

The Georgia Teacher Academy of Preparation and Pedagogy:  
A County Level Case Study

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## ABSTRACT

Beginning in 1983, traditional university based teacher certification was challenged by an alternate route to being a classroom teacher. States around the nation developed alternative teacher certification programs to address teacher shortages, teacher diversity, and teacher quality. These programs varied greatly as has the research that sought to describe their effects on student achievement. This study focuses on the state's largest producer of alternatively certified teachers, Georgia Teacher Academy for Preparation and Pedagogy (GaTAPP). To obtain a complete case record, qualitative interviews with teachers and school administration were performed along with a nonparametric analysis of teacher certification by teacher demographic variables on student performance as measured by mean scale score and percent of students meeting and exceeding standards on the Georgia End of Course Test in mathematics. While no statistically significant differences were found in the quantitative analysis, the qualitative exploration yielded several strengths and areas of concern. Greater content knowledge, a higher level of maturity, and more life experiences were characteristics generally attributed to GaTAPP teachers. GaTAPP teachers were also recognized for lacking classroom management skills, instructional differentiation strategies, and a knowledge of special education legislation. Recommendations for improving the program for future candidates included more school level involvement, county level control over candidate requirements, a collaborative teaching experience for first year GaTAPP teachers, and an increased focus on the school level mentor

relationship. Overall, the program was recognized as a gateway for teacher candidates to enter the classroom and a viable option to address teacher shortages in critical areas.

## TABLE OF CONTENTS

I.	INTRODUCTION.....	1
	Statement of the Problem.....	4
	Purpose of the Study.....	5
	Research Questions.....	6
	Significance of the Study.....	8
	Conceptual Framework.....	9
	Methodology.....	12
	Limitations of the Study.....	13
	Definitions of Terms.....	14
	Organization of the Study.....	16
II.	REVIEW OF LITERATURE.....	17
	Evolution of School and Teacher Accountability.....	17
	Teacher Shortages.....	28
	Teacher Diversity.....	30
	Student Assessment in Georgia.....	32
	Traditional and Alternative Certification Programs.....	35
	Student Achievement and Teacher Certification.....	46
	Georgia TAPP Research.....	55
	Significance of Research.....	59

III.	METHODOLOGY.....	60
	Research Design.....	60
	Participants.....	62
	Instrumentation.....	65
	Data Collection.....	69
	Data Analysis.....	71
	Summary.....	73
IV.	RESULTS.....	75
	Research Question.....	75
	Qualitative Results.....	77
	GaTAPP Teacher Interviews.....	77
	School and System Level Instrustional Supervisor Interviews....	105
	Cross Case Analysis.....	119
	Quantitative Results.....	123
	Summary.....	134
V.	SUMMARY AND DISCUSSION.....	135
	Qualitative Findings.....	137
	Quantitative Findings.....	139
	Recommendations.....	139
	Future Research.....	143
	Conclusion.....	145
	REFERENCES.....	146

APPENDIX A: Board of Education Research Approval.....160

APPENDIX B: Institutional Review Board (IRB) Exemption.....162

APPENDIX C: Teacher Semi-Structured Interview Protocol.....164

APPENDIX D: Instructional Leader Interview Protocol.....169

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## DEDICATION

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“And whatever you do, whether in word or deed, do it all in the name of the Lord Jesus, giving thanks to God the Father through Him” Colossians 3:17.

## Chapter I

### INTRODUCTION

The first alternative teacher certification program was developed in New Jersey in 1983 (Walsh & Jacobs, 2007). Since then an intense debate has been ongoing over the multiple pathways prospective teachers could take to the classroom. The number of alternative teacher certification programs has increased nationally from 12 in 1983 to 485 in 2007 (Honawar, 2007). By the year 2005, approximately one-third of all newly hired teachers were products of alternative certification (Feistritzer, 2005). The birth and growth of alternative certification was in response to a “highly publicized teacher shortage and growing public concern about teacher quality” (Birkeland & Peske, 2004, p. 2). The federal report, *A Nation at Risk* released in 1983, declared the United States’ schools inadequate, indicating a need for increased rigor and better prepared teachers. The report *A Nation at Risk* stated that too many teachers were drawn from the bottom of their graduating classes and that teacher preparation programs were focused on methods rather than subject matter (National Council on Excellence in Education, 1983). Poor public perception of teachers at that time coupled with low pay further attributed to the difficulty to staff the nation’s schools with quality teachers (Bradley, 2000).

Reese (2010) stated the teacher shortage had been attributed to several key factors; a steady increase in school enrollment, an increase in teachers leaving the profession through retirement and attrition, and legislated class size limits. This described shortage was magnified in critical areas (math and science) and critical regions (urban and rural districts) of the South and West of the United States. (National Commission on Teaching and America's Future, 2002). Alternative certification was believed to be one of the methods states could use to address the problem of teacher shortage, teacher quality, and the homogeneous demographics of the nation's teacher pool (Gerson, 2002). Former United States Secretary of Education, Rod Paige (2004) in his annual report on teacher quality, endorsed alternative certification recognizing it as a method to attract the best and brightest professionals into the classroom from nontraditional sources.

Opponents of alternative certification, mostly from teacher preparation institutions, have called it the wrong solution to the teacher shortage (Ingersoll & Smith, 2003). Researchers on both sides of the debate have published findings favoring their agendas and have questioned the credibility of research presenting differing results (Walsh, 2001). At the heart of the debate has been teacher quality as measured by student achievement and teacher retention.

Researchers at the national level offered differing results and have drawn criticism due to variance in state requirements for alternative certification. A study conducted by the National Council on Excellence in Education (2009) found alternative preparation programs varied from 75 to 795 college contact

hours and entrance grade point average was not always indicative of high performance for future teachers. Variations in alternative program acceptance requirements and college credit requirements has made national generalizations concerning the quality of alternatively certified teachers difficult (Mayer, Decker, Glazerman, & Silva, 2003).

With a growing and diverse student population, the traditional homogeneous teacher pool made up of White females required some diversification if all students were to be engaged and inspired (Tissington & Grow, 2007). Haberman (1999) found that the most effective teachers shared common characteristics with their students. Teachers trained through traditional routes are increasingly female and increasingly White. In 1980, females made up 66% of the teacher pool nationally, by 2008 the percentage of teachers rose to 76% female and has been predicted to reach 80% female by the year 2012 (Ingersoll & Merrill, 2010). According to Feistritz (2005), only 10% of the nation's teachers were non-White. In the state of Georgia, males made up about 19% of the teacher population and Black and Hispanic teachers make up about 24% of teachers in the state (Afolabi & Eads, 2009). Having recognized that traditional routes had not provided teachers who match the student population's gender and racial make up, alternative programs have sought to recruit highly talented and diverse teacher candidates with some success (Feistritz, 2005).

Recently, budget cuts and reallocation of resources of school finances have resulted in increased class size. Increasing class size, teacher layoffs and furloughs have lessened the profession's attractiveness to college students and

created teacher shortages in some critical needs areas. The decrease in students trained in colleges of education has perpetuated the shortage of teachers in critical needs areas such as mathematics and science. In an attempt to fill critical needs in the teacher profession, the State of Georgia passed legislation aimed at recruiting brighter college students into mathematics and science education by offering an increased starting salary (GaDOE, 2010).

### Statement of the Problem

Despite mixed reviews, there has been a national recognition of the need for teachers to fill these critical needs teaching areas. The public sector workforce outside of education has been viewed as one solution and there has been federal education financial support for programs that allow career changers to transition from professional careers to teaching careers by way of alternative certification (Birkland & Peske, 2004). Teachers trained through alternative teacher certification programs have gained more credibility in public education (Zientek, 2007). Zientek (2007) wrote that the focus should shift from whether alternative certification programs should exist, to one of ensuring that effective teacher preparation programs are created and proficient teachers are produced. Birkeland and Peske (2004) indicated that it was important for researchers to examine the quality of specific programs, especially with the increased emphasis on accountability for student achievement. They noted that much of the research on the effectiveness of alternative certification programs had been only at the national level and not program specific. Current literature focusing solely on

student achievement and alternative certification has been limited (Sefton & Mayer, 2003).

Many states began tracking teacher performance and linking results to teacher preparation through traditional and alternative preparation programs to ensure program effectiveness (Cochran-Smith & Power, 2010). Georgia had not tracked teacher performance as related to student achievement. However, the Georgia Department of Education (GaDOE) has recognized the need to improve schools by linking teacher preparation to student achievement. The GaDOE applied for and was granted \$400 million *Race to the Top* grant to study and address specific education reform areas including the recruitment, preparation, compensation, and retention of effective teachers (GaDOE, 2010a). Specifically, the state planned to create and pilot, in a 25 school district sample, a Teacher Effectiveness Measure (TEM) which will link student performance results to teacher preparation programs (GaDOE, 2010a). Georgia also planned to increase the number of teachers hired through alternate routes to staff high needs schools and address the critical shortage in specific subject areas of math and science (GaDOE, 2010a).

#### Purpose of the Study

The purpose of this research was to address the problem of insufficient program level knowledge concerning alternatively certified teachers in the state of Georgia. The study examined the Georgia Teacher Academy of Preparation and Pedagogy (GaTAPP) through a simultaneous case study analysis. The primary component focused on the experiences of mathematics teachers and

administrators in the Houston County School district. Teachers and instructional administrators were interviewed seeking an understanding of their (a) preparation, (b) certification process, (c) school level relationships, (d) classroom effectiveness, (e) instructional experiences, (f) future plans in education, and (g) the future of alternative certification. A secondary purpose focused on differences between teachers prepared through GaTAPP and teachers prepared through a traditional university based teacher preparation program by (a) gender, (b) race or ethnicity, (c) levels of experience on student achievement as measured by the mathematics Georgia High School End of Course Test (EOCT) student mean scale score and the percentage of students meeting and exceeding standards.

#### Research Questions

The qualitative component of this study utilized a multiple case study design. Creswell (2008) explained that a multiple case study methodology “studies several cases that provide insight into an issue or theme” (p. 477). The overarching questions that guided this inquiry are as follows:

1. How do Georgia TAPP prepared teachers describe their experiences leading to the classroom?
2. How do Georgia TAPP prepared teachers describe their instructional experiences and relationships?
3. How do Georgia TAPP prepared teachers perceive their futures in education?
4. How do school administrators describe their experiences with Georgia TAPP and traditionally prepared teachers?

For the quantitative portion of this study, the following research questions were addressed. These questions were used to evaluate the relationship between certification pathways of teachers and teacher characteristics on student performance as measured by student mean scale scores and percent of students meeting and exceeding standards on the Georgia End of Course Test in mathematics.

5. Is there a significant difference between teachers prepared through GaTAPP and teachers prepared through a traditional university based teacher preparation program by selected demographic characteristics on student mean scale scores of the Georgia Mathematics End of Course Test?
  - a. Is there a significant difference between teachers prepared through GaTAPP and teachers prepared through a traditional university based teacher preparation program by teacher race or ethnicity (White and minority) on student mean scale scores of the Georgia Mathematics End of Course Test?
  - b. Is there a significant difference between teachers prepared through GaTAPP and teachers prepared through a traditional university based teacher preparation program by teacher gender on student mean scale scores of the Georgia Mathematics End of Course Test?
  - c. Is there a significant difference between teachers prepared through GaTAPP and teachers prepared through a traditional university based teacher preparation program by teacher levels of experience (1-3 years, 4-6 years, 7+ years) on student mean scale scores of the Georgia Mathematics End of Course Test?

6. Is there a significant difference between teachers prepared through GaTAPP and teachers prepared through a traditional university based teacher preparation program by selected demographic characteristics on the percentage of students meeting and exceeding standards of the Georgia Mathematics End of Course Test?

- a. Is there a significant difference between teachers prepared through GaTAPP and teachers prepared through a traditional university based teacher preparation program by teacher race or ethnicity (White and minority) on the percentage of students meeting and exceeding standards of the Georgia Mathematics End of Course Test?
- b. Is there a significant difference between teachers prepared through GaTAPP and teachers prepared through a traditional university based teacher preparation program by teacher gender on the percentage of students meeting and exceeding standards of the Georgia Mathematics End of Course Test?
- c. Is there a significant difference between teachers prepared through GaTAPP and teachers prepared through a traditional university based teacher preparation program by teacher levels of experience (1-3 years, 4-6 years, 7+ years) on the percentage of students meeting and exceeding standards of the Georgia Mathematics End of Course Test?

#### Significance of the Study

This mixed methods case study was designed to explore the relationship of life and professional experiences of teachers and to determine if a relationship

exists between the preparation of individuals through GaTAPP and teacher characteristics on student achievement. This research provides school administrators with assistance in making informed hiring decisions and how best to support newly hired GaTAPP teachers. Additionally, this research provides state policy makers information to guide modifications in the GaTAPP preparation program. The findings assist Georgia public school officials in supporting and developing teachers within their school districts. Finally, the research provides evidence for the usefulness of the GaTAPP certification pathway for supplying teachers to classrooms.

### Conceptual Framework

Throughout the last several decades, the teaching profession has been stressed to produce an ample number of teachers to staff the United States' schools (Reese, 2010). According to Afolabi and Eads (2009), student enrollment in the state of Georgia had grown by almost 300,000 students over the last 10 years. Over this time period, traditional teacher preparation programs had struggled to meet the demand for qualified teachers. According to the Georgia Professional Standards Commission (GaPSC) executive director, Kelly Henson, the University System of Georgia universities and colleges were only able to meet 80% of the state's current need for teachers despite increasing the number of teacher preparation institutions (Henson, 2008). Several factors contributed to the teacher shortage during this time. These factors led to changes in state and federal legislation regarding teacher certification and the widespread hiring of teachers who received their certification through methods

other than a traditional university based program (Baines, 2010). During the 2007-2008 school year, 62,000 teachers were issued alternative certificates nationally (Reese, 2010). Georgia also had many alternative teacher certification programs operation and producing teachers through programs at universities, colleges, and local Regional Education Service Agencies (RESA). Though the depressed economic situation and increasing class size reduced the number of teachers needed there remained a teacher shortage in certain critical needs areas in the state of Georgia.

The majority of existing literature pertaining to teacher preparation focused on empirical research results. The purpose for selecting an empirical and postpositivist paradigm for this study had been the focus on teacher accountability as measured by student achievement on standardized tests. Similar research through out the nation had produced varying results.

Laczko-Kerr and Berliner (2002) found differing results in two data sets. In the data gathered from 1999, no significant difference was found in student achievement of fully certified teachers and undercertified teachers. In the 2000 dataset, findings indicated a significant increase in mathematics performance of fully certified teachers when compared to undercertified teachers. Fetler (1999) found in each grade level examined, that when poverty was controlled for that mathematics achievement scores were negatively correlated with the percentage of teachers with emergency certifications. Constantine, Player, Silva, Hallgren, Grider, and Deke (2009) found significant variation in coursework requirements for both alternative and traditional certification programs. Constantine et al. also

found no statistically significant differences in the student achievement of students taught by alternatively certified teachers and those students taught by traditionally certified teachers. Miller, McKenna, and McKenna (1998) found teachers no effect of type of teacher training on student achievement on reading and mathematics scores on the Iowa Test of Basic Skills in fifth and sixth grade self contained classrooms for Georgia teachers.

As evident by the previous research, the relationship between teacher certification and students' mathematics achievement has not been clearly defined. The measurement of teacher effectiveness using student achievement was a practice gaining popularity in the last 40 years. In addition, the rise of alternative certification since 1983 had not been thoroughly studied in relationship to program specifics and student achievement. The variability in alternative certification program requirements and until recently the high turnover of alternatively and undercertified teachers made generalization of research results difficult. This spotlight on student achievement and accountability was intensified by the *No Child Left Behind Act* of 2001 (Darling-Hammond & Berry, 2006). For that reason, this research was guided by a mixed methods design combining constructivist thought and a postpositivist paradigm. According to Creswell (2003), a postpositivist paradigm assumes that knowledge is conjectural, research is the process of making claims and then refining and testing them, data and evidence and rational consideration form knowledge, research seeks to yield truth, and that objectivity is an essential aspect of

competent inquiry. A qualitative and constructivist paradigm was used to describe participants experiences through their various career pathways.

The study utilized content specific state developed assessments, measuring students' mastery of standards, to evaluate the impact of teacher preparation pathways. The findings of this research study will provide a more rich insight into the relationship between teacher certification pathways, teacher training and administrative support, and student achievement. This information will benefit practitioners who seek excellence in instruction and optimal student performance.

### Methodology

This study is a mixed method case study analysis. For the qualitative component, the researcher conducted focus group and individual interviews with mathematics teachers who have completed the GaTAPP program and were teaching at the high school level at the time of the interviews. School and system level administrators were also interviewed about their experiences with GaTAPP teachers.

For the quantitative component, the researcher analyzed teacher certification pathways and demographics on mean scale scores and the percentage of students meeting and exceeding on the Georgia High School End of Course Test (EOCT) in Mathematics. The study focused on one major school district located in Middle Georgia. Participants had completed GaTAPP requirements, were fully certified holding a clear renewable teaching certification and were the teacher of record for the Georgia End of Course Test in

Mathematics. Archival data provided by the Board of Education office from the participating school district was used to address two research questions and the respective subquestions.

#### Limitations of the Study

A major limitation of this study was sample size. Participants were sampled from a medium size school district in Georgia, thus limiting the external validity. Generalizations across school districts, states, and to differing alternative certification programs must be done with care. Additionally, the requirement that participants have taught a math course requiring an End of Course Test limited the number of qualified participants and the application of findings.

A further limitation of the study is recognized in that many factors contribute to quality teaching thus contributing to variability in the study. It is likely that the variability between alternatively certified teachers is greater than the variability between participants in the two comparison groups. Many similar studies have found this to be true, which will certainly contribute insight.

This study was restricted to one Georgia school district which mirrors the state of Georgia demographically but varies drastically from neighboring school districts. According to Patton (2002), interview data is limited because of both the interviewee and interviewer can be characterized by distorted responses, personal bias, lack of awareness and the emotional state of the interview. This study was limited to high school teachers teaching mathematics courses. Results should not be compared vertically throughout K-12 education. The

findings of the study between teacher certification and student achievement, as measured by Mathematics End of Course Test scores, may not be applicable to other content areas. Attempts at generalization will require researchers to examine demographic variables and evaluate curriculum similarities.

#### Definition of Terms

*Alternative Teacher Certification.* As defined by Aldeman (1986), alternatively certified teachers are “those teacher education programs that enroll noncertified individuals with at least a bachelor’s degree offering shortcuts, special assistance or unique curricula leading to eligibility for a standard teaching credential” (p. 2).

*Traditional Teacher Certification.* A traditional teacher certification program involves teachers who have completed an accredited four year university based curriculum resulting in a degree in education, receive a university or college certification recommendation, and pass the appropriate content assessments (GaPSC, 2008b).

*Clear Renewable Certificate.* The Georgia Professional Standards Commission (2008) issues a Clear Renewable five-year certificate when all state requirements have been met for initial certification. This category of certificate indicates that: “all requirements for professional licensure in the field have been met including applicable special Georgia requirements; the certificate fields have a five year validity period; and the standard renewal requirements apply to all fields in this category. Clear renewable status applies to teaching (T), service (S), and leadership (L) fields” (GaPSC, 2008b).

*End of Course Test (EOCT).* The Georgia End of Course Tests are a series of eight content specific test administered in grades nine through twelve developed by content assessment specialist and a sample of the state's teachers. The purpose of the test is to improve teaching and learning by providing data to students and teachers assisting in identifying strenghts and weaknesses (GaDOE, 2010b).

*Georgia Performance Standards (GPS).* "The performance standards provide clear expectations for instruction, assessment, and student work. They define the level of work that demonstrates achievement of the standards. The performance standards isolate and identify the skills needed to use the knowledge and skills to problem solve, reason, communicate, and make connections with other information. They also tell the teacher how to assess the extent to which the student knows the material or can manipulate and apply the information" (GaDOE, 2010b).

*Georgia Professional Standards Commission (GaPSC).* The Professional Standards Commission (PSC) is a government agency, removed from the Georgia Department of Education, with the central responsibility for establishing a certification and licensure process that is streamlined, understandable, and flexible in order to remove barriers and to attract qualified individuals to the education profession (GaPSC, 2008b).

## Organization of the Study

A review of related literature is presented in the Chapter 2 including the following areas of interest: factors leading to teacher shortage, school accountability, student assessment and performance, evolution of teacher certification, a nationwide look at alternative teacher certification programs, and related studies. A detailed description of research participants, ethical concerns, research design, instrumentation, data collection, data analysis, and limitations are presented in Chapter 3. Findings and analysis of the research results are presented in Chapter 4. The final chapter offers a summary, discussion, suggestions for future research opportunities, and a conclusion based on research findings.

## Chapter II

### REVIEW OF LITERATURE

This review of literature begins by providing an overview of the evolution of school and teacher accountability, teacher licensure, and student assessment. The second section discusses teacher shortages and the need for greater teacher diversity in schools which have been two key reasons for the conception and growth in alternative teacher certification programs in specific critical needs areas. This is followed by a focus on measurements of student achievement in the state of Georgia. The subsequent section examines the conflicting stances on alternative teacher certification. Next, recent research on teacher effectiveness and teacher certification and licensure is presented. The review of literature will conclude by making a case for additional research in the state of Georgia on teacher certification and the effects on student achievement.

#### Evolution of School and Teacher Accountability

Educational historians, David Tyack and Larry Cuban (1995), suggested that the nation's schools have undergone a tremendous metamorphosis over the past 150 years. In the mid 1800s very few students attended school regularly and even a smaller portion attended school past the 8<sup>th</sup> grade. Fewer than 10% of young Americans graduated from high school (Olson, 2000). The bleak enrollment figures and completion rates of this era were primarily due to access;

the lack of access to physical school buildings, qualified teachers, and appropriate resources (Olson, 2000). “At that time the poorest rural families tended to have the most children. Typically, the communities in which they lived had meager resources to devote to building schools and paying teachers” (Tyack & Cuban, 1995, p. 23). At this point in history, teachers were typically funded directly by the parents of students which limited access to a quality education. Community members decided whether to have schools, citizens funded the schools and chose the teachers and the curriculum (Olson, 2000). In the early 1900s, communities funded about 80% of the cost of schooling (Viadero, 2000). In addition to funding issues, an overwhelmingly rural population meant that a child’s education was limited by walking distance and by wealth of the community (Viadero, 2000). Teachers were usually young men, who tutored in schools and quickly moved to higher paying, higher status professions such as practicing law and entering the ministry (Bradley, 2000). Generally speaking, only children from upper class families who could afford to pay teachers attended secondary schools (Bradley, 2000). Even then, school curriculum was generally confined to reading, writing, and arithmetic and students usually only attended a few months out of the year. Most students left school by age 13 to pursue a vocation which did not require an education (Olson, 2000). Normally high school enrollment was limited to students who could satisfactorily complete the work and most school officials and parents agreed that the majority of students were not capable (Ravitch, 2002). Post secondary institutions typically accepted anyone who applied with the exception of the most prestigious schools. Those schools were

some of the pioneers in student assessment as they required students to pass their admission examinations and the streamlining of this testing process eventually led to the formation of the College Entrance Examination Board in 1900 (Ravitch, 2002).

