Abstract

The purpose of this thesis was to study the alignment of educational standards to the education of gifted students in the twenty-first century learning environment. The educational standards that were focused on in this thesis were the Common Core State Standards (CCSS) because they are the primary learning standards used in the state of Ohio, as well as in states throughout the United States. The study began with research about different classroom procedures, methods, and activities that are particularly effective for high level learners, as well as research regarding the goals and implementation strategies for the CCSS. Following this research, the study continued with observations and interviews at two middle schools in different parts of Ohio. The schools were vastly different in their demographics as well as the implementation of standards and the field of the education of the gifted and talented. At the conclusion of the research of methodology, qualitative observations, and interviews, it was determined that the intersection of the field of the education of the gifted and talented and state standards is possible and plausible through a variety of methods.
# TABLE OF CONTENTS

Chapter I: Introduction .................................................................................................................1

  Purpose of Thesis ......................................................................................................................1

  The Research Questions and Goals .........................................................................................5

Chapter II: Literature Review ......................................................................................................7

  A Brief History and Contemporary View of and Talent Development Education .............7

  Introduction to Common Core State Standards .................................................................11

  Integration of Talent Development Education and State Standards .................................12

  Implications for English Language Arts Classrooms .......................................................24

  Implications for Mathematics Classrooms .............................................................................26

  Implications for Social Studies ..............................................................................................28

Chapter III: Methods of Research ...............................................................................................32

  Overview of School A ..........................................................................................................32

  Overview of School B ..........................................................................................................33

  Research Procedures and Methods ......................................................................................34

  Limitations of the Study .......................................................................................................36

Chapter IV: Results and Discussion ...........................................................................................38

  Observed Behaviors in School A .......................................................................................38

  Interview Results from School A .......................................................................................42

  Observed Behaviors in School B .......................................................................................46

  Interview Results from School B .......................................................................................51

Chapter V: Summary, Conclusion, and Implications ..................................................................57

  Research Questions Answered ...............................................................................................57

  Implications and Further Study .............................................................................................59
CHAPTER I

INTRODUCTION

Purpose of Thesis

As I began preparation for my thesis, I reflected back on my classes as an undergraduate as well as my time as a middle grades student. In both settings, my fondest memories are the times spent in the gifted and talented classroom in school and collegiate level discussions about the topic of giftedness. As I pondered this, I considered a common discussion topic in all undergraduate education classes, state standards. I chose to create a topic based on integration of these two ideas, the field of the education of the gifted and talented and state standards, because I was curious to see how the programs for the education of the gifted and talented that I had experienced as a child have changed and adapted throughout the years to accommodate the ever-increasing trend of aligning all school practices to standards put forth by state and national governments. As a student, I enjoyed the pull-out gifted and talented education class thoroughly because it was unlike any other class throughout my school day; it challenged me to think about the world in unique ways and look at problems with a different perspective. The most memorable activities in that classroom experience oftentimes were not explicitly tied to a certain academic subject, but the manner in which we approached topics and the thinking skills practices in these activities were able to be carried into my other academics.

In a time that the need to meet standards set forth by the state government is constantly growing, I was interested in observing classrooms where gifted and talented children are educated and talking to students in those classes to see if their perspectives on and experiences in the class are still similar to my own, and if they believe that their education in the class allows
them to practice high level thinking in a variety of capacities, while still managing to address topics related to the standards set forth in the Common Core State Standards.

Additionally, as an undergraduate education student during a time of great debate about national and state-level educational standards and their benefits as well as disadvantages, I was interested in learning about what other people in the education field thought about how the field of education of gifted and talented students can effectively incorporate standards into their classes. One of the biggest criticisms that I have heard about connecting the field of the education of the gifted and talented to educational standards is that high functioning students have already achieved (or can quickly understand) most of the content that is required of them but they are required to spend time on it anyways. In selecting this topic of research, I realized the need to clarify the purpose of standards, the requirements and expectations of both teacher and students set forth by them, and how teachers are able to effectively reach and challenge students of all ability levels.

In order to study the relationship between programs for the education of the gifted and talented programs and state standards, I chose to conduct qualitative data observations as well as to record qualitative data. Although there are certain limitations to the use of qualitative data, especially that of observer bias, I thought that it would be the most effective method of data collection for my research for several reasons. First, the use of qualitative observations allowed me to watch classroom interactions without having to pass or create value judgements that would essentially compare schools with one another. Second, with qualitative data collection, I was able to ask open-ended questions of the students and teachers to receive their opinions without leading them to a certain conclusion. Finally, because classrooms for the education of the gifted and talented are run in vastly different ways in each school district, qualitative research granted
me the opportunity to avoid creating expectations for a classroom that simply were not there; rather, I was able to enter each classroom with an open mind for how the teacher would establish connections between the day’s lesson, high-level thinking, and state standards.

Before beginning any field research, I conducted a review of existing literature on the field of the education of the gifted and talented and the Common Core State Standards as separate entities, as well as research on how the two are able to interact in a classroom setting. This review of literature (Chapter II) allowed me to create a general idea of what I would look for while collecting qualitative data in the classrooms.

In order to gain a broader perspective at the multitude of ways in which standards can be addressed in different capacities of programs for the education of the gifted and talented gifted programs, I chose to conduct my field research in two school districts that were different from one another in community type, size, and program type. Although the choice of schools was nearly endless, I selected two Ohio school districts, School District A and School District B, that are located in different areas of the state, exemplify distinctly different student body characteristics, and have diverse methods of education for their gifted and talented students. An extensive explanation of the rationale and background of each of these schools can be found in Chapter III.

Several days were spent in each district, and in that time, I observed daily activity in the districts’ classrooms for the education of the gifted and talented, interviewed students who take part in the programs, and interviewed the educators that are a part of the program. The data collected from these observations and interviews is presented in Chapter IV and the research was vital to the conclusions drawn in Chapter V.
In both my review of existing literature as well as in the field research, I chose to focus on giftedness and talent development relating to specific academic content areas rather than other types of giftedness and talent. The Ohio Rule identifies four types of giftedness and talent: (a) superior cognitive or intellectual talent; (b) specific academic talent; (c) creative thinking talent; and (d) visual and performing arts talent. And although I recognize the importance of education and emphasis on all types of giftedness and talent, I chose to focus on academic subjects as it would be more advantageous as I begin my career as a new teacher.

As previously mentioned in the beginning of the introduction, school systems throughout the state and country are using standards set forth by state legislators to regulate and monitor curriculum. As this trend continues, student activities throughout the school day are increasingly being tied to and evaluated in terms of standards. Programs that do not meet or are not related to the standards used by the school are often being seen as unnecessary and thus cut from the school program. Because the history of programs for the education of the gifted and talented (explained further in Chapter II) has often been notorious for allowing students to engage in higher level thinking by giving them opportunities not typically found in regular academic settings, the pressure to fit curriculum for the education of the gifted and talented into state mandated standards has increased for educators of programs for the gifted and talented.

Independently, the goals and intentions of both the Common Core State Standards and programs for the education of the gifted and talented created by individual school districts are valuable and respectable. However, it is when the two of these programs collide that tension is created as schools seek new opportunities to continue to fulfill the needs of the identified gifted and talented students while also maintaining a program that adheres to and is guided by the standards set forth in the Common Core. By exploring the history and creation of both the
programs for the gifted and talented and the Common Core State Standards, researching practical ways to integrate the two, and collecting qualitative data from classrooms that are achieving the goal of a program for the gifted and talented that aligns with state standards, one is able to see the ways in which gifted and talented students’ needs can be met while still adhering to standards.

**The Research Questions and Goals**

In studying the relationship between the field of the education of the gifted and talented programs and the Common Core State Standards, I sought to understand how the higher level needs of academically talented students can be met while grade level standards established by the Common Core are still being addressed. To do this, I intended to answer the following questions:

1. What are the specific requirements of programs for the education of the gifted and talented in regards to state standards?
2. In classrooms that teach a specific academic content area for high-level learners, how is the classroom atmosphere and environment different from that of on-level classrooms?
3. What are some of the ways in which programs for the education of the gifted and talented that do not focus on a specific content area are able to incorporate the Common Core State Standards into their curricula?

In studying existing research and conducting my own qualitative field research, I aimed to answer the aforementioned questions in order to gain a better understanding of the intersection of state standards and programs for the education of the gifted and talented. In doing so, I hoped to be able to extend the conclusions that I made to all educators. I also planned to use the research collected specifically about the Common Core State Standards to make generalizations about the intersection of other state standards and the field of the education of the gifted and
talented as it is important to recognize that the education system is constantly evolving and adaptations must be made to ensure the success of all students.
CHAPTER II
REVIEW OF LITERATURE

In order to fully understand the scope of the research done in this project, it is important to review the literature about the field of the education of the gifted and talented and Common Core State Standards as separate entities as well as the assimilation of the two. Regarding this field of education, reviewing the history of intelligence research and the education of the gifted and talented as well as looking at a contemporary view of the field of the education of the gifted and talented is imperative to understanding the material in this study. Additionally, establishing a basic definition and understanding of the Common Core State Standards as well as specific ways to integrate the standards into the field of the education of the gifted and talented is beneficial. Finally, a discussion about several different practical methods of integrating Common Core State Standards into specific content areas will establish greater understanding when discussing the impacts of the study conducted for this project.

A Brief History and Contemporary View of the Field of the Education of the Gifted and Talented

Throughout the centuries, the terms *gifted* and *talented* have been used to describe an array of high achieving abilities, but within the boundaries of education, the two terms have often been associated with a high degree of intelligence. A brief examination of the origins and the history of the two terms allows contemporary educators to have a greater understanding for what it means to be “gifted” in today’s society in addition to understanding the implications that such identification can have for students both in and outside of the classroom.

As school systems and the understanding of giftedness have changed over time, educators began to seek new ways to identify children as gifted besides just the traditional intelligence test
that was initially used. The definition of a gifted student was defined in the *National Excellence Report* (1993) when the U.S. Department of Education acknowledged that evidence of giftedness is not limited to test score results, but can also be identified in other ways including high performance through intellectual, creative, and artistic mediums. The report emphasized the need to discover the giftedness and talents of students by providing opportunities for the student to show their skills in a setting that the performance can be observed rather than just tested. The report discussed the troubled term *gifted*, and suggested using the term *outstanding talent*, or to describe these students as having high ability, or as advanced learners. As more research continues to be conducted about the field of the education of the gifted and talented, school administrators, law officials, and researchers continue to develop new understandings and definitions of gifted students that affects the way in which they receive appropriate education to meet their diverse needs.

Based in part on the United States Department of Education formal definition of outstanding talent, Ohio’s Department of Education has established the idea that the term *gifted* refers to “students who perform or show potential for performing at remarkably high levels of accomplishment when compared to others of their age, experience, or environment” (Ohio Department of Education, 2008, Definitions section, para. 1). The Ohio Department of Education retained the old and controversial terminology, using the stark term, *gifted*. Once students have been identified as gifted learners, it is imperative that the educator of these students is equipped to consider the characteristics of those students while simultaneously addressing the learning needs of the student and achieving state standards. According to Johnsen, Assouline, and Ryser (2013), “gifted educators’ roles include direct service and advocacy for the gifted child, including academic, social and emotional development. It is important to realize that giftedness
impacts the development of the whole child, which includes both external and internal factors” (p. 62).

