

TEACHERS' EXPERIENCES OF GEORGIA'S EARLY MATH INTERVENTION  
PROGRAM: A PHENOMENOLOGICAL STUDY

by

Rachel Amanda Garner Scott

Liberty University

A Dissertation Presented in Partial Fulfillment  
Of the Requirements for the Degree  
Doctor of Education

Liberty University, Lynchburg, VA

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APPROVED BY:

Verlyn Evans, Ed.D., Committee Chair

Meredith Park, Ed.D., Committee Member

Libby Bicknell, Ed.D., Committee Member

Scott Watson, Ph.D., Associate Dean, Advanced Programs

## ABSTRACT

The purpose of this phenomenological study was to investigate the perceptions that K-5 teachers have toward Georgia's mandated Early Intervention Math Program (EIP) on at risk learners in an elementary school in a rural, North Georgia community. The following questions guided the study:

1. How do K-5 teachers describe their experience with Georgia's Early Intervention Math Program as an early math intervention for at-risk learners?
2. How do participants describe their experiences with Georgia's EIP regarding student math preparedness?
3. How do participants perceive the EIP program in comparison to the regular education math program?

The setting for this study was a rural elementary school with a population of 751 students.

Participants included 10 teachers from K-5 that have experience working with the EIP program.

Interviews, focus groups, and reflective journals were coded and analyzed for major themes.

The following themes were identified: EIP model of delivery is important to the success of the students; lack of support, funding, and training is crippling the EIP program; and teachers are determined to support students and intervene even if no formal program is in place to do so.

Teacher participants felt as though the resources and training provided for them were not adequate; however, they were determined to provide appropriate interventions for their students to help them achieve success. Future research would be helpful on this same topic with a different demographic population, a more focused look at individual delivery models, and a survey of teacher preparation programs to identify gaps in learning for new teachers.

*Keywords:* EIP, math, elementary, qualitative, phenomenology

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### **List of Abbreviations**

Criterion referenced Competency Tests (CRCT)

Department of Education (DOE)

Did Not Meet (DNM)

Early Childhood Education (ECE)

Early Intervention Program (EIP)

Elementary and Secondary Education Act (ESEA)

English for Speakers of Other Languages (ESOL)

Georgia Department of Education (GADOE)

Georgia Kindergarten Inventory of Developing Skills (GKIDS)

Individuals with Disabilities Act (IDEA)

Institutional Review Board (IRB)

Iowa Test of Basic Skills (ITBS)

Mathematical Knowledge for Teaching (MKT)

National Assessment of Educational Progress (NAEP)

No Child Left Behind (NCLB)

Occupational Therapy (OT)

Response to Intervention (RTI)

## **CHAPTER ONE: INTRODUCTION**

### **Overview**

Students not performing on grade level are considered at risk learners in the state of Georgia. The state of Georgia uses early intervention programs to bring students to grade level (Georgia Department of Education - CI Services, 2011). The purpose of this transcendental phenomenological study was to investigate K-5 teachers' perceptions of Georgia's mandated Early Intervention Math Program on at risk learners in a school system in a rural, North Georgia community. The background and purpose of the study, as well as the problem the study addresses, are provided in this chapter. The researcher's role is discussed, and an overview of the research plan, research questions, significance, limitations and delimitations, and definitions of pertinent terms is included.

### **Background**

According to the U.S. Department of Education, the United States government provides over \$7 billion each year to school systems across the country for students considered at risk of academic failure and living at or near poverty (Chambers, 2000; Musti-Rao & Cartledge, 2004). The No Child Left Behind Act (NCLB) requires all schools in the United States to provide intervention services to all students labeled at academic risk. Students served are determined at-risk by standardized test scores or teacher checklists through early intervention programs (The Elementary and Secondary Education Act, 2001). This implementation of the NCLB legislation, which mandates testing of all students in grades three through eight, has school systems looking for solutions for poor academic student performance on standardized tests (Woodward & Talbert-Johnson, 2009). The state of Georgia has employed an early intervention program for students at risk of academic failure. Every child of average intelligence is capable of learning

and maintaining basic math and reading skills at minimum. Those not functioning on grade level are considered at risk learners and are the motivation behind the early intervention programs in the educational systems today (Georgia Department of Education - CI Services, 2011).