The discrepancies in access to education were also regional with most opportunities residing in the New England states. In 1857, teachers in this region formed the National Education Association with the stated purpose of giving teachers control over entry into their own profession (Bradley, 2000). At that time many states did not authorize licensure and most certification of teachers was done at a local level. Ten years later the federal government established the Office of Education, whose duty was to oversee federal law and policy as it related to public education (New York State Education Department, 2006). By the beginning of the 20<sup>th</sup> century the Office of Education had regulated itself to gathering and disseminating national statistics on education (Robelen, 2000).

By the late 1800s, early school reformers such as Horace Mann, the Secretary of the Massachusetts Board of Education, began to fight for compulsory attendance laws requiring students to attend school on a regular basis. Mann and other school reformers held that the ability to educate the nation's children was a necessity for the advancement of the nation and a mode of instilling morality into the populus. According to Mann, "never will wisdom preside in the halls of legislation and its profound utterances be recorded on the pages of the statute book, until common schools shall create a more farseeing

intelligence and a purer morality than has ever existed among communities of men” (Mann, 1872, p. 695)

By the early 1900s, most states had enacted compulsory education laws requiring school attendance. The requirement that school aged children attend school coupled with the large population relocation brought on by the industrial revolution and immigration in the mid to late 1800s caused a boom in student enrollment (Tyack & Cuban, 1995). Enrollment in secondary schools swelled from around 500,000 in the early 1900s to approximately 2.4 million in 1920 and more than 6.5 million in 1940 (Tyack & Cuban, 1995). This sudden increase of students in the nation’s schools yielded three complex issues. First, where do we house these students? The nation responded by rapidly constructing schools and other infrastructure as a way of providing work to the many unemployed during the Great Depression of the 1930s. The second issue caused by the rapid expansion of school enrollment was staffing schools with quality teachers. During this time period, the nation experienced a significant shift in the teacher population. Men began to exit the profession because of increased regulations and the opportunity of higher paying factory jobs. Nearly three-fourths of the nation’s teachers were female. Of these new teachers only five percent had more than a high school education and they typically had short careers before marrying (Bradley, 2000). The last major issue caused by the influx of students was how to regulate the quality of education in these schools. A National Educational Association (1895) report from the Committee of Ten, a committee of national educational leaders, asserted that every subject which was

taught should be taught in the same way and to the same degree to every student no matter what his or her vocational objective. Thus, this was the beginning of large scale efforts to test students and regulate teacher certification to ensure quality education for all students. Bradley (2000), described the early 1900s as marked by growing concerns and controversies over teacher quality, licensure standards, and teacher education. Bradley (2000) stated that local school districts and states began to exert considerable control over the practice of teaching. “By 1911, 15 states issued teacher certificates; another 18 set regulations and generated questions for examinations” (Bradley, 2000, p. 184). By 1925, thirty-four state departments of education were standardizing and legislating school curriculums and personnel.

In the late 1920s and early 1930s the nation’s foundation was shaken by the crash of the stock market followed by the Great Depression. States began requiring that students remain enrolled through high school in order to remove them from the labor pool and many states raised the compulsory school age requirement from 14 to 16 (Olsen, 2000). “The Depression brought thousands of working class children into the schools. Between 1929 and 1934, enrollment in Detroit’s comprehensive high schools jumped by more than 43 percent” (Olsen, 2000, p. 6). With an increased number of students to serve, the level of rigor in the nation’s schools declined, and thus began decades of social promotion (Ravitch, 2002). Ravitch (2002) explained “schools were encouraged by progressive school leaders to promote children each year regardless of their performance...it was in a response to the Depression; it was intended to keep

young people in school and out of the job market, thus reserving jobs for adults” (p. 13). By 1940, more than 75% of children ages 14 to 17 were attending secondary school (Tyack, 2000). During this era of social promotion students and teachers were not held accountable for their learning or teaching (Ravitch, 2002). Therefore, this was a period of transforming “the school from a meritocratic institution into a custodial institution and it happened almost entirely without public participation” (Ravitch, 2002, p. 14).

Male teachers leaving the profession for World War I caused the U.S. to experience the first large scale teacher shortage. “Of the 600,000 teaching positions in the United States, 60,000 were vacant...and only one-fifth of teachers had graduated from high school and a normal school or college” (Bradley, 2000, p. 184). Low salaries and low status kept the best and brightest from returning to the classroom as teachers. In response, states increased salaries and relaxed requirements for teacher licensure, thus creating a surplus of teachers available for employment. This surplus of teachers gave states the opportunity to be more selective in their hiring decisions, which gave rise to criteria for certification and the development of the National Teacher Examination in 1940 (Bradley, 2000).

By the 1950s, school reformers were criticizing the nation’s schools for their “watered down curriculum, incompetent teachers, neglect for the gifted, and a takeover of the schools by educationists who had no business being there, for they were not teaching anything” (Tyack & Cuban, 1995, p. 52). These criticisms were justified and magnified during the Cold War as the Soviet advancements in

technology threatened national security. Critics demanded a more rigorous curriculum and more stringent requirements for teachers. One year following the Soviet Union's successful launch of the first space satellite, Sputnik, *The National Defense Education Act* was passed in 1958. The law provided funds to improve instruction in mathematics and science, and stated, that it was in the interest of the nation that the federal government give assistance to education for programs which were important to our national defense (United States Congress, 1958). Also at the forefront of changes in education policy in the United States were the War on Poverty and the campaign for Civil Rights. "A major catalyst for this campaign for 'simple justice' was the Supreme Court's decision in *Brown v. Board of Education* in 1954. Its immediate target was the racial segregation of students, but its language of justification and its force as a legal and moral precedent encouraged not only blacks but other groups as well to demand educational equity as a right" (Tyack & Cuban, 1995, p. 26).

*The Elementary and Secondary Education Act* in 1965, supported by President Johnson, focused on providing federal financial aid to schools that served students from low income households. At this point the federal government and tax payers wanted to monitor the progress of school reforms and to see returns on their investment (Hoff, 2000). Teachers during this era of desegregation began to feel the pressure of accountability and struggled to find ways to reach students with social backgrounds and expectations dramatically different from their own (Bradley, 2000).

The *On Equality of Educational Opportunity Study* (1966), also known as the Coleman Report named after James Coleman, commissioned by the U.S. Office of Education, provided the public and the federal government with information regarding student achievement and race. The two year study completed in 1966 stated that the primary predictor of student achievement was students' family backgrounds. The Coleman Report set a precedent for evaluating learning by using standardized test data (Coleman, 1966).

“Laws were created over the next decade to assist various special needs groups through the Bilingual Education Act, the Native American Education Act, the Education for All Handicapped Children Act (later named the Individuals with Disabilities Education Act), and other new programs” (Robelen, 2000, p. 241). With these new laws came increased federal funding which led to more testing to ensure a return on tax payers' dollars. According to Olsen (2000), “ The social turmoil of the 1960s temporarily overwhelmed the schools, which tried to respond with a host of changes to make education more ‘relevant,’ more engaging, and less structured than it had been before” (p. 10). Olsen (2000) added that this was often “at the expense of a strong, core curriculum and an emphasis on high achievement. It was not until the 1970s, and the “Back to Basics” movement, that states began to impose minimum competency tests to ensure that high school graduates could at least read, write, and compute at an 8<sup>th</sup> grade level” (p. 10).

By the late 1970s and the early 1980s, the minimum competency movement began to raise questions about the quality of education our nation's

children were receiving (Olsen, 2000). In 1981, then U.S. Secretary of Education, Terrel H. Bell created the National Commission on Excellence in Education in an effort to study the nation's schools and address the public perception of poor performance (Manzo, 2000). Two years later the National Commission on Excellence in Education published a report entitled, *A Nation at Risk: The Imperative for Educational Reform*. The commission compared American student achievement to other nations' using indicators such as students demonstration of thinking and processing skills, an increase in remedial programs, the literacy rate, a comparison of student achievement to ability, and standardized test scores. The commission stated, "The educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a nation and a people" (The National Commission on Excellence in Education, 1983, p. 5). The report concluded with a warning to the nation and stated that educational institutions have "been committing an act of unthinking, unilateral educational disarmament... [and] seem to have lost sight of the basic purposes of schooling, and the high expectations and disciplined effort needed to attain them" (The National Commission on Excellence in Education, 1983, p. 5). The commission recommended changes to America's public schools in the following areas:

- 1) Changes in content by increasing high school graduation requirements in computer science, English, foreign languages, mathematics, science, and social studies

- 2) Schools set higher expectations for students to improve thinking to higher levels which included the effective use and increase of instructional time.
- 3) Examining teacher preparation programs, teacher salaries, tenure, promotion, and retention (The National Commission on Excellence in Education, 1983).

According to Ravitch (2010), “This report was an impassioned plea to make our schools function better in their core mission as academic institutions and to make our educational system live up to our nation’s ideals” (p. 25).

In March 1994, President Bill Clinton and the United States Congress passed the *Goals 2000: Educate America Act*. According to Freeman (1995) Goals 2000 included eight national educational goals which addressed 1) school readiness, 2) graduation rate, 3) rigorous content, 4) world dominance in math and science, 5) literacy rates, 6) drug and violence free schools, 7) professional development for educators, and 8) parental involvement. The Goals 2000 program provided federal money for states to write their own curriculum content, develop academic standards, define achievement, and create assessments to monitor progress towards reaching these national goals (Robelen, 2000).

According to the Education Coalition (2008), Goals 2000 provided federal grants to states and in turn local districts would then apply to the states to receive subgrants to fund local school reform initiatives targeting the eight national goals.

After many amendments, the *Elementary and Secondary Education Act of 1965* and *GOALS 2000* evolved into the current school accountability legislation,

*No Child Left Behind Act of 2001 (NCLB)*. While *No Child Left Behind* is a complex piece of legislation exceeding 1,000 pages in length, the major components according to former assistant secretary of education, Diane Ravitch (2010), are:

1. All states must develop their own tests, which assign students to three levels of proficiency (such as does not meet, meets, or exceeds expectations)
2. All schools receiving federal funding are required to test students annually in grades three through eight and once in high school to assess reading and mathematics proficiency. These scores are to be disaggregated by race, ethnicity, low income status, disability status, and English proficiency so that the progress of all students is monitored.
3. All states were to establish a plan to reach 100% proficiency in reading and mathematics by the 2013-2014 school year.
4. All schools and districts are expected to follow and make adequate yearly progress toward the before mentioned state developed plan to reach 100% proficiency for all disaggregated subpopulations.
5. Schools failing to make adequate yearly progress would be labeled as needs improvement and would be required to offer free tutoring to low income students and free transportation to schools making adequately yearly progress. Schools continuing to not make adequate yearly progress would eventually face restructuring.

6. NCLB required that all states administer the federal National Assessment of Educational Progress (NAEP) in reading and mathematics in the fourth and eighth grade every other year.
7. NCLB required that schools be staffed completely by highly qualified teachers. The law did not define the term highly qualified but left it up to the individual states to develop their own definition.

### Teacher Shortages

In the early 1980s school officials began to notice a decrease in teachers being produced by the nation's institutions of higher education (Feistritzer, 1994). The cause of the teacher shortage has been a complex problem. The most commonly cited reasons for the teacher shortage have been teacher attrition, teacher retirement, and increased student enrollment (Reese, 2010; Clewell & Forcier, 2000). However, Ingersoll and Smith (2003) attributed the primary cause to teacher attrition. "Since 1984, both student enrollments and teacher retirements have increased...the data also show that increases in student enrollment and teacher retirements are not the primary causes of the high demand for new teachers and subsequent staffing difficulties. A large part of the problem is teacher attrition" (Ingersoll & Smith, 2003, p. 30). Teacher attrition was described by Bobbitt, Boe, Cook, and Webber (1996) as a component of teacher turnover in which the teacher exits the profession for any reason. According to Shakrani (2008), approximately 1,000 teachers have left the profession every school day.

Upon surveying current teachers and teachers who had left the profession, Tye and O'Brien (2002) summarized the reasons teachers gave for leaving the profession or factors that would cause them to leave the profession. Among teachers who had already left teaching, the reasons were ranked in the following order, greatest to least:

1. Accountability legislation
2. Increased paperwork
3. Student attitude
4. No parental support
5. Unresponsive administration
6. Low status of the profession
7. Salary considerations

When active teachers were asked what factors would mostly likely lead them to leave the profession they responded in the following order:

1. Salary considerations
2. Increased paperwork
3. Accountability legislation
4. Low status of the profession
5. Unresponsive administration
6. Student attitudes
7. No parent support

Hussar (1999) predicted that United States' school systems would need approximately 2.2 million teachers to staff classrooms in the beginning of the 21<sup>st</sup>

century. Fearing this impending crisis, former President Bill Clinton pledged to bring 100,000 new teachers to the nation's classrooms by the year 2010. Despite this pledge, the teacher shortage has remained a major issue facing U.S. schools. In 2003, Linda Darling-Hammond reported that nearly 200,000 new teachers would be needed per year over the next decade.

Trends in teachers nearing retirement age began to raise concerns in the 1980s when it was determined that the majority of the nation's teachers were from the baby boom generation. In 1996, 26% of the nation's teachers were past the age of 50 (Streisand & Toch, 1998). At the turn of the current century, more than 30% of the nation's teachers were over the age of 50 (Young, 2003). The National Education Association (2004) estimated that almost one million teachers will retire by the year 2015.

"The severity of the shortage varies by teacher race and by geographic region; the proportion of teachers of color is declining more quickly than the proportion of White teachers, and the shortage is more acute in poor urban areas than in wealthy suburban areas" (Birkeland & Peske, 2004, p. 2). Teacher shortages in critical needs areas like teaching English language learners, mathematics, special education, science, and foreign languages exist and the shortage is magnified in economically disadvantaged schools (Ingersoll & Smith, 2003).

#### Teacher Diversity

Researchers continued to find that the most important school level factor in student achievement was the teacher in the classroom (Marzano, 2000).

Additionally, many have pointed to the importance of teacher diversity in contributing to the educational success of minority students. According to a 2004 National Educational Association (NEA) report, *Assessment of Diversity in America's Teaching Force*, minority teachers have had a positive impact on social and relational areas and also academic achievement, helping to close the achievement gap. The report stated, that students of color tended to have higher academic, personal performance when taught by teachers from their own ethnic group, teachers of color tended to have higher academic expectations of minority students than White teachers, and minority students responded positively when taught with culturally responsive strategies.

In a 2011 publication, *America's Children*, Federal Interagency Forum on Child and Family Statistics reported:

Racial and ethnic diversity has grown dramatically in the United States in the last three decades. This increased diversity appeared first among children and later in the older population. The population is projected to become even more diverse in the decades to come. In the 2010 census, 54 percent of U.S. children were White, non-Hispanic; 23 percent were Hispanic; 14 percent were Black; 4 percent were Asian; and 5 percent were "All other races." The percentage of children who are Hispanic has increased faster than that of any other racial or ethnic group, growing from 9 percent of the child population in 1980 to 23 percent in 2010. In 2023, fewer than half of all children are projected to be White, non-Hispanic. By 2050, 39 percent of U.S. children are projected to be Hispanic (up from 23

percent in 2010), and 38 percent are projected to be White, non-Hispanic (down from 54 percent in 2010) (p. viii).

While the student population has grown more and more diverse, the teacher force has remained fairly homogeneous. According to the National Center for Education Statistics (2010), the current public school teacher workforce was approximately 76% female and 83% were White. United States Secretary of Education, Arne Duncan stated in a 2010 interview that approximately 8% of the nation's teachers were African American and Hispanic and African American men made up only 3.5% of our nation's teacher workforce (Perry, 2010).

In the state of Georgia, the number of minority teachers has been disproportionate to the state's student demographic information but the teacher workforce make up has been growing closer to the state's actual student population. According to Afolabi and Eads (2009), "the number and percentage of male teachers continues its gradual increase, rising from 17.9% in the 2002 school year to 19.3% in the 2008 school year" (p. 11). From the 1995 school year to the 2008 school year, "the racial balance of the teacher workforce has changed slightly. The proportion of White teachers has declined almost 5%, while the proportions of Black and Hispanic teachers have increased 3% and 1%" (Afolabi and Eads, 2009, p. 12).

#### Student Assessment in Georgia

As mentioned previously, the *No Child Left Behind Act* of 2001 charged states with the construction and establishment of testing and monitoring

procedures to ensure the quality of education of children within that state. The Georgia Student Assessment Program has been the mode by which the state of Georgia currently measures the NCLB goals. This program assesses student progress in mastering the Georgia Performance Standards (GPS) and provides data for state and national accountability requirements (Office of Assessment and Accountability, 2008). The level of performance of schools, systems, and the state of Georgia has been reported in the form of adequate yearly progress (AYP) (GaDOE, 2007). The AYP report is the required form of reporting a states' progress towards 100% student proficiency according to guidelines in NCLB (USDOE, 2008). According the Georgia Department of Education (2007), the state of Georgia has assessed schools in three areas; 1) academic performance in reading, English language arts, and mathematics, 2) test participation, and 3) a third indicator. Schools have been considered to have sufficient academic performance when the entire school and subpopulations of 40 students or more or 10% of the school population or more have met predetermined annual measurable objectives (AMO) (GaDOE, 2007). To satisfy the test participation component of the AYP report at least 95% of the school and each subpopulation must take the state assessments (GaDOE, 2007). The final component, a second indicator, required that schools demonstrate progress towards meeting state standards in all subpopulations of students (GaDOE, 2007).

As required by NCLB, the state of Georgia developed and implemented a series of assessments correlated to state adopted curriculum. Georgia's schools assess students in grades 1 through 8 using the Criterion Referenced

Competency Tests (CRCT) and these results have been used to determine AYP in elementary and middle schools (Office of Assessment and Accountability, 2008). In specific subjects at the secondary level, an End of Course Test (EOCT) has been administered to determine levels of content mastery. In high school, AYP has traditionally been calculated based on the results of the Georgia High School Graduation Tests (GHSGT) administered in the 11<sup>th</sup> grade which measures competency in core content areas (Office of Assessment and Accountability, 2008).

The Georgia Department of Education (2011) has outlined a plan for the phasing out the traditional comprehensive graduation tests. Instead, to determine graduation eligibility, an End of Course Test administered at the end of a year long content area course (Mathematics, Literature, Science, and Social Studies) was used. The required courses in mathematics, are a mixture of Algebra, Geometry, and Statistics. The Georgia Department of Education has decided to include this End of Course Test as a graduation requirement. Additionally, the Mathematics End of Course Test will replace the Georgia High School Graduation Mathematics Test as the indicator for making AYP based on NCLB legislation (GaDOE, 2011).

The testing of students has been commonplace in education over the past century. The usage of test results has varied over this time. In the 1920s, educational psychologist used the results to rank students by intelligence and place students in roles where they could best perform. Then, schools began to test their students to ensure that students had mastered curriculum and to make

decisions about promotion or retention. Teachers were occasionally tested upon entrance into their profession to ensure competency but after hiring there were no more evaluations of their ability. In the 1960s the push for equality began to use student test results to assess the teachers and schools and hold them accountable for student performance. This emphasis on accountability continues today.

### Traditional and Alternative Certification Programs

In the year 2001, President George W. Bush signed NCLB into law. Like previous educational reform legislation pieces, sought to close NCLB achievement gap for all students who attended America's public schools. By testing and using objective data on performance aligned with state standards, schools were held accountable for student achievement. In order to meet the gains required by NCLB, states were required to hire 'highly qualified' teachers. According to the United States Department of Education's 2004 publication, *No Child Left Behind: A Toolkit for Teachers*, highly qualified teachers were to meet three criteria:

- A bachelor's degree
- Full state certification
- Demonstrate competency in the content area he or she is teaching

However, the law left the definitions for the criteria for full state certification and the demonstration of competency up to the individual states. The state's freedom in defining these criteria has led to variability in certification requirements across state lines (Ravtich, 2010).

Historically, the main source of primary and secondary school teachers has been colleges of education. This is commonly referred to as “traditional teacher certification.” Feistritz (1994), described traditional teacher certification as a process by which individuals completed a teacher education program at a college or university that had been approved by a licensing authority. More specifically, the state of Georgia stated that the traditional teacher certification process might include earning an education degree at university based program along with the state certificate, an individual may fulfill the requirements for a certificate after completing a degree appropriately aligned with public school curriculum. Additionally, teachers who moved to Georgia and held out of state certificates must meet Georgia's certification requirements through reciprocity procedures. “For the most part, the traditional initial programs are completed prior to employment in a public school and lead directly to Georgia's Clear Renewable Certificate” (GaPSC, 2008b).

The requirements for traditional teacher certification differed significantly by state. Some states required candidates to major in education while others required candidates to major in a specific content area in which they plan to teach and supplement that major with courses in instruction and pedagogy (National Council for Excellence in Education, 2009). Course content of traditionally prepared teachers typically “falls into three categories: foundational courses (for example, learning and development, philosophy or history of education, multicultural education); pedagogical courses (for example, methods of teaching or classroom management); and content or subject matter

knowledge” (Boyd, Goldhaber, Lankford, & Wyckoff, 2007, p. 48). In a 2006 analysis of key state requirements of teacher preparation Boyd et al. (2007) found that 25 states required high school teachers to major in their subject areas and also to pass content knowledge assessments, six states required teachers to only have a major in their subject area, and 18 states required candidates to only pass a content knowledge exam in their subject area. Based on their analysis, only four states had no specific pedagogy requirements and the majority of states required beginning teachers had a student teaching experience ranging from as few as five weeks to as many as twenty weeks.

As a means of addressing teacher shortages, states waived many requirements of traditional teacher education programs and certification which led to what is now known as alternative certification. The state of New Jersey offered the first alternative pathway to the classroom in 1983. Candidates who meet a minimum grade point average, had a degree in the content area, and passed a content area competency assessment were admitted into the New Jersey alternative certification program (Feistritzer & Chester, 2003). Since the inception of alternative certification programs, the number of alternative certification options has ballooned. According to Feistritzer (2009), all 50 states reported to the National Center for Education information that they were offering more than 600 distinct alternative certification programs. The National Center for Alternative Certification (2010) reported that since 1985 over 500,000 teachers have entered the profession through alternative certification programs. These programs were estimated to produce at least one-third of all new teachers

(Feistritzer, 2005). Feistritzer (1994) categorized true alternative preparation into two classifications. First, Class A met the following criteria:

- The program has been designed for the explicit purpose of attracting talented individuals who already have at least a bachelor's degree in a field other than education into elementary and secondary school teaching.
- The program involves teaching with a trained mentor and formal instruction on theory and practice of teaching scheduled either during the school year or sometime in the summer.
- The program is not restricted to shortages, secondary grade levels or subject areas. (p. 136)

Feistritzer's (1994) second classification, Class B was defined as a certification route having "been designed specifically to bring into teaching individuals who already have at least a bachelor's degree. These programs involve specifically designed mentoring and formal instruction. However, these states either restrict the program to shortages, secondary grade levels, and/or subject areas" (p. 136).