Before pursing the concept of how outstandingly talented students achieve in any setting, it is imperative to have a well-defined idea of the characteristics of these students, their classes, and current issues within the field of the education of the gifted and talented. A theory published by Sternberg and Zhang (1995) captured the five main preconceptions that people have about qualities that are often used to consider a person gifted in some capacity. To be gifted in a certain skill or facet, the qualities exemplified in that skill include: excellence (that is relative to peers), rarity, productivity, demonstrability, and providing value to society. Although these characteristics are important to note of gifted students, they do not give a clear idea of what specific characteristics identified students may possess. In addition to the aforementioned characteristics commonly shared by outstandingly talented students is the thinking process of students who possess high capabilities. Shore and Kanevsky (1993) explained that the thinking process of gifted and talented people includes extensive knowledge of a subject and effective use of that knowledge, effective and frequent use of metacognition, time spent on cognitively complex parts of problems, effective use of assumptions that have already been evaluated, flexibility in strategies and point of view with which problems are approached, and enjoyment in the complexity and challenge of tasks. Although most students identified as gifted and talented learners do not fit every characteristic discussed in this section, identifying and recognizing commonalities between outstandingly talented students allows for greater understanding of these students when observed in different contexts. Additionally, having an understanding of prevalent commonalities of students identified as gifted and talented allow educators to alter educational
practices to better fit the students. In doing this, educators are able to better integrate the required standards into material and activities that are appropriate for high level students.

Just as the characteristics of outstandingly talented students have many commonalities between children, the products that they create also share many similarities. In regards to outstanding talent in writing, students are often able to make use of writing devices not typical of same age students such as paradoxes, parallelism, rhythm, visual imagery, and unusual figures of speech as well as adverbs and adjectives. Further, they often show confidence with reverse structure, wisdom within their writing, advanced syntax, a sense of humor, willingness to play with words, and their writings often have a philosophical or moral purpose (Piirto, 1999). With mathematical concepts, talented students are often able to understand the problem at a deeper level. Specifically, this includes the ability to grasp the formal structure of the problem, use symbolic information, quickly generalize mathematical objects, relations, and operations, shorten steps within a process to maximize efficiency, show flexibility in changing strategies to determine a different method of solving from beginning to end, and reconstruct or reverse steps within a problem (Piirto, 1999). Just like all characteristics of exceptional students, the aforementioned traits of outstandingly talented writers and mathematics students are commonly seen within the context of gifted and talented learners, but it is by no means an exhaustive list of their characteristics, nor is it true for every student.

Although giftedness may have only been thought of in terms of an intelligent quotient in the past, today, educators, as well as the public, have realized that giftedness affects all aspects of the child and their development. By having a greater awareness of the perception of giftedness and talented, the typical characteristics of gifted and talented learners, and understanding the formal definition of these learners, one is able to have a foundational understanding of the
students that is essential when considering other aspects of the field of the education of the gifted and talented such as state standards.

**Introduction to Common Core State Standards**

Adopted by the Ohio Department of Education in 2010, Ohio’s Learning Standards are part of the nationwide effort to establish guidelines as to what students across the country should know for any given subject and grade. For six major content areas, the state of Ohio has adopted the Common Core State Standards (CCSS) which “provide guidelines about what students throughout the United States are expected to know and be able to do as a result of their schooling” (Coil, 2012, The Common Core Standards: The Basics section, para. 2). The name of these standards, “Common Core State Standards,” was chosen to represent the idea that the standards were developed via collaboration with multiple states throughout the country (What’s Changing, 2015). This gives a greater understanding for the rationale behind the standards in its attempt to create a tangible guide for all schools across the country.

According to Coil (2012), one of the biggest advantages for creating a set of standards such as this is that is creates consistent expectations for educators and learners regardless of their geographic location in the country. The Ohio Department of Education article, What’s Changing in Ohio Education (2015), further explains that in the subject of math, the Common Core standards will help students to be able to apply increasingly difficult concepts to a multitude of situations, and in English language arts, the standards aim to help students learn better reading, writing, and communication skills. These skills will be attained by focusing on the most important and useful concept for each content area, thus allowing educators to pursue topics at a more in-depth level with students which will allow them to see how subjects overlap and interact with one another. With this in mind, the National Association for Gifted Children (2014) wrote
in their position statement on the Common Core that “the standards call for general education teachers to recognize and address student learning differences, and incorporate rigorous content and application of knowledge through higher-order thinking skills” (para. 3), and so it is the goal of the Common Core State Standards to allow educational opportunities for learners of all levels while still maintaining a common basis of knowledge that all students should be able to achieve.

A common criticism regarding the field of the education of the gifted and talented is that it is required to follow specific standards although high-achieving students have already mastered the content included in the standards, thus these students are not being challenged to reach their full academic potential. Although this is a valid concern that can result in educators, parents, students, and the public being hesitant to accept the Common Core State Standards as beneficial for students who may be gifted learners, VanTassel-Baska, Hughes, Shaunessy-Dedrick, and Kettler (2013) concluded the following:

> It is essential that we see the Common Core State Standards not as an end in learning itself, but rather as a set of experiences that will advance students to the next level of interest, motivation, and capacity to perform in domain areas that will enrich their lives and ours. (p. 37)

**Integration of Field of the Education of the Gifted and Talented and State Standards**

The goals of both the education of the gifted and talented programs and the Common Core State Standards are both similar in that they aim to promote and elevate student learning in order to prepare and create students to be people who will be valuable in today’s society. However, it can be difficult to understand how the two vastly different entities are able to work together to achieve a common goal. A broad approach to addressing this issue is to consider that the CCSS does not have to be an end goal for all students; rather, it can be a starting point for
learners who have already mastered content or are able to learn new material quickly. This concept is further supported by VanTassel-Baska et al. (2013) in their assertion that,

The models of delivery for advanced learners (or for any learner) are largely not addressed in the Common Core State Standards, allowing teachers and schools to implement services based on the needs of gifted students with the Common Core State Standards as a basis. (p. 43)

Initially, the content established for learning in the Common Core State Standards can be seen as limiting to gifted and talented students, but the lack of delivery models addressed in the standards allows for greater exploration of concepts in unique ways for accelerated learners. Among many other delivery models that will be explored in this section, Johnson, Assouline, and Ryser (2013) suggested several general strategies specific for the integration of the Common Core and the field of the education of the gifted and talented that include the following: appropriate pacing of the Common Core content, differentiated task demands to address specific standards, and interdisciplinary projects and tasks to efficiently address multiple standards at once. Regardless of the content area, grade level, or standard being addressed, in using a variety of delivery and teaching models, educators can synthesize the standards set forth by the Common Core while also meeting the specific needs of outstandingly talented students.

Regardless of a student’s ability, knowledge level, or previous academic history, it is vital that they receive classroom education that is appropriate for their cognitive level, addresses their learning needs, and is related to the content standards. VanTassel-Baska et al. (2013) quoted the National Education Commission on Time and Learning statement related to these issues, which stated that, “‘schools have an obligation not to make advanced learners “prisoners of time”, and to ensure that their learning time is used efficiently and effectively as they traverse the grades’”
In order to achieve this ideal, educators of outstandingly talented students must create meaningful curriculum that challenges students as well as a learning environment that is conducive to the students’ learning needs while also adhering to and meeting the standards set forth by the Common Core, especially in academic content areas.

In the most fundamental sense, curriculum for students of all abilities regardless of a specific area of talent can be defined as planned goals and objectives that include the use of materials and activities that assist in the acquisition of understanding of the intended objectives (Piirto, 1999). Curriculum for outstandingly talented students does not need to be radically different from that of other grade-level classes, but there is a need for the curriculum of these students to be “different in kind and emphasis” (Piirto, 1999, p. 364). In other words, the curriculum of advanced students should align to the same content standards as other classes, but it should be different in the method of presentation, the activities and materials used by the students to obtain knowledge, and the depth at which the material is studied. As a practical guide to creating curriculum that is meaningful and engaging to gifted learners, VanTassel-Baska and Stambaugh (2006) suggested a focus for curriculum for advanced learners on six elements including the following: acceleration, depth, complexity, challenge, creativity, and abstraction. As a result of curriculum that is based on these six elements, curriculum for talented students will achieve an appropriate pace of learning because these students often learn more quickly than their peers, have high levels of intensity and expectations for the learning process and its outcomes, and engage in higher order thinking which allows for a level of greater complexity and abstraction (Little, 2012).

Another important factor in the curriculum of gifted and talented students is flexibility for both the teacher and student so that the material can be presented in a manner and at a pace that
is most effective and efficient for the learners. In order to achieve this flexibility, Maker (1996) suggested that curriculum for these learners be organized around interdisciplinary themes with the content goals as abstract principles that can be discovered by the students. This curriculum design guides students to explore a given theme through various methods; in trying multiple methods and strategies, students are often able to achieve several different academic standards while in a setting that also challenges them to study a topic in more depth. Although the precise nature of curriculum planning is subject to the individual needs of the learners, in general, reading, language arts, and social studies content areas tend to be most effective when they make use of content enrichment (studying certain topics more thoroughly than normally examined), whereas math and foreign language content areas tend to adjust curriculum by using content acceleration (moving through topics at a faster pace) (Piirto, 1999). No matter the technique used to adjust curriculum for the needs of the students, it is essential that the curriculum be appropriate in difficulty, interesting, and aligned to relevant standards.

Regardless of the curriculum used by the educators of advanced students, an essential element in implementing the curriculum for these learners is the use of differentiation. Because it is unfeasible to design individual curriculum that will perfectly meet the needs of every student, differentiation within a broad curriculum will help teachers and educators to meet the needs of every student in a given classroom. As defined by the former United States Department of Education Office of Gifted and Talented, differentiation is the “process of instruction which is capable of being integrated into the school program and is adaptable to varying levels of individual learning response in the education of the gifted and talented” (Maker, 1996, p. 20-21). Although students of all learning capabilities can benefit from differentiated instruction, it is particularly effective for advanced learners because it addresses three learning characteristics
that are shared by nearly all gifted and talented students to varying degrees; that is, differentiation allows for the unique interests of high achieving students to be addressed and investigated, for students to cover material at a faster pace, and to cover the material in greater depth (Piirto, 1999).

Although the exact manner and methods by which differentiation can occur is dependent on each child and each situation, there are a variety of general methods in which teachers can differentiate for individual students. Johnsen (2013) suggested the use of pretests and formative assessments, acceleration or compacting of curriculum, addressing progressively complex issues, adjusting or replacing texts according to student reading levels and interests, and pacing instruction according to the students’ rate of learning. Other suggested techniques for differentiation include the use of higher level questions according to Bloom’s Revised Taxonomy (i.e. creating, evaluating, analyzing levels), critical thinking exercises such as Socratic dialogues, use of creative and innovative thinking, and problem-based learning (Piirto, 1999). Tomlinson (2014) provided further guidance on how to effectively use differentiation to meet the needs of all students by suggesting flexible grouping of students, students taking the role of an active learner while teachers serve as a guide rather than director, students helping one another solve problems, ongoing assessment of readiness and growth, and multiple methods of assessing work. Because differentiation is the idea of keeping the content similar but altering the delivery and learning methods, teachers are still able to maintain the concepts set forth in the CCSS while addressing the needs of the students in a way that more effectively addresses their learning styles and personality traits.

