClassroomSupport
G. Lack of technology – Bar.LackOfTech
H. Parents – Bar.Parents
I. Grading System – Bar.Grading
J. Structure of schedule – Bar.Structure
K. Generalists – Bar.Generalists
L. Teachers – Bar.Teachers
M. Time – Bar.Time
N. Don't know what to do/Lack of training – Bar.Don'tknow/LackofTraining
O. Variety of learners in one class – Bar.VarOfLearners
P. Student sees it as more work – Bar.MoreWork
Q. District has no plan – Bar.NoDistPlan
R. Special education students – Bar.Sped
S. Too much money/emphasis at the lower level - Bar.$ToLowerLevel
T. Grade school organization – Bar.GradeSchoolOrg
U. Teaching to the Test – Bar.TeachToTest
V. Lack of systems approach – Bar.Lackof SystemsApp
W. Stuck in grade level curriculum – Bar.StuckGradeCurr
X. RtI – Bar. RtI
Y. District puts it all on us – Bar.District
Z. No State Mandate – Bar.NotMandated
AA. Too much housekeeping – Bar.Housekeeping

VIII. Supports – Sup [Items coded in gray]

A. Internet – Sup.Int
B. Develpmental – Sup.Dev
C. District won't say no – Sup.Won'tSayNo
D. Staff believe we have gifted kids – Sup.StaffBelieve
E. Some staff have some knowledge – Sup.SomeHaveKnowledge
F. Homogeneous grouping being done – Sup.HomoGrouping
G. Music Department – Sup.Music
H. Motivators/Awards – Sup.Mot/Awards
I. Teammates – Sup.Team
J. RtI – Sup.RtI
K. PLC – Sup.PLC
L. Being a colleg town – Sup.College

IX. Solution Ideas – What these students need – SolId [Items coded in teal]
A. Opportunites – SolId.Opp
B. Climate – SolId.Cl
C. Emotional Needs – SolId - EmN
D. Parent Involvement – SolId.ParInv
E. Money – SolId.$
F. Programming – SolId.Prg
G. Groups for training/PLC – SolId.PLCs
H. Ongoing training – SolId.OngoingTraining
I. GT Coordinator – SolId.GTperson
J. Like a Charter School – SolId.Charter
K. Must identify early on. SolId.EarlyID
L. Use pretests – SolId.Pretests
M. Paras – SolId.Paras
N. Scope and Sequence – SolId.Scope&Seq
O. Must be a state mandate – SolId.StMandate
P. Teacher content specialization – SolId.Specialize
Q. Choice – SolId.Choice

X. Strategy Currently Used – StrCU [Items coded in dark yellow]
A. Math – StrCU.Math

XI. Motivation – Mot [Items coded in dark red]

XII. Aspects of NAGC's Core Gifted Education Knowledge and Skills for All Teachers – KnSk [Items coded in black]
A. Definitions of gifted and talented terms – KnSk.Def
B. Identification of gifted and talented terms – KnSk.ID
C. Theories for gifted and talented – KnSk.Th
D. Learning differences – KnSk.LD
E. Development of learners – KnSk.Dev
F. Characteristics – KnSk.Ch

G. Needs – KnSk.Needs
H. Assessments – KnSk.Assess
I. Adjusting instruction/content/assignments – KnSk.Adj
J. Higher Order Thinking Skills – KnSk.HOTS
K. Advanced Programs/Acceleration – KnSk.AP&A

XIII. Different Focus - Diff.Foc [Items coded in light gray]

XIV. ***ZTraining may not be the answer***

XV. ***ZOther***

Appendix D: A Segment of Transcribed Data

1.	(-Demographic data found in this cell has been deleted)	#4 June 3, 2010
2.		I = Interviewer
3.		T = Teacher
4.		I: Hi Dan (pseudonym)
5.		T: Hi Carrie
6.		I: Welcome and thank you for participating in this study. It is a busy time, so I really appreciate it.
7.		T: Happy to do it.
8.		I: This study is about training teachers have received to meet the needs of academically advanced/high-ability students in their classrooms. Just a reminder that academically advanced students will be loosely defined as students that have already mastered skills and/or content, and/or could move at a more rapid instructional pace. So, when we say academically advanced, that is the type of student we are talking about. I have permission from our superintendent to run this study.
9.		I: Your perceptions are very important. They may help us (our school district) to build on strengths and make improvements to our district's current system. The results of the study may inform professional development within the school district, may inform training practices in other districts, and may also benefit teacher preparation programs. Perhaps it may inform state legislation. Right now MN has no preservice requirements. Five states do have requirements. Ultimately, I hope the results will help to improve the educational experiences for academically advanced students. I have permission to conduct research in our district. I will then share strengths and areas of improvement with the district. I will also share the results with the State of MN gifted and talented