Walsh and Jacobs (2007) conducted surveys in 11 states to identify the ideal criteria for genuine alternate routes to certification. They identified four criteria they believed matched the original intent of alternative certification programs. The four criteria were academic selectivity, strong subject matter knowledge, streamlined and practical sequence, and an intensive new teacher support. According to Walsh and Jacobs, genuine alternate certification programs have been distinguished by candidates with an undergraduate GPA of

at least 2.75 (with some program flexibility for midcareer applicants), candidates had a major in a content area and passed a subject area test, coursework requirements were kept to a minimum lasting one or two years, and candidates were assigned mentors to provide intensive support.

In the state of Georgia teacher licensure has been governed by the Georgia Professional Standards Commission.

In July of 1991, a legislative mandate was enacted which created the Professional Standards Commission (PSC) as a separate government agency, removed from the Georgia Department of Education, with the central responsibility for establishing a certification and licensure process that is streamlined, understandable, and flexible in order to remove barriers and to attract qualified individuals to the education profession. Specifically, the PSC's major purposes are: to simplify and make more efficient the process of certifying educational personnel in Georgia; to attract the highest possible number of qualified personnel to become educators in Georgia; to promote the hiring of qualified educators from other states; and to improve the level of preparation of educators (GaPSC, 2008b).

The state of Georgia Professional Standards Commission defined an alternatively certified teacher as one who is "employed as an educator while completing certification requirements" (GaPSC, 2008b). The state sponsored program was designed for individuals who already held degrees in various fields and decided to switch careers. Those individuals brought various life and

vocational experiences to the classroom. Alternative certification was also available to former educators with expired or invalid certificates who wished to return to the classroom (GaPSC, 2008b).

These routes are not limited to, but are of particular importance when completed in high need, shortage fields such as math, science, foreign language and special education. Initial eligibility requirements lead to a nonrenewable Certificate and remaining requirements are completed while the individual is serving as an educator in a Georgia public school. Upon completion of this route, the Clear Renewable Certificate is issued (GaPSC, 2008b).

In a 2009 state by state comparison of alternative certification programs, Peterson and Nadler (2009) found that the state of Georgia's alternative pathway (GaTAPP) met the requirements set forth to be considered a genuine alternative certification pathway.

The state of Georgia's primary method of alternatively preparing teachers for the classroom is the Georgia Teacher Academy for Preparation and Pedagogy (GaTAPP) program. The GaTAPP program was formed in 2001 in response to the documented teacher shortage in the state of Georgia (GaPSC, 2008b). The program began with 15 providers and has grown to 26 providers. The program offers a pathway to a clear renewable teaching certificate in the following areas: Early Childhood Education (pre-kindergarten-grade 5), Middle Grades Education (grades 4-8 all subjects offered), Pre-Kindergarten through Grade 12 (Art, Health, Music, Foreign Language, Physical Education, and

Special Education) and High School certification (grades 6-12 in the areas of Agriculture Education, Biology, Business Education, Chemistry, English, Economics, Marketing Education, Geography, Mathematics, History, Speech, Political Science, Technology Education, Physics, Family & Consumer Science, and Science) (GaPSC, 2011).

The goal of the GaTAPP program was to provide a nontraditional certification route for postbaccalaureate teacher candidates through the collaboration of universities, Regional Education Service Agencies (RESA), and public school systems. The program aimed to prepare teacher candidates for successful entry into the classroom (National Center for Alternative Certification, 2010).

According to the Georgia PSC (GaPSC) (2008b), the GaTAPP program required that all candidates hold a Bachelor's degree or higher from a GaPSC approved and accredited college or university, passed or met exemption requirements for the Georgia Assessment for the Certification of Educators (GACE) Basic Skills Assessment, passed the appropriate GACE Content Area Assessment, passed a criminal background check, and met state requirements for a "Highly Qualified" teacher. At the secondary level, teachers are considered Highly Qualified if they have a Bachelor's degree or higher with a major in the field in which they were teaching or provide a transcript verifying the successful completion of 21 semester hours in assigned teaching field or candidates could post a passing score on the GACE content assessment for the candidate's assigned teaching field (GaPSC, 2008b). Additionally, to be accepted into the

GaTAPP program the candidate must have a job offer for a full-time teaching position from a school or board office.

Upon induction into the GaTAPP program, teacher candidates were required to complete an Essentials of Effective Teaching course typically held over the course of two weeks during the summer prior to teaching, develop an individualized induction plan outlining a timeline for any special requirements, and be assigned a three person candidate support team which included a school assigned mentor, a school level administrator, and a content specialist (GaPSC, 2008b).

As originally designed, the GaTAPP program had a minimum duration of one year. During this time period a teacher candidate had intense mentoring and coaching by the candidate support team. Candidates were sometimes asked to attend various professional learning sessions or seminars to address areas of weakness identified by the candidate support team. All teacher candidates were required to complete a course to prepare teachers to meet the needs of the exceptional learner. Also, during this one year mentoring or coaching period the candidate was required to complete an achievement portfolio. This portfolio included personal reflections on teaching and artifacts of professional growth. The portfolio served as a basis for program completion. The cost of the program varied by provider but was approximately \$6,000 (GaPSC, 2008b).

In 2002, GaPSC recognized the need for a flexible certification program to address the shortage of teachers being prepared by traditional methods and to address teacher diversity issues within the state. Since the inception of the

Georgia Teacher Alternative Preparation Program (now known as the Georgia Teacher Academy for Preparation and Pedagogy) in 2002, the program contributed 3,746 teachers to the Georgia teacher workforce (GaPSC, 2011). Of those 3,746 teachers, approximately 3,220 were still teaching (86%). According to Afolabi and Eads (2009), this represents about 23% of the state's newly hired teachers. In that same time period from 2002, the University System of Georgia's colleges and universities produced about 26% of newly hired Georgia teachers. The remaining hires came from other states (29%) and teachers returning from leaves of absences (22%). In the three year span from 2004-2007, the percentage of newly hired teachers from alternative routes showed a steady increase while the percentage of newly hired teachers from traditional programs showed a steady decrease (GaPSC, 2008a). Interestingly, the University System of Georgia reported an increase in teacher production among the 35 institutions during this time period, but many individuals earning education degrees were not being employed in Georgia's public schools (Coleman, 2011).

Increasing the diversity of the teacher workforce was a stated purpose and hoped for outcome for Georgia's alternative certification programs. As reported by Afolabi and Eads (2009), the almost 4,000 teachers entering Georgia's schools through the GaTAPP program 30% were male compared to the overall Georgia teacher workforce was approximately 19% male. The University System of Georgia reported to have trained one of the highest percentages of minority teacher candidates at 21% (Coleman, 2011). According to the GaPSC (2008a), the GaTAPP program had a minority representation of 47%. Of the GaTAPP

teacher candidates, 41% were Black and 6% were Hispanic. Afolabi and Eads (2009) reported that the overall Georgia teacher workforce was approximately 25% minority (23% Black and 1.3% Hispanic) while the state's student population was approximately 54% minority (38% Black and 10% Hispanic) and had been steadily increasing over the past decade.

GaTAPP teachers were overwhelmingly individuals with bachelor's degrees (79%) while 19% of candidates held master's degrees and 2% held either a specialist or doctoral degree (GaPSC, 2011). These individuals came from a variety of work backgrounds with the majority coming from sales and retail (15%), education and training (15%), management (8%), accounting (6%), counseling and social work (5%), and personnel or customer service (5%) (GaPSC, 2011). They reported that 19% of GaTAPP teachers were 25 years of age or younger, 30% were between 26 and 30 years of age, 32% were between 31 and 40 years of age, 14% were between 41 and 50 years of age, 5% were between ages 51 and 60, and 23 individuals over the age of 60 (1%) entered the teaching profession through the GaTAPP program.

During the early years of the GaTAPP program, approximately 28% of individuals accepted into the program quit teaching (GaPSC, 2011). This very high rate of attrition was a concern and was addressed by improving GaTAPP's mentoring program. This rate of attrition shrunk to around 9.5%, just slightly above that of traditionally certified teachers (8.8%).

According to GaPSC (2011), "about 60% of GaTAPP candidates in cohorts 2002-2008 who taught at least one year, taught in a Title I school" (p.18).

Additionally, most GaTAPP teachers who began their teaching careers in a Title I school remained teaching in Title I schools. “On average, Black GaTAPP teachers spent more time teaching in Title I schools than do White teachers...[also] for each cohort, female GaTAPP teachers spent more time teaching in Title I schools than did male teachers” (GaTAPP, 2011, p. 18). GaTAPP teachers were placed or were hired to teach in schools that had not made AYP as defined by NCLB. From 2003-2008 approximately 19% of Georgia schools did not make AYP and during that same time period approximately 37% of GaTAPP teachers were teaching in Georgia schools that did not make AYP (GaPSC, 2011). GaTAPP teachers were employed in critical shortage fields. These fields were defined by GaPSC are early childhood, special education, middle grades, and high school core content areas. In 2008, 13% of GaTAPP teachers were teaching in the early childhood setting, 21% were teaching in middle grades, 32% were teaching high school core content areas, and 30% were teaching special education (GaPSC, 2011).

Watkins (2011) reported a 2002-2003 survey of teacher certification candidates about their satisfaction with the GaTAPP program, 92% of teacher candidates agreed that the program was effective in providing them with the skills and training necessary to be an effective teacher. Roughly 60% of teacher candidates found that the financial obligation for the program was reasonable. Approximately 70% of teacher candidates found it relatively easy to secure a job offer with a school system. On average 68% of teacher candidates agreed that the GaTAPP courses were convenient and 99% agreed that the program

instructors were knowledgeable about their subjects. When asked to reflect on their overall experience, 81% of teacher candidates stated that the GaTAPP program met their overall expectations and 91% stated that they would recommend the program to a friend who was interested in teaching (Watkins, 2011).

### Student Achievement and Teacher Certification

Few would argue that the most important factor in student achievement is the quality of the teacher (Wright, Horn, & Sanders, 1997). The practice of defining teacher quality by student performance on standardized assessments began in the 1960s with the Coleman Report (Walsh, 2001). Since then numerous studies have been conducted attempting to quantify how student achievement has been effected by a teacher's certification.

Goldhaber and Brewer (1988) used multiple regression to analyze the impact of various factors on student performance in mathematics and science as measured by the National Educational Longitudinal Study. A national sample of 24,000 8th grade students was analyzed. The factors that were analyzed were as follows: family background, individual background, school characteristics, state certification policy, teacher characteristics, and classroom environment. Goldhaber and Brewer found that family background had the greatest impact on student performance. They also found that students with teachers who had degrees in mathematics outperformed students with teachers who had degrees in education. Additionally, Goldhaber and Brewer found no significant difference between teachers with standard certification and teachers with emergency

certification. The results of this study published in 1988 were used in the early years of alternative certification to justify the use of other pathways to teacher certification.

In 2000, Goldhaber and Brewer continued their examination of teacher certification and the relationship to student achievement in mathematics. Goldhaber and Brewer defined their input, teacher certification in four levels; standard certification, probationary certification, emergency certification, and no certification in subject area. The dependent variable was defined as gain in mathematics scores from 10th to 12th grade as measured by the National Educational Longitudinal Survey (NELS). Using regression analysis, the effect of certification on achievement was studied by contrasting teachers with standard certification to teachers with probationary, emergency, and no certification. The comparison of effect size between probationary certification and standard certification yielded no significance at the  $p < 0.05$  level indicating that students taught by teachers with probationary and standard certification displayed levels of achievement that were not statistically different. The comparison between emergency certification and standard certification yielded an effect size of  $d = -.140$  which is not statistically significant at the  $p < 0.05$  level indicating that students taught by teachers with emergency and standard certifications exhibited gains in mathematics that were not statistically different. In the comparison of teachers with no certification in mathematics and standard certification Goldhaber and Brewer found an effect size of  $d = 0.273$  which is significant at the  $p < 0.05$  level. This study indicated that subject area certification did significantly

effect mathematics achievement. Although the type of certification did not have a significant effect size, Goldhaber and Brewer did state that teachers with subject matter certification in math and science outperformed those lacking subject matter certification in math and science.

Darling-Hammond (2000) examined student scores from 4<sup>th</sup> grade and 8<sup>th</sup> grade state level National Assessment of Education Progress for mathematics achievement. Data was gathered for 44 states from multiple years. Data sets included 4<sup>th</sup> grade data from 1992 and from 1996 and 8<sup>th</sup> grade data from 1990 and 1996. The study included two independent variables, fully certified teachers defined by the completion of all certification requirements and less than fully certified teachers which included individuals with provisional, emergency, temporary, or no certificates. Darling-Hammond compared state level mean achievement scores for mathematics while controlling for family income. For both earlier data sets, 1992 4<sup>th</sup> grade and 1990 8<sup>th</sup> grade, there was a significant difference in mean achievement scores in favor of fully certified teachers. An increase of 0.36 of a standard deviation in mean student achievement was found for 4<sup>th</sup> graders with fully certified teachers in 1992. The 1990 8<sup>th</sup> grade dataset found a significant increase of .38 of a standard deviation in mean achievement scores for fully certified teachers. However, both 1996 datasets indicated no correlation between percentage of fully certified teachers and mean achievement scores in mathematics. Despite the mixed results, Darling-Hammond used the study to support the argument in favor of traditional certification (Darling-Hammond, 2000).

Hawk, Coble, and Swanson (1985) examined the relationship between teachers certified in mathematics and teachers with out of field certification with student performance in middle school and high school math courses. The study involved 18 teachers certified in mathematics and 18 teachers with out of field certification and 826 students. The certified teachers were paired with the out of field teachers from the same school, teaching the same subject, and teaching students of similar abilities. Students were given the Stanford Achievement Test (SAT) to measure general math achievement. After five months of instruction, the same test was used to measure progress. The scores from individual students were analyzed for effect size. In middle school mathematics the comparison of certified mathematics teachers and out of field teachers yielded an effect size of  $d = 0.373$  which is significant at the  $p < 0.05$  level. At the high school level Hawk, Coble, and Swanson found an effect size of  $d = 0.170$  which is not significant at the  $p < 0.05$  level meaning that students from either category of teachers performed similarly at the secondary level.

Laczko-Kerr and Berliner (2002) matched pairs of certified and under certified teachers from similar schools and districts to compare mathematics class level achievement for two years of data. Laczko-Kerr and Berliner defined fully certified teachers as those having completed a university based program, student teaching, and all state certification requirements. Undercertified teachers were defined as those holding emergency, temporary, or provisional certificates. Two separate datasets from academic years 1999 and 2000 were analyzed for students in grades three through eight. For the 1999 dataset the comparison of

28 pairs of fully certified teachers and undercertified teachers yielded an effect size of  $d = 0.357$ . This effect size was not significant at the  $p < 0.05$  level meaning that students taught by both categories of teachers performed equally. For the 2000 dataset the comparison of 87 pairs of fully certified teachers and undercertified teachers yielded an effect size of  $d = 0.465$ . This effect size was significant at the  $p < 0.05$  level. In this data set, Laczko-Kerr and Berliner found full mathematics certification yielded an 18% increase in the number of classes exceeding the mean level of achievement which suggested that a university based certification program had a positive effect on student achievement.

Fetler (1999) investigated the relationship between math teachers certification level and student achievement in grades nine, ten, and eleven for 795 California high schools. Test scores from the SAT series were analyzed in relationship to various student demographic and teacher characteristic variables gathered from the Professional Assignment Information Form. This form required teachers to answer questions concerning experience, education, certification, and demographics. Fetler controlled for socioeconomic status and tested for a correlation between the percentage of teachers with emergency certifications and mean SAT scores. At the 9th grade level, when socioeconomic status was controlled, regression analysis yielded a significant correlation coefficient of  $-0.241$ . At the 10th grade level, when socio-economic status was controlled, regression analysis yielded a significant correlation coefficient of  $-0.215$ . At the 11th grade level, when socioeconomic status was controlled, regression analysis yielded a significant correlation coefficient of  $-0.236$ . These

results indicated that after controlling for socioeconomic status there was a significant negative correlation between high school mathematics achievement results and the percentage of teachers who were not fully certified. On average a one unit increase in the percentage of under certified teachers in a school yielded a decrease of 21-24% of a standard deviation in average achievement (Fetler, 1999).

A comprehensive study conducted by Constantine, Player, Silva, Hallgren, Grider, and Deke (2009) investigated the effect of alternatively certified teachers on student achievement. Researchers sought to identify the components of alternative certification programs that were related to teacher effectiveness. The study included 2600 students from seven states (California, Georgia, Illinois, Louisiana, New Jersey, Texas, and Wisconsin). The study paired 87 alternatively certified teachers with 87 traditionally certified teachers from the same schools. Students were randomly assigned to each classroom and given the California Achievement Test as a pretest and a posttest to determine effectiveness of instruction. The overall impact was calculated by taking the average impact from all the pairings.

Constantine et al. (2009) found that the total hours of instruction varied greatly within and between alternative certification programs and traditional certification programs. "The total hours required by alternative certification programs ranged from 75 to 795, and by traditional certification programs, from 240 to 1,380. Thus, not all alternative certification programs required fewer hours of coursework than all traditional certification programs" (p. xvii). In

comparing achievement of students taught by alternatively certified teachers and those taught by traditionally certified teachers, researchers found “average differences in reading and math achievement were not statistically significant...therefore, the route to certification selected by a prospective teacher is unlikely to provide information about the expected quality of that teacher in terms of student achievement” (p. xviii). Researchers also examined the relationship between greater hours of teacher training and the content of teacher training (ie. fieldwork and pedagogy instruction) on effectiveness and found “there was no statistically significant relationship between student test scores and the content of the teacher’s training, including the number of required hours...[additionally], there was no evidence of a statistically positive relationship between majoring in education and student achievement” (p. xix).

Miller, McKenna, and McKenna (1998) compared graduates of a traditional university based teacher certification programs with individuals completing a university based alternative certification program in Georgia and determined there was no difference in student achievement between teachers prepared through traditional university based certification programs and alternative certification programs. The first phase of the study examined the behavioral differences of 67 alternatively certified participants who had completed a university based program in regards to teaching practices. This university based program consisted of condensed coursework, an initial mentor support program, and additional professional development courses for the teachers. These alternatively certified teachers were paired with teachers

certified through traditional methods that taught the same courses at the same school and had the same number of years experience. Trained evaluators visited each participants' classroom and rated their lessons on a Likert scale in the areas of effective lessons and effective student teacher interaction. These scores were analyzed using multivariate analysis of variance and researchers discovered that the differences between the two samples, alternatively and traditionally certified teachers, were small and attributed to sampling variability not a difference in the populations.

Miller, McKenna, and McKenna's (1998) secondary study examined the relationship between teacher certification and student achievement. A sample 18 5th and 6th grade classrooms taught by alternatively and traditionally certified teachers participated in this study. The sample consisted of 347 students, 188 taught by alternatively certified teachers and 157 taught by traditionally certified teachers. The classes were given the Iowa Test of Basic Skills at the conclusion of the school year. Means, standard deviations, and multivariate analysis of variance was utilized. According to Miller, McKenna, and McKenna "there appeared to be no effect of type of teacher training on student achievement" (p. 172).

The third and final phase of Miller, McKenna, and McKenna's (1998) study was qualitative in nature. Qualitative interviewers questioned teachers from the initial survey about their perceptions of their teaching abilities. Alternatively certified teachers felt lacking in the areas of classroom management and lesson planning. Traditionally certified teachers also expressed feelings of instructional

inadequacy and lack of teacher preparation. Alternatively certified teachers attributed these beliefs to their preparation while traditionally certified teachers felt it was a natural feeling for a beginning teacher. As with the previous two phases of the study, researchers found that there was no significant difference between alternatively certified teachers and traditionally certified teachers.

As evident from the presented research, findings relating teacher certification pathways to student achievement offered mixed results. To summarize, Goldhaber and Brewer (2000) found that students with teachers who had degrees in mathematics outperformed students with teachers who had degrees in education in their 1998 study. Twelve years later Goldhaber and Brewer (2000) found that students taught by teachers with no certification displayed significantly lower gains in achievement than students taught by teachers with standard certification. Also, Goldhaber and Brewer (2000) found no significant difference in student achievement gains with teachers holding emergency, probationary or standard certification. Darling-Hammond (2000) found significant positive differences in student achievement for fully certified teachers compared to less than fully certified teachers in two datasets but no significant differences in two other datasets. Hawk, Coble, and Swanson (1985) found significantly higher scores in general eighth grade mathematics students taught by teachers certified in mathematics than students of teachers certified out of field but no significant difference in algebra courses taught by teachers in the two categories. Laczko-Kerr and Berliner (2002) found differing results in two datasets. In the data gathered from 1999, no significant difference was found in

student achievement of fully certified teachers and undercertified teachers. In the 2000 dataset, findings indicated a significant increase in mathematics performance of fully certified teachers when compared to undercertified teachers. Fetler (1999) found in each grade level examined that when socioeconomic status was controlled for that mathematics achievement scores were negatively correlated with the percentage of teachers with emergency certifications. Constantine, Player, Silva, Hallgren, Grider, and Deke (2009) found no statistically significant differences in the student achievement of students taught by alternatively certified teachers and those students taught by traditionally certified teachers. Miller, McKenna, and McKenna (1998) found when studying Georgia teachers no effect of type of teacher training of student achievement.

The relationship between teacher certification and students' mathematic achievement has not been clearly defined. The measurement of teacher effectiveness using student achievement is a relatively new practice gaining in the last 40 years. In addition, the rise of alternative certification since 1983 has not been thoroughly studied. The variability in alternative certification program requirements and until recently the high turnover of alternatively certified teachers has made generalization of research results difficult. Research has recently been conducted in the state of Georgia in effort to understand the effects of teacher certification on student achievement.