In addition to differentiation for accelerated students, unconventional classroom models and practices can be effective methods of challenging students while still achieving the standards
presented in the Common Core. One such classroom practice involves a unique grouping system of students. Known as the Joplin Plan for its roots in Joplin, Kansas, this learning environment calls for students to be regrouped based on their achievement level of a certain content area for instruction. Rather than just limiting this to one grade level, the Joplin Plan can be administered throughout an entire school so that students of different grade levels can be intermixed in groups that best fit their ability level (Robinson, Shore, & Enersen, 2007). This strategy is particularly effective in the English language arts and reading classrooms because the CCSS are often nearly identical to one another across grade levels with an increased focus on certain aspects of the content in each progressive grade. Similarly, this could also be an effective strategy for math CCSS because the strands of standards are similar throughout the grade levels, but increase in difficulty level.

Cooperative learning environments can also be particularly beneficial for gifted and talented students. A cooperative learning group is a small group composed of students with varying abilities, and each student within the group is given a specific task that is vital to the completion of the objective (Robinson et al., 2007). For high ability students, this can be a beneficial classroom practice especially in a regular education classroom because the student can be given a specific task that is appropriate to his or her achievement level while having the opportunity practice collaboration with other students to successfully achieve a goal. According to Robinson et al. (2007), another effective type of classroom model for high achieving students is a pull-out classroom in which the students spend part of the school day in a class comprised only of other outstandingly talented students and with instruction specifically tailored to the development of high level learners. This type of environment allows students to be with like-minded peers in an environment that is fully tailored to their high level thinking skills. Other
types of programs that can be offered by school districts to highly academic students include special classes for specific interests, participation in academic competitions, extracurricular activities that reach the needs and interests of gifted students, and a partnership with special interest schools that academically talented students can attend for part or all of the day (Robinson et al., 2007).

When addressing the needs of high ability students, it is especially important to create a learning environment that is conducive and unique to the students’ abilities. Maker (1996) provided eight different aspects of a learning environment that are advantageous to the education of gifted students. First, the practices in the classroom should be learner-centered rather than teacher-centered. A balance should be found between content mandated by the CCSS and student interests, and the interactions within the classroom should occur mostly between students with the teacher acting as a facilitator rather than an instructor as previously discussed. Similarly, the environment should promote independence for the students. The teacher should allow students to explore content and ideas even if the teacher knows that there are flaws in the exploration; students should have the opportunity to discover flaws on their own which will allow them to have a more comprehensive understanding of the topic. Some practical ways to promote independence for gifted students includes learning centers, small group activities, and independent stations.

Other aspects of a beneficial learning environment for advanced students include having an open-minded classroom atmosphere that also encourages complexity over simplicity. Maker (1996) explained the concept of an open classroom as the “encouragement and tolerance for many ideas, many solutions to problems, many answers to questions, and many proactive learning experiences that lead to further study” (p.44). In other words, educators of the gifted and
talented should not expect the same behavior, work, or understanding for every student. Likewise, teachers should encourage divergent thinking in which students take different paths to achieve the same purpose. The concept of a complex learning environment is particularly useful in relation to adhering to standards while still meeting the needs of gifted students. Classroom complexity has two facets—complex tasks and a complex physical environment. To create meaningful activities for high ability learners, teachers can increase the complexity of the assignment or provide more complex materials such as reference books, technology, and resources that require the students to think in different manners but still achieve an objective that is related to the Common Core.

The final factors Maker (1996) suggested for creating a conducive learning environment for gifted and talented students are all related to the structure of the classroom. First, the classroom environment should be flexible and high in mobility. In an ideal classroom for the education of gifted and talented students, the physical environment of the room is flexible and easily moveable for a variety of activities. Additionally, the class and the duration of activities is flexible and there are relaxed time constraints as the challenges and opportunities available are presented real-world experiences. Similarly, the teacher should demonstrate a willingness for mobility within the classroom for the students to change the direction of activities based on experimentation and exploration. In addition, the classroom should have display a variety of group methods that allows the students to approximate real-life situations, and have choice in working alone or in groups for certain activities. Although not all of the aforementioned learning environments can be always be applied simultaneously or with for all activities, the instructional methods should always lead to an environment of acceptance for the learners. An accepting environment includes an attempt by the teachers to truly understand, listen to, and value student
ideas and input, appropriate timing of evaluations which includes recognizing when ideas are not ready for evaluation and allowing more time, as well as evaluation methods that consider multiple factors including both good and bad (Maker, 1996). Regardless of the exact learning environment and practices used by teachers, by incorporating a unique approach to learning into the education of gifted and talented learners, the students become more motivated to be engaged in content that is related to the CCSS.

In addition to the specific types of classroom practices and learning environments already discussed, it is important that the teachers engage high achieving students by activating and promoting their higher order thinking skills. By altering curriculum that is set forth by the CCSS or other state standards by means of changing the order of thinking, teachers can engage outstandingly talented students while still maintaining a curriculum that is aligned to the given standards. Before expecting students to use higher order thinking skills successfully, it is vital that the teachers of these students model the use of it, talk about and explain this thinking process, and evaluate the effectiveness of the students’ ability to use higher level thinking (Robinson et al., 2007). According to the Center for Advancement of Learning and Assessment, higher order thinking is defined as:

Critical, logical, reflective, metacognitive, and creative thinking [skills]. They are activated when individuals encounter unfamiliar problems, uncertainties, questions, or dilemmas. Successful applications of the skills result in explanations, decisions, performances, and products that are valid within the context of available knowledge and experience and that promote continued growth in these and other intellectual skills. (King, Goodson, Rohani, n.d., p. 1)
In order to help students of high achievement maintain engagement with curriculum that they may master faster than other students, educators can challenge students with the same material that is aligned to standards, but at a higher order.

To promote higher order thinking, outstandingly talented learners can be taught to think about material in more abstract ways. This helps students to develop strong problem solving skills and reasoning ability and can be especially effective for students who have a strong ability to convey meaning or emotion through words, actions, symbols, sounds and media (Maker, 1996). Further, the complexity of tasks can be altered so that students have the opportunity to use their higher order thinking abilities. Advanced learners often like to explore, experiment, and observe, and by providing more complex tasks for a given topic, the students are able to bring order to chaos. The added level of complexity for outstandingly talented students also provides challenges for them in an enjoyable setting and gives them the opportunity to have sudden recognitions of connections or deeper meanings without a conscious awareness of the realization (Maker, 1996). Another effective way to promote higher order thinking is to give students the opportunity to practice inquiry-based learning. Inquiry-based learning can be defined as “student learning taking place through inquiry in a meaningful context” (Walan & Rundgren, 2015, p.2). The goal of inquiry-based learning is to stimulate students’ interest by allowing them to explore using skills including creating questions, developing a method to answer the questions, data collection, review of evidence, discussion of results, and drawing a conclusion (Walan & Rundgren, 2015); essentially, students are running their own experiment to solve their own questions. These methods of using higher order thinking to promote outstandingly talented education helps elevate the basic content and requirements of the CCSS onto a level in which
students take more responsibility and independence for their own learning, vital qualities of a valuable talent development education program.

With so many different delivery and teaching models as well as learning methods that can be aligned with the CCSS, it is important for educators to be cautious of simply using similar material from higher grade levels. In the Common Core, there are specific standards for every grade level, but they are also related to anchor standards that span multiple grade levels in an effort to help the standards be more cohesive across grade levels. According to Coil (2012), these anchor standards are especially appropriate for outstandingly talented students because it provides general concepts and rules that apply across grade levels. Johnsen et al. (2013) also acknowledges the benefit of such standards, but provides a caution against the sole practice of using a higher grade level standard to challenge outstandingly talented students. She writes that it is important to, “keep in mind natural progression of knowledge and skills” and that when accelerating content it should be the teacher’s top priority to address any knowledge gaps that are created from the accelerated content. Without doing so, students can miss vital information that is essential to the understanding of other topics at a later time. For this reason, content acceleration across standards should be used with caution and should be integrated with some of the aforementioned delivery and teaching methods rather than used solely as a means of educating talented students.

In addition to the Common Core State Standards for all students, the National Association for Gifted Children (NAGC) has created National Gifted Programming Standards for identified students in prekindergarten through grade twelve. Unlike the CCSS, these standards are related to the characteristics and needs of outstandingly talented students rather than the actual content that is being taught. As described in the introduction to the standards, the
characteristics included in NAGC’s Gifted Programming Standards, “provide the rationale for differentiation in programs, grouping, and services for this population…while cognitive growth is important in such programs, affective development is also necessary” (Robinson, 2010, p. 8). That said many of these standards focus on self-understanding and social awareness for the outstandingly talented students. Although these standards address different needs of outstandingly talented learners, they can be incorporated into curriculum, lessons, and classroom activities that are aligned with the CCSS, and students can achieve objectives related to both sets of standards simultaneously.

Although the ideas of the field of the education of the gifted and talented and state standards are often thought of as disjoint and possibly even conflicting entities, research has shown that there is a multitude of different ways to address the needs of outstandingly talented learners while fulfilling state standards. The NAGC’s position statement on Common Core and Next Generation Science Standards for Gifted and Talented Students (2014) states that, “Even rigorous standards for all learners may result in limits on learning for advanced students if schools tie benchmarks for student achievement too closely to grade-level expectations” (para. 1). As a result, the position statement further calls for action to be taken to address the needs of outstandingly talented learners that is appropriate developmentally and intellectually while national standards are being implemented in schools (NAGC, 2014). By recognizing the unique needs of outstandingly talented students and taking appropriate measures to address those needs, such as altering teaching methods and learning environments, using differentiation, and synthesizing the CCSS with gifted standards, educators of advanced learners will be able to engage and challenge students at appropriate levels while still adhering to standards that all children are expected to meet.
Implications for English Language Arts Classrooms

For students who are identified as outstandingly talented or advanced learners in the English language arts, the opportunities to expand on literature and media that is already being studied makes meeting the needs of these learners while still adhering to the CCSS a realistic possibility for gifted educators. Regarding the specific English language arts CCSS strand being addressed, VanTassel-Baska et al. (2013) asserted that,

The English language arts standards were designed to prepare students to become critical consumers of literature and informational texts across disciplines and are primarily framed as developmental processes that these students would be able to demonstrate by the end of a given grade level of instruction. (p. 9)

Because the English language arts standards are more about the development of skills and strategies rather than specific topics and subjects, there is a lot of freedom and opportunity for gifted educators to develop curriculum that is suited to their students’ high level needs while still maintaining and achieving the expectations set forth within the CCSS.