Georgia holds teachers accountable to provide all learners with instruction that will help them to be successful in mathematics. There is always a great push to close the gaps of at risk learners forcing the demands to implement early intervention programs that will bring students to grade level in mathematics (Johnson, D., 2004). Classroom teachers strive to meet the needs of struggling learners but are often unable to provide the kind of support research has shown to be effective with at-risk students (Allington, 2004). Likewise successful implementation of early interventions is affected by teachers' perceptions of the program (Biggam, Teitelbaum, & Willey, 2007). For early intervention programs to be successful, teachers must be exposed to meaningful staff development, and they must also share a collective vision for the program and perceive that the program will improve instruction and benefit students.

Georgia has failed to collect data from teachers pertaining to the effectiveness of the early intervention programs and has not collected data from administrators since 2004 (Georgia Department of Education - CI Services, 2011). Teachers' perceptions of the effectiveness of academic programs they deliver play a role in closing academic gaps (Stronge, 2007). A gap in qualitative research is evident regarding the effectiveness of early intervention math programs and the teachers' perceptions of the program. This research was aimed to gather the (K-5) teachers' perceptions of the effectiveness of Georgia's early mathematics intervention program.

### **Situation to Self**

As an early childhood educator, both in the regular education classroom and in the special education setting, I am always looking for ways to better the education of my students.

After years of teaching at risk students, I began looking at the data regarding early intervention programs in Georgia. There is a gap in data regarding teachers' experiences with early intervention programs in general and early intervention math programs in particular. Early intervention programs have guidelines for the number of students allowed in a classroom and how a student is selected to participate in the program. The state of Georgia does not offer a specific curriculum to close the achievement gap with these at risk students. This axiological approach attempted to show the value of early intervention programs from the perspective of those who are charged with delivering it to students. Axiology is the theory of value and attempts to provide a description of how those values are created and the judgments made by those who determine the program value (Creswell, 2013).

I feel it is important to understand the program and the effects of the program through the teachers', parents', and administrators' experiences. Without the perceptions of these stakeholders, school systems are unable to implement necessary curriculum and delivery changes needed to bridge the academic gaps for these learners. As of 2011, on national assessments, 23% of Georgia's fourth grade learners were performing below grade level standards (Georgia Department of Education - CI Services, 2011). As an educator, I believe these programs can help students, but I would like to put my own personal opinions and values aside to gather perspectives of others who have experience in delivering the programs to determine if they find value in the programs and, if so, what criteria they use to determine that value. This constructivist approach sought to define value by identifying the manner in which the participants constructed their own understanding and beliefs (Phillips, 1969) about early intervention programs.

The accountability for schools to provide the finest education for all learners and to offer strategies to reach all students is forever growing. Schools and teachers are required by NCLB to have all students performing on grade level year to year. In the state of Georgia, at the end of each academic year, grades three through five are required to take the Criterion Referenced Competence Test. This is an assessment designed to measure if a student has met grade level requirements and is used for decisions on promoting students to the next grade level or retaining them in the current grade at the end of the year. This study allowed me to grow as an educator as I collected feedback on the early math intervention program and identified trends and themes that emerged as critical components in the success of the program that I can apply in future planning of learning experiences for my students.

### **Problem Statement**

The problem this study addressed was the lack of research on the effectiveness of early intervention math programs in general and teachers' perceptions of early intervention math programs in particular. Georgia requires its public schools to be accountable for the success of all students and has also established high standards for students and school districts to meet (Ricketts, 2008). With these standards implemented, it is imperative school systems have programs in place to insure these students succeed. Georgia has implemented the Early Intervention Program (EIP) to support students not meeting state standards, but there is a significant deficit in research addressing the effectiveness of the program and the teachers' perceptions of Georgia's EIP (Williams, 2011).

Cunningham, Redmond, and Merisotis (2003) described early intervention as a program designed to keep at-risk students in school and to increase the college enrollment rates of

educationally and economically disadvantaged students by providing a variety of services. The state of Georgia has documentation of students served in the Early Intervention Programs by grade level, ethnicity, and socioeconomic status, but the state does not offer data on how many students successfully test out of EIP each year, what makes an EIP successful, nor what types of strategies educators should implementing in order to insure the program's success (State Profile, 2011). Johnson (2004) advised more detailed data should be collected on a state and local level to determine development in students' academic performance. This phenomenological study sought to investigate teachers' perceptions of the effectiveness of Georgia's mandated Early Intervention Math Program on elementary at risk learners.