#### Georgia TAPP Research

In an internal analysis, Clayton County Public School District examined student achievement according to the type of certification held by teachers. The

system, located in metropolitan Atlanta, is the fifth largest school system in Georgia (Dam & Ford, 2010). All 60 schools in the system were Title I schools and they served approximately 53,000 students. The system's 3,700 teachers had an average of 10.5 years of experience and a turnover rate of 19%. The student population was 73% African American, 13% Hispanic, 5% White, 4% Asian, and 4% Multiracial. Results indicated that elementary students with traditionally prepared teachers scored slightly higher on average on the CRCT in math, English-language arts, and reading than did students who were taught by teachers certified through the GaTAPP. However, when comparing average CRCT scores of students between first year traditionally prepared teachers and first year GaTAPP prepared teachers the trend was reversed with students of first year GaTAPP teachers outperforming on average the students of first year traditionally prepared teachers in math, English-language arts, and reading (Dams & Ford, 2010).

In the Clayton County School System study, the same trends were true for middle school CRCT scores. When comparing student achievement of all middle school traditionally prepared teachers and all middle school GaTAPP teachers, students of traditionally prepared teachers outperformed students taught by GaTAPP teachers. However, when examining first year middle school teachers, students taught by first year GaTAPP teachers outperformed first year traditionally prepared teachers on each of the CRCT components (Dams & Ford, 2010).

Researchers in the Clayton County School System also studied student achievement and teacher certification at the high school level by examining 9th grade Literature End of Course Test (EOCT) scores and Mathematics EOCT scores (Dams & Ford, 2010). When comparing 9th grade Literature EOCT student scores from first year traditionally certified teachers, first year GaTAPP certified teachers, and all other teachers it was found that students of first year GaTAPP certified teachers outperformed both first year traditionally certified teachers and veteran traditionally certified teachers. When comparing Mathematics EOCT student scores from first year traditionally certified teachers, first year GaTAPP certified teachers, and all other teachers it was found that students of first year GaTAPP certified teachers outperformed both first year traditionally certified teachers and veteran traditionally certified teachers. While these results are interesting, no statistical test for significance or inferences were reported and thus warrant further investigation.

In 2008, the University of West Georgia conducted a program evaluation of GaTAPP completers. The research included an assessment of GaTAPP completers' perceptions of their program and its preparation, a description of the impact of the GaTAPP program on the state teaching force, and a description of differences in program delivery by various GaTAPP providers. The study focused on 16 GaTAPP providers. Between the years of 2002 and 2008, these programs accepted over 4,800 candidates, 83% are still teaching in Georgia public classrooms. A sample of these individuals revealed some interesting findings. "Georgia TAPP teachers reported their programs were effective or

highly effective in preparing them in most areas...their programs were most effective in implementing classroom routines and rituals, engaging students in instructional activities, understanding the Georgia Code of Ethics for Educators, and developing unit and lesson plans to engage all students” (Afolabi & Eads, 2009). Afolabi and Eads (2009) reported the areas that GaTAPP teachers felt least prepared were completing administrative duties, unpacking Georgia Performance Standards, and setting benchmarks for student learning.

Afolabi and Eads also surveyed 75 Georgia public school principals about their perceptions of GaTAPP teachers preparation as compared to their traditionally certified peers. According to Afolabi and Eads, “just over 82% of principals responded that traditionally certified teachers, on their first day of teaching, are prepared or well prepared in their content areas, compared to about 44% who believe GaTAPP candidates are prepared or well prepared in their content areas on their first day of teaching” (p. 53). When asked about differences between GaTAPP teachers and traditionally certified teachers after three years experience in the classroom, “the majority of principals reported that after three years in the classroom, there was no difference between traditionally and GaTAPP certified teachers” (p. 53). In this study principals identified managing difficult behavior situations, developing assessments to evaluate student learning, maximizing student engagement, and planning instruction as areas of concern for GaTAPP teachers’ preparation. The biggest discrepancy between GaTAPP teachers perceptions and the perceptions of their principals was in the area of maximizing student engagement. In terms of perceived

preparedness, 85% of GaTAPP teachers felt their program was effective or highly effective in preparing them to maximize student engagement while only 26% of principals who completed the survey believed GaTAPP teachers were prepared or well prepared in this area (Afolabi & Eads, 2009).

### Significance of Research

This study will add to the knowledge base of alternative certification, specifically to the GaTAPP program. GaTAPP teachers' and administrators reflections on the quality of the preparation pathway are accompanied by an analysis of the relationship between teacher certification and student performance in mathematics as measured by the Georgia High School End of Course Test. There is a necessity for this type of research considering the limited research performed with this population and the gaps in knowledge about teacher certification and student achievement. The increased importance of Mathematics End of Course Test results for school accountability and also because of the mixed findings relating teacher certification to student achievement add to the importance of this research.

## Chapter III

### METHODOLOGY

This chapter describes the simultaneous mixed methods case study design utilized in this research study, and it describes the research design, the population and selection of participants, instrumentation including the Georgia Mathematics End of Course Test, data collection, and analysis.

#### Research Design

The study used a mixed methods case study design, in which qualitative and quantitative approaches were mixed to collectively move towards a better understanding of the phenomena of study (Teddlie & Tashakkori, 2009). A simultaneous approach characterized by two distinct methods of data collection were utilized to enhance description (Morse & Niehaus, 2009). The qualitative phase was a collection and analysis of focus group and individual interviews. This was complimented by the collection and analysis of the numeric data in the quantitative research phase. These two phases interface in the results narrative combining to form a case record (Patton, 2002). Case studies were defined as being an in-depth analysis of one or more cases within the real life context when the boundaries are not clear between the phenomenon and the context (Taskakkori & Teddlie, 2009). Case studies are ideal when research is focused on detail and the reasons for success or failure when the situational setting

influenced the outcome (Keen & Packwood, 1995). In case studies there typically exist a “macro case that is made up of many smaller cases, the stories of specific individuals” (Patton, 2002, p. 297). The case study methodology was used to describe in detail the GaTAPP program with the experiences of individuals who have attended the program or been influenced by the program contributing the smaller, minicases or units of analysis. The data gathered in the qualitative and quantitative phases merged in the case record which includes diverse sources of data that combined data for a comprehensive analysis of the case.

The quantitative component employed the following independent variables: teacher certification method, teacher gender, teacher race or ethnicity, and teacher level of experience. Teacher method of certification was classified into two categories: teachers receiving their certification through a traditional university based preparation program and teachers receiving their certification through GaTAPP. Teacher gender was classified as either male or female and teacher race or ethnicity was classified as either White or minority. Teacher levels of experience was allocated into three groups; 1-3 years experience, 4-6 years experience, 7+ years of experience based on distribution of participants and research relating to years of service.

The dependent variables for the quantitative component of this study were student mean scale scores and the percentage of students meeting and exceeding standards on the Georgia End of Course Test in mathematics. Students meeting and exceeding standards on the End of Course test were

described as performing at a level that “demonstrates a comprehensive understanding and mastery of the procedures and concepts in the content domains of algebra, geometry, and data analysis. Performance at this level is indicated by the use of complex strategies and higher level cognitive skills to analyze and solve mathematical and real world problems” (GaDOE, 2010b).

### Participants

This study was conducted in a middle Georgia school district. The district contained 23 elementary schools, eight middle schools, five high schools, and one alternative school. The total enrollment of the county’s school district for the 2010-2011 school year based on Full Time Equivalent (FTE) counts was 27,061 students; 13,123 (48.5%) students were enrolled in elementary schools, 6,023 (22.2%) students were enrolled in middle school, and 7,915 (29.2%) students were enrolled in high schools.

The selection of this school district was due to the availability of data and convenience to the researcher. The U.S. Census Bureau (2010) reported minority populations made up 36.7% of residents in the county and 40% of residents in Georgia. The county’s Board of Education states the ethnic composition of students in the district was as follows 51% White students, 35% Black students, 7% Hispanic students, 4% Multiracial students, and 3% Asian students. The state of Georgia was reported to have an ethnic composition of 45% White residents, 37% Black residents, 11% Hispanic residents, 3% Multiracial residents, and 3% Asian residents. Approximately 50% of the county’s students were considered economically disadvantaged. The state of

Georgia was reported to have 56% of students that were considered economically disadvantaged.

The county's teacher workforce also shared many of the same characteristics as educators in the state of Georgia. The county employed approximately 2,150 certified teachers and administrators. Of the 2005 teachers employed by the county, 975 teachers worked at the elementary level, 486 teachers work at the middle school level, and 511 teachers worked at the secondary level (HCBOE, 2011). The school district hired approximately 137 teachers through the GaTAPP program. Approximately 37 teachers were secondary content area teachers. The Houston County Board of Education (2011) certified that 100% of the county's teachers were deemed Highly Qualified by the Georgia Department of Education criteria (p. 3). The Houston County Board of Education (2011) reported that 28.5% of teachers held bachelor's degrees, 42.3% teachers had a master's degree, 24.7% teachers held a specialist degree, and 4.2% teachers had a doctorate. The GaPSC (2009) reported the state employed nearly 140,000 teachers in public schools. Of this Georgia teacher workforce, 40.5% teachers held bachelor's degrees, 44.3% had a master's degree, 13.4% held a specialist degree, and 1.4% had a doctorate.

In the qualitative component of the study, individuals that had completed the GaTAPP program and taught high school mathematics in the participating school district were intentionally selected to address the primary purpose of the study. School district personnel reported that payroll and accounting rules precluded county level identification of certification type once an alternatively

prepared teacher earned a clear renewable certification. For this reason, information regarding teacher's certification and preservice training was gathered from the local GaTAPP provider. The GaTAPP provider served a seven county cluster in Georgia. The completion of the GaTAPP program and content speciality was determined from the provider's database of GaTAPP completers in the field of mathematics. The county employed 18 GaTAPP high school mathematics teachers. A request to conduct research was submitted to the participating Board of Education (see Appendix A) and the Valdosta State University Institutional Review Board (see Appendix B). The Board of Education policy required that school level permission also be granted from the principal. Four of five high school principals in the county granted permission to conduct interviews with their personnel. Additionally, the county mathematics coordinator and assistant principals for instruction were interviewed to gain their perspective of the GaTAPP program and their teachers.

For the quantitative phase of the study, participants were selected based on having taught a Georgia Performance Standards Mathematics course requiring the Georgia End of Course Test. Participants were grouped into two categories. Teachers having received certification through a traditional university based teacher preparation program were separated from teachers having received their certification through the GaTAPP program. Additionally, the teacher characteristics of gender, race or ethnicity, and levels of experience were ascertained. Archival mean scale scores and the percentage of students meeting and exceeding standards were gathered from the Board of Education.

## Instrumentation

*Interview Questions.* Two semistructured interview guides with questions aligned to the central research purpose were developed for use in the focus group and individual interviews. The semistructured interview protocol guided the interviews. A panel of experts in the area of alternative teacher preparation reviewed the interview protocol to validate the format and the questions (see Appendix C). These experts inspected the interview protocol for alignment with the purpose of the research, added insightful comments on question order and structure, and offered suggestions for additional areas of inquiry. In order to further ensure reliability a pilot interview was conducted and slight adjustments to the questions were made to clarify the intent. The questions focused on Georgia TAPP teachers' preparation experiences, instructional experiences, school level relationships, and their futures in education. A similar semistructured interview protocol was designed to guide the questioning of school and system level instructional administrators. Interviews with county level instructional administrators revolved around the strengths and weaknesses of GaTAPP program and GaTAPP teachers, hiring decisions, and their perception of the future of alternative certification (see Appendix D).

Baxter and Jack (2008) stated that clearly written questions were a basis for validity and credibility in qualitative inquiry. The validation of these questions began by a review from a panel of experts. The panel of experts included college faculty members from the Valdosta State University College of Education, a state level educator preparation official, a former alternative certification advisor

and one current high school GaTAPP teacher. The panel reviewed the questions for alignment with the purpose of the study, clarity of the questions, and the sequence of delivery. Feedback was solicited from panel members. Suggestions on rewording were considered and additional questions of interest were added.

Reliability is closely related to the skills of the researcher. The consistency of and stability of the interview process will depend on the consistency of the researcher (Miles & Huberman, 1994). Creswell (2008) suggested avoiding questions that are ambiguous, administering interviews in a standardized procedure, and asking questions in a consistent manner. Lincoln and Guba (1985) substituted the terms trustworthiness and dependability of the researcher for reliability when referring to qualitative research. According to Creswell (2008), a researcher's openness about his or her assumptions, the selection of participants, biases and values enhance the trustworthiness (reliability) of the study. The process of member checking was incorporated, in which the interpretations of the data were shared with the participants and allowed participants to verify, clarify, and contribute additional perspectives to the study (Baxter & Jack, 2008).

*Georgia Mathematics End of Course Test.* The Georgia Mathematics EOCT was used to measure students' academic achievement. The state of Georgia developed these content specific exams in order to measure student achievement in English, mathematics, social studies, and science according to the GPS curriculum. In the spring of 2011, the GaDOE unveiled a plan to phase

out the traditional Georgia High School Graduation Test. The states new graduation criteria require that students must pass core content courses involving EOCT (GaDOE, 2011). Also, beginning in the 2011-2012 school year the EOCT results became Georgia's high school accountability assessment for NCLB. Student EOCT scores were reported in the form of a scale score, grade conversion score, performance level (does not meet, meets, and exceeds) and domain level (Algebra, Data Analysis, and Geometry) information. For the purpose of this study, student mean scale scores and percentage of students meeting and exceeding standards was used for analysis.

The GaDOE "oversees the development of the Georgia End-of Course Tests and adheres to the *Standards for Educational and Psychological Testing* as established by the American Educational Research Association (AERA), the American Psychological Association (APA), and the National Council on Measurement in Education (NCME) (1999)." (GaDOE, 2010b, p. 2) The GaDOE addressed the validity of the Georgia EOCTs in three sections: content and curricular validity, construct validity, and criterion related validity.

The content validity process began with committees of educators "reviewing the curriculum and establishing which concepts, knowledge, and skills were assessed and how they were assessed" (GaDOE, 2010b, p. 2). These committees produced content descriptions which were then passed on to professional assessment specialists who write the individual test items. "Committees of Georgia educators reviewed the items for alignment with the curriculum, suitability, and potential bias or sensitivity issues. The educator

review committees had the authority to accept the item as is, revise it, or reject the item” (GaDOE, 2010b, p. 3). Items that were accepted were then placed on tests as field items by embedding in the operational test. The committee reviewed how items performed in terms of how many students selected the correct answers and how many students selected each incorrect answer. Each form of a test must assess the same range of content as well as carry the same statistical attributes. When test items were approved, the tests were equated to make sure that the tests were of equal difficulty. The GaDOE states that independent analysis has been conducted to ensure external validity. This was done by comparing the developed tests to other assessments. Construct validity “is established by determining if the scores from an instrument are significant, meaningful, useful, and have a purpose” (Creswell, 2008, p. 173). The GaDOE measured construct validity by using point biserial correlations and Rasch fit statistics. The point biserial correlations measured “the correlation between an item and the total test score...it indicates that students who performed well on the test overall answered the item correctly and students who performed poorly on the test overall answered the item incorrectly” (GaDOE, 2010b, p. 5). The Rasch model was used throughout the test development stage to ensure that testing items fit the overall testing model. Criterion related validity “determines whether the scores from an instrument are a good predictor of some outcome they are expected to predict” (Creswell, 2008, p. 172). The GaDOE (2010) suggested that systems correlated scores of a standardized mathematics

assessment with other measures of mathematics content to provide criterion related evidence.

AERA's *Standards for Educational and Psychological Testing* (1999) stated reliability is "the degree to which test scores for a group of test takers are consistent over repeated applications of a measurement procedure and hence are inferred to be dependable, and repeatable for an individual test taker; the degree to which scores are free of errors of measurement for a given group" (p. 180). The GaDOE reports two reliability indices. First, Cronbach's alpha reliability coefficient measures internal consistency. The generally accepted value of .8 is appropriate for cognitive tests (Field, 2009, p. 675). "The internal consistency index alpha values are in the range of 0.87 to 0.93 for spring 2010 administration" of the Georgia End of Course Tests" (GaDOE, 2010, p. 9). The second measure of reliability is Standard Error of Measure (SEM) which has been used to quantify the extent to which errors occur on a test. This calculation yielded a confidence interval which "is useful in determining the range within which a student's true score is likely to fall...the value ranges from 3.27 to 3.84 for spring 2010 administration of the End of Course Tests. For tests, with total possible raw scores ranging from 54 to 75, the error bands are reasonably small" (GaDOE, 2010, p. 8). The GaDOE (2010) suggested "this indicates reliability is generally high across various EOCT" (p. 8).

#### Data Collection

Before data collection began, permission was obtained from the participating Board of Education, and administrators at the school level. The

school level administrators and the Board of Education were provided with a thorough description of the research and the methodology.

#### Qualitative Component

Data collection for this study included focus group and individual interviews conducted at four different locations (one at each of the participating high schools) for the purpose of obtaining qualitative data from GaTAPP teachers. The groups ranged from two to five participants. Due to scheduling issues, several teachers were interviewed on an individual basis. The interview proceedings were audio recorded and transcribed verbatim. Demographic information from interview participants was collected.

The qualitative component of this mixed methods research study was conducted through the collection of interview data from teachers and administrators. Each of the participants were treated in accordance with procedures outlined by Valdosta State University Institutional Review Board and the American Psychological Association. In an attempt to minimize the risk of identification of interview participants, a pseudonym was assigned. Participants were assured of confidentiality during to course of the interviews. Additionally, participants were provided with a copy of interview transcripts upon request for the purpose of review and approval.

#### Quantitative Component.

The quantitative component involved the collection of archival EOCT scale score data and the percentage of students meeting and exceeding standards from the participating Board of Education testing department and teacher

certification information from the local GaTAPP provider. The data were gathered from the county's five high schools. The county's alternative school and career and technical school were not included as students in these schools were transient from other schools in the county. The data were combined into a spreadsheet data base and were coded with their teacher's certification pathway, gender, race or ethnicity, and levels of experience. No names or other self identifying characteristics were used in the study.

Upon receipt of the quantitative data, test scores and teacher certification data, the highest level of confidentiality measures were taken to minimize the risk of confidentiality breaches to teachers and the participating agencies. Once test data were coded with their teachers' information, the identifying information was deleted. Test data were securely stored to assure confidentiality to teachers and the participating Board of Education.

### Data Analysis

#### Qualitative Component.

In this study, the qualitative data collection and analysis was a simultaneous activity beginning with the first interview (Merriam, 1998). Before the qualitative data was analyzed, all interviews were transcribed for the purpose of familiarity with the interview data (Seidman, 2006). During the transcription phase, the researcher paid close attention to emerging themes in the data, utilizing the categorical strategy of constant comparative method of qualitative data analysis described by Glaser and Strauss (1967). "This technique allows analysts to compare different pieces of data, refine or tighten up categories, and

move on to higher conceptual levels” (Teddlie & Tashakkori, 2009, p. 254). Lincoln and Guba (1985) present the first two steps of this process as unitizing and categorizing. Unitizing was defined as being the process of dividing the data into small bits of meaningful information associated by themes. The unitizing process was followed by the categorizing process which involves placing the unitized information into provisional categories based on thematic commonality. The final phases of data analysis as described by Teddlie and Tashakkori (2009) was a review for internal consistency and mutual exclusivity. Internal consistency verified that each unitized piece of information was categorized correctly and shares the same properties as the other data within that category. Mutual exclusivity was assurance that each category is distinctly different from one another. The presentation of the findings were represented in a narrative and visually represented in tables and figures. The themes that emerged from the analysis of the data were identified and defined.

#### Quantitative Component

For the quantitative component, the following data were entered into a database for each participant: teacher certification, gender, race or ethnicity (White and minority), years of service, student mean scale score, and percentage of students meeting and exceeding standards. Data was organized and inspected for entry errors. Groups were formed by the interaction of independent variables: certification and race or ethnicity, certification and gender, and certification and levels of experience. Statistical considerations and assumptions for an analysis of variance were checked using the Statistical Package for Social

Sciences 17.0 (SPSS). The assumptions of the analysis of variance procedure were as follows: the data were from independent observations, the sample distribution of dependent variable values were from a population with a normal distribution, and the distribution of dependent variable values have equal variances (Mertler & Vannatta, 2005). The assumption of independence is met by careful experimental design. In this case, we will assume that mean student performance was independent from teacher to teacher. The assumption of normality were assessed visually by examining histograms, residual plots, Q-Q plots, and levels of skewness and kurtosis. Levene's test of equal variances was used to test for the assumption of equal variances. Due to repeated violations of assumptions of an one-way analysis of variance, the decision was made to analyze the data using a nonparametric test. The Kruskal-Wallis is considered the nonparametric equivalent to the one-way analysis. The Kruskal-Wallis test requires at least the dependent data to be ordinal. The assumptions of the test are of independence, a continuous distribution which can be ranked, and distributions having the same basic shape (Field, 2009). The dependent variables were ranked and analyzed using the Kruskal-Wallis test.

### Summary

This chapter provided an overview for the research design, participants, instrumentation, data collection, and data analysis of this case study analysis of teachers prepared through a traditional university based teacher preparation program and those prepared through the GaTAPP. The mixed methods design

capitalized on the strengths of the two research paradigms. The qualitative component provided a voice to teachers and administrators concerning GaTAPP focusing on experiences in certification, the classroom, school level relationships, perceived effectiveness, and the future of alternative certification. The quantitative component tested for relationships between teacher level variables and student performance outputs.

## Chapter IV

### RESULTS

The purpose of this study was to examine the GaTAPP through a case study analysis of the experiences of mathematics teachers and administrators in the school district. Teachers and administrators were interviewed addressing the central topics of (a) preparation, (b) certification process, (c) school level relationships, (d) classroom effectiveness, (e) instructional experiences, (f) future plans in education, and (g) the future of alternative certification. A secondary purpose was to determine if there were differences between teachers prepared through GaTAPP and teachers prepared through a traditional university based teacher preparation program by (a) gender, (b) race or ethnicity, (c) teacher's levels of experience on student achievement as measured by the mathematics Georgia High School End of Course Test mean scale scores and the percentage of students meeting and exceeding standards on the mathematics Georgia High School End of Course Test.

#### Research Questions

To address the purpose of this simultaneous case study the following research questions were formulated to guide the inquiry:

1. How do Georgia TAPP prepared teachers describe their experiences leading to the classroom?

2. How do Georgia TAPP prepared teachers describe their instructional experiences and relationships?
3. How do Georgia TAPP prepared teachers perceive their futures in education?
4. How do school administrators describe their experiences with Georgia TAPP and traditionally prepared teachers?
5. Is there a significant difference between teachers prepared through GaTAPP and teachers prepared through a traditional university based teacher preparation program by selected demographic characteristics on student mean scale scores on the Georgia Mathematics End of Course Test?
6. Is there a significant difference between teachers prepared through GaTAPP and teachers prepared through a traditional university based teacher preparation program by selected demographic characteristics on the percentage of students meeting and exceeding standards on the Georgia Mathematics End of Course Test?