As a means of creating appropriately challenging material for the students, there are a number of general methods that can be used by both educators of the gifted and talented and regular education teachers to enhance student learning. First, a pre-assessment of students’ previous knowledge can be beneficial for teachers in order to create an appropriate curriculum that focuses on creative production and advanced content. Creative production is the concept of developing creative projects and activities that challenge students beyond their current level of performance through appropriate assessment and instruction. With this, the students have more flexibility in their methodology of creating a product and the assessment of the product accurately reflects that creativity and level of understanding of concepts being addressed.
Advancement of content refers to a variety of different instructional practices and methods that can include the use of more difficult materials including more challenging readings, exploring materials in greater depth, and a faster instructional pace (VanTassel-Baska et al., 2013).

As the subject of English language arts include a vast array of topics and also encompasses reading, writing, and comprehension of other media types, there are many different delivery and teaching approaches that can engage outstandingly talented learners in an appropriate context while also maintaining the CCSS. Robinson et al. (2007) suggested differentiated reading instruction that includes expanded vocabulary study (Reading Anchor Standard 4), fiction and nonfiction materials at appropriate levels of difficulty (Reading Anchor Standard 10), and activities that capitalize on students’ problem solving and creative abilities (Reading Anchor Standards 7, 8 & 9) (National Governors Association Center for Best Practices, 2010a). Further, inquiry-based or interdisciplinary units that are developed around a concept or an idea rather than targeting a specific standard can be particularly effective for outstandingly talented learners because it focuses on one topic of interest but looks at it from a variety of angles into which the CCSS can seamlessly be incorporated (Robinson et al., 2007). In the “Frequently Asked Questions about the Common Core and Gifted Education” article published by the NAGC (n.d.) specific practices in the English language arts classroom include: Socratic Seminars (a student-led discussion about opinions related to an essential question), literature circles in which the text is selected by students and discussion is student-facilitated, and opportunities for research in specific areas of interest are suggested as means to engage advanced students in CCSS related studies in the classroom. Further, the article provides several out-of-school opportunities for outstandingly talented students such as writing competitions and mentoring opportunities related to the language arts.
Regardless of the exact methodology used, tying nearly any book, reference material, or other print or digital material for outstandingly talented learners to the CCSS is often a relatively simple task because of the flexibility granted in the English language arts standards. As presented in this section, there are a multitude of delivery methods and teaching styles that can be used to synthesize the unique needs of high achieving learners with the expectations for all students set forth in the CCSS.

**Implications for Social Studies Classrooms**

The social studies content standards are broken down into several different sub-concepts that include both general and specific ideas that are expected to be understood by each student, and within these different breakdowns are opportunities for the needs of outstandingly talented students to be met in appropriate ways. In the kindergarten through grade eight standards, the broadest breakdown of the standards is the “strands”; these contain four disciplines (History, Geography, Government, and Economics) that are general concepts that are consistent across grade levels. The strands are further broken down into topics that give more specific concepts related to the strand. Further, each topic has related content statements that provide specific content and ideas that are to be addressed for each grade level. Additionally, each grade has an overall theme that is to be looked at in relation to the strands, topics, and content statements (National Governors Association Center for Best Practices, 2010c). Although the content area of social studies has historically received less differentiation and adjustment for high achieving students (Little, Feng, VanTassel-Baska, Rogers, & Avery, 2007), there are a variety of techniques and practices that can encourage higher levels of learning and comprehension for outstandingly talented learners within the content statements given in the CCSS.
Even though there has not been extensive use of social studies content as a means of reaching the needs of talented learners, there are a variety of practices that can add depth and complexity to the CCSS material to make it more appropriate for gifted and talented learners. In addition to the general teaching methods already discussed in the “Integration of Field of the Education of the Gifted and Talented and State Standards” section, Troxclair (2000) suggested conceptual thematic units, specific questioning strategies, use of interest development centers, independent study opportunities, and mentorships for students. Conceptual thematic units allow students an opportunity for authentic learning experiences that are centered around specific themes and allow them to practice high level thinking skills rather than spending time in a teacher-directed, large-group instruction environment. These units can address content that is explicitly stated in several CCSS content standards simultaneously while giving time and resources for students to go more in-depth in the topic and discover relationships between seemingly unrelated ideas. Asking provocative questions, such as “What if…” questions, gives students the opportunity to think in divergent ways and also promotes higher order thinking. These intentional questions should allow students to extend their thinking, see new relationships, discover their own knowledge gaps, and motivate them to want to learn more about a topic.

Troxclair (2000) explained the difference between traditional learning centers and interest development centers, stating that “[interest development centers] contain materials to manipulate and media and print materials to explore instead of providing a means for mastering basic curriculum skills” (p. 197).

Additionally, the use of curriculum compacting can be particularly beneficial for outstandingly talented students in the social studies classroom. With the use of curriculum compacting, the teachers are able to spend less time giving direct instruction to the students
which allows more time for the aforementioned activities to take place. With the extra time available for content enrichment, the students can participate in independent study projects. If the student shows great interest in a specific topic, developing a mentoring relationship with a community member with a similar interest can be beneficial to student learning and interest. Other specific activities that can be done as a means of curriculum enrichment include, but are by no means limited to creating historical journals, conducting interviews, and role playing simulations (Troxclair, 2000).

Although social studies is historically a content area that has not received as much attention from gifted educators as other subjects, a focus on its content can provide students with development of greater understanding of complex issues and higher level thinking skills that can be used across contents. The organization of the social studies CCSS allows for educators of outstandingly talented students to move from the specific content statements to the broader categories that carry across grade levels when developing curriculum for their students. Furthermore, although the CCSS content statements may already be mastered by high level students, this gives more opportunities for enrichment activities rather than inhibiting them by covering the material that they already understand.

Implications for Mathematics Classrooms

Although the English language arts standards are vaguer in precise content to be covered, like the Social Studies CCSS, the Mathematics CCSS give more specific content requirements for each grade level that are broken down into more broad mathematical concepts. Despite the more specific nature of the math standards, there is still great potential and opportunity for educators of outstandingly talented students to engage their students at a deeper level than basic mastery of the standards. Johnsen et al. (2013) explained that, “the Common Core State
Standards for math are K-12 standards that illustrate the curriculum emphases needed for students to develop the skills and concepts require for the 21st century” (p.1). The CCSS for math include two different sets of standards: the Standards for Mathematical Practice and the Standards for Mathematical Content, and although the Content Standards are fairly definitive in the topics that are required to be mastered by students, the Practice Standards allow for a variety of ways in which to teach those standards and can be very beneficial for outstandingly talented learners when used effectively.

According to the Common Core State Standards: Mathematics, “The Standards for Mathematical Practice describe ways in which developing student practitioners of the discipline of mathematics increasingly ought to engage with the subject matter as they grow in mathematical maturity and expertise” (National Governors Association Center for Best Practices, Council of Chief State School Officers, 2010b, p. 7-8). In brief, the eight Mathematical Practice Standards of the CCSS are as follows: make sense of problems and persevere in solving, reason abstractly and quantitatively, construct viable arguments and critique the reasoning of others, model with mathematics, use appropriate tools strategically, attend to precision, look for and make use of structure, and look for and express regularity in repeated reasoning (National Governors Association Center for Best Practices, Council of Chief State School Officers, 2010b). At least one, and often more than one, of these strategies and practices can be developed simultaneously with the mastery of a Content Standard, and it is in this intersection that mathematically outstandingly talented students are able to be challenged in curriculum that is unique to them but is still related to the CCSS.

As a means of opening more possibilities for this intersection of the field of the education of the gifted and talented and mathematical standards, Johnsen et al. (2013) proposed another
mathematical practice standard to be considered for mathematically talented students. His proposed standard states that students should be able to “solve problems in novel and new ways and pose new mathematical questions of interest to investigate” (p. 16). With this additional standard, educators are challenged to go beyond the scope of the CCSS to help advanced students learn to generalize mathematical concepts and procedures to apply to other circumstances. In using this proposed standard as well as those set forth in the CCSS, students are able to look at mathematical concepts more in depth and create connections to their lives outside of the classroom. In making use of the flexibility of the Practice Standards and allowing students to explore mathematical concepts in a greater depth, teachers are giving students the opportunity to be exposed to authentic thinking and learning that is created own their own.

Another beneficial way to reach the needs of high achieving students is to cross content area borders and create interdisciplinary studies. This idea can be particularly beneficial with students who show an interest in one subject but a disinterest in another as it engages them in the first subject and subtly incorporates the second subject into that interest. Although English language arts and math are often thought to be at different ends of the educational spectrum, VanTassel-Baska et al. (2013) suggested that the two create an effective interdisciplinary study between writing and mathematical concepts; “The writing demonstrates the capacity to build on argument, and the manipulation of data illustrates the capacity to interpret and transform ideas from graphic representations to verbal ones” (p. 32). In creating projects that integrate two subjects into one common objective, teachers can use standards from multiple content areas and engage students in higher order thinking as they seek to understand how two seemingly unrelated content areas can be intertwined to create a result that displays knowledge and understanding of both content areas.
Regardless of the material or content, there are a multitude of ways to make the integration of the goals provided in both state standards and gifted and talented programs a reality. Through general curriculum development ideas and classroom practices as well as content specific alterations and differentiations, the needs of advanced learners can be met by providing different activities and expectations for them while covering the content set forth by the Common Core State Standards that is to be achieved by all learners.
CHAPTER III

METHODS OF RESEARCH

In this chapter, the school districts in which qualitative observations and interviews took place will be explained along with the research methods. Both classrooms studied were located in Ohio and were the middle schools of their respective districts. By law, in Ohio, districts are required to identify and create a plan to serve outstandingly talented students; however, the methodology of carrying out the plan is up to the discretion of the districts (Ohio Department of Education, 2008). As a result of the vagueness of Ohio Department of Education’s requirements on how services for the gifted and talented are to be carried out, districts have the opportunity to carry out programs in a variety of ways that are best fitted to the needs of their specific students. The districts chosen for this study are vastly different in size, geographic location and characteristics, and teaching styles, thus giving two uniquely appropriate examples of how the Common Core State Standards can be met while educating outstandingly talented learners.

Overview of School A

School District A is located in the mid-Ohio region in a rural environment. According to the Ohio Department of Education’s 2013 School District Typology, the district enrolls just over 1,200 students. The median family income in the district is approximately $32,000 with a poverty level of 39% and a 3% minority population. The report gives the district a typology report of 2, meaning that it is a rural school with an average student poverty number but a very small student population (Ohio Department of Education, 2013). According to the director of the programs for the education of the gifted and talented of School District A, the district’s program serves students in fourth, fifth, or sixth grade. The specific services change from year to year according to the needs of the students that have been identified. Because the district is relatively
small, there is only one teacher who works full time to serve all of the gifted and talented students, and the director assists by working part time with some of the students as well. During the 2014-2015 school year, the teacher worked with the fourth grade students in both math and English language arts and fifth grade students for English language arts. To serve fifth grade students identified as talented in math, the students were cluster grouped and served by the general math education teacher with the director going in weekly to enrich the content for those students. The sixth grade students in School District A did not have any official gifted services, but came to the teacher for the education of gifted and talented for thirty minutes daily as an enrichment period.