(*table continues*)

		specialist. There are five states that have preservice requirements in this area, and MN is not one of them. NY, for example, is one of these states.
10.		I: Fifteen K-8 teachers will be interviewed. Five were randomly selected from 1-5 years teaching experience in our district. Five were randomly selected from 6-10 years of teaching in our school district, and 5 were randomly selected having 11 and more years of experience. I also made sure to have balance between middle school and elementary teachers as well as gender.
11.		I: I need to remind you that if you would like to you can withdraw your participation at any time. This will be digitally recorded and will last about 45 minutes. I will also be taking some notes. After all of the interviews are conducted I will transcribe and analyze and will eventually develop themes. I will share the themes with participants, so you can say that is not what I meant, or yes that is an accurate picture of my feelings. (I explained member-checking next.) So, again, it will be kept confidential. Your name won't be used in any of my dissertation. A pseudonym of some sort will be used. So, after hearing all of that, do you have any questions before we get started?
12.		T: I don't believe so. No.
13.		I: Ok. The first set of questions is just kind of general, demographic questions and then we will get into the main questions about the study. The first one is what sort of training did you receive to become a teacher, as far as bachelor program, post baccalaureate program, alternate routes to licensure…?
14.	(-Demographic codes found in this cell have been deleted)	T: Well, I went through a teacher education training program at (name deleted) University. It is, I believe a BS

(*table continues*)

		degree in secondary education with an emphasis in (deleted). And I got that degree in 2001.
15.		I: So the degree you hold is a BS in secondary education 7-12 (deleted)?
16.		T: Yes.
17.		I: Ok, and how many years have you taught in (district name deleted)?
18.	(-Demographic codes found in this cell have been deleted)	T: I started, umm in (deleted), teaching in (deleted) through now. I taught the first 2 years at (deleted), (deleted) 9-12. For the next 3 years I did a combination of (deleted) and the old junior high. So, I was half time in those two buildings, so I was full time. For 2 more years I was split between the HS and (deleted). And for the last 3 years I have just been here at the middle school.
19.		I: Did you teach anywhere before you came to (deleted)?
20.	(-Demographic codes found in this cell have been deleted)	T: No, all of my experience is in (deleted).
21.		I: So, that is the end of the basic beginning demographic information. We will start off with the main questions now, and the first one is on training that you have received specifically to work with academically advanced students, or it could be lack there of. We will go over preservice, inservice, and then self-taught knowledge. We will start with preservice training. So when you were in college taking your education courses, what sort of training did you receive to work with academically advanced students?
22.	Pre.None	T: Umm, I guess to kind of generalize it, I don't think I had any formal training for these students. I know that in my, umm, I guess you could say, learning in the basic teacher training program, introductory ed. classes and classes on pedagogy. We had units or lessons on Bloom's Taxonomy and we had to incorporate things we learned into lessons. But to say that we had any

(*table continues*)

		sort of formal learning, or for sure not any class called gifted and talented, we didn't really have any. I guess we had bits and pieces embedded. To the best of my memory I don't believe we had any courses focused on advanced, or whatever terminology you want to give, other than just pieces embedded in the other training. I think that is right. That is what I remember.
23.		I: The stuff that was embedded… do you think it was for working with all kids, or specifically for academically advanced students?
24.		T: I would say it was more toward understanding that students have a range of needs. Not that it was completely absent in the curriculum, but it was… I would kind of characterize my learning on student-centered learning, with a moderate emphasis on Gardner's Intelligences. I thought that was good and a lot of it opened your eyes and made you think. It made you think about the whole spectrum of students. It was very general training.
25.		I: Ok. Thank you. How about now, umm, teaching in (district name deleted) and inservice training you have received on this topic.
26.	In.Little KnSk.Adj ***ZOther***	T: I think it is really just the past few years that I have been exposed to some sort of training on this topic. Just in the last few years here at the middle school, I don't have a strong memory of inservice training situations that have addressed the needs of these kids. Recently we did have training on differentiation and tiered lessons. I did go to some workshops when I was at the alternative school. I went to a session that dealt with the *advanced learners at alternative schools. This goes totally against the stereotype of students there at an alternative setting. Which I would say is not true. It is not like the place is full of*