This chapter presents the qualitative and quantitative findings of this simultaneous case study. Interview summaries for each of the individual participants are provided followed by common themes, key points, and an analysis by research question. As for the quantitative component, the nonparametric Kruskal-Wallis test results are provided by research question and subquestion.

## Qualitative Results

The qualitative component began by procuring permission from the Board of Education to interview employees, followed by requests for permission at each of the county's five high schools. Of the county's five high schools, four of the principals agreed to allow their teachers and administrators to participate. One school declined to participate but offered no reasoning for that decision.

A total of 12 interviews of GaTAPP teachers were conducted across the four participating high schools and five individual interviews were conducted with the high schools' assistant principals for instruction and county level instructional supervisors. These interviews were transcribed, unitized, and categorized by the researcher (Lincoln & Guba, 1985). The categories are presented separately by teacher and administrator.

### GaTAPP Teacher Interviewees

A total of 12 teachers were willing to share their experiences via individual and focus group interviews. These 12 teachers are part of 21 employees earning their high school mathematics teaching certificate through GaTAPP with in the county from 2002-2011. Of these 21 teachers, three teachers have moved to different school districts, two teachers have left teaching to raise their children, one teacher was unable to pass the content knowledge test and is teaching special education, one was fired from their school and two teachers were not willing to participate in the research. The 12 teacher interviews were recorded and transcribed. In the following section, each individual's responses is presented with an indepth analysis of his/her experiences.

Teacher Participant 1. Jay is a White male between the ages of 25-35. He is single without children. He is in his seventh year teaching high school mathematics. Prior to teaching Jay earned a bachelor's degree in business administration. He worked in the finance office at a car dealership and along side a residential realtor. Jay had no formal or informal teaching experiences prior to entering the GaTAPP program but came from a long line of educators. His primary reason for entering the teaching profession was to have a job that was more conducive to his afternoon coaching responsibilities not associated with the school system.

Jay stated "I did not have much trouble getting a job offer and being a GaTAPP candidate because my school had hired a few of teachers through the program a couple of years prior to me and it was a good experience for the school so they kind of paved the way for me." Due to the departure of a teacher towards the end of fall semester, Jay actually began teaching prior to receiving any training in the GaTAPP program.

Jay described his GaTAPP preparation as the only barrier that he faced in his pathway to the classroom. "The week long preparation course, some of it was good but some of it was bad. They should have spent more time on the classroom management component, but it was a crash course so what do you expect?" explains Jay. He recalled the candidate support team being the most helpful aspect of the GaTAPP program. "They gave me helpful feedback and forced me to reflect on my successes and what I needed to improve on." Jay depicted the portfolio element as redundant and simply a checklist.

Jay said he did feel prepared for the first day of teaching but he mentioned classroom management and time management as his biggest obstacles. “When to grade papers, how long should a lesson take, how long do I spend on a warm up and the work session and I had very low level seniors who were difficult to manage.” In addition, Jay described a need for more training in parental relationships. “I needed to know what to say and what you should not say to parents.” Admittedly, Jay struggled with parent conferences and parent contact.

Jay felt successful GaTAPP teachers hired at his school prior to his arrival helped ease concerns about his pathway but he experienced what he described as unequal pressure from administration compared to new teachers from a traditional background. “The administrators were tough on me. I felt like they were riding me a lot harder than they were other people. They poked me a little more than they would have a normal new teacher.”

Jay indicated that his experience in the workforce was one of his strengths as an educator. “I absolutely loved my finance courses because that was what my background is in so I could share a lot of real life insight and stories.” He felt that effective educators are able to connect with students which he did with his real life insight. Jay stated that you can not always see that in a grade.

Jay planned to continue teaching. “I really enjoy doing what I am doing...coach and teach that is what I want to do. I do not see myself going back to school or going into administration.” As for the future of the GaTAPP program, Jay suggested that the current lack of availability of teaching jobs was going to

drive students away from pursuing degrees in education making the GaTAPP even more valuable.

Teacher Participant 2. Rick is a White male between the ages of 25-35. He is married with children. He is currently in his ninth year teaching high school mathematics. Rick, unlike other GaTAPP graduates, entered the program almost immediately out of college and began teaching at a Title I high school. Starting out as an engineering major, Rick described a dissatisfaction with that choice and changed his major to mathematics. After finishing his undergraduate degree he decided to pursue a master's degree in mathematics with the intention of completing a doctorate in mathematics having the goal to teach at the college level. Rick recalled his time teaching undergraduates Calculus 1 was unfulfilling. He described "students just treating the course like a another requirement on their program of study. I had a passion for it and I wanted them to have that passion too, but they did not. Rick also served as a mathematics tutor to several undergraduates. He recalled, "one retired army medic wanted to come back and get his medical degree and I helped him through several math courses. That was a really good feeling."

Rick's experience teaching post secondary mathematics led him to believe that there were real issues in our high schools and he set out on a mission to address those problems. He was hired immediately following his first interview and recalled, "they were really needing high school math teachers so I did not have any issue getting hired."

Overall, Rick was dissatisfied with his GaTAPP experience. “I do not know that I got anything out of it that helped me in the classroom. I had four different GaTAPP mentors in two years due to job turnover.” He offered some suggestions for improving the program from his experiences. “I think that having someone who taught or is teaching in each subject area lead the group of GaTAPP candidates through standards and how to interpret them, how do they translate to instruction. With the implementation of high stakes testing you really do not have time to be figuring out how to teach the standards with your school depending on your performance.”

Rick had a difficult experience his first few years teaching. “I had four preps and they changed every year. I had some really low level courses that I did not even know existed and my challenge with them was the classroom management. When I asked them to have a seat and they did not. I was really surprised.” He said that his school level mentor was responsible for most of his success as a teacher. “She encouraged me to try new and different things. She was not overbearing but helped me when I was struggling.”

Rick stated that as a teacher he is respected by fellow teachers and advanced students because of his superior content knowledge. He considered this knowledge his greatest strength as a teacher. “When I say that you need to have this for Calculus 2 they believe me because I have taught those courses.” He defined his greatest area for improvement was relationships. “I am really bad at the parent and student relationships and it causes me a lot of trouble.”

Rick was pursuing a doctorate degree in curriculum and instruction and exclaimed, "I want to put myself in a position at the state level to have some input in curricular decisions. I do not feel like our current curriculum reflects the ability of our students" says Rick. He suggested that he and his fellow GaTAPP teachers have been just as effective as traditional teachers. Rick stated, "it has allowed a different perspective into the classroom. I do not think the program itself makes the teachers effective but it has allowed effective people to enter the classroom." He pointed out that GaTAPP teachers "have other options and have made the decision to teach. They are really excited and seem to approach the job differently because they could do something else if they wanted to."

Teacher Participant 3. Dan is a White male between the ages of 25-35. He is married with children. Dan is in his ninth year teaching high school mathematics. Prior to entering the classroom Dan earned a bachelors of science in natural resources with an emphasis in business and finance and also a masters of science in natural resources with an emphasis in business and finance. He worked as an independent auditor of a natural resources company focusing on statistical sampling for natural resources inventories, safety regulation compliance, product quality control, and environmental regulation compliance. Dan came from a family of educators and had some experience as a substitute teacher while also volunteering time to teach young children about natural resources. He came to the GaTAPP program after a corporate decisions dissolved his contract. He was seeking a more stable profession and an opportunity to make a difference in the lives of students. "I saw guys that were

much older than me with kids about to graduate from high school who were going to have to move to a different state because of their job. I did not want that for my family. I do not like change.”

Once Dan decided to pursue a career in education, he experienced difficulty convincing school administrators that he was capable of teaching. “The job fair was tough. I was actually refused a screening interview with several schools because I did not have a teaching certificate.” With the assistance of a veteran teacher who knew of Dan’s character, he was able to convince an outgoing principal to hire him. The principal told Dan, “if you fail then it is not on my watch!.”

Preparing to enter the classroom, Dan experienced a great deal of anxiety and stress. “I actually had to go see a doctor because I was having nose bleeds and panic attacks. I was just really nervous and I felt a little unprepared. My peers in the math department were really the reason that I made it through the first month.” After the first month Dan said he started to teach according to his personality and became much more comfortable. “The first two years were a lesson in perseverance. I had the lowest level courses available. They were a challenge but they taught me a lot about teaching.”

Dan had positive things to say about his GaTAPP training. “I had a great candidate support team. My GaTAPP mentor, school mentor, and RESA employees were a tremendous help.” He describes the most valuable part of the program being the observations of his classroom and being able to observe other classrooms. “I really learned the most from being able to watch good, veteran

teachers. I noticed how at ease they were in front of the class.” Dan offered a few suggestions on improving the program. “The portfolio was over kill. There was a lot of it that was meaningless. I just felt like it was a big obstacle. I would focus more on the observations and reflections.”

Dan was the first GaTAPP teacher hired at his school. “At that time there was a lot of misunderstanding and animosity towards someone who skipped their route to the classroom.” He recalled sending home a required letter informing his students’ parents that he was a GaTAPP teacher and was not yet highly qualified. “I had several requests for parent conferences after those letters went out and there was some push back from the students as well.” Dan said that all the concerns stopped when his student’s outperformed everyone else’s students on standardized tests. “I really felt vindicated by those Geometry scores. I used a lot of Geometry in my previous job so I used a lot of examples and I think that students could relate to that.”

Dan felt that his greatest strengths were his application of content and the connections he was able to make with his students. “I have high expectations for my students but I offer them assistances and I show them why the information is important.” Dan had been recognized several times at the county and state level for his success in teaching, recently being nominated for the Presidential Award for Excellence in Teaching Mathematics.

Dan has earned several advanced certificates and degrees since entering the classroom. He plans to stay in the classroom for at least another 10 years. “I really enjoy what I am doing now. I have some great classes and students.” He

said he will pursue a position in administration when his children are graduated and out public schools. As for the future of the GaTAPP program, Dan implied that it has been a success. "Some of the best teachers I know are a product of the GaTAPP program. I do not think that it is anything the program does but it gives professionals the opportunity to enter the classroom." He stated when the economy improves school systems will start relying more on these individuals.

Teacher Participant 4. Angela is a White female between the ages of 25-35. She is single with children. She is in her tenth year teaching high school mathematics. Angela earned a bachelor's degree in business administration focusing on accounting. Her love of numbers caused a natural affinity for mathematics but she did not originally pursue teaching because of a "low pay stigma." She decided to pursue teaching after the stress of the accounting profession caused her anxiety. As a young single mother, the thought of having a similar schedule to her child and having more job stability was appealing.

Originally, she took a position as a long term substitute. In this experience she was left with complete control of the classes and was recognized by school administration as a promising teacher candidate. However, when a mathematics opening came available she was told that if there was a certified veteran teacher applicant for that position she would not be considered regardless of her performance as a long term substitute. "I was told that they would get the job before me no questions asked, regardless of quality even though I had already run a classroom and they knew what kind of teacher I was" says Angela.

Angela, who was a candidate in the first cohort group of the GaTAPP program was hired at a Title I high school. She could not recall any benefits of the program. “There were not any real strenghts. We sat for two weeks and listened to Harry Wong. Which after 11 years of teaching, I have never had a classroom that ran like his, it was not realistic.” She felt the program needed more training in classroom management and observations. “The biggest help for me would be to have real classroom observations before you enter the classroom. Even if it is going to a summer school classroom and observing the classroom.” She continued, “I think that a lot of times they just added stuff to fill up that two week requirement. Why do they not find out where the teachers are going to be placed and train them on the different software and technologies that are available to them.” She pointed to school level mentoring and support as what made the biggest difference in her career as a teacher. “I was not allowed to float [teaching in multiple classrooms during others planning period] and I had to be placed close to my mentor. My first year I only had two preps. Limiting the number of preps for the first year was really helpful.” She recalled her school level mentor being a great help and credits her fellow math teachers with helping her through her first couple of years teaching. She stated that her colleagues knew she was a GaTAPP teacher and knew that she was going to need their help. “I was not ashamed of it, but I was told to be careful who I announced it to, not to say it out in the open. There were teachers who did not approve of it [GaTAPP].”

Angela took pride in being able to answer students' questions, 'when am I going to use this?' She used her career change as an example to students. "They can say they want to pursue this but they may change their mind when they get in the field." She felt that the sign of an effective teacher was that their students can apply and transfer the information they were being taught. She did not feel this ability was something that a teacher can learn in the classroom. "Traditional teacher preparation is not really effective. I think you naturally have the ability to teach or you can not. It is not something that you can learn to do."

Since entering the classroom, Angela has earned her master's degree in educational leadership. She stated, "I want to stay in the classroom as long as I still enjoy it. That is why I got into this was to teach, but I got the master's just in case I get tired of teaching. I do not want to be that teacher who hates what she is doing and is sitting around waiting for retirement." As for the future of the GaTAPP program, Angela indicated the need for the program will be dictated by the economy. She said she would cautiously recommend the program to individuals interested in teaching but would strongly encourage them to substitute prior to entering the program. "Substituting is worse than teaching so if you can make it through that and you still want to teach then your ready."

Teacher Participant 5. Han was an Asian male between the ages of 35-45. He was married with children. Han was in his tenth year teaching high school mathematics and was a member of the first GaTAPP cohort. He had earned a doctorate in engineering science and worked in industrial management. He had no teaching experience prior to pursuing a career in education. Han's teaching

career began when he approached the school superintendent about volunteering as a math tutor. The superintendent accepted his resume but expressed a real need for high school math teachers. Han was hired at a Title I school shortly after that conversation and did not experience any difficulty entering the GaTAPP program.

Han described his path to the classroom as short and without barriers. He appreciated the mentoring aspect of the GaTAPP program and felt the classroom observations were very helpful. He remembers, "I was prepared for the content that was no big deal. I had a difficult schedule first year. I had very low level math courses. That level was unexpected. They would not do anything you wanted and then they would misbehave. I was also put in the trailers. My trailer had holes in the walls and I had to cover them with a poster." Being from a smaller school, there was not a trained mentor in his math department. His mentor was a literature teacher. He stated that would have been more beneficial if the mentor had been from his department.

Han suggested that work experiences were his biggest contributions to the classroom. "We have been working in the field and industry for a few years so we bring that experience with us in the classroom." He pointed to a greater level of maturity as one of the benefits to hiring GaTAPP teachers. Han planned to stay in the classroom. "I do not have any backup plans or plans to advance. I already have a doctorate so I am not going to go back to school." Han said the need for the GaTAPP program to provide teachers for classrooms will rebound

with the economy and he would recommend the program to an individual interested in pursuing a career in education.

Teacher Participant 6. Chip is a White male between the ages of 25-35. He was married with children. He was in his fifth year in education. Chip earned a bachelor's of science in mathematics with a minor in geography and a certificate in computer sciences. While in college he had positive experiences as a math tutor and was frequently told that he "had a knack for explaining things simply." Upon completing his degree, he began work as a mathematics textbook and software designer for college level mathematics. During high school a career aptitude test suggested a possible career as high school math teacher. These results convinced Chip to take a college elective course in mathematics education and "planted a seed for teaching."

Chip described the toughest part of beginning the GaTAPP process was to get a job offer from a school. "I went to the schools and made my face seen in order to get an interview and leave resumes. It took a lot of convincing to get them to take a chance on me" he explains. Chip was eventually hired at a Title I school to teach mathematics. Upon entering the GaTAPP program, Chip found the program mentors helpful. "They spent a lot of time in my classroom and they were honest with feedback, it was very constructive." He pointed to the GaTAPP mentors availability to being a key to their helpfulness. "They are not some university faculty who does research and rarely sets foot in a classroom. They don't know or remember what the classroom is like. The GaTAPP folks have a lot of experience in the classroom and the support they offer is way more than

what you would get with a university program.” He felt that the program could have been enhanced by giving the GaTAPP teachers more instruction in instructional technology integration.

Chip contributed most of his success as a young teacher to the co-teaching experience he had his first year. “I had a co-teaching experience four of my five periods the first year I taught and that was super helpful. To get to watch an experienced teacher work was really helpful.” He remembered specifically this co-teaching opportunity contributing to his ability to differentiate and manage a classroom. “I learned a lot from that co-teaching experience that I carried on with me in the years after. I learned how to make accommodations for special education students, how to differentiate to students of different abilities in the same classroom, and how to be stern with students when it was time to buckle down and get things down.” Chip described struggling with classroom management his first few years. “I would say that I was definitely given the most difficult courses to teach my first year. We had four adults in one classroom, so yes it was very challenging as far as behavior goes.”

Chip said he felt supported and respected by his colleagues. “Some still look down on you for not going through an educator prep program but I think about it like this...how about we compare mathematics ability? Teaching is not a science that can be taught in a classroom it is an art that takes time to develop.” As he grew in experience, Chip assumed higher level classes. His third year he was selected to teach an Advanced Placement course in Computer Technology in which 100% of his students passed the AP Exam.

Chip was recently named his school level and the county level teacher of the year which he admitted was quite an honor in a system of over 2,100 certified employees. He said his effectiveness in the classroom comes from a real excitement about math. He also attributed his success to his previous work experience. "Working in developing math textbooks and software you would have to predict common errors in the solutions so I had a lot of experience thinking about what common mistakes were so I was already prepared for their questions." Concerning the general effectiveness of GaTAPP candidates, Chip says:

The real world experience and being able to answer the question, 'when am I going to be able to use this?' They are typically masters in that content area. They have very specific knowledge and application. I do not know if that is measured in standardized test scores but I think that with questioning becoming more contextualized and open ended, I think you might begin to see more of that teacher experience in those test results.

In the future, Chip plans to pursue a doctorate in instructional technology. He planned to stay in education keeping his options open to assume various roles within education. He was hopeful and concerned for the future of the GaTAPP program. "I fear that they will lose their funding because of state cutbacks. I hope that it continues to grow because there is a real need for those people in education. What better way to teach than to have real experience in that subject. The discipline and instructional stuff you can learn on the job. They have a much deeper understanding of the content." Ultimately, Chip did not give

credit to the GaTAPP program for his success but he did recognize the program for allowing him the opportunity to enter the classroom.

Teacher Participant 7. Mark is a White male over the age of 45. He is married with children. He was in his thirty first year as an educator. His interest in education began when he took a vocational appititude test in high school. The test indicated that his personality and strengthes were well suited for teaching. After high school, Mark began his career with the United States military. During his service he earned his college degree. While stationed in Japan he taught English to Japanese citizens. Upon moving back to the states he taught at the college level and at private academies without a teaching certification. Because of concerns of low pay in the private school setting he decided to pursue teaching in public schools. After researching his options he found that the GaTAPP program was the most cost effective pathway.

Mark indicated his biggest barrier to entering the classroom was administrative concerns over the highly qualified staff requirements for NCLB which he described as comical because of his extensive teaching experience. After receiving a job offer from a Title I school, Mark entered the GaTAPP program. He pointed to the mentor component as being the most effective. "The observations were good and the instructional coaches that would come observe you once a month to give constructive criticism was really helpful. I think they should put more emphasis on the mentor relationship. They really make a big difference." Mark did express displeasure with the courses provided by the GaTAPP program. "I did feel that the program was useless. The two week

program where we sat in class was worthless.” He added “they really do not prepare you for the first day of school in a real public school classroom. As a rookie GaTAPP teacher, you are going to get all the worst classes and you are not prepared for that type of student.” He also pointed to a need for some preparation in dealing with administration. Because of administrative turn over, Mark said that his school principal had no idea that he had been through the GaTAPP program.

Mark said his strongest attribute as a teacher was his many life experiences and the ability to provide students with real life examples of the uses of mathematics content. He stated that effective teaching can not be taught in a classroom. “I think that some people are just natural teachers. You can not treat education like a science because you are dealing with people and people are different and you can not quantify them. I think that it is a natural thing.” Mark continues by adding his thoughts on teacher education, “I have taken several education courses and they make me angry because a lot of the stuff that they are teaching teachers is just wrong. They treat theory as fact. They reported research as being truth.” Mark said the most effective teacher finds a way to teach within his or her comfort zone and is true to their personality.

Mark planned to remain in the classroom teaching high school mathematics until he retires. He aspired to complete his specialist degree in order to get a pay increase upon retirement. Mark suggested that the GaTAPP program will expand in the coming years. “Right now there is not much of a demand for teachers but it is not going to stay that way for long. Universities are

not going to be able to supply enough teachers to fill the classroom.” He indicated that the program had been a success thus far. “Providing an avenue for professionals to enter the classroom, not necessarily the training aspect has been it is success. Almost every GaTAPP teacher that I have met is a really good teacher.”

Teacher Participant 8. Jerry is a White male over the age of 45. He is married with children and he is in his seventh year teaching. Jerry spent 20 years as an accountant for a governmental agency all the while volunteering at a local Boys and Girls Club. Upon retirement Jerry described a feeling of unfulfillment. He explained, “I played a lot of golf for about a year and my game did not improve at all, so I told my wife that I was too young to do this for the rest of my life.” In his time at the Boys and Girls Club he recognized his ‘calling’. “I noticed a real need for male role models to work with those kids. There were a lot of really good kids without a lot of direction.”

Despite feeling too old to start a new career, Jerry began substituting and worked nearly everyday for three years as a substitute. He remembered that his substitute experience prepared him for the classroom and his skills were recognized by school administration who encouraged him to enter the GaTAPP program and teach as a full time teacher. Jerry pursued the suggestion and entered the program hired at a Title I school. He described the program as being a means to an end. “Having worked so many years in a government agency, I understand bureaucracy. There seemed to be a very large amount of paperwork that was not necessary. We did a lot of things just for the sake of doing them.”

Jerry states, “there was a lot of redundancy in the requirements. I saw the big picture but the portfolio was amateur.” Jerry did point to several helpful aspects of the program. “The real strength was the mentoring, when your GaTAPP mentor would sit in on your classes and offer feedback. That part was outstanding. They gave me the things that I needed.” He adds about the GaTAPP mentors, “they really seemed like they were leaders in the field. They had a real passion for education and a lot of insight.” He also pointed to his school mentor as being very helpful with his induction.

Jerry stated that his relationships at the school level were positive. “I did not feel that there was much of a negative stigma surrounding the program. There were already GaTAPP teachers at my school. The program within the county had already produced some outstanding teachers.” He described a collaborative atmosphere among his colleagues and high expectations from his administration.

Jerry said his prior work and life experiences aided him in several ways. “I raised two kids and I have taken them through high school and college. I have seen how they were handled. The structure that I had as an accountant and the discipline that you have to have really helped me with administrative tasks.” He similarly described other GaTAPP teachers positive attributes:

Most of the GaTAPP teachers have done something else. They know what it is like in the real world. They are teaching because that is what they wanted to do. A lot of the younger teachers coming from an educator preparation program are doing it because that is what their parents did.