In this study, the fourth and fifth grade classes with the teacher for education of the gifted and talented were focused on for observation of classroom. Over a course of three days, the classroom procedures were studied, and students and teachers were interviewed about their opinion of how the students’ educational needs were achieved in this classroom.

**Overview of School B**

School District B is a middle class suburban school district located in northeast Ohio. According to Ohio Department Education’s *Typology of Ohio School Districts* (2013), the district serves just over 4,500 students with a median family income of $37,022. Approximately 18% of the students are considered to be at the poverty level with a 6% minority level. The district has been given a typology rating of 5, indicating that it is a suburban district with low student poverty and an average student population size. The services provided to students identified as gifted and talented in this district consist of programs for students from kindergarten through high school. Students are identified as early as kindergarten and receive enriched reading and math curriculum in second grade. In grades three through five, outstandingly talented
students take part in a daily program in which they collaborate with other talented peers to develop high-level thinking skills in a self-motivated and self-paced, ungraded environment. In sixth and seventh grade, the students in District B can participate in a self-contained advanced social studies course that is made up only of students who are identified as talented. For older students, the district has honors, Advanced Placement, International Baccalaureate, and dual credit classes available that are considered to be gifted and talented services if the student is identified as outstandingly talented in the particular content area that the class is serving.

In this study, observations were conducted in two different classrooms of talented fourth and fifth graders as well as in the sixth and seventh grade social studies class for outstandingly talented students. Due to the nature of the study, the focus was spent on the sixth and seventh grade classes because the same lessons were able to be observed several times, the class was adhered to a specific content area, and the advanced social studies class replaced the social studies class of other students rather than providing general educational supplements for content area classes.

**Research Procedures and Methods**

The research procedure for this study was approved by the Ashland University Human Subject Review Board and the intention of the research was to see the classroom methodologies discussed in the literature review in action in real classrooms. Prior to beginning any field research, representatives from each district received and signed consent for observation forms (Appendix A). Additionally, parents of all students in the observed classes received and signed consent forms for their children to be interviewed (Appendix B). Prior to conducting any observations or interviews in the classroom, the students also received and signed a consent form (Appendix C).
For this study, qualitative, descriptive observations as well as educator and student interviews were the main source of data collection. In School District A, there was only one fourth grade math, one fourth grade English language arts, and one fifth grade English language arts class per day which resulted in lessons only being taught one time each. In order to compensate for this, I observed the classroom for three days; this allowed me the opportunity to see the continuation of lessons over a period of time. In School District B, I went to three different schools and observed three different teachers and classroom environments. The main focus of my time in District B was in the seventh grade social studies class. I spent two days in this class and each day, I was able to observe the same lessons several times in order to observe different methods and changes based on the specific students and experience in past classes.

During every observation, I recorded the class activities, student and teacher behaviors, and specific questions, answers, and comments given by both teacher and student during the class period. I also determined the specific Common Core State Standard/s that were addressed in the lesson. I completed the observation by recording any final notes about the classroom environment, experience, or explicit links between the CCSS and the lesson that I noticed immediately.

In all of the observed schools, the individual student interviews were conducted within the class period, while the students were working on individual or group work. The student interview questions can be found in Appendix D. Students responded orally to the questions and I recorded their answers immediately. Through both face to face communication as well as email communication, I interviewed the teacher from School A, the social studies teacher from District B, and another teacher for the education of gifted and talented students from District B; these interview questions can be found in Appendix E. Finally, via email, I interviewed the Director of
Education of Gifted and Talented from both of the districts in the study. The questions for their interviews are located in Appendix F.

**Limitations of the Study**

In conducting this study, I recognized that there are certain limitations that cannot be avoided within the scope of the research that I aimed to conduct. Although the use of qualitative data including observations and interviews was the most practical choice for the data that I intended to collect and the questions that I intended on answering, qualitative data meant that there was room in the data for personal bias because I was recording my own opinions that were influenced by the research that I have already completed.

Additionally, the limited amount of time in each of the schools may have had an effect on the research. Because each lesson was only taught once in School A, I spent three days in each class whereas in School B, only one day was spent in the classroom that is studied in this research because the lessons were presented multiple times. Although my time was limited with each of the schools and I had a limited perspective of each of these classes as an outsider, in all classes, I was assured that the lessons observed were an accurate reflection on typical days in the classroom. Regardless of the length of time spent in the classes, a truly accurate perspective would not have been obtained unless I worked or attended the schools. Both the teachers and the students were unaccustomed to having me in their classes, and although I was sitting in a discreet location and did not call attention to myself, the presence of a guest may have influenced their behaviors.

In addition, the times in which the observations were conducted had to be worked around the schedule of state testing which meant that the typical school schedule was not always followed and the material may not have been an accurate reflection of the typical classroom due
to the nature of state testing practices. Because testing schedules greatly affected the time spent in School B, I conducted an additional day of observations in the seventh grade classes at this school during the following school year. Although students from these classes were not interviewed, many of them had been interviewed the previous year when I observed their sixth grade classroom. The additional day spent in this classroom environment granted me the opportunity to gain a better sense of normalcy for this class and gave a more comprehensive view by seeing different content and delivery methods between the initial and second observations.
CHAPTER IV
RESULTS AND DISCUSSION

Observed Behavior in School A

In School A, fourth grade students spent an hour and a half daily with the teacher for the education of gifted and talented. Over the course of three days, a variety of activities and materials were observed in the classroom. The textbook used for the class provides lessons that are explicitly aligned to the CCSS. Rather than always following the lesson outline provided by the textbook, the teacher generally used the text as a guideline for the material, but created different activities for the students. For example, when studying different aspects of angles (CCSS 4.MD.3-6), the students began by verbally reviewing angle measurements and how to use protractors followed by a worksheet in which students worked with a partner to measure angles. Rather than giving a direct review of the material that the students had already learned, the teacher reviewed the material by asking questions of the students. The angles were expected to be within one degree of the correct answer. The teacher then explained how to use a virtual protractor and students were allowed to experiment on their own for several minutes, then applied that knowledge to an angle measuring game that they played on their Chrome Books. Throughout the lesson, the teacher had a short wait time after posing a question. Additionally, throughout the lesson, she asked higher order questions such as “What do you notice is different between the protractors on the computer and the ones that we were using on paper?” She also extended the lesson to more difficult material as she explained to the students all that they needed to know for the PARCC test was how to measure an angle, but they were able to experiment with creating angles of a given size on the computer once they had mastered measuring the angles.
In addition to going into more depth for math topics, the teacher began every class with warm up activities that promoted higher order thinking. These activities ranged from giving clues that incorporated past mathematical concepts that converged into a single number and the students had to synthesize all of the clues together to determine the number, choosing a number and having students ask questions related to mathematical principles to determine the number, and “I have…Who has…?” cards. These activities required students to apply topics that are conventionally thought of in a different context of problems to apply them to a new situation. The teacher further challenged the students by challenging them to complete the activity in a more compact manner after they had adjusted to the activity and understood the goal. For determining a number, that required students to ask the least number of questions possible to determine the number, whereas for the “I have…Who has…?” cards, the students had to quickly think through math facts in order to do the activity in a shorter period of time. Although these activities were not always related to the specific CCSS that is being addressed in the lesson, they allowed for a quick review of past material that is related to other CCSS while simultaneously promoting higher level thinking and developing problem solving skills as well as reasoning processes, all vital aspects of the field of the education of the gifted and talented.

In both the fourth and fifth grade language arts classrooms in School A, students were given opportunities to select books of interest for themselves. The fourth grade class began with silent reading time for books of their own choosing every day, and a classroom library was filled with books that were appropriate to the high level readers. In one lesson, the students presented presentations that they had created based on a book of their choosing. Although the students were able to select the book which gave them independence as learners, the teacher did require that she approved it to ensure that the students were selecting a book that was appropriate to their
level of learning. In doing this, the teacher also created an environment of complexity over simplicity for the students by ensuring that the book levels were not too simple. Additionally, the project had specific guidelines that the students were expected to follow that created a challenge for the students while giving them flexibility in the methods that they used to achieve the task.

One activity in the fourth grade language arts class included the use of a weekly mentor sentence that is taken from a book that is read as a class. The sentence was used throughout the week with different objectives for each day. Throughout my time observing the class, the students made inferences about why the specific sentence was chosen, revised the sentence adding words to make it more vivid, and recreated a sentence that paralleled the structure of the mentor sentence. In this short daily activity, the teacher made the content more complex, challenging, and creative for the students in a variety of methods that takes a basic concept and builds on it to achieve multiple CCSS relating to grammar and the revision process with one activity throughout the week. Additionally, by having students infer the rationale behind the selection of a specific sentence, the teacher merged terms and concepts typically used in science classrooms with the language arts classroom, thereby creating deeper connections across content areas for the students.

The classroom itself in School A created an atmosphere that was conducive to the needs of gifted students. Because the room was only used for the program for the education of gifted and talented and the largest class to use the room on a daily basis consisted of twelve students, the teacher was able to arrange the furniture in a manner that created a conducive learning environment. Rather than individual desks for each student, the students were seated around a circular table and were able to face one another promoting a feeling of a discussion-based rather than lecture-based class. There were also other types of chairs throughout the room that the
students were able to use when working independently or in small groups. As discussed in the literature review, classroom flexibility and mobility is important to the education of outstandingly talented students because it allows them to learn in an environment best-suited to their needs. The circular table was conducive to classroom discussions about topics and lessons whereas the chairs throughout the room allowed students to work in an area that they felt most comfortable. Creating this type of an atmosphere gives students the opportunity to complete work for the CCSS lesson in a place that they feel is best suited to their learning style.

In addition to the aforementioned aspects of the classroom, the speed at which explanations are given was also of notice for all lessons in School A’s program. Regardless of whether the material is new or a review, the teacher almost always seemed to spend as little time as possible giving direct instruction to the students so that they have more time to work independently and problem solve for themselves. Although her explanations were short, they were clear and it appeared that students understood what is being explained and were able to work through the material in relative independence or with partners.

In the time spent observing at School A, it became apparent that the students have a strong efficacy in learning and the teacher used a variety of methods to help enhance the students’ learning and academic growth. By engaging students in multiple activities throughout a lesson, the teacher was able to encourage students to think quickly and critically as they moved from one activity to the next. Additionally, these activities engaged students in higher-level thinking while simultaneously addressing the same CCSS content as their peers in regular education classrooms.
Interview Results from School A

In addition to spending three days conducting observations in School District A, I also individually interviewed 15 students involved in the program for the education of the gifted and talented, as well as the teacher and the coordinator for programs for the education of the gifted and talented regarding their opinions of the curriculum for their education in the district and the CCSS. For the students, the questions and their responses focused on more concrete aspects of the class whereas the questions and responses for the educators were more abstract concepts that were explicitly relating their practices and experiences with academic standards. Because the time that I was able to spend in the classrooms was limited, the interviews helped to develop a greater understanding of classroom practices and teaching methods.