(*table continues*)

		them, but they are there. It is a really interesting situation. When you have an advanced learner it is a unique situation. They are battling things. They are at a remedial school. It was my first job and I was a new teacher. This is kind of jumping ahead to one of your next questions. This is why I went to that session. We talked about these students at team meetings.
27.		I: You had some very wide ranges at the school.
28.		T: The workshop training was short and one shot. Training that I had… oh and I was going to say… The training I had was focused on advanced learners at the alternative setting.
29.		I: So anything else on inservice training that you want to add before we move on?
30.	In.Little	T: I don't think so. I kind of got in on the end of the Baldrige training. I don't remember any inservice that was directed toward advanced learners. We had some really renowned experts on differentiated instruction. But it was thrown at you real quick, and then what do you do with it now. I wouldn't characterize it as real structured
31.		I: Now self-taught knowledge. Do you feel there is any self-taught knowledge that you have gathered yourself on this topic?
32.	ST.Little Bar.MoreWork	T: Sad to say, I probably haven't done much on research on the topic; little bits and pieces. I guess, for lack of a better word, using common sense; trying in subtle ways to adjust curriculum for them. I am a believer in student ownership. I have had successes and failures with that. I think I have a gap. I have good ideas. I get started, but then I either don't follow through or need more knowledge. But I have felt several times that I am skirting a real fine line. Am I giving you more work? Sometimes the kid doesn't want to do anything different. How do you do that

(*table continues*)

		professionally; having a good plan, and a knowledge base? I think I have had some success; improving their education Sometimes students shut down. There is that fine line of am I giving you something different, or am I giving you something more? I am not trying to punish you, but this is good for you.
33.		I: Yes that is tough.
34.	Bar.MoreWork	T: Yes, it is tough. I have tried to learn about this. I have used a lot of trial and error in a subtle manner. I feel like I have had failures with trying new things for upper kids. How do you help them see it is good for them? The student sometimes seems like no one has ever talked with them about that before. Surely someone else along the line should have done things different for you. Sometimes I wonder, hasn't anyone ever done anything different for you? You know, being able to be more flexible of what not. This is frustrating.
35.	NKS.NotMoreWork	I: That is a good segway into the next main question of: what kind of skills and knowledge do you feel that you need? You have already kind of come up with one about how do you get kids to understand that you are trying to give them work that is appropriate for them. But are there other things on this topic that you would like to gain?
36.	NKS.Diff RT.WorkingWithColleagues	T: Definitely. I think that one of your earlier questions ties to this. I really liked a lot of the ideas that came up a few years ago in a workshop on tiered lessons. I didn't feel I was ready for it then. This year I tried a few tiered lessons. I am glad I did. I feel so, umm, not really overwhelmed, but underprepared and not ready to do it well. I tried them three different times this year; once in reading strategies and twice in my (deleted) classes. I wasn't naïve and thinking it would be easy, and I knew it

(*table continues*)

		would be a lot of work. It kind of shocked me to do a high quality job, how much effort it took compared to just having one lesson ready for a topic. I didn't know or take account for some things that affected the quality and outcome of the lessons. I think seeing other teachers doing tiered lessons would be helpful, and help planning a tiered lesson with someone else. I did in a PLC get to experience a presentation by other teachers about their tiered lessons. Some of them were very impressive, and I thought why didn't I think of that? Where it was actually tried versus theories, etc. This was more usable for me. The bad part for me was that we shared our tiered lessons at the end of the year. I feel that my lesson was mediocre, but when I saw some of the others, if I could practice this more and have more support and more time to plan and learn, that those would be the biggest things that would help me the most. There is such an incredible range of ability level in your classrooms. There are huge swings in ability level due to some of the other classes, too. You feel a little guilty when you deliver one way. And we all adjust a little anyway. It is not a formal system, but you are trying to meet the needs of the different students in your classroom. I almost feel guilty when I look back. I had this student here and this one there and I gave them the same lesson and same requirements and it doesn't even seem right. With this concept overall, I am a fairly big believer in this concept because it is just necessary due to the huge differences in ability in one classroom. So, if you could become very proficient in planning and administering tiered lessons for those kids, it only makes sense, instead of using a one size fits all approach.
37.		I: And so more…

(*table continues*)

38.		T: More exposure and more practice on this.
39.	RT.Ongoing	I: You kind of mentioned this already, but the next part is how would you like to receive this training? I made notes of what you said already: time to plan and learn, not just 1 day with unclear expectations of what to do next, time to observe others, planning together. Anything else on how we could receive this training?
40.	RT.Conf	T: This idea just popped into my mind, and maybe it is a random weird idea. Sometimes when we have in house presentations, not that I wasn't trying to pay attention or be positive, but sometimes when I know my room is back there and all these papers to grade, and this going on tomorrow, it becomes really easy to not be whole heartedly into the presentation. I have always felt that I have gotten something good at every conference I have gone to. When they are here, it is kind of interrupting your own day. If we had more opportunities to go places for training, there might be something to be said about that. To get out of your own settings…. Maybe it is more meaningful for your mind if you go somewhere.
41.		I: It is good to get out! ☺ Great, thank you. Ok, so the last of the three main questions is about… in our district do you feel that there are supports and/or barriers to work with this type of a student in order to meet their needs?
42.	Bar.Don'tKnow Bar.Structure Bar.NoDistPlan Bar.Myth	T: I think there are both supports and barriers in our district. In the early years in our district, I don't remember if there were any trainings on this topic. If there were, I don't remember any of them. So, barriers would be little exposure to training on the topic. In the last few year, our district has made some attempt to have us learn more and to improve in our teaching in general. Most recently, our school has the PLC