So they have not seen a lot but teaching. The GaTAPP folks give you another level of maturity and they can offer some advice on career paths because they have been out there.

Jerry planned to remain in the classroom for a few more years. “I do not see myself past another five years. If I lose the passion or lose touch then I will walk away.” He recognized a real need for the GaTAPP program as it diversifies the teaching field and adds a richness because of their work experience. He expressed concern over financial cutbacks and the effects on the GaTAPP program. Hoping that the programs continues, he stated “you maybe shutting out the next superstar teacher” if the program were to be discontinued.

Teacher Participant 9. Luke is a White male over the age of 45. He is married with children. He was in his tenth year teaching. He came from the United States military he earned a graduate degree in applied sciences. His service with the military afforded him the opportunity to tutor and teach Naval Junior ROTC. He enjoyed this time but describes it as “a tremendous amount of extra curricular work.” Upon retiring from the military he decided to pursue teaching full time because “I loved to see the light come on when they understood the concept.”

Luke interviewed and was offered a job in his first interview at a Title I high school, though he did express difficulty in getting that first interview. “When I went to the job fair it did not seem like anyone was interested in me, they only wanted people who already had degrees in education.” Luke offered several suggestions for improving the GaTAPP program. First, he felt the preparatory

course would have been more useful if it was more focused on content areas and grade level. He also suggested that GaTAPP candidates be paired with a GaTAPP graduate at the school level to assist with the completion of program requirements.

Upon entering the classroom, Luke said he was not prepared to teach. "Content wise I was prepared but not as far as classroom management." Luke said the majority of his issue was with the level of students and number of preparations he was tasked with. "I got the worst classes and I had four different preps. I got all the math support courses and those are typically kids who do not like math, are not good at math and do not want to be there. That is a lot in addition to all the GaTAPP requirements." Luke said this heavy work load was compounded by school level administrative instability, turnover, and lack of support.

Luke did not tell his colleagues that he was a GaTAPP candidate and felt a real need to prove himself amongst his peers. "It really did not matter what venue you came from but what you brought to the table. They know I was a hard worker and they knew that I knew my stuff." Luke felt that one of his strengths is his application of content knowledge. He expressed his idea of effectiveness in those terms as well. "The fact that they are able to transfer concepts and apply them to different questions is effectiveness." He indicated this as well as a higher level of maturity to be the benefits of GaTAPP teachers.

Most of the GaTAPP teachers are older than traditionally prepared teachers when they enter the classroom so most of them are parents.

They have children of their own and they have learned to deal with children. You have the experience of living life and a better understanding of what is important for students and what is not important. Because of that GaTAPP teachers can help with instilling a sense of morality in the students.

Luke planned to stay in the classroom until he retires from education. He had no plans to pursue an advanced degree but did desire to teach higher level courses and earn his gifted certification. He said the GaTAPP program can remain relevant as long as they maintain some level of selectivity. "I think it will be helpful as long as they do not use GaTAPP as a band aid to patch the hole when they run out of teachers."

Teacher Participant 10. Jessica is an Asian female between the ages of 35-45. She is married with children. Jessica spent several years as an accountant in Atlanta, Georgia. She decided to move back home and while interviewing for an accounting position came to the realization that she was missing a good deal of her young child's life. She stated, "I really wanted to spend more time at home with my children. I was making about twice the amount of money working in accounting but I felt like I was never home. I wanted to be home more and enjoy my children."

While in college Jessica volunteered as a tutor with at risk inner city students. She described it as a difficult job but very rewarding. "I had one student that was giving me a really hard time and another student stood up for me and did not let anyone else give me any trouble. That was a really cool

experience.” She had some additional teaching experience in a SAT preparation course and described the satisfaction in seeing the gains from pre and post test administrations.

Jessica described the hiring process as “pretty quick, I decided I wanted to teach at the end of January and the next fall I had my own classes.” As for her GaTAPP training, she described it as a positive experience. “I learned a lot about federal requirements and lesson planning. They really modeled good teaching in their seminars” she remembered. She said she felt well prepared when she began teaching but offered a few suggestions for improving the program. “I thought that a lot of it was extremely repetitive. It felt like I took the same class three or four times. I would have liked to have more instructional strategies and engaging activities.” She described the portfolio requirement as cumbersome. “It was not helpful, it was just jumping through hoops. It would have been more helpful if that was a school level thing that was evaluated at the school so that we could make it more specific to their requirements and they would have a better idea of how to support us.”

Jessica pointed to her department chair and her peers in the math department as being integral to her success. “My content peers and I had common planning periods so we could really get on the same page with each other.” She did not feel like they treated her any differently because of her GaTAPP background. “The only thing that I heard was that people were waiting for me to fail and asking me why in the world was I teaching.”

Jessica described her business experience as being an effective attribute. “Being in the business world, I learned how to deal with people and how to sell my product and myself. I am really good at winning over parents and students. I have really good customer service.” She described this ability to “win over” students as being a characteristic of an effective teacher. “Content knowledge is not everything. You need to be able to engage students and present the material in a way that is meaningful. Students need to respect you because you care about their success.”

Jessica planned to get an advanced degree when her children are a older and would like to teach advanced placement or gifted courses. “I will be staying in education and I do not have any interest in being an administrator.” She stated that the GaTAPP program will be a very important part of staffing schools in the future. “The program allows mature individuals to enter the classroom with some life experience. I feel like brand new traditional teachers struggle much more than I did because they were too close in age to the students and they could not manage the classroom. A lot of them do not have children of their own so they are not prepared to deal with kids.” She did express some concern about recent state budget cuts and the negative impacts that would have on the GaTAPP program.

Teacher Participant 11. Paul is a White male between the ages of 25-35. He is married without children. Paul is in his fifth year teaching high school mathematics. Prior to teaching in the high school setting he taught mathematics at the college level. He was in the process of earning his doctorate in

mathematics when a family situation and funding issues caused him to postpone his academic career and return back home.

Paul had fond memories of teaching at the college level and indicated that this experience made him more marketable when it came to interviewing for a high school teaching position. "I received call backs and job offers from every school that I interviewed at." Upon accepting a teaching position, Paul entered the GaTAPP program. He reflected positively on that experience. "I really did not feel like my time was wasted. My instructor was amazing at explaining and modeling classroom management and maximizing instructional time." He did feel that the portfolio requirement was burdensome. "I think it could be eliminated. First year teaching is brutal and time is at a premium. It would have been better if it were more specific."

Paul described his first year of teaching as being very trying. "I had to float to open classrooms. It was difficult to create seating charts for five different room layouts and to use grouping strategies when I had to return the desk back after I left every period." He remembered feeling prepared but looking back he admitted that he was not. He pointed to classroom management as being his greatest challenge. He stated his background as a college level teacher was his biggest strength. "It is hard for math education majors to prepare their students for college courses when the teacher has never taken the courses themselves." He did share this content knowledge with his peers and also pointed to his ability to repair their computers as strengthening his relationships with fellow teachers. When asked about his perception of traditional teachers' attitudes toward

alternative certification, Paul shared an interesting thought. “I do not really think that traditionally certified teachers respect their own educational classes so there was not an issue there.”

Paul pointed to his extensive knowledge of mathematics as being his most effective attribute. “I know a lot of math and I have a better idea of what students need to know to be successful in future math classes.” He identified discipline and paperwork as being his personal area of weakness. He stated that GaTAPP teachers were able to bring “fresh ideas” to the classroom. “They have not been bogged down with educational theory without practice. They generally seem to be the happiest of teachers from what I have observed.”

Paul planned to stay in education. His stated goal was “to be the best teacher I can be. I do not want to be an administrator. I really love my job.” He recognized the GaTAPP program for producing great teachers in his county but he was concerned about the future of the program because of budget cuts and a current decrease in need for teachers.

Teacher Participant 12. Carrie is a White female between the ages of 25-35. She is married with children. Carrie was in her fifth year teaching high school mathematics. She had a bachelor’s degree in performing arts and spent six years as a dance instructor and choreographer at all levels (elementary, high school, college, and professional) prior to entering the GaTAPP program. To supplement her income she began to substitute teach among other secretarial jobs. She unexpectedly discovered that she was pregnant with twins. This life

change left her looking for more stability. She explained, “I needed a better means of income and a full time position with benefits.”

Carrie was substituting in a high school mathematics classroom when a school administrator encouraged her to enter the GaTAPP program to earn her teaching certificate. She described her biggest challenge as passing the content knowledge assessment. “Coming from the dance and performing arts background, I did not have the heavy math experience that a lot of other GaTAPP math teachers had so it took some preparation to pass the test” explained Carrie.

Carrie expressed satisfaction with her GaTAPP experience. “They taught me teaching strategies, classroom management, and how to write a lesson plan. The instructors were really good.” She thought the program could be improved by providing instruction in time management, completion of administrative tasks, organizational skills, and how to efficiently and effectively grade papers. She described the her most supportive resource as school level colleagues. “My administrators and my content area leaders were extremely helpful. My first year my administrators gave me only one prep and it was really helpful. I could not imagine having multiple preps my first year.” Carrie also remembered her peers were very supportive of her excess workload her while completing the GaTAPP requirements. “They were pretty accepting at my school. The program has put out some really good teachers in our county so it has a good reputation. Some to the teachers are much more impressive than traditional teachers. So it carries a good name.” Her relationships with students and parents were not so positive

at the outset. "I had to send home a letter explaining that I was not yet highly qualified. One day a student got mad at me and bursted out that he did not have to do what I asked because I was not even a real teacher. That was hurtful and overwhelming while I was trying to make everything work." Carrie described her parents as somewhat disconnected to the Title I school where she was teaching. "I do not feel like I can relate to them because they do not spend a lot of time at the school checking on their kids. They do not initiate communication and often times their phone numbers that we have for them do not even work." She described a recent improvement in her relationships with students. "My first two years I was so focused on teaching the curriculum that I did not focus on building relationships. I really felt like I had to prove myself. I felt like I had to show my peers that I belonged." Carrie has received some training in the area of relationship building and now considers that as one of her strong points.

Upon completing the program, Carrie said that her teaching skills were comparable to her peers. She stated her greatest attribute was her attitude. "My positive attitude and energy is my strength. Math is not always the most interesting thing. I like to play games and do fun activities. I made a dance routine to help my students remember the end behavior of functions. The kids really like to get up and move around." Her weakness unlike most GaTAPP teachers was the application of content. "I can do the math but explaining how to use it is difficult for me."

Carrie was unsure what the future held for her. "I love teaching. I do not care what subject it is and I do not know how long I will stick with math but I

definitely do not think I will retire as a math teacher.” She expressed some desire to return to dance instruction but right now she said she needed to repay her school and administrators for investing so much in her. As for the GaTAPP program, Carrie indicated that it will play an important role in staffing our schools in the future. “It attracts the right people who like to work with kids, teachers who are passionate and committed. They are older and bring a lot of wisdom to schools.” She also suggested that these teachers bring a lot of applied experiences. “They have a lot more knowledge than what you get in a math education program.” She suggested that candidates spend some time as a substitute teacher before entering the program for two reasons. First, it would allow the opportunity to ‘test the waters’ and determine at what level they were most comfortable and second- to get to know school personnel. “I really felt like my experience as a substitute teacher was the reason I was offered a teaching position.”

#### School and System Level Instructional Supervisors

The following section includes five interviews conducted with school level and county level instructional leaders. There were county level initiatives in place for new teachers including GaTAPP teachers. GaTAPP teachers were supported at the county level first by a new teacher orientation including a school tour and introductions to school administration and support staff. Teachers were assigned a school level mentor typically in their content area. Monthly new teacher meetings were conducted at the school level by school personnel that focused on procedural and administrative deadlines.

Administrative Participant 1. Barbara is a White female between the ages of 35-45. She is married with children. Barbara was a school level administrator who oversees teaching, learning, instructional resources, and teacher professional learning. She observed and evaluated teachers. Additionally, she was in charge of the mentor program at the school level. Prior to her position as a school administrator, Barbara was a high school teacher and a department chair.

Barbara was knowledgeable about GaTAPP requirements and had ample exposure to GaTAPP teachers. She described the program as an alternative certification program where “you end up with a lot of people who have obtained a degree and can not find a job or people who have always wanted to teach but got a degree other than education.” Barbara went on to describe GaTAPP teachers as people who were generally strong in their content area but do not necessarily know the school environment. When asked how many GaTAPP teachers were currently employed in her school she replied three teachers. There were actually 13 GaTAPP teachers employed in her school.

Barbara praised GaTAPP teachers for being well versed in their content areas. “They have had a much more concentrated study in that discipline as compared to someone who went through an education program. Education majors have a concentration in a content area but they normally do not have as many hours in that area compared to a GaTAPP teacher.” She pointed to their lack of classroom management skills and the timely completion of administrative tasks as areas for improvement. Barbara stated the most effective component of

the program were the classroom observations both by the candidates and the program personnel. “They have the opportunity to see not only their contents but other school settings and other teaching strategies both good and bad.” She pointed to several aspects of the program that were redundant and could have been eliminated. “The journaling that they have to do is overkill and in some cases is rhetorical. The portfolio is good in theory but there is so much repetition that it takes away from the validity that the candidate sees in it. Some of the strengths of the program are negated by the jumping through of hoops.”

As for Barbara’s relationships with GaTAPP teachers and their program supervisors, she indicated that GaTAPP teachers at her school were treated as a member of the instructional team once they were hired and were not distinguishable besides the additional requirements of the GaTAPP program. She communicated satisfaction with GaTAPP personnel. “Our point of contact has been great. She is accessible. She has been great for us.”

Barbara described instructional effectiveness as “the ability of the teacher to communicate the content and enable mastery for all students.” She described mastery as “when the student is proficient in the content area measured as 70 or better.” Barbara implied that GaTAPP teachers have general attributes that contributed to their instructional effectiveness.

They have more life experiences and their life experiences because of their career choices makes a difference. They are well versed in other areas and other venues in the commercial world and industrial world more so than career educators. Career educators have been walking around in

a school building their entire lives whereas GaTAPP teachers have not so I think that benefits them.

Barbara stated GaTAPP will have an increased role in staffing schools in the future. “If you look at enrollment in schools of education, it is much lower. People are not opting to go into schools of education for a variety of reasons.” She added, “the best and brightest as they are called look for other career opportunities. I think that GaTAPP is going to grow because we are not going to have the pool that we have had to choose from typically in education programs.” She stated that her school was not currently considering GaTAPP candidates for employment because of the availability of experienced teachers to fill vacancies.

Administrative Participant 2. Patricia is a White female over the age of 45. She is married with children. She was in her sixth year as a school administrator at a Title I school. Prior to serving as an administrator, Patricia taught for 12 years at the middle school level. She defined her job as knowing “what good teaching looks like, to be an expert in teaching strategies, and best practices that cut across content lines.” Patricia was the supervising administrator of her school’s mathematics department, where she observed and evaluated her school’s math teachers including the five GaTAPP math teachers. She had interviewed and hired several GaTAPP teachers for other content areas. She described these GaTAPP teachers as no different than the rest of the faculty as they were all part of a team.

Patricia had a very positive view of the GaTAPP program, however she referred to the program in the past tense as they have not been able to hire

individuals through the program in the last year. “It was very popular and it filled a great need. There were a lot of people with strong content knowledge that followed a different path in life and teaching just came calling to them and this program made it possible for those individuals to follow their dream.” She credited GaTAPP teachers with enriching the faculty with their maturity and experience. “Most of them have good people skills from being in the workplace and they are very excited with the kids. They have the ability to work well with others. Most of the GaTAPP people we have are now part of other people’s support system. We have one that is an assistant principal and one that is a guidance counselor.”

Having actually taught a few GaTAPP seminars on classroom management, Patricia was complimentary of the GaTAPP training. “GaTAPP teachers came in knowing about Response to Intervention teaching strategies. They are up on current initiatives. They know all about standards based classrooms. I have been impressed with the amount of stuff that they have been exposed to.” She added, “they give them applicable strategies not some pie in the sky ideas, theory into practice not just textbook knowledge but working in activities and modeling good teaching. They bring trainers in who know what they were doing.” According to Patricia, the most effective components of the program were the classroom observations. She did point to several areas for improvement. “The instructional piece and the knowledge of No Child Left Behind is what they do not have. I think that they should have some sort of an apprenticeship period with a master teacher. They need to shadow and need to

be matched up with a veteran teacher or an experienced Special Education teacher and experience co-teaching with that veteran teacher.”

Patricia voiced her disapproval of a county decision to disinvite the GaTAPP providers and to exclude GaTAPP candidates from consideration at the latest county job fair. “I think that it is unfortunate that someone would be immediately disqualified on a rubric because they were GaTAPP. That is wrong and I am afraid that it has closed some doors for the GaTAPP people.” She continued, “it is saying that you are not as good as these other people and we would not look at you until we have exhausted all other means.” Patricia stated that GaTAPP teachers were especially effective at the high school level because of the focus on specific content areas and would like to see the program continue to provide teachers to public school classrooms. She did state that the school and the system should play a larger role in the GaTAPP teacher development process. “Would it not be great if our county had it is own GaTAPP program. If a county had the ability to be more hands on with the candidates and selection. They could say this is someone we feel like we could grow. That is what your job as an administrator is, it is to grow good teachers and support them.”

Administrative Participant 3. Liz is a White female over the age of 45. She is married with children. Liz was in her nineteenth year of education, three years as a school administrator in charge of instruction and 16 years as a high school teacher and department chair. Her main responsibility as assistant principal for instruction was to support and improve instruction. She had the duty

of visiting every classroom on a regular basis for the purpose of supporting teachers.

Liz had a basic understanding of the GaTAPP program requirements and quite a bit of experience with GaTAPP teachers both as an administrator and as a department chair. In both capacities she interviewed GaTAPP candidates for employment. “I find that it is more difficult for a GaTAPP teacher to interview without having a practicum and student teaching experiences. I also think that you find a lot of really great and capable people but as an interviewer you have to understand that they may not know the answers to questions about classroom management, they may not speak the language, they may not have the vocabulary to talk about school related issues.” She continued, “when I interview a GaTAPP candidate, I am looking for a temperament, a person that I sense wants to teach because they enjoy children not because their other plans did not work out so here I am.”

Commenting on the GaTAPP candidates at her school, Liz stated “there are some GaTAPP people here who are department heads and administrators and phenomenal teachers but there are also people on the list who fit the ‘if what I wanted to do did not work, then this was my back up plan’ and there are some unhappy people who love their content areas but they do not necessarily love their students. I think you are going to see that a lot more at a high school level because we love our content at the high school level.” She affirmed that her GaTAPP teachers were respected and held to the same standard as traditionally

prepared teachers but as a whole she expressed the program has received a bad reputation in the county,

I think the perception is that it is a high maintenance program and it is a lot of work and the logic is that you have someone already with a certification who can come in and teach versus someone who is going to have to earn their certification while they are working. It is a more high maintenance experience. I do not think that it is a reflection on the GaTAPP teachers but the hoops that you have to jump through to get them certified. I think the connotation is with all the boxes that need to be checked. Our county is not currently hiring them, it places a perception of they are not as qualified as others. I do not know whether that is earned or not.

Despite the county's refusal to consider GaTAPP candidates, Liz said there was some value in hiring these individuals. "Content knowledge is a strength. They bring a perspective outside of education. Another strength is the ongoing professional learning. They have the most up to date and intensive training while they are with students." She continued, they have "a desire to teach and a desire to go through the process and a solid foundation in their content and typically a fascination and a willingness to learn about pedagogy." She said their training was more applicable and practical than the training that traditionally trained teachers receive.

While Liz identified several strengths of GaTAPP teachers, she also pointed out areas for improvement. She listed classroom management, instructional strategies, the management of paperwork, strategies for motivating

students, and decorum in parent teacher conferences as general weaknesses for GaTAPP teachers. She added, “those seem small but they are big things!”

Liz recognized the GaTAPP program continued to provide surrounding systems with teachers but explained “in our system we have a lot of teachers from the outside wanting to get in.” She added, “I do not think the program is going to go away or weaken. I do think that as the economy improves and we start expanding and getting class sizes back where they were then we will start seeing GaTAPP teachers coming back into our county.” In summary, she concluded that “diversity in our schools is a good thing. I think that having lots of people with different backgrounds and different perspectives only strengthens the school. I think that people that have been teaching for 20 years and came through the traditional way need to hear the perspective of someone who did not. I think the more diversity you have the better off everyone is.”

Administrative Participant 4. Olivia is a White female over the age of 45. She is married with children. Olivia began her career in education as an administrative assistant. After seven years as an office staff member, she decided to return to school and earned a degree in education. She spent 10 years as a teacher and is in her third year as a school administrator. As a school administrator, she assisted in the recruitment and interview process, oversaw the new teacher induction program, observed and evaluated teacher performance. In her time as a teacher, Olivia served as a mentor teacher. As a mentor, she had the opportunity to counsel two GaTAPP teachers.

Olivia had a strong knowledge of GaTAPP requirements and program curriculum. She has interviewed several GaTAPP candidates but had not yet been a part of hiring one. “As far as their preparation during the interview, they had the content knowledge. In the interview, it was obvious that they are not aware of classroom management strategies and the things that take place inside the classroom that a normal program provides.” There were currently nine GaTAPP teachers currently working at Olivia’s school.

Reflecting on her exposure to GaTAPP teachers, Olivia stated that “all my experiences have been very positive.” She pointed to their applied education in their content area as their best attribute. “Talking in general, most GaTAPP candidates this is their second career so they have life experiences that they can bring to the classroom and that really adds to their toolbox and being able to relate.” She suggested their greatest needs were “the instructional strategies and the delivery methods, classroom management and procedural pieces. Of great concern for me is when we have a special education GaTAPP person because of all the federal requirements and laws, it is overwhelming. I do not think that is covered thoroughly in the GaTAPP program.”

Olivia suggested the program could be improved by allowing more exposure to master teachers.

I think a cohort program model that would bring the teachers together with master teachers in their content area would be a very effective addition.

Our system is big enough that we could provide that. I think that would be very helpful to the candidate. We could eliminate the obstacles and make

it easier on candidates. The lack of knowledge about grading and administrative components are overwhelming. It has to be school level specific and I think that we are missing that.

Considering the future of the GaTAPP program, Olivia explained that currently “we have a lot more experienced teachers and veteran teachers looking for a lot fewer positions. So you are looking for individuals who have some value added. They can fill a lot of roles in the school.” She added, “we can be more selective, our county attracts good teachers and veteran teachers from surrounding areas and so they push GaTAPP candidates out of contention.” She hoped that the program will continue, but was unsure of its future. “My concern is that there will not be as much of a need and the program will not be able to sustain itself if our economy does not turn around. I do not think the state will allow the program to go away but I do not know how you can continue to fund the program when you are not producing that many teachers.” She concluded by recalling the success of the GaTAPP teachers she has been exposed to.