In order to gain a better understanding of common practices and activities, I asked the students to tell me about some of their favorite or most challenging activities in the class. Many of the students gave me specific classroom activities that were tied to a specific Common Core Standard, but when asked what makes this class different from other classes, many students explained that the material goes into greater depth and they have the opportunity to learn more about a given topic. Some of the activities and concepts that they mentioned as challenging or engaging included math puzzles, Mad Minutes (timed basic math facts), money calculations, independent reading, figurative language, and grammar. All of these activities can be explicitly linked to specific standards, but the students’ descriptions of how they learned the content and the depth in which it was covered indicated that the students had a much greater understanding than just the basic concepts for all of these ideas.

Additionally, several students mentioned that the pace in this class was faster than in other classes. One student said that, “We don’t stick on a subject for two weeks. We normally go
through one [topic] in a week or even one or two days, other classes take a week or more.” Although most of the students seemed to agree that the pace of the class made it more challenging, their responses made them appear to enjoy the challenge and even look forward to the opportunity to learn basic material faster, which left more time to cover content in greater depth. Although several students noted that the faster pace of these classes made it difficult, they also seemed to recognize that it was helpful and advantageous to be in a faster-paced environment because it helped them to stay engaged with the material rather than becoming bored after a quick mastery of the topic.

The students also addressed some of the opportunities that they have been given as a result of the faster pace. In general, the students seemed to agree that the projects in this class were more complex and typically involved more steps than projects for regular education classes. One student explained this phenomenon, telling me that in this class “problems normally have more than one step, unlike the ones in science and social studies.” The awareness and general enjoyment that the students showed about the difficulty of the class shows the efficacy of the students and their desire to achieve high academic achievement. As one student said, this classroom environment and the methods used within the classroom help the students to “stretch [their] minds.”

In the literature review, emphasis was placed on intentional grouping techniques, and many of the students from School A also mentioned that grouping techniques were an important aspect of classroom learning for them. Because of the depth in which material is covered is greater than in other classes, several students felt that working with another student or in small groups helped them to understand the material best. Other students also mentioned their preference for the small classroom sizes rather than the typical number of students in a
classroom. One student explained it as being provided the opportunity for more personal time. Likewise, the teacher of this class said that the fact that the students are cluster grouped in the classroom is beneficial because she is able to spend less time on remedial intervention before addressing the basic content of the CCSS and then moving beyond that into more in-depth material.

Another way in which the teacher helped students to go more in depth with the material is through the use of classroom discussions that create a more student-centered class rather than the typical teacher-directed class. A student explained this method of classroom activities by stating that “the teacher doesn’t help us as much [as in other classes]. Other teachers pretty much give us the answers.” Another student described the learning atmosphere of the classroom, explaining that “if we want to know something, we dig deeper into [those] subjects.” In talking with the students, it is clear that they appreciate the higher level of difficulty in the classroom as it allows them to cover the basic material faster, go deeper into subjects, and learn in an environment that best suits their learning styles. Although the interviews with the students did not explicitly cover the links between the CCSS and their classroom experience, through their responses, it is possible to see that the students are engaging in activities that address the content required by the CCSS while also being immersed in high-level thinking activities.

In interviews with the teacher and supervisor for education for the gifted and talented, I was able to discuss the ways in which lessons are explicitly tied to the CCSS, the benefits and drawbacks of such connections, and the perceived effectiveness of the CCSS in the field of the education of the gifted and talented. Although standards are often thought of as limiting to high achieving students, the supervisor believed that the CCSS can be advantageous “in that instruction is more focused and aimed at the area of identification.” Additionally, the teacher
explained that she helps outstandingly talented students reach their full academic potential while still maintaining CCSS content by focusing much of the attention of each lesson on the application of a given skill rather than on simply mastering the skill. Most of the standards simply require the students to understand a given skill and because most of the students master understanding quickly, she is able to engage them in higher level thinking processes related to the given skill by teaching them to apply the skill at varying levels of difficulty. The supervisor supported this idea by explaining that she sees the teacher for education of gifted and talented students going “deeper and broader into content” as well as using higher level materials with her students. Despite the good that the standards are accomplishing for the field of the education of the gifted and talented, the supervisor does acknowledge that with the increased pressure to adhere to standards, some critical thinking lessons have had to be removed from the curriculum for the education of gifted and talented. Although these lessons and activities were not explicitly tied to a standard or content area, she believes that they were still beneficial for promoting student learning by teaching students how to look at situations from a critical thinking viewpoint.

Despite some limitations that can be caused by an increased emphasis on standards, both the teacher and supervisor for the education of gifted and talented provided suggestions on how the incorporation of the gifted and talented programs and standards can be more effective. The teacher suggested the use of pretesting in regular education classrooms to determine students’ prior knowledge; and from that, content enrichment can be given that helps students to develop a deeper understanding of the material that their peers are learning. Similarly, the supervisor thought that it is imperative to make lessons rich in content and beneficial activities. As a result of creating academically rich lessons, the standards almost become an afterthought because they are so easily incorporated into the lesson. As a concluding remark to the interview, she reiterated
a point that has been made in all sections of this thesis thus far, that is “that the standards are a minimum level and good lessons involve more than minimums.” From the student, teacher, and supervisor interviews, it is clear that in creating lessons that push students to reach their maximum rather than their minimum, the students are staying fully engaged and interested in the material while simultaneously mastering the content that is required of them as set forth by the CCSS.

By taking time to talk to the students as well as to the teacher and supervisor for the education of gifted and talented students in this district, I was able to gain insight into the classroom methods and procedures that I was unable to observe in my limited time observing the classroom. The opinions of all who were interviewed provided valuable insight into the perceived learning goals as well as effective practices and methods commonly used in this classroom.

**Observed Behavior in School B**

Although several different classrooms were observed in School District B, the sixth and seventh grade Social Studies became the focus of the study for the reasons discussed in Chapter three. Two of the classes worked on a mini research project that was introduced by a series of questions about trading policies and decisions as means of providing a goal for the students to accomplish while working on the project. The open-ended questions provided direction for the students in a way that did not explicitly tell them what the project was going to be focused on, but let them infer the nature of the topic by giving them purpose to attempt to answer the questions. Although explicit directions were given for the nature of the task, the students were given the choice to select any country that they wanted to research. They were also given specific information about the country to research as well as a website link to obtain the
information, but they were free to synthesize whatever information they thought pertinent to address the trade decisions of the country. Because the students had learned about trading policies in a previous lesson, they were able to synthesize the information that they had discovered with their prior knowledge to arrive at an explanation for their countries trading habits. Although the social studies CCSS only dictates that students know the “fundamental questions of economics include what to produce, how to produce and for whom to produce” (National Governors Association Center for Best Practices, 2010c, p. 22), this activity gave students the opportunity to apply those questions to real world situations. The students were able to work independently for this project while the teacher acted as a guide for the project. In this lesson, students were able to achieve the related standard while being engaged in a task that was appropriate for their academic level and rigor.

As discussed in the second chapter, the arrangement of a classroom can be an important aspect of the classroom environment for gifted and talented classrooms. In this school, the desks were placed in small clusters to allow for easy collaboration for various activities. Although the main activities observed did not require such collaboration, there were small activities to begin each class’ lesson for which the arrangement was beneficial. Additionally, when the students were working on the mini research projects they were able to discuss their research and findings with those at their table. Although this was not an aspect of the project, allowing the students space to talk freely among other high achieving students is an important aspect of the education of gifted and talented students and can lead to greater engagement in content.

Additionally, in the lessons observed, the teacher made use of the intentional questioning skills as discussed in the “Implications for Social Studies Classes” section with the students in her class. When studying an article that the class had read, the teacher led a class discussion by
restating the opinion of the author and asking students to agree or disagree and then explain their reasoning. This engaged students in higher level thinking because it required them to analyze the opinion of the author while also forming their own opinion and developing a rationale to support it. Additionally, after students were asked to brainstorm and share qualities that they feel important in a leader, the teacher prompted them to explain their reasoning for the qualities that they felt were important for a leader to possess. After doing this, they read a primary source that was Samuel de Champlain’s definition of a good navigator. As a class, they then worked to understand some of the more difficult words in the source and compare their own characteristic choices of a leader to those of Champlain. In this activity, students were learning about European explorations and conquests (CCSS 7th grade Social Studies Standard 10) while being engaged in higher level thinking and creating informal interdisciplinary connections with English language arts in their discussion of terms used by Champlain and comparing his qualities to those that they chose.

During the observation in the following school year, the seventh grade class participated in a simulation that introduced them to the Roman society. In the simulation, the students were intentionally misled to believe that they were working in groups to create a mosaic, with one student being in charge of the group; however, the actual purpose of the simulation was to introduce the students to the class system in ancient Roman society. In this simulation, the students were able to experience what it felt like to be an actual citizen of the society. After the simulation concluded, the students created a t-chart that compared their simulation to the historical reality of Rome. In completing this simulation, the students were provided with an adequate representation of the Roman society that allowed them to really “get in” to the society before thoroughly examining the topic. The students became engaged in the society in a real way
that allowed them to experience the emotions of people of the society and were able to create connections between personal experience and ancient societies. Additionally, the comments made by the students such as “Just because I’m broke, doesn’t mean I should have to do extra work” and “They get all the privileges while we’re stuck sitting here doing this.” indicate that the students have begun to develop an understanding of the connections and similarities between ancient societies, today’s society, and their classroom situation. The CCSS for this simulation is a basic understanding of Roman society, but the depth of this activity is reflective of the greater depth and understanding of Roman society that the students will experience as they progress through this unit.

In addition to the specific content that was addressed in this simulation, the teacher is also fostering social development for the students in this activity. The students in charge of each group had the opportunity to develop leadership skills and to learn what goes in to an effective leadership position. Additionally, the group members learned how to adjust their work habits to meet the needs of the groups. During the simulation, the students took time to address their problems with the “society” that has been created and they addressed these issues with the leaders in an environment moderated by the teacher. This allowed students to take part in effective negotiation tactics in a safe environment that can be extended into real life situations. Although these social interactions are not explicitly addressed in the CCSS, it is an important part of development for all students. By creating activities that simulate past societies, the teacher not only allowed students to explore historical topics, but also created space for students explore social settings and mature in their social interactions.

Like the math classes from School A, the teacher in School B began each class with a quick warm up activity. For the initial lessons observed, the activity was from a Mensa calendar,
and so although the activity was not explicitly related to social studies content, it gave the students an opportunity to think critically. The particular puzzle consisted of the following: $12 \_ \_ 6 \_ \_ 2 = 4$, and the students were required to determine what possible mathematical signs would fit into the blanks to make the statement true. This puzzle was particularly beneficial for high level students because there are multiple correct answers; rather than expecting everyone to find the same answer, the teacher allowed for creative thinking from the students. Additionally, once the students had discovered one way to solve it, they had the opportunity to think in a different way to determine the other possibilities. Although this daily activity is not necessarily social studies related or explicitly related to the CCSS, it was an effective way of stimulating the students’ brains to begin thinking in higher level processes so that they are able to do so for the upcoming lesson.