(*table continues*)

		program. I was in a PLC titled (deleted). It has been both interesting and frustrating. We have been really passionate about the topic. In that PLC, most people felt that we just saw lots and lots of barriers to addressing these students' needs. There is a rigidity to curriculum and scheduling. You could go so far as saying there isn't any structural plan from our district to address this situation. It is basically random. There is not some kind of plan in place or a philosophy or approach in place to do something about it. If you want to go really negative, if there is not a plan in plan that you don't even acknowledge that it is an issue. I think it is really wrong to not acknowledge it. It can appear that we don't acknowledge it, we have so many other things that we are worried about, but sometimes we say we have to worry about AYP and other pressing needs, and those advanced kids are going to be ok because they are advanced They are learners like everyone else in the building and they have their own needs, too. So, to not have a plan is very frustrating. I think it is a huge barrier and it shows a lack of leadership in the sense that if it is only happening randomly by concerned teachers and parents and it is not part of our school's continuous improvement plan than I think that is wrong and something should be done about that. I think it is a barrier that there is not much leadership in this area Like I said though, there have been some attempts with speakers coming in, but then follow-through has been poor and lacking and unclear. So, attempts, but barriers with follow-through. I think there are more barriers than supports.
43.		I: Alright. Well that is our third and final of the main questions. So, before we wrap things up do you have any other thoughts you would like to express at all?

(*table continues*)

44.	***ZOther*** Bar.NCLB ***ZOther***	T: Umm, just, I guess, I am pretty passionate about the concept I ended with. If there is not a plan in place, there is not an issue that there is a need in the first place. ***We aren't living our mission statement of meeting the needs of all learners. Are we giving a disproportionate amount to less advanced learners?*** Not that they don't deserve our efforts, but all students deserve our efforts. Going full circle, I saw some advanced students at our alternative school. Some students will shut down when not challenged; they don't see a point in it. Think of the impact that can have on someone's life. You can really go a lot of different directions with that. ***Morality and ethics come out of this. You can almost get antisocial behavior going on as a result. People can become very bitter. It really impacts someone's life.*** I will close with that thought.
45.		I: Just what they could offer to society for the common good of all. That is a great point. Well so many wonderful thoughts and I really appreciate it. Thank you so much for your time. This is such a busy time…
46.	(-Demographic data found in this cell has been deleted)	#9 June 10, 2010
47.		I = Interviewer
48.		T = Teacher
49.		I: Hi Katie (pseudonym)
50.		T: Hi Carrie
51.		I: Welcome and thank you for participating in this study. It is a busy time, so I really appreciate it.
52.		T: You're welcome.
53.		I: This study is about training teachers have received to meet the needs of academically advanced/high-ability students in their classrooms. Just a reminder that academically advanced students will be loosely defined as students

(*table continues*)

		who have already mastered skills and/or content, and/or could move at a more rapid instructional pace. So, when we say academically advanced, that is the type of student we are talking about.
54.		I: Your perceptions are very important. They may help us (our school district) to build on strengths and make improvements to our district's current system. The results of the study may inform professional development within the school district, may inform training practices in other districts, and may also benefit teacher preparation programs. Perhaps it may inform state legislation. Right now MN has no preservice requirements. Five states do have requirements. Ultimately, I hope the results will help to improve the educational experiences for academically advanced students. I have permission to conduct research in our district. I will then share strengths and areas of improvement with the district. I will also share the results with the State of MN gifted and talented specialist. There are five states that have preservice requirements in this area, and MN is not one of them. New York, for example, is one of these states.
55.		I: Fifteen K-8 teachers will be interviewed. Five were randomly selected from 1-5 years teaching experience in our district. Five were randomly selected from 6-10 years of teaching in our school district, and 5 were randomly selected having 11 and more years of experience. I also made sure to have a balance between middle school and elementary teachers as well as gender.
56.		I: I need to remind you that if you would like to you can withdraw your participation at any time. This will be digitally recorded and will last about 45 minutes. I will also be taking some notes. After all of the interviews are conducted I will transcribe and analyze and will eventually develop