The GaTAPP teachers that I have had the pleasure of teaching with have been very successful. The two that I mentored both became school level teachers of the year within four years of starting their program. We also just had a county level teacher of the year who came from the GaTAPP program and so did the county next door.

Administrative Participant 5. Linda is a White female between the ages of 35-45. She is married with children. Linda worked at the county level. She had 13 years experience as a teacher and three years of experience working in a

county level leadership role. Her role was almost exclusively curriculum and instruction. She described her duties as “interpreting standards, compiling materials for teachers, creating policies and procedures relating to curriculum, advising county leadership on mathematics education, and occasionally acting as a content expert for teacher interviews. She participated in the job fair interviews and passed along quality applicants to principals looking for mathematics teachers. During the interview process, Linda was told by several principals that they were unwilling to consider GaTAPP candidates for employment. “The reality is that with the importance of testing, principals do not want people in front of their kids who are going to mess up their test scores. With high stakes testing it is too risky to put them in front of the kids.”

Linda’s had a basic understanding of the GaTAPP program and their requirements. While in the classroom, she served as a mentor to GaTAPP teachers. She had mixed feelings about the GaTAPP mathematics teachers in the county.

It is hard to make a blanket statement about all of them. The people who are the strongest generally found someone in their department and stayed close to that person and asked them a lot of questions and watched what other people were doing. A lot of times they had a mentor who was really close to them and really gave a lot of attention to what they were doing. The strongest people had a very good mentor relationship. The weak people tended to be the ones who work all alone in asylum and they do not ask anything of anyone. Maybe because they are not concerned with

pedagogy. I think that new GaTAPP teachers think that there incredible content knowledge is going to keep the kids entertained and it does not take long for them to figure out that is not the case.

She identified some relational challenges that GaTAPP teachers face. “For a lot of math teachers who have a degree in mathematics or applied mathematics they have never been in a classroom with the type of people they have to teach. They have never met that kind of kid. So for some of them it is really hard to figure out how to have a relationship with someone who is foreign to you.”

Linda offered several suggestions for improving the GaTAPP program. She suggested that schools and county level leadership could be more effective at training training their alternatively certified teachers. “I think maybe more of their training should be in house maybe more overlap between what is done at in the GaTAPP program and what you do at the school. In a lot of ways what they do is almost completely separate.” As a school level mentor of GaTAPP teacher, she recalled never being consulted by program mentors. “I feel like I could have added a lot of insight into what his needs were. They were only seeing when they come which is very seldom and I see him everyday.”

Linda taught several mathematics pedagogy courses at a local university. She recalled teaching several “weak teacher candidates” who were on track for a traditional certification. “The fact is that if a math ed major can pass their math courses, it is not hard to pass an education course. They are just as likely to crash and burn as a GaTAPP teacher. I do not feel like GaTAPP necessarily makes them more or less prepared.” She pointed out weak teachers typically

were weak because of a personality type not because of their preparation pathway.

Linda stated that the GaTAPP program allowed some very effective teachers access to the classroom and gave several specific examples of successful GaTAPP math teachers in the county. “They have new and fresh ideas and different perspectives. They have a lot of background knowledge about concepts and how they are used that maybe a math ed student is not going to know. Clearly, when kids see that math is present in the classroom and outside of the classroom it is pretty fascinating to them.”

Linda indicated there was a future place for the GaTAPP program in staffing our schools. “The need for good teachers will always be there. The budgetary state that we find ourselves we are working with much leaner staffs so we do not need them much right now. If the tides turn and instead of judging quality by testing and we used those funds to decrease class sizes then their maybe more of a need for them.” Linda summerized her thoughts, “I think that going through the four year program shows that you have some interest in teaching but I do not think that makes you a good teacher. I feel like we need to find quality teachers wherever we can find them. If it happens to be through GaTAPP then our goal should be to find the best people to put in front of kids. I think that being overly picky about a pedigree may not be in the best interest of our kids because it is just a piece of paper.”

## Cross Case Analysis

The previous sections offered a summary of each interviewee's experiences with the GaTAPP program. This section provides a cross case analysis of the experiences of these high school mathematics teachers and their school and county level instructional administrators in order to address the research questions. From the transcription and coding of the interviews themes emerged. Themes are discussed by similarity and differences between teachers and administrators for each research question.

1. How do Georgia TAPP prepared teachers describe their experiences leading to the classroom?

GaTAPP teachers pointed to two main reasons for pursuing a career in education. All three females were single mothers at the time of entrance into the program and had a desire to spend more time with their young children and provide them with a steady income and healthcare benefits. The males mentioned life changes, the loss of a job, or dissatisfaction with their previous employment as reasons for entering the program. Males were seeking job stability, consistency, and a desire to work with students.

All but one interviewee had prior professional work experience before entering the GaTAPP program with the majority of the experience being in applied mathematics (accounting, engineering, and computer programming). Of those interviewed, six of them had substitute teaching experience in addition to their work experience. In all but one case, a previous teaching experience led to the ultimate decision to pursue a career in education.

2. How do Georgia TAPP prepared teachers describe their instructional experiences and relationships?

Upon receiving a job offer from schools, the interviewees said they felt a part of a team at their schools and felt supported by their administrators and colleagues. The individuals who entered the program early in its existence experienced some trepidation about sharing their connection with alternative certification. As time went on, new candidates felt the program was well accepted because of the quality of prior graduates. Many indicated their prior work experiences assisted them in becoming integrated into their schools' faculties. However, the county in which they were employed took a stance against the program due to its intense requirements on candidates, administration and the risk of the unknown performance of teacher candidates upon student achievement and test scores. Several GaTAPP teachers took this decision personally as a reflection of their preparation but administrators pointed to the lack of openings and the amount of additional support the program requires as the main reasons for this decision.

3. How do Georgia TAPP prepared teachers perceive their futures in education?

All but one of the GaTAPP teachers planned to stay in education. Of those who planned on remaining, all but two of teachers had a desire to continue teaching until they retired with no aspirations to move into administration. The two exceptions both are currently pursuing doctoral degrees in educational leadership and curriculum and instruction. Eventually, these two would like to

earn a position as a school administrator and an mathematics instructional supervisor respectively. Three others had earned master's degrees in some area of education upon completing the GaTAPP program but still wanted to remain teaching. Several of those wanting to remain in the classroom expressed a desire to teach upper level, gifted, honors, or Advanced Placement mathematics courses.

All of the GaTAPP teachers were confident the program would continue to staff schools in some capacity but many were nervous about the quality of the experience due to the effect of state budget. School administrators were less confident about the program's future. Two administrators expressed concerns over funding for the program and a decreased demand for teachers.

#### 4. How do school administrators describe their experiences with Georgia TAPP and traditionally prepared teachers?

Teachers and administrators uniamously agreed that GaTAPP teachers had a rich understanding of content and it is application. This was supported by the educational backgrounds of the GaTAPP teachers interviewed. Eleven out of 12 interviewees had degrees in mathematics or applied mathematics. With the exception of one GaTAPP teacher interviewed, all entered the program after having some work experience in their applied mathematics fields but outside of education. GaTAPP teachers and administrators agreed that content specific degrees and field work experience added value and relevance to GaTAPP teachers' instruction and the teachers ability to make connections of relevance with the math content.

Administrators pointed to GaTAPP teachers' main weakness as the management of the classroom and the management of students. However, most of the GaTAPP teachers (10 of 12) had formal and informal teaching experience prior to entering the classroom. Several GaTAPP teachers mentioned this prior experience was no preparation for the level of students that were assigned to their classes with in their first years of teaching. The few GaTAPP teachers who had substitute teaching experiences at schools that they became employed at mentioned the helpfulness of having learned the layout of the school and bell schedule, having met the faculty and staff, and being exposed to some of the procedural requirements. Nine out of 12 GaTAPP teachers mentioned classroom management as a specific area for program improvement.

Only three of the 12 teacher interviewees had an overall positive assessment of the GaTAPP program. Many indicated the requirements to be redundant and cumbersome to the improvement of their teaching skills. However, all GaTAPP teachers mentioned the effectiveness of the mentor and mentee relationship both through the GaTAPP program and through the school level. Several actually alluded to this component as being the driving force for their success and preserverance. Four out of five administrators concurred with the assessment of redundant program requirements. Both GaTAPP teachers and administrators agreed that the five required teacher observations and field experiences were a positive component of the program. Teachers recalled picking up several helpful instructional strategies and witnessing ineffective

teaching methods. Numerous teachers suggested these observations begin prior to entering the classroom.

GaTAPP teachers and administrators recognized the importance of the GaTAPP program to staffing public schools in the future. Multiple teachers recognized the program as a gateway to allow promising teachers to enter the classroom but did not attribute their success as a teacher to the program's training. Some teachers and administrators were concerned about funding and staffing issues faced by program providers and the ability to continue supporting new teachers.

### Quantitative Results

To answer the quantitative research questions, the following data were entered into a database for each participant: teacher certification type, gender, race or ethnicity (White or minority), student mean scale score, and percentage of students meeting and exceeding standards. Accompanying the research questions are descriptive statistics generated for each group and are displayed by the dependent variables student mean scale score (see Table 1) and percentage of students meeting and exceeding standards (see Table 2). Following the generation of descriptive statistics, each research question was analyzed using the nonparametric Kruskal-Wallis test and Cohen's effect size ( $d$ ) values were produced for group comparisons. A summary of the findings are presented by research question.

5. Is there a significant difference between teachers prepared through GaTAPP and teachers prepared through a traditional university based teacher

preparation program by selected demographic characteristics on student mean scale scores of the Georgia Mathematics End of Course Test?

Descriptive statistics reported in Table 1 include student mean scale scores for teacher certification by demographic characteristics for the 62 research participants. Descriptive statistics include number of individuals within each group, the median student mean scale score for each group, mean scale score for each group, and the standard deviation for mean scale score for each group on the mathematics EOCT. Mean values for the mean scale score for teachers who were certified through traditional university based method were between 398.70 and 412.49. Mean values for mean scale score for teachers obtaining their certification through the GaTAPP program were between 397.30 and 408.12 (see Table 1). Median values for GaTAPP certified teachers ranged from 398.70 to 409.50. Teachers trained through a traditional university based program had median values between 398.70 to 406.40 (see Table 1).

Table 1

*Descriptive Statistics of Teacher Certification Type by Demographic*

*Characteristics on Mathematics EOCT Mean Scale Scores*

Traditional					GaTAPP				
Teachers	<i>n</i>	<i>Mdn</i>	<i>M</i>	<i>SD</i>	Teachers	<i>n</i>	<i>Mdn</i>	<i>M</i>	<i>SD</i>
White	35	406.40	412.49	18.82	White	15	402.10	401.93	12.33
Minority	7	399.90	399.20	7.79	Minority	5	401.00	399.62	13.18
Male	11	398.70	397.50	11.18	Male	9	402.10	406.01	12.44
Female	31	405.80	411.96	18.39	Female	11	402.70	405.52	17.19
0-3 yos	6	405.70	403.93	7.35	0-3 yos	5	404.10	400.52	9.13
4-6 yos	10	406.00	409.17	16.08	4-6 yos	9	398.70	397.30	7.25
7+ yos	26	405.65	412.17	20.49	7+ yos	6	409.50	408.12	18.25

*Note.* yos = years of service.

- a. Is there a significant difference between teachers prepared through GaTAPP and teachers prepared through a traditional university based teacher preparation program by teacher race or ethnicity (White or minority) on student mean scale scores of the Georgia Mathematics End of Course Test?

A Kruskal-Wallis test was conducted to evaluate the differences among the four groups (traditionally trained teachers who are White, traditionally trained teachers who are a minority, GaTAPP trained teachers who are White, and GaTAPP trained teachers who are a minority) on student mean scale scores on the Georgia Mathematics End of Course Test. The Kruskal-Wallis test yielded a

nonsignificant finding  $H(3, N = 62) = 5.54, p = .14$ , indicating no difference in the ranking of teacher certification pathway by race or ethnicity on student mean scale scores on the Georgia Mathematics End of Course Test. Although there was no statistical significance between the groups, mean scale scores were distributed as follows: teachers gaining their certification through a traditional university based teacher preparation who are White ( $M = 412.49$  and  $SD = 18.82$ ), teachers gaining their certification through GaTAPP who are White ( $M = 401.93$  and  $SD = 12.33$ ), teachers gaining their certification through GaTAPP who are a minority ( $M = 399.62$  and  $SD = 13.18$ ) and teachers gaining their certification through a traditional university based teacher preparation who are a minority ( $M = 399.20$  and  $SD = 7.79$ ) (see Table 1).

Effect size, reported as Cohen's  $d$ , indicated a medium effect between 0.63 and 0.78 for teachers certified through a traditional-university based program who were White compared those who were a minority, teachers certified through GaTAPP program who were White, and teachers certified through GaTAPP who were a minority. Comparisons of other certification groups by race or ethnicity had relatively low effect sizes between 0.04 and 0.25.

- b. Is there a significant difference between teachers prepared through GaTAPP and teachers prepared through a traditional university based teacher preparation program by teacher gender (male and female) on student mean scale scores of the Georgia Mathematics End of Course Test?

The Kruskal-Wallis test ranked differences among the four groups (traditionally trained teachers who are female, traditionally trained teachers who are male, GaTAPP trained teachers who are female, and GaTAPP trained teachers who are male) on student mean scale scores on the Georgia Mathematics EOCT. The Kruskal-Wallis test yielded a nonsignificant finding  $H(3, N = 62) = 4.77, p = .19$ , indicating no difference in the ranking of teacher certification pathway by gender on student mean scale scores on the Georgia Mathematics EOCT. Mean scales scores for teacher certification pathway by gender were distributed as follows: teachers gaining their certification through a traditional pathway who are male ( $M = 397.54$  and  $SD = 11.18$ ), teachers gaining their certification through GaTAPP who are male ( $M = 406.01$  and  $SD = 12.44$ ), teachers gaining their certification through GaTAPP who are female ( $M = 405.52$  and  $SD = 5.18$ ), and teachers gaining their certification through a traditional pathway who are female ( $M = 411.96$  and  $SD = 18.39$ ) (see Table 1).

Cohen's effect size ( $d$ ) for certification method by gender was relatively high ranging from 0.73 to 0.98 when comparing teachers certified through a traditional university based program who were male to traditionally certified females, GaTAPP certified males, and GaTAPP certified females. Comparisons of other certification methods by gender had moderate effect sizes between 0.34 and 0.48.

- c. Is there a significant difference between teachers prepared through GaTAPP and teachers prepared through a traditional university based teacher preparation program by teacher levels of experience (1-3 years, 4-

6 years, 7+ years) on student mean scale scores of the Georgia Mathematics End of Course Test?

The six groups (traditionally trained teachers with 0-3 years of service, traditionally trained teachers with 4-6 years of service, traditionally trained teachers with 7+ years of service, GaTAPP trained teachers with 0-3 years of service, GaTAPP trained teachers with 4-6 years of service, and GaTAPP trained teachers with 7+ years of service) were evaluated for differences on student mean scale scores on the Georgia Mathematics EOCT. The Kruskal-Wallis test yielded a nonsignificant finding  $H(5, N = 62) = 5.65, p = .34$ , indicating no difference in the ranking of teacher certification pathway by levels of experience on student mean scale scores on the Georgia Mathematics EOCT. Table 1 summarizes teacher certification by levels of experience. Mean scales scores distributed as follows: GaTAPP teachers with 7+ years of service ( $M = 408.12$  and  $SD = 18.25$ ), beginning GaTAPP teachers with 0-3 years of service ( $M = 400.52$  and  $SD = 9.13$ ), GaTAPP teachers with 4-6 years of service ( $M = 397.30$  and  $SD = 7.24$ ), teachers gaining their certification through a traditional pathway with 0-3 years of service ( $M = 403.93$  and  $SD = 7.35$ ), 4-6 years of service ( $M = 409.17$  and  $SD = 16.08$ ), and 7+ years of service ( $M = 412.17$  and  $SD = 20.49$ ).

Teachers obtaining their certification through a traditional university based program of all levels of experience had large effect sizes ranging from 0.87 to 1.00 when compared to teachers certified through the GaTAPP program with 4-6 years of service. Comparisons of other certification methods by years of service had small to moderate effect sizes between 0.06 and 0.63.

6. Is there a significant difference between teachers prepared through GaTAPP and teachers prepared through a traditional university based teacher preparation program by selected demographic characteristics on the percentage of students meeting and exceeding standards of the Georgia Mathematics End of Course Test?

Descriptive statistics for teacher certification by demographic characteristics on the percentage of students meeting and exceeding standards on the Georgia EOCT in mathematics are organized in Table 2. The descriptive statistics presented are number of individuals in each group, the median percentage of students meeting and exceeding standards, mean percentage of students meeting and exceeding standards, and the standard deviation for each group. The mean values for teachers certified through a traditional university based program were between 52.88 and 61.29 percent. The mean values for teachers certified through the GaTAPP program were between 52.72 and 64.71 percent (see Table 2). Median values for GaTAPP certified teachers ranged from 46.81 to 64.71. Teachers trained through a traditional university based program had median values between 51.41 to 61.29 (see Table 2).

Table 2

*Descriptive Statistics of Teacher Certification Type by Demographic*

*Characteristics on the Mathematics EOCT Percentage of Students Meeting and Exceeding Standards*

Traditional					GaTAPP				
Teachers	<i>n</i>	<i>Mdn</i>	<i>M</i>	<i>SD</i>	Teachers	<i>n</i>	<i>Mdn</i>	<i>M</i>	<i>SD</i>
White	35	59.88	62.14	23.58	White	15	53.15	50.49	18.83
Minority	7	52.88	47.13	16.86	Minority	5	52.72	52.08	17.75
Male	11	51.41	45.94	18.96	Male	9	53.64	56.94	15.97
Female	31	60.76	61.76	22.26	Female	11	57.49	53.66	25.55
0-3 yrs	6	58.26	53.12	15.85	0-3 yrs	5	57.89	49.84	19.87
4-6 yrs	10	61.29	61.67	19.12	4-6 yrs	9	46.81	45.00	14.59
7+ yrs	26	59.97	60.36	26.13	7+ yrs	6	64.71	60.60	20.35

*Note. yrs = years of service.*

- a. Is there a significant difference between teachers prepared through GaTAPP and teachers prepared through a traditional university based teacher preparation program by teacher race or ethnicity (White or minority) on the percentage of students meeting and exceeding standards of the Georgia Mathematics End of Course Test?

A Kruskal-Wallis test was conducted to evaluate the differences among the four groups (traditionally trained teachers who are White, traditionally trained teachers who are a minority, GaTAPP trained teachers who are White, and GaTAPP trained teachers who are a minority) on the percentage of students

meeting and exceeding standards on the Georgia Mathematics EOCT. The Kruskal-Wallis test yielded a nonsignificant finding  $H(3, N = 62) = 3.86, p = .28$ , indicating no difference in the ranking of teacher certification pathway by race or ethnicity on the percentage of students meeting and exceeding standards on the Georgia Mathematics EOCT. The mean percentage of students meeting and exceeding standards distributed as follows: teachers gaining their certification through a traditional pathway who are White ( $M = 62.14$  and  $SD = 23.58$ ), teachers gaining their certification through GaTAPP who are a minority ( $M = 52.08$  and  $SD = 17.75$ ), teachers gaining their certification through GaTAPP who are White ( $M = 50.49$  and  $SD = 18.83$ ), and teachers gaining their certification through a traditional pathway who are a minority ( $M = 47.13$  and  $SD = 16.86$ ) (see Table 2).

When comparing teacher certification by race or ethnicity groups small to moderate Cohen's  $d$  effect sizes were observed ranging between 0.09 and 0.67. The largest effect size was observed between traditionally certified white teachers and traditionally certified minority teachers ( $d = 0.67$ ).

- b. Is there a significant difference between teachers prepared through GaTAPP and teachers prepared through a traditional university based teacher preparation program by teacher gender (male and female) on the percentage of students meeting and exceeding standards of the Georgia Mathematics End of Course Test?

The differences among the four groups (traditionally trained teachers who are female, traditionally trained teachers who are male, GaTAPP trained teachers

who are female, and GaTAPP trained teachers who are male) on the percentage of students meeting and exceeding standards on the Georgia Mathematics EOCT was tested using a Kruskal-Wallis analysis. The Kruskal-Wallis test yielded a nonsignificant finding  $H(3, N = 62) = 4.48, p = .21$ , indicating no difference in the ranking of teacher certification pathway by gender on the percentage of students meeting and exceeding standards on the Georgia Mathematics EOCT. Table 2 lists the mean percentage of students meeting and exceeding standards for teacher certification by gender. The mean percentages were as follows: teachers gaining their certification through a traditional pathway who are male ( $M = 45.94$  and  $SD = 18.96$ ), teachers gaining their certification through GaTAPP who are male ( $M = 56.94$  and  $SD = 15.97$ ), teachers gaining their certification through GaTAPP who are female ( $M = 53.66$  and  $SD = 25.55$ ), and teachers gaining their certification through a traditional pathway who are female ( $M = 61.76$  and  $SD = 22.26$ ).

Cohen's effect size ( $d$ ) values for teachers certified through a traditional university based program who were female and those of the same certification method who were male was moderately high ( $d = 0.74$ ). Comparisons of other certification methods by gender yielded small to moderate effect sizes ranging between 0.15 and 0.62.

- c. Is there a significant difference between teachers prepared through GaTAPP and teachers prepared through a traditional university based teacher preparation program by teacher levels of experience (1-3 years, 4-

6 years, 7+ years) on the percentage of students meeting and exceeding standards of the Georgia Mathematics End of Course Test?

A Kruskal-Wallis test was conducted to evaluate the differences among the six groups (traditionally trained teachers with 0-3 years of service, traditionally trained teachers with 4-6 years of service, traditionally trained teachers with 7+ years of service, GaTAPP trained teachers with 0-3 years of service, GaTAPP trained teachers with 4-6 years of service, and GaTAPP trained teachers with 7+ years of service) on percentage of students meeting and exceeding standards on the Georgia Mathematics EOCT. The Kruskal-Wallis test yielded a nonsignificant finding  $H(5, N = 62) = 6.07, p = .30$ , indicating no difference in the ranking of teacher certification pathway by levels of experience on the percentage of students meeting and exceeding standards on the Georgia Mathematics EOCT. The mean percentage of students meeting and exceeding standards were distributed as follows: experienced teachers earning their certification through GaTAPP with 7+ years of service ( $M = 60.60$  and  $SD = 20.34$ ), beginning GaTAPP teachers with 0-3 years of service ( $M = 49.84$  and  $SD = 19.86$ ), GaTAPP teachers with 4-6 years of service ( $M = 45.00$  and  $SD = 14.59$ ), teachers gaining their certification through a traditional pathway with 0-3 years of service ( $M = 53.12$  and  $SD = 15.85$ ), 4-6 years of service ( $M = 61.67$  and  $SD = 19.11$ ), and 7+ years of service ( $M = 60.36$  and  $SD = 26.13$ ) (see Table 2).