In one of the classes, the teacher showed a clip of the district’s high school’s “Up to Date” news segment and then facilitated a short class discussion about it. Again, although this was not explicitly related to a specific content statement, the teacher asked questions that all fell under the strands of social studies content provided in the CCSS while simultaneously tying it to the specific lesson that was going to be addressed that day. For example, one of the segments of the newscast was about tourism and the economy in Italy, so before the lesson about trade and economies, the teacher made several comments about the economy in Italy after the students viewed the video. The students were then asked to think about how the economy of Italy was related to what they had learned about economies in previous lessons. Not only was this a good method to generate interest in the day’s lesson, but it gave students a real life connection to what they were going to be learning about that day, an important aspect of all students’ education, but especially beneficial for outstandingly talented students.
In observing just several social studies lessons, it is possible to see how to incorporate independent learning and high level questioning among other teaching models into social studies content that is related to the CCSS in a manner than engages gifted and talented students and encourages them to see new relationships and develop greater connections among topics and between the classroom content and real-world experiences.

**Interview Results from School B**

Because the observations in School B were conducted with four different class periods, there were four groups of students able to be interviewed, thus, the number of students interviewed was much higher than in School A. Additionally, because the students were in sixth and seventh grade, they were able to think about the questions in a more abstract manner than the younger students interviewed in District A; therefore, some of the responses were slightly more related directly to the CCSS. In all, 33 students were individually interviewed. Additionally, the teacher of the observed classroom was interviewed as well as another teacher for the education of gifted and talented in the district and the district’s supervisor for programs for the education of the gifted and talented. In analyzing their interviews and synthesizing the information with the observations, two vastly different classroom experiences are realized between District A and B. Although there are striking differences as well as some similarities, it is evident that both districts have effectively incorporated practices into their education that make outstandingly talented students productive learners that successfully cover the material required by the CCSS.

In talking to the students, it was easy to see their excitement for the class and how their learning in the talent development classroom is different from in their other classes. Eighteen of the students mentioned something about the benefit of projects in the classroom. One student
explained these projects as a way that the students are really able to “interact with the idea” rather than just learn the facts about a situation.

Similarly, seventeen students suggested that the hands-on activities that were an integral part of the classroom environment were beneficial for their learning. Regarding these activities, students explained that the activities helped them to “see different points of view from past learners,” “think differently,” and “interact with the ideas.” One student explained to me that the use of charts and organizers, along with simulations of cultures from different time periods helped him to understand the material in a greater depth. In using these methods, the teacher was providing opportunities for the students to not just learn basics of the material as required by the CCSS, but giving opportunity for the students to gain a deeper understanding and truly absorb the material. For a specific example of this, one student explained to me that when learning about factors regarding exploration, the teacher did not just ask them what the factors were, but why those factors helped lead to exploration. Similarly, another student said that in this class they “learn how to analyze things, elaborate on vague topics, come up with innovative solutions, and [improve] collaboration skills.”

Additionally, quite a few students mentioned the connections that are made both explicitly and implicitly between the classroom content and the real world. One student said that the activities that they do to better understand economics is particularly helpful because, she said, “we need to know that when we get older to do taxes” and that she’ll need to know about these topics “if [she] becomes a business person.” Another student said that he wants to be a sportscaster and the ways in which they study business models helps him relate the material to a future profession because of similar concepts such as contracts. These opinions about classroom projects emphasize the effectiveness of classroom collaboration and projects for social studies
classes because the students realize that it is these types of activities that help them learn and explore the content the most. The students also commented on the difficulty of the class because it goes more in depth than other classes. In explaining how this class is more difficult and in-depth than other classes, one student said that in this class students are “not sitting at [their] desks, working the same thing over and over and over; [they’re] doing something different each time [they] learn something.”

Many students also commented on their enjoyment of the extra challenge. One student said that the teacher always had them look for the challenge in all that they do, while another student said that the “projects that are harder and more complex than projects in other classes; [they] require more in depth thinking.” One way that the class is more challenging than others is the level of independence that is expected of the students. A student explained this independence, when he stated that, “[we] are given a task with few directions. [We] know how to solve it, but it takes time, unlike just reading through a paragraph and figuring it out immediately without much effort.” In talking to the students, it is clear that the independent and student-centered atmosphere of this classroom is beneficial for the students in order to learn the CCSS content in greater depth and in ways that are most interesting to them.

Additionally, in this class, the students were encouraged to find new ways of learning the material. One student explained some of the new methods that they have learned in class such as discussing a different topic that leads into the content in the lesson and reading a passage in a story and then reflecting on it with groups to discuss various interpretations and understandings. In a similar attitude, one of the teachers whom I interviewed told me that she considers the gifted and talented program “a springboard” for her students. Her goal is to “offer the kids an opportunity to explore in a non-threatening environment with hopes that [the students] will grow
and understand their gifts and talents better.” In giving examples of a variety of ways to comprehend material, the teachers in School District B are providing opportunities for students to learn how to use those skills outside of their classroom.

The teacher and supervisor also agreed with the students in that one of the most important aspects of the gifted and talented program is its ability to go more in-depth than other classes. The supervisor emphasized this point in saying that, “since most of the gifted students have mastered the grade level standards quickly, the teachers may go deeper with the content or even beyond the standard to a higher level.” Because the content standards for social studies are content-based rather than skill-based and the content has never been covered in previous social studies classes, the teacher does not often run into the problem of students already knowing the information. Rather, she is able to quickly teach the information and then have the students spend the majority of their time working on independent projects and using higher level thinking skills. She also said that she makes the assignments open-ended that encourage independent thinking, creativity, and choice for the students.

In general, the teacher said that she addressed the CCSS but also required the students to engage in higher level thinking than standards require because the standards state tell what is to be addressed but not how to go about addressing it. The other teacher for the education of gifted and talented students felt similarly; she stated that “we take the standards and dive in deeper.” Further, the supervisor for the education of gifted and talented students expressed a similar sentiment regarding the relationship between standards and the field of the education of the gifted and talented. According to her, “[the] standards are beneficial to the gifted programs because they serve as a guide.” As seen through the aforementioned research, observations, and interviews, the CCSS are essential for creating a basic curriculum for the field of the education
of the gifted and talented, but should also be pursued farther to be most effective for high-achieving students. The supervisor believes that the relationship between the CCSS and the field of education of the gifted and talented is beneficial for both educators for gifted and talented students and other school staff because it creates a common language that can be understood by all to be able “to work together to provide for the needs of the students and adapt the content to a higher level.”

Although not explicitly related to the CCSS, both of the teachers for education of the gifted and talented from District B that were interviewed emphasized the importance of their classes as a safe space for outstandingly talented students to express their emotional and social needs. Both of these teachers see their students every day and in this setting they are in a safe space where they “don’t feel odd or out of place.” In creating a space for students to learn in this type of environment, the students are able to focus more on academics than fitting into a certain social context which helps them to accomplish more in a small amount of time because of the reduction of social stigmas and distractions. The intentionality in creating a safe atmosphere that fosters growth that is appropriate for outstandingly talented learners helps the students to appreciate the academic content and have a greater desire to learn the content more in depth and to their greatest potential while also maintaining concepts that are aligned to the CCSS. As mentioned in the observations section, just by allowing students to communicate with their like-minded peers while doing academic work provides space for the students to express their intelligence in a safe setting.

Through the interviews conducted in School District B, I was able to glean more information about the program that just what I able to do observe in the time in the school. The students were able to respond to my questions with abstract answers about the benefits of the
class rather than just seeing it as an advanced class, and the teachers and supervisor provided valuable insight regarding how the CCSS can be seamlessly integrated into advances content. Overall, it became evident that the students in this class are benefitting from the enrichment that is provided beyond the scope of the general education classroom, and as one student put it, the students are able to “thrive in this class.”
CHAPTER V

SUMMARY, CONCLUSION, AND IMPLICATIONS

Upon conclusion of reviewing the literature that has been published about the field of the education of the gifted and talented and state standards as separate entities as well as the two combined and conducting my own research through observations and interviews, a reflection of the material and what has been gleaned from it is required to gain a more full understanding.

Research Questions Answered

Throughout my research for this project, the information that I have explored and learned is applicable to answering several of the questions that I intended to answer as well as provide insight and understanding into aspects of the field of the education of the gifted and talented and the CCSS that I had no previous knowledge of and thus did not formulate questions about ahead of my time researching. Initially, I planned to learn about the specific requirements of the education programs for the gifted and talented programs in regards to state standards, distinguish theoretical and actual classroom practices that differentiated CCSS content area classrooms for on-level and outstandingly talented students, and determine ways in which these programs that are not explicitly related to a specific content area can relate lessons to the CCSS.

In my research, I discovered that although there are requirements for the education of the gifted and talented programs, the way in which educators of the talented approach the integration between their programs and the CCSS is rather ambiguous, leaving many of those decisions to the individual district’s or teacher’s discrepancy. In the interviews with the supervisors of the education of the gifted and talented for both of the observed schools, both emphasized that there were requirements in terms of the amount of time that students spent receiving gifted and talented services, but stated that the ways in which schools chose to make those services
available differed from district to district. Because the state requirements for the field of the education of the gifted and talented do not give any explicit requirements between the educational programs for gifted and talented students and state standards, the schools are able to make their own requirements depending on the type of programs that are being offered to gifted and talented students. As a result of state standards becoming so prevalent in today’s education system, many classes for high ability students have become self-contained content area classes; thus the school requires the teacher to relate content to standards. Even classes and programs that are not explicitly tied to a content area are often required to make connections to standards in some way as a means of enhancing student learning. Although there are seemingly few requirements placed on the education of the gifted and talented programs to relate all content to standards, it is consistently becoming a more common practice that the educators of gifted and talented students must embrace in order to most effectively teach their students.

The second main idea that I chose to focus on for this project relates to the different classroom environment, activities, and teaching methods that are used in the field of the education of the gifted and talented to promote achievement in the CCSS. This became one of the most studied aspects of both my research and observations as I realized that it is this type of differentiation that sets the field of the education of the gifted and talented apart from other classroom education. A multitude of different classroom practices for both the teacher and students were explored in research, and many of those practices were observed firsthand in School Districts A and B. Additionally, in talking with supervisors, teachers, and students in the interviews, it became clear that it is the altered classroom models that truly helped the students to learn the required material while maintaining their interest through high level thinking activities. Although the same material is being covered as in on-level classes, the depth in which the
educators of the gifted and talented students are able to take the material allows outstandingly talented students to explore new aspects of the material and become engaged in activities that they feel are meaningful. In all, the ways in which teachers for education of gifted and talented students who teach a specific content area go about teaching the material set forth in the CCSS are virtually limitless, but in finding both big and small ways to create curriculum that takes students to a deeper level and encourages high-level thinking establishes an environment in which outstandingly talented students are able to thrive in their learning experiences.

The final goal of the project was to address classrooms for the gifted and talented that are not explicitly related to a specific content area and examine how these classes can relate material to the CCSS. Although the classrooms that were most related to the types of the field of the education of the gifted and talented mentioned in the final research questions were not thoroughly studied in this research, there are still implications for these classes. First, the differentiation practices that were researched and observed can be beneficial for creating a curriculum for these types of classes. Although the curriculum does not have to be explicitly created to fit with a CCSS, oftentimes, it will naturally occur through the use of differentiation. Additionally, high-level and critical thinking skills can be developed and used in these types of classes, and in developing these skills, students can apply them to content area classes as well as real-life situations. Although the research for this specific classroom type was limited, the study still has implications that can benefit them and create connections between this type of classroom and the CCSS.