(*table continues*)

		themes. I will share the themes with participants, so you can say that is not what I meant, or yes that is an accurate picture of my feelings. (I explained member-checking next.) So, again, it will be kept confidential. Your name won't be used in any of my dissertation. A pseudonym of some sort will be used. So, after hearing all of that, do you have any questions before we get started?
57.		T: I don't think so.
58.		I: Ok. Let's begin. The first set of questions is just kind of general, demographic type of questions; just a little bit about you, and then we will get into the main questions about the study. The first one is: what sort of training did you receive to become a teacher, as far as bachelor program, post baccalaureate program, alternate routes to licensure…?
	(-Demographic codes found in this cell have been deleted)	T: My initial degree was a bachelor of science in elementary education.
59.		I: Did they have specializations at that time?
60.		T: Mine was in reading. I think it was called a concentration. So, it wasn't like a minor.
61.		I: And where did you go to school for that?
62.	(-Demographic codes found in this cell have been deleted)	T: My undergrad is from (deleted) and my masters' is from the (deleted).
63.		I: What year was that?
64.		T: My undergrad was in (deleted). For my masters', most of the classes were held at the Morris campus. That I did in (deleted). That was a general degree in education with a concentration in reading as well.
65.		I: Ok, and then how many years have you taught in (deleted)?
66.	(-Demographic codes found in this cell have been deleted)	T: This last year that we just finished was my (deleted) year. I also have a couple of years outside of (deleted), so I had to stop and think a minute.
67.		I: So where did you teach before (deleted)?

(*table continues*)

68.	Experience in other districts	T: My first year was in (deleted).And my second year was in (deleted). It is a very, very small town. When I taught there it was a single district. Now it is called (deleted).
69.		I: Ok, well now we will move to the three main questions. The first one focuses on training you have received to work with this type of student. And we will first look at preservice, then inservice, and then self-taught knowledge for working with academically advanced students. We will start with preservice. Is there any training in your undergraduate work that you had in working with academically advanced students?
70.	Pre.None In.None ST.Little	T: It has been awhile, but I do not think I had anything. Within the reading concentration, we talked a little bit about the range of readers we would have, but nothing specific about gearing instruction beyond what would be typically done. I don't remember having anything during inservice here beyond the past few years of differentiated instruction. But, that is not geared specifically toward academically advanced students. Somewhere in there I took a class on gifted education on my own. It was one of those classes that you take to earn a few more credits. It was from St. Thomas, I think. It was very introductory. It was a lot on the definition of gifted students. It worked a little bit on how to instruct gifted students, but to be honest at that time it looked more at gifted being separate from the classroom, versus looking at putting gifted within the context of your classroom. So, not having that opportunity to have it as a separate entity, you kind of had to think, how could I use that within my classroom setting?
71.		I: How long ago did you take that class?
72.	ST.Little	T: Almost 10 years ago. It was kind of at the time where I would say that people

(*table continues*)

		were just becoming more aware of a need for gifted education. The class was not really all that relevant to how you could do that within your classroom. It was good in the sense that it gave you some background knowledge on how those kids might learn best, or function differently, but it was not about how to teach those kids within the context of a regular classroom. That is it. That is all. Other than experimenting in your own classroom and hoping you are doing what is right, there really has not been a lot of training opportunities out there for it.
73.		I: So, self-taught for you would be taking that class?
74.		T: And then trying to incorporate that into my class and then trying things out and seeing how they go. And to be honest, more of it dealt with how to teach them differently, but not accelerated. Most of it was from the perspective that they need to be taught differently. It was good to know that these kids might function differently, but not much on how to teach them in the regular classroom. Yeah… a lot of it has just been trial and error.
75.		T: In my reading concentration, we learned that some kids will learn faster etc., but we never really then learned what we could do for them. There is a huge lack of training.
76.		I: Ok, so we will move from training to skills and knowledge. If our district could offer training is there anything that you would be interested in learning more about regarding academically advanced students? What would be helpful for you to use in your teaching?
77.	NKS.Curr NKS.MeetNeeds	T: You know, what I think about is… we all have these kids that are beyond the material that we would typically present in our classrooms. What I want to know is what would best meet their needs. It isn't always just going faster or just the

(*table continues*)

		different materials that you might present. What else could I do that would enhance the skills that they have? I feel like we sometimes just give them harder material, but I don't always feel that is what they should be doing to make them better learners. I don't know if this will make them a better learner. I feel like, ok, I can take a child that is reading at a much higher rate and I can give them harder reading materials, but that doesn't always transfer to skills. It is giving them harder words to deal with, but it doesn't always build their skill base as to how they are applying what they know about reading to the more difficult level. Reading is probably the area where I see it the most. If all I do is give them harder material, but don't give them the skills that go along with that more difficult material, I don't feel that I am growing them as a learner, but am occupying them with harder material. But they still have the skill base that I am teaching all of the other kids. That is what I feel is missing. If I know about this student that is academically advanced, what is the next piece that I should be adding on? What is next in that sequence of skills that I should be advancing them towards? I think it needs to be very thoughtfully done so there are not gaps in their education. If I just assume that they can do harder material, what gaps am I missing in their skills? They need a foundation of skills that goes along with the harder material.
78.		I: What would be some of the skills that you would be doing with all of the kids in reading, so I make sure I understand correctly? And then would it be skills that maybe they would be doing in second or third grade? Is that what you think you should be working on with the kids?
79.	NKS.Curr NKS.MeetNeeds	T: Yes. At the kindergarten/first grade