Teachers certified through a traditional university based program with 4-6 years of service exhibited a large effect size when compared to GaTAPP certified teachers with the same level of experience ( $d = 0.98$ ). Additionally, a comparison

of GaTAPP certified teachers with 4-6 years of service and GaTAPP certified teachers with 7+ years of service indicated a large effect size of 0.92. Effect size, reported as Cohen's  $d$ , indicated relatively small to moderate change ranging from 0.01 to 0.66 for other comparisons of teachers certified through a traditional university based program by years of service and teachers certified through the GaTAPP program.

### Summary

Chapter 4 presented the qualitative and quantitative findings of this case study. A summary of interview proceedings noting common threads and key points was provided by research question. The majority of interview participants both GaTAPP teachers and instructional administration agreed that content knowledge and maturity were benefits for hiring GaTAPP teachers. Additionally, most participants pointed to classroom management and instructional strategies as areas for improvement for GaTAPP teachers. Several interviewees expressed a desire to see a more localized approach to the GaTAPP program and indicated that the mentor and mentee relationships were the most beneficial in cultivating effective teachers.

As for the quantitative component, a nonparametric analysis yielded no significant differences between the rankings of GaTAPP teachers and teachers prepared through a traditional university based certification program by race or ethnicity, gender, and years of service on student performance variables. Comparisons of teacher certification by demographic characteristics yielded several large effect sizes indicating differences within comparison groups.

## Chapter V

### SUMMARY AND DISCUSSION

In the early 1980s alternative certification was born to help bare the load of the nation wide teacher shortage (Walsh & Jacobs, 2007). Since then pundits have argued in favor of and against alternatively certified teachers all the while states formed their own alternatives to traditional teacher certification. The federal government backed states in these initiatives and allocated millions of tax dollars to support the formation of these alternative certification programs (Birkeland & Peske, 2004). While the federal government provided funding, it did not dictate requirements for these programs. Instead, states were able to formulate their own requirements and design their own programs. Because of this autonomy, states' requirements varied significantly from programs comparable to traditional college based programs to programs providing little preparation and oversight (Walsh & Jacobs, 2007). Recognizing the need for alternative certification programs to staff America's schools and the increased accountability brought on by NCLB, it was imperative that alternative certification programs be evaluated and if necessary improved to recruit and train the best and brightest teacher candidates to meet the needs of this nation's students (Zientek, 2007).

The GaTAPP, the state's largest provider of alternatively certified teachers, was piloted in 2000 in an effort to address teacher shortages and to diversify the state's pool of public school teachers (GaPSC, 2008). The program has been recognized as one of the nation's more comprehensive alternative certification programs (Walsh & Jacobs, 2007). The program underwent several changes in design since the inception. Due to state and federal budget cuts, GaTAPP had to alter program requirements. Additionally, funding issues caused school systems to increase class sizes and cut back on hiring new teachers. Many systems decided not to consider GaTAPP candidates despite having many successful veteran teachers in their systems who are products of the GaTAPP program.

This case study examined the perceptions and experiences of GaTAPP teachers relating to their backgrounds, quality of teacher preparation, school relationships, instructional effectiveness, and the future of alternative certification. School administrators were also interviewed regarding their experiences with the GaTAPP program, the quality of their teachers, instructional effectiveness, and the future of alternative certification. The interview data were accompanied by a quantitative nonparametric analysis of group rankings. Teacher demographic variables of gender, race or ethnicity, and years of service in combination with teacher certification were analyzed for differences in student performance as measured by mean scale scores and the percentage of students meeting and exceeding standards on the Georgia Mathematics EOCT.

## Qualitative Findings

The main findings of the interview proceedings were as follows:

- 100% of school administrators interviewed identified content knowledge as a strength of GaTAPP teachers
- 80% of school administrators interviewed recognized entering GaTAPP teachers for having more life experiences and a greater level of maturity than a first year traditionally certified teacher
- 80% of school administrators interviewed credited GaTAPP teachers with having a strong desire to teach
- 100% of school administrators stated GaTAPP teachers had a deeper understanding and practical application of their content
- 80% of school administrators implied that GaTAPP teachers enriched the school environment with their content knowledge and life experiences
- 11 out of 12 GaTAPP mathematics teachers interviewed earned degrees in some area of applied mathematics
- 100% of school administrators interviewed identified classroom management and effective classroom discipline strategies as the main weakness of GaTAPP teachers
- 80% of school administrators acknowledged school policies, procedures, and paperwork as being an area for improvement for GaTAPP teachers
- 60% of school administrators recognized a need for GaTAPP teachers to receive training in dealing with parents and parent conference etiquette

- 60% of school administrators identified instructional strategies and differentiation as an area of weakness for GaTAPP teachers
- Upon identifying these weakness four of five school administrators indicated that these areas of deficiencies could be addressed through professional development at the school level, through mentoring, and gaining on the job experience
- Four out of the five school administrators agreed that the GaTAPP requirements were redundant and got in the way of new teachers improving their craft
- 80% of the school administrators described their experiences with GaTAPP providers and teachers as being positive
- All five school administrators who were interviewed alluded to the fact that GaTAPP candidates are not currently being considered for employment within the county and four of the five attributed that decision to the additional attention required by the GaTAPP process and program requirements
- All five school administrators said that the GaTAPP program should and would continue to provide teachers for classrooms, three of the five said GaTAPP's role in staffing schools will increase in the near future
- Three of the five school administrators said that school systems would benefit from having the ability to hire and train their own GaTAPP candidates

- 82% of GaTAPP candidates hired by the county as mathematics teachers are still teaching mathematics within the county, one teacher did not pass the content area test on multiple attempts and is currently teaching special education, one teacher left to care for her young children, and one was asked to resign her position as a teacher.

### Quantitative Findings

The nonparametric Kruskal-Wallis test was conducted. The analyses found there to be no significant differences in teacher certification by teacher gender, teacher certification by teacher ethnicity (White or minority), or teacher certification by years of service categories (1-3, 4-6, 7+) on mean scale scores on the Georgia Mathematics EOCT. There was no significant difference found in teacher certification by teacher gender, teacher certification by teacher ethnicity (White or minority), or teacher certification by years of service categories (1-3, 4-6, 7+) on the percentage of students meeting or exceeding standards on the Georgia Mathematics EOCT.

Cohen's *d* effect size calculations illustrated small, medium, and large effect sizes between groups of teacher certification by teacher demographic characteristics on mean scale score and the percentage of students meeting and exceeding standards of the Georgia Mathematics EOCT. When observing effect sizes there was no systematic patterns between group comparisons.

### Recommendations

Through the course of this study several key components of an alternatively certified teacher's transition to the classroom emerged as essentials

for their successful integration. Teachers and administrators concurred that the GaTAPP program requirements were useful in theory but in practice became cumbersome and redundant. Interviewees suggested that GaTAPP program requirements be adjusted to reduce redundancy, focus on observations, and cultivating the mentor relationship. Several administrators who had also served as school level mentors to GaTAPP teachers in their first years of teaching, suggested that program providers work closer with school level mentors in an effort to provide a more individualized professional development plan for these new teachers. The former school level mentors also suggested that GaTAPP providers allow them to act as the program level mentors allowing teachers time to perfect their craft as opposed to completing similar requirements at both the county level and provider level. Chin, Young, and Floyd (2004) stated that much of the licensure and certification policies are 'unnecessary bureaucratic roadblocks' and contend that the major elements of teacher quality are individual intelligence and personality traits. So reducing the redundancies of the GaTAPP program requirements would free up teachers to focus on acclimating to the school environment and honing their craft.

Several GaTAPP teachers and even some administrators admitted that first year GaTAPP teachers were typically placed in more difficult teaching situations. Multiple preparations, extracurricular requirements such as coaching, club sponsorship, and challenging remedial courses in combination with certification and program requirements made improving their craft difficult according to teachers and administrators. Recognizing that GaTAPP teachers

had additional requirements and a new vocation, school administration could best support these teachers by limiting assignments thus reducing stress levels and giving opportunities for these new teachers to improve their instruction. Researchers have documented that these overloaded new teachers leave the profession because of these factors (Ingersoll & Smith, 2003). Smith and Ingersoll (2004) reported that schools could cut attrition rates in half and improve instruction by providing new teachers with support, providing common planning periods so that new teachers can develop lessons with veteran colleagues, and reducing new teacher workloads and numbers of preparations.

One teacher and administrator mentioned a suggestion for allowing teachers to complete an on the job practicum experience. Due to scheduling at their school level, a first year GaTAPP teacher was paired with a veteran special education teacher for their first period of the day in a collaborative teaching setting. Both the teacher and administrator independently acknowledged the unanticipated benefits of this pairing. The teacher expressed the amount of knowledge he gained by this collaborative experience was invaluable. He specifically pointed to classroom management and instructional differentiation strategies as areas where he benefited. From the administrative perspective, it was pointed out that this practice would only consume one section of available instructional slots and made the teacher more effective, comfortable, and confident in subsequent classes where he was the sole teacher. The idea of pairing new teachers with an in house collaborative teacher was not a new idea. The San Francisco Teacher Residency program formed in 2008, is modeled after

a physician's residency program which pairs new teachers with veteran teachers for on the job training. The district developed the program in order to educate and alternatively certify teachers for classrooms in their district. According to the program's website, teachers are paired with a 'demonstration teacher' and over the course of a year the candidates assume more of the responsibilities of the classroom (San Francisco Teacher Residency, 2012).

At the school level, several suggestions for improving the quality of the program merit consideration. Several teachers and administrators voiced a desire to have more local control of GaTAPP training with regional oversight. Administrators and teachers repeatedly pointed to the effectiveness of their new teacher induction program and school level mentor relationships as major reasons for their success and longevity in the classroom. Administrators stated that systems should be allowed to 'grow' their own teachers, tailoring their training to system policies and procedures. This would reduce overlap and redundant requirements from school systems and regional providers with the regional providers assisting in the delivery of targeted professional development identified by school level mentors and instructional leaders. This collaboration would allow for a more personalized induction period through the school system while regional providers ensured certification requirements were met.

The school level mentors were identified as keys to acclimating these GaTAPP teachers to the school environment. Through conversations with the teachers it appeared that the most effective mentor relationships occurred when the mentor was in the same content area or department and had frequent contact

with the teacher candidate. Many times GaTAPP teachers described the best mentor experiences involved department heads who served as mentors due to their ability to assist with administrative tasks and deadlines. Ingersoll and Strong (2011) found that new teachers in an effective mentor and mentee relationship showed an increased commitment to the profession, a positive impact on student achievement, higher job satisfaction, and a positive impact on classroom instructional practices.

All of the administrators interviewed recognized the value of the GaTAPP program and were quick to point out great teachers who were products of the program. The majority of administrators agreed that the system should reopen hiring to GaTAPP teachers. They indicated the diverse experiences and backgrounds of these teachers added to instruction and collaboration in their respective schools. In addition to diverse backgrounds, the program enriched the demographic diversity of the schools admitting more males and minorities into the fairly homogeneous teaching profession dominated by White females (Hess, 2001).

#### Future Research

Through the course of this study more questions and several opportunities to further evaluate the impact of GaTAPP teachers in our state's public schools surfaced. The units of study for this research were GaTAPP teachers from one county in the state of Georgia. While the demographics of the county mirrored the demographic make up of the state, it is widely known that GaTAPP teachers and alternatively certified teachers were hired more frequently in rural and urban

school environments. In order to obtain a clearer picture of GaTAPP's impact, a state wide analysis should be conducted. Additionally, GaTAPP employs teachers in many facets of public schooling and thus an analysis of the program's success should include participants through the vertical spectrum of elementary, middle and high school. Moreover, future analysis should include every core content area.

As mentioned by several teachers and administrators, the influence of GaTAPP teachers may or may not be reflected in an analysis of standardized test scores. Several spoke to an increased maturity level and a knowledge of content application which may or may not translate to student performance on standardized tests. Therefore, it is recommended that qualitative interviewing accompany any analysis of test scores focusing on the application of content. This inquiry should include teachers, administrators, instructional coaches, and students.

Lastly, several administrators were surprised to learn that certain faculty members were in fact products of the GaTAPP program. Many of these unrecognized GaTAPP teachers had been a part of the initial group of candidates to enter the program. An analysis of GaTAPP teachers' effectiveness as they grow and become integrated into the school culture would inform decisions on professional development and continuing education for these teachers. Additionally, the GaTAPP program requirements have changed multiple times over the program's existence. A large scale statewide study of the effect of these changes is warranted.

## Conclusion

The results of the qualitative component of the study revealed common themes concerning the benefits and drawbacks of the GaTAPP program. Teachers and administrators largely agreed that teaching is an art not a science to be learned through a program. Also, the importance of a mentor support relationship is integral in the first years of a teacher, especially teachers entering the classroom with no practicum experience. The quantitative component of this study indicated there was no statistically significant difference between teacher certification either through traditional programs or the GaTAPP program and demographic variables on student performance on the Georgia Mathematics EOCT. However, several participants agreed that GaTAPP teachers had a stronger knowledge of their content area and a greater ability to relate content. This may imply the value added of hiring teachers through the GaTAPP program cannot be solely measured by student performance but by the depth of understanding of students.

Recognizing the growth in student enrollment and the future need for staffing schools, GaTAPP will be called upon in the future to act as a conduit between aspiring nontraditional teachers and the classroom. As one school administrator says of GaTAPP teachers, “diversity in our schools is good thing. Having lots of people with different backgrounds and different perspectives only strengthens the school.”

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APPENDIX A:

Board of Education Research Approval



DR. JAMES R. HINES, JR., SUPERINTENDENT

**BOARD MEMBERS**

DR. CHARLES M. (TOBY) HILL, VICE CHAIRMAN  
SKIP DAWKING  
DR. MARIANNE MELNICK

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W. G. CLEMENTS  
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FRED WILSON

**MEMORANDUM**

DATE: January 9, 2012  
TO: Dave Gibbs  
Veterans High School  
FROM: Sharon Moore  
Director of Professional Learning  
SUBJECT: **RESEARCH APPROVAL REQUEST**

Your request to conduct an action research project for your doctorate program at Valdosta State University entitled "Does Teacher Certification Through GaTAPP Impact Quality of Teaching as Measured by Student Achievement on the Georgia Mathematics I End of Course Test" is approved. The purpose of your project is to analyze students' scores from the Georgia High School End of Course Test (EOCT) in Mathematics I for first time high school freshman and their teachers' certification pathway. The project will seek to determine if certification through the Georgia Teacher Academy for Preparation and Pedagogy (GaTAPP) is related to student achievement. The expected duration of this research project is six months from the date of system approval.

Thank you for providing copies of the IRB Consent Form and your research proposal.

Please keep in mind that you will be responsible for compiling the data for your research. Faculty and staff at Veterans High School, the Central Office Department of Testing and Information Technology, and the Teaching & Learning Department is unable to compile data for your research. Please also remember at all times that student and teacher anonymity and confidentiality is of utmost priority. Board policy also prohibits the use of system e-mail for personal research.

I have attached to this memorandum the Houston County Schools Requirements for Conducting Research.

I wish you the best as you work toward earning your doctorate degree. Please let me know if I may be of any assistance to you again in the future.

cc: Mark Scott  
Lionel Brown

P.O. Box 1850 • PERRY, GEORGIA 31069  
(478) 988-6200 • FAX (478) 988-6259  
[WWW.HCBE.NET](http://WWW.HCBE.NET)

APPENDIX B:

Institutional Review Board (IRB) Exemption t



*Institutional Review Board (IRB)  
for the Protection of Human Research Participants*

**PROTOCOL EXEMPTION REPORT**

PROTOCOL NUMBER: IRB-02841-2012

INVESTIGATOR: Hugh Davis Gibbs

PROJECT TITLE: The Effectiveness of Teachers Prepared Through Georgia Teacher Academy for Preparation and Pedagogy

**INSTITUTIONAL REVIEW BOARD DETERMINATION:**

This research protocol is exempt from Institutional Review Board oversight under Exemption Categories 1, 2 and 4. You may begin your study immediately. If the nature of the research project changes such that exemption criteria may no longer apply, please consult with the IRB Administrator ([irb@valdosta.edu](mailto:irb@valdosta.edu)) before continuing your research.

**ADDITIONAL COMMENTS/SUGGESTIONS:**

Although not a requirement for exemption, the following suggestions are offered by the IRB Administrator to enhance the protection of participants and/or strengthen the research proposal:

- If this box is checked, please submit any documents you revise to the IRB Administrator at [irb@valdosta.edu](mailto:irb@valdosta.edu) to ensure an updated record of your exemption.

*Barbara Gray*

Barbara H. Gray, IRB Administrator

*8/16/12*

Date

*Thank you for submitting an IRB application.*

*Please direct questions to [irb@valdosta.edu](mailto:irb@valdosta.edu) or 229-259-5045.*

APPENDIX C:

Teacher Semi-Structured Interview Protocol

## TAPP Teacher Focus Group Interview Protocol

Name(s)\_\_\_\_\_

Date\_\_\_\_\_ School\_\_\_\_\_ Position\_\_\_\_\_

### Introduction

I want to thank you for taking the time to meet with me today. My name is Dave Gibbs and I would like to talk to you about your experiences in the Teacher Academy for Preparation and Pedagogy (formerly known as Teacher Alternative Preparation Program) or TAPP. We will discuss specifically, what lead you to the classroom, the quality of the program, effectiveness in the classroom, and the future of alternative preparation.

The interview should take approximately an hour. I will be taping the session so that I can accurately record your comments. Because we are on tape, please be sure to speak up so that all your input is recorded. I will ask a series of questions to the group, allowing each member their own uninterrupted time to speak. Then allow for follow-up comments or clarifying questions once all have shared.

As the researcher, I will keep your comments confidential. Your identity will be limited to demographic information. However, in the focus group interview, confidentiality is limited due to the group setting. Please be respectful to others in this interview and keep their comments confidential. Remember, you don't have to talk about anything you don't want to and you may exit the interview at any time.

Are there any questions about what I have just explained?

In the first section of the interview we will focus on your path to the classroom.

What were you doing prior to entering the classroom?

When and why did you make the decision to pursue a career in education  
(personal or professional reasons)?

Additional Comments/Clarifying Questions.

Section 2 Quality of Preparation Program

What were the strengths of your teacher preparation program?

What would you improve about your teacher preparation program?

What types of supporting resources were most effective in preparing you for the  
classroom?

Did you feel prepared for the classroom when you started teaching? When you  
completed the program?

Additional Comments/Clarifying Questions

Section 3 Instructional Experiences and School Relationships

Upon entering the classroom, did you tell peers that you were a 'TAPP teacher'?

Why or Why not?

How do you perceive school personnel's attitudes toward alternative certification and TAPP teachers?

How would you describe your relationships with educational stakeholders upon entering the profession (admin, parents, students, and teachers)?

And now?

Additional Comments/Clarifying Questions

Section 4 Perceived Effectiveness

How would you describe effectiveness in the classroom?

What attributes do TAPP teachers bring to the classroom that would make them effective educators?

Do you consider yourself 'effective,' why?

Reflect on areas for personal improvement in the classroom.

Additional Comments/Clarifying Questions

## Section 5 Future of Alternative Preparation

What goals do you have for your career?

What future role do you believe alternative certification will play in staffing schools?

## Additional Comments/Clarifying Questions

This concludes my questions. Does anyone have anything they would like to add?

Thank you again for participating in this interview. I will be analyzing the information you gave me and I will be happy to send you a copy to review, if you are interested.

APPENDIX D:  
Instructional Leader Interview Protocol

## TAPP Administrator Interview Protocol

Name(s)\_\_\_\_\_

Date\_\_\_\_\_ School\_\_\_\_\_ Position\_\_\_\_\_

### Introduction

I want to thank you for taking the time to meet with me today. My name is Dave Gibbs and I would like to talk to you about your experiences with the Teacher Academy for Preparation and Pedagogy (formerly known as Teacher Alternative Preparation Program) or TAPP. We will discuss specifically, your experiences with the GaTAPP program, quality of GaTAPP teachers, recommendations for improvement, and the future of alternative teacher preparation.

The interview should take approximately 30 minutes. I will be taping the session so that I can accurately record your comments. Because we are on tape, please be sure to speak up so that all your input is recorded. I will ask a series of questions and then allow for follow-up comments or clarifying questions once you have shared.

As the researcher, I will keep your comments confidential. Your identity will be limited to demographic information and your position as an administrator. You don't have to discuss anything you don't want to and you may exit the interview at any time.

Are there any questions about what I have just explained?

We will first gather some background information.

How many years experience do you have?

As a teacher?

As an administrator?

Describe your responsibilities as a school administrator as it relates to hiring, curriculum and instruction, classroom supervision.

In the first section of the interview we will focus on your experiences with the GaTAPP program.

Can you describe what you know about the GaTAPP program?

How would one enter the classroom to begin a teaching career through the GaTAPP program?

Have you interviewed or hired any GaTAPP candidates? If so, could you elaborate about your experiences during that interview concerning the interviewee's preparation to begin teaching?

How many GaTAPP teachers are in your school (those who have completed certification and possess a clear renewable certificate or in-progress, currently teaching on a non-renewable certificate)?

Additional Comments/Clarifying Questions.

Section 2 Quality of GaTAPP teachers.

In your experience, what are the strengths of GaTAPP teachers as they begin teaching?

What would you improve about their preparation program?

What types of supporting resources are in place for preparing these teachers for the classroom at your school?

Could you compare the readiness for the first year of teaching between GaTAPP teachers and newly university graduated first year teachers.

Additional Comments/Clarifying Questions

Section 3 Relationships

How do you perceive school personnel's attitudes, both administrators and teachers, toward new teachers prepared through GaTAPP?

How would you describe your relationships with GaTAPP support staff (RESA personnel, TAPP mentors, etc...)?

Additional Comments/Clarifying Questions

Section 4 Perceived Effectiveness

How would you describe instructional effectiveness in the classroom?

What attributes do TAPP teachers bring to the classroom that would make them effective educators?

What are areas needing the greatest professional support for new GaTAPP teachers to improve their classroom effectiveness?

Additional Comments/Clarifying Questions

Section 5 Future of Alternative Preparation

What future role do you believe the preparation of teachers through alternative certification will play in staffing schools?

Additional Comments/Clarifying Questions

This concludes my questions. Does anyone have anything they would like to add?

Thank you again for participating in this interview. I will be analyzing the information you have given me and I will be happy to send you a copy to review, if you are interested.