**Implications and Further Study**

As the education system continues to evolve, change, and adapt to new standards, requirements, and expectations, the integration between the field of the education of the gifted
and talented and state standards will become increasingly important. In the following statement, Little et al. (2007) commented on the necessity to constantly integrate the two entities and the importance of such integration:

In an era of high standards and ever-increasing demands for accountability, the necessity of linking strong content to strong learning goals to strong pedagogical practice is paramount. However, the complexity of translating national and state content standards into effective models for curriculum and instruction to reach a wide range of learner abilities cannot be overstated, particularly with regard to responding to the needs of highly able learners. (p. 273)

Although standards often have a bad connotation in relation to education, by using the standards to create strong learning goals for students, the standards are being used effectively and students are learning material that is required of them. This study has shown that the need for the integration of programs for the education of the gifted and talented and the Common Core State Standards is not only essential for the twenty-first century outstandingly talented learner, but it can also be beneficial for them.

By creating meaningful classroom lessons and activities that are appropriate for a outstandingly talented learner’s needs while also addressing the CCSS, students’ high-level needs are being met at the same time that they are adequately learning the material that is required for a given grade and subject. Because the state requirements of the education of the gifted and talented instruction methods as well as specific instructional methods of the CCSS are limited, teachers of gifted and talented education programs have a multitude of ways to differentiate the basic material and requirements set forth in the CCSS to make the level of learning appropriate for outstandingly talented learners. In intentionally taking time to develop
unique approaches to covering specific standards, teachers are able to more fully engage outstandingly talented learners in material that they may have once thought unnecessary for the students.

Although this study provided numerous ways in which the education of gifted and talented students can be effectively integrated into the CCSS, there are several ways in which the research could be furthered in future studies. First, not only is the research discussed in this project relevant to the Common Core State Standards, but many of the classroom methods and practices can be generalized to fit any type of educational requirement. This is especially important as the education system is ever-adapting and changing to fit the needs of the society. Secondly, a case study of a study child in a gifted classroom could provide more insight into the effectiveness of specific gifted classroom practices. This can be beneficial in analyzing whether or not classroom methods and practices are creating an effective learning environment for outstandingly talented students.

Additionally, as technology continues to gain a greater influence in the world, the effect that it will have on the field of the education of the gifted and talented will become more significant. The integration of technology into the field of the education of the gifted and talented would be a further point of study as technology opens up unique opportunities that are unattainable elsewhere by granting access to more information and creating a more globalized education network. The impact of technology on the field of the education of the gifted and talented as it relates to standards will become increasingly important as schools continue to find more ways to integrate technology into the education system and standards begin to place an emphasis on the understanding and use of technology.
Another common argument and criticism of the field of the education of the gifted and talented is related to the amount of money allocated for gifted programs compared to remedial programs and special services for struggling students. For further study of the educational standards and gifted programs, research and studies can be conducted to determine associations and correlations between programs for the education of the gifted and talented programs and their alignment to state standards within their allocated resources as compared to the alignment of remedial and intervention services to standards within their apportioned budget. Oftentimes, the elimination of funds for gifted services is a result of pressure to have all students pass state testing and there is less of a concern for gifted students to pass compared to lower achieving students. In studying the relationship between budget and different educational programs and how the programs are related to state standards, research may show both positive and negative effects for both high-achieving and low-achieving students.

Although the Common Core State Standards have received criticism for a multitude of reasons, as the research outlined throughout this project illustrates the underlying benefit of them in creating a basic set of criteria that is expected to be learned by all students. Teachers for education of gifted and talented students can use these standards to create a basic curriculum while also empowering students to engage in high level thinking processes in unique ways that effectively challenge students. There are a variety of instructional methods and classroom practices that are effective specifically for outstandingly talented students and can engage them in the required standards for their grade level.
References


Appendix A

School District Consent

“Aligning Educational Standards to the Education of Academically Talented Students”

Dear District Representative:

The Department of Education at Ashland University supports the practice of informed consent and protection for human subjects participating in research. In addition to receiving approval and consent from the school district, the parents of all students in observed classroom will give signed consent to have their child observed.

In this study, the researcher will observe the classroom in which gifted services are provided for students. We are interested in studying the ways in which the field of the education of the gifted and talented practices can align with educational standards set forth by the state. For this study, the normal routine in the classroom will be observed and teachers and students with prior consent may be asked several questions about their experience in the classroom.

To ensure confidentiality and privacy of all information, names will be excluded from the results and will not in any way be associated with the research findings. The information will be identified only through a code number.

If you would like additional information concerning this study before or after it is completed, or have any issues or concerns, please contact one of us by phone or email. Thank you very much for your time, and we appreciate your interest and cooperation.

Sincerely,

Kelly Crowl           Dr. Jane Piirto
Undergraduate Student   Professor
Phone No. (xxx) xxx-xxxx   Phone No. (xxx) xxx-xxx
Email xxx               Email xxx

I have read and understand the information about “Aligning Educational Standards to the Education of Academically Talented Students.” I give approval for the researcher to make classrooms observations and ask questions of the teachers and students.

____________________________________
Signature of district representative

____________________________________
Date
Appendix B

Parental Consent

“Aligning Educational Standards to the Education of Academically Talented Students”

Dear Parent:

The Department of Education at Ashland University supports the practice of informed consent and protection for human subjects participating in research. The following information is provided for you to decide whether you will allow your child to participate in the present study. You are free to withdraw your child at any time.

In this study, the researcher will observe the classroom in which your child receives the field of the education of the gifted and talented. We are interested in studying the ways in which the field of the education of the gifted and talented practices can align with educational standards set forth by the state. For this study, your child will be observed in his/her normal routine in the classroom and may be asked several questions about their experience in the classroom.

Your child’s participation is solicited but strictly voluntary. We assure you that your child’s name will not in any way be associated with the research findings. The information will be identified only through a code number.

If you would like additional information concerning this study before or after it is completed, or have any issues or concerns, please contact one of us by phone or email. For more information about the protection of human subjects at Ashland University, contact hsrb-au@ashland.edu. Thank you very much for your time, and we appreciate your interest and cooperation.

Sincerely,

Kelly Crowl
Undergraduate Student
Phone No. (xxx) xxx-xxxx
Email xxx

Dr. Jane Piirto
Professor
Phone No. (xxx) xxx-xxx
Email xxx

I have read and understand the information about “Aligning Educational Standards to the Education of Academically Talented Students.” I give consent for my child to participate in this study. I understand that this consent is voluntary and can be withdrawn without penalty at any time.

Signature of parent or legal guardian

Date
Appendix C

Student Consent Form

I will be spending time in your classroom to learn more about classes for academically talented students. I am looking at the how the teachers and students relate, what kind of activities are done, and how the students respond.

If you agree to allow me to observe you in your classroom, I may make notes about what you do in class. I may also ask you some questions about your class and your opinion of it, but you do not have to answer the questions if you don’t want to. When I talk about my experience in your class to other people, I will not use your name.

You can ask questions about my observations at any time. If you decide at any time that you do not want me to observe you, you can ask me to stop.

If you sign this paper, it means that you have read this and that you are okay with me watching you in your classroom. If you don’t want me to watch you, you don’t have to sign this paper.

Printed Name _________________________________

Signature _________________________________
Appendix D

Student Questionnaire

1. What is your favorite part of the class?

2. What classroom activities help you understand the material best?

3. What would you say are your greatest school strengths? What do you do in this class to improve those strengths?

4. What do you find most challenging about the class?

5. How can the things you learn in class relate to things you do outside of school?

6. How do you see this class being more in depth than other classes?
Appendix E

Teacher Questionnaire

1. How are learning standards used in your classroom?

2. How do you help students reach their full potential while still relating instruction and activities to standards?

3. What are some of the challenges in making activities appropriate for the students’ ability levels while also tying the activities to standards? How do you address these challenges?

4. How do you address the issue of students already understanding material that is required to be taught by the standards?

5. Since classes of all student ability levels are required to meet standards, what makes your classroom different than others?

6. What are some suggestions of teaching methods for teachers who have gifted students intermixed with other students?

7. How do you create your lessons? (Do you start with the standard and work from that or have an idea of an activity and then find standards that align to it?)

8. What do you see as the most beneficial aspect of gifted programs for the students?

9. How is the gifted class different from other advanced classes?

10. What are some other ways that you’ve seen the field of the education of the gifted and talented programs run or in what other capacities and methods have you taught gifted students?
Appendix F

Director of Gifted Services Questionnaire

1. Can you give a general layout/explanation of the gifted program in the district?

2. Are there specific requirements that the district’s gifted program are expected to meet? If so, what are those requirements?

3. How are gifted educators in the district required to incorporate learning standards into their classroom? Is it different than that of regular education teachers?

4. Do you see educational standards as advantageous or not to the education of gifted students? Do you have any suggestions of ways to make the incorporation of standards more effective for gifted learners?
Appendix G
Human Subject Review Board Study Approval

TO: Kelly Crowl and Dr. Jane Piirto
FROM: Chris Chartier, HSRB Chair
DATE: August 7, 2015
SUBJECT: Human Subjects Review Board Approval
PROJECT TITLE: Aligning Educational Standards of the Education of Gifted Students

HSRB APPROVAL CODE: 8-2-15-#007

The Human Subjects Review Board has approved your research study. You may proceed with the study as you have outlined in your proposal. The approval is granted for one calendar year. Research participant interaction and/or data collection is to cease at this time, unless application for extension has been submitted and approval for continuance is obtained.

The primary role of the HSRB is to ensure the protection of human research participants. As a result of this mandate, we ask that you adhere to the ethical principles of autonomy, justice, and beneficence. We would also like to remind you of your responsibility to report any violation to participant protections immediately upon discovery. Likewise, we would like to remind you that any alteration to the research proposal as it was approved cannot move forward. Any amendment to the application must be submitted for approval before the project can resume.

We wish you success in your discoveries,

Doctor Chris Chartier
Ashland University
Chair Human Subjects Review Board
Biography of Author

Kelly Crowl is a Middle Grades Education Major (4-9) with Math and English Language Arts concentrations. She will also graduate with the Generalist Endorsement in May 2016. Kelly is from North Canton, Ohio, where she is a 2012 graduate of Hoover High School. While studying at Ashland University, Kelly has been active in the Honors Program, serving as the Honors Program Peer Mentor Co-coordinator and writer for the *Honors Bugle*, as well as the previous editor of the newsletter. She is currently the president of the college’s Habitat for Humanity chapter, serves as a leader in the Office of Christian Ministry, and works as a Student Affairs Research and Office Assistant and as an Academic Peer Tutor. She is also a member of Alpha Lambda Delta, Kappa Delta Pi, and was a member of the Schar Scholar program until it was discontinued. She has been on the Dean’s List for every semester that she has been at Ashland University and received the Outstanding Junior Award for the Department of Curriculum and Instruction. In the spring of 2016, Kelly will student teach in the Ashland area, and upon graduation, she plans to find a job teaching middle school students somewhere within Ohio.