(*table continues*)

		level we spend a lot of time on the phonics part of reading. And sequentially that is where most kids are at at that age. If I just use that skill set and work with that in harder material, I am not meeting their needs as a fluent reader, or in comprehension, or in their vocabulary. Because those are skills that we gear more toward that second, third, and forth grade level. So, knowing that they have the phonics down pat, should I move them on to fluency strategies, comprehension strategies, and if so, what should I do next in a logical sequence so that I am not gapping them.
80.	SolId.Scope&Seq	I: Ok, I see what you are saying. And I suppose the next teacher that gets them as well needs to know so that there is some continuity.
81.	SolId.Scope&Seq	T: Yes, these are the skills I have covered with them, versus, I just put them in a higher level reader and let them go, because you know that can happen sometimes. You have a child that has that skill base so you don't need to teach them what the rest are doing so you give them harder level material, but you don't give them the skill sets that go along with that harder material. And then as they keep progressing forward, did they miss those skills somewhere along the way. That is what I think we really need to do is to say, if they have mastered that first set of skills, these are the skills that they need to move onto next. So that if they are going to be in that series and that level of books, they have the skill sets that go along with that material.
82.		I: Yes, that is a great point.
83.		T: I don't want them to miss out on that. You assume you have that because they are in the higher level reader.
84.	NKS.Curr	I: So some sort of training so teachers could come to some sort of consensus if

(*table continues*)

		they get to this level, we are going to work on these skills…
85.		T: Yes, rather than we are just going to move the materials forward, what skills should move forward next as well. And, we don't have training on that at all.
86.		I: If we were able to offer that sort of training, what would be the best method or manner to do that would you say? If our district decided this was a need, what do you think would be the best way?
87.	NKS.Curr	T: What I think it really comes down to is to identifying, for example, in reading if you have students that are able to read within a level E, these are the skills that should be taught for those types of readers. Here are the skills that should be taught to the kids that can read at F – L. So that you have identified the skills that need to go along with the difficulty of the material, versus just saying this student is capable of reading a material level difficulty. The reading series does that somewhat. But, if you say for example, if I am a first grade teacher and am using this material, but have a student that is at this level, I don't have the materials that go along with that, so I am guessing and begollying that that is what he needs to do next. Now, I have gone down and talked with teachers from the next few grade levels to find out, but we need to lay that out as a district. These are the skill sets that this child should master before they move to more difficult material, so that you know where those skill sets are.
88.	RT.Ongoing	I: That is a great idea. It makes so much sense that this is something we should do. Is it something that we should do through curriculum meetings on a regular basis throughout the year?
89.	SolId.Scope&Seq	T: It really should be. And I think we need to stop, when we look at curriculum… we need to stop looking at it as grade level

(*table continues*)

		specific. First grade is going to teach this material. Some kids don't fit within that context at both ends. We need to look at the skill sets that need to be taught, versus just a grade level set of materials. Then I think we would better meet the needs of our kids if we looked at skill sets versus grades. And you have to fit within that because I don't know what to do with you if you are here or here (motioning toward upper and lower ends). You know… these are the skills that a typical first grader may have, but you may see these ranges of skills. If they are beyond these skills then here is what we do.
90.		I: And we have a plan.
91.		T: Yes! To me it would make sense that that would be a part of your curriculum teams. It is an overwhelming thought in the sense that it would take a lot of planning.
92.		T: We would get all of the reading people together, and the math people, too. For me the reading part comes easier, because that is where my background is.
93.	SolId.Scope&Seq	T: What would be the next logical set of things to teach them, developmentally so that you are covering a wide range of things? Instead of saying, this kid is way beyond this, let's just do this. I don't know. Should I have done…what should I have done next? What would be the most logical thing to do next? So you are building the next logical set of skills. Otherwise we are just to hit and miss. We need to build those skills.
94.		I: These are great ideas.
95.		T: I just think there has to be something out there. It must be there and we haven't taken the time to find it. There has to be that next logical set of skills that you would check off and say they have these skills. What should I do next to grow them as a learner?
96.	SolId.Scope&Seq	I: And as you said instead of looking at it

(*table continues*)

		as grade levels, look at it as skill sets.
97.	***ZOther***	T: ***There are so few kids that fit within that exact box of what first grade is – both ends of the spectrum.***
98.		I: Thank you. Those are great ideas. It is so interesting to hear others' thoughts and perspectives; ideas that people have.
99.		T:Yes, I bet.
100.		I: So, anything else on skills and knowledge that you feel would be helpful to you, otherwise we will move on to the next question.
101.		T: No, just teaching us what would best help those kids. Because, I don't really think there are any teachers out there that would say you can't learn that because it is next year's material. I think that it is just hard because what to do next.
102.		I: Right.
103.	***ZOther***	T: ***You want to keep that passion going. So, you grab at things. That is what we need training on. If I am going to grab at something, what would be the next best, logical thing to grab at to grow them as learners?***
104.		I: Ok, now the third and kind of final question is on supports and barriers. So, in our district what are things that offer support to working with academically advanced students and what are things that put up a barrier to working with these students? We have already kind of touched on this already.
105.	Sup.Won'tSayNo Bar.Don'tKnow/LackofTraining	T: I do think that administratively our administrators support us to go out and take that leap with that child. But, that is kind of where it ends. In the sense that, yeah go ahead and do that, but you are on your own. And so, I think the support is there to say yes. I value your opinion as a teacher that this child needs more, and I encourage you to do that, but you are just on your own. So, the support is there, but

(*table continues*)

		the barrier is there in the sense that there is not the support that says here is what you need to do
106.		I: Yes, that piece that says here is what to do.
107.	Bar.StuckGradeCurr	T: So, that is what I feel is a huge barrier. Teachers are busy and to have to have to do that on your own and to go and research that, as much as you might want to, not everybody has the time to go and do that. And, then you have the… and maybe you don't have this at your level, but then you get that, "These are my materials in my grade, and no you can't have them, because then next year when I have that child those materials will not be new and then what am I going to do. So, I think one of our barriers is that we get so pigeon-holed that certain materials belong to certain grades. It is probably different for you as you are more content driven, but at the elementary level if we could just see that these are the materials that we have available to use with our kids, come and get what you need. We get so pigeon-holed into these are 1st grade materials, these are 2nd, and if you cross over the grade levels, then these materials aren't new to those kids anymore. I ran into that this year. I had a couple of readers that needed higher levels. They needed an F and a G. In kindergarten I didn't have these levels. And the barrier was up right away. No, those are 1st grade books, so… so what? I can't challenge this child and give them the reading material that is appropriate to them, because why? That is a big barrier for us, I think; just accepting the fact that we run a gamut of children and the materials need to be there for all of our children. It shouldn't be… these books belong here and these belong here; and with other content areas, too.
108.		I: So, were you able to come to a solution

(*table continues*)

		for these kids?
109.	Bar.StuckGradeCurr	T: Well, to be honest, our title 1 teachers rescued us. They had a variety of books, because the serve many grade levels. They come at it from a different perspective. They don't see books as specific to a grade level. They see books specific to the kids' needs. That is a barrier that makes it frustrating, because when you do feel that you do know what to do next with that child, that then you need to have the materials that you need to work with that child. Umm…and the same thing in math. But, umm, I think the biggest barrier is that what do I do next barrier? And then once we figure out what to do next, it should be that materials are available and that they are there for all children. But, I do sense that the support is there to go ahead and do that, but the support is not there to say this is what to do next and here are the things that you need. So, there is still too much of teachers independently scrounging around on their own to think of the plan and the materials.
110.		I: The plan and the materials – exactly.
111.		T: The support is there, but then it is kind of that, ok, so go to it. And then you are kind of left hanging.
112.	Bar.Time	I: And then like you say, with so many different kids' needs, the time you have, and all of the other things you are doing, even if you really want to, you don't get to it.
113.		T: Exactly – time is a factor in all of that.
114.		I: Those are great points. It is exciting to think of what it could be like if we were able to get that piece that you are talking about that is missing.
115.	Bar.StuckGradeCurr	T: The other thing that I would like to see to is that we don't put up that barrier of grades. If I have a student whose maturity would allow him/her to work with kids in a different grade academically, that we stop

(*table continues*)

		putting up those barriers, nope, you can't because you are not in that grade. We need to put some of those walls down a little bit, too. We need to say, this is where this child is academically and they can emotionally and maturity-wise handle that. Umm, you know, because I think that is a key piece too, because you can't do that if they aren't mature enough or emotionally ready. But, if they are, to afford that child the opportunity to be where they need to be is important.
116.		I: Anything else on supports and barriers before we move to our closing.
117.	Bar.StuckGradeCurr Bar.Lackof SystemsApp	T: I don't think so. I think a huge barrier is identifying the needs of the child and then finding the best fit for them and not putting up those walls for them. There must be a system in place. When we look at the state standards, it can't be kind of willy-nilly. It has to be very purposeful and documented along the way. So, that is probably the biggest barrier; how do we manage that piece of giving those kids what they need in a system that can identify that they are getting everything that they need. But, umm… I think the capacity for support is there, but nobody has really picked up that piece and said, here is a plan.
118.		I: Before we totally end for the day, thank you so much for everything so far. It is exciting to hear your thoughts and wonderful ideas. Anything you want to say that I didn't specifically ask about academically advanced?
119.	***ZOther***	T: The only thing I would probably say is that ***while we have to look at kids across the spectrum, what they bring to a class is valuable. That is a whole other piece that you don't want to lose as far as what they can bring to a classroom and isolating them and giving them skills. You have to always remember that, they have so many other things that they can bring to a***

(*table continues*)

		classroom, too, that I don't want to just pass them on because they are ready, because part of what they learn is from being in the regular classroom. That may be selfish on my part, too.
120.		I: So, it is good to have everybody together as well.
121.		T: If we knew what to do next, we could have that utopia of…
122.		I: Well, thank you again so much.

Appendix E: An Example of Code Sorting in the Table of Authorities

Below is the first section of sorted codes in the Table of Authorities. The codes were sorted alphabetically. Barriers were coded blue. The numbers next to each barrier code refer to the pages where this code can be found in the transcribed data.

Bar------96

Bar. RtI-----97

Bar.#s-----7, 107

Bar.$toLowerLevel-----45, 59, 91, 94, 95, 96, 102, 114, 121, 122, 128

Bar.District-----101, 102

Bar.Don'tknow-----19, 36

Bar.Don'tknow/LackofTraining-----45, 71, 72, 80, 91, 107, 108

Bar.ELL-----28

Bar.Fund-----8, 15, 17, 20, 28, 30, 42, 45, 71, 72, 128

Bar.Generalists-----9

Bar.GradeSchoolOrg-----46

Bar.Grading-----7

Bar.Housekeeping-----114

Bar.Lackof SystemsApp-----71, 83, 96, 114

Bar.LackofTech-----7, 20, 45

Bar.MoreWork-----34, 35, 121

Bar.Myth-----6, 42

Bar.NCLB-----18, 28, 30, 37, 59, 65, 66, 70, 121, 122

Bar.NoClassroomSupport-----7, 71

Bar.NoDistPlan-----36, 46

Curriculum Vitae

Carrie Olstad Sueker

Education

Walden University, Minneapolis, MN. EdD in Teacher Leadership. April, 2011. GPA 4.0

University of Minnesota, Minneapolis, MN. MEd in Science Education. December, 1992. GPA 3.8

Gustavus Adolphus College, St. Peter, MN. BA in Biology. Cum Laude, May 1990. GPA 3.5

University of Melbourne, Melbourne, Australia. Study Abroad Program. Spring Semester 1989

Licensure

Minnesota State Teaching Licensure: Life Sciences Grades 7-12, Middle School/Junior High Science Grades 5-9

Athletic Coaching Certification

Teaching Experience

Name omitted Middle School*, City omitted,* MN. 7th Grade Life Science Teacher. 1998 – Present

YME High School, Granite Falls, MN. Physical Science Teacher. Volleyball Coach. 1997 – 1998

Discovery Middle School, Alexandria, MN. Earth Science and Physical Science Teacher. Volleyball, Softball, Science Olympiad Coach. 1996 – 1997

Fergus Falls High School, Fergus Falls, MN. Biology and Physical Science Teacher. Volleyball Coach. 1993 – 1996

Dakota Hills Middle School, Eagan, MN. Physical Science Teacher. Volleyball, Basketball, Softball Coach. 1991 - 1993

Professional Activities and Honors

- Teacher of the Year – 2000-2001 (Local)
- Finalist for the Minnesota Science Teacher of the Year
- Head of Science Department
- Continuing Education Representative
- Building Leadership Team Member
- District Leadership Team Member
- Peer Coach of a PLC group
- Mentor Teacher
- Member of the Minnesota Science Teachers Association
- Varsity Volleyball and Basketball at Gustavus Adolphus College. Captain and MIAC All-Conference in Volleyball.
- Athena Award Winner 1986 – Awarded to the top female athlete in each Minnesota metropolitan area high school.

Other Special Skills

- Baldrige Continuous Improvement Principles– I have been trained in these principles and use them in my teaching.
- Minnesota State Science Standards are incorporated into my teaching
- My classes include students from very diverse backgrounds and abilities.
- I have taught under a block schedule and also a traditional schedule.

Current Volunteer Work

- Sunday School Teacher – First Lutheran Church
- Bible School Teacher - First Lutheran Church
- Juniors Volleyball Coach

- Youth Softball Coach

References: Furnished upon request.