### **Purpose Statement**

The purpose of this transcendental phenomenological study was to investigate K-5 teachers' perceptions of Georgia's mandated Early Intervention Math Program on at risk learners in a school district in a rural, North Georgia community. By examining the point of view of the teacher, specific insight can be attained as to the successes or failures of specific interventions within the program. This information may help inform other school systems of details to consider when planning for successful EIP programs.

### **Significance of the Study**

The significance of the study was to contribute to the literature and understanding of teachers' experiences with Georgia's Early Math Intervention Program. Jaffe (2006) stated the need for more research in other school system settings where Georgia's Early Intervention Programs are implemented and the need for more data collected in the area of math early intervention. This type of data can be very useful to not only the teachers providing the interventions but also for the administrators evaluating the programs, the local boards of

education who approve curricular changes, and state law makers who dictate programs and requirements to local districts. Johnson (2004) stated the need for future research to study different samples of teachers and not limited to only those currently teaching Early Intervention Programs. By selecting several participants who are former teachers in the program, insight was provided that included comparison to other programs they had taught, a description of why they changed teaching roles, and ideas on how to better support those who are still program providers. This information can greatly assist school leaders to provide appropriate professional learning and support for these teachers.

The study attempted to also specifically address the concerns and experiences of the school district in which the study is taking place. Due to the need to increase test scores for at risk math students and new standardized tests being employed in the state of Georgia, early intervention math programs are currently in place in all of the elementary schools within this school district. This study helped to better understand the teachers' experiences with the math intervention programs and offered suggestions to aid the administration in making informed decisions about early intervention math based on the experiences the teachers have had with the current interventions in place. For the field of mathematics, this study added a unique perspective of the early intervention programs provided by those who were current or former program providers that can assist in decision making on the appropriateness of the programs and the values determined by those participants about the specific program interventions.

### **Research Questions**

This study examined the following research questions:

1. How do K-5 teachers describe their experience with Georgia's Early Intervention Math Program as an early math intervention for at-risk learners?



The teacher is a key component in the classroom, and the relationship the teacher has with students can affect learning in a profound way. When students feel supported, and teachers feel confident in their curriculum, there is more likelihood for success of the program as a whole (Crosnoe et al., 2010). This question allowed teachers to share their thoughts on Georgia's curriculum and what their experience has been in delivering it to their at-risk learners.

2. How do participants describe their experiences with Georgia's EIP regarding student math preparedness?

Students who enter school with deficits in math have a difficult time compensating for their lack of knowledge, causing difficulty in learning new concepts without prerequisite skills being mastered. Early intervention programs have the potential to bridge the gap between those students who entered school with background knowledge and those that did not (Montague, Enders, Cavendish, & Castro, 2011).

The teacher delivering the instruction and assessing student progress should be able to give great insight into the successful aspects of the programs as well as any areas that need improvement.

3. How do participants perceive the EIP program in comparison to the regular education math program?

Bryant, Bryant, Roberts, and Vaughn (2011) showed positive results in their study that examined the effect of math interventions on first grade students. The authors suggest that more research be conducted on the topic regarding differing interventions to help create an extensive body of literature that identifies specific strategies and interventions that are most successful. This question allowed teachers to expound on

their experiences in both the regular classroom and the early intervention classroom to add to the research body their expertise on which strategies they found to be most successful in each setting.

### **Research Plan**

Qualitative research is a process based on methodological traditions of inquiry that explore a social or human problem (Creswell, 2013). It is research concerned with non-statistical methods of inquiry and analysis of phenomena (McRoy, 1996). Participants of qualitative research are intentionally selected (Gall, Gall, & Borg, 2007). The qualitative researcher builds a picture, analyzes words, reports the views of participants, and studies in the natural setting using the detailed descriptions from the research participants (Creswell, 2013).

A transcendental phenomenological qualitative research design was used to investigate teachers' perceptions of the effectiveness of Georgia's mandated Early Intervention Math Program on at risk learners in a school district in a rural, North Georgia community. The transcendental approach exposes and puts aside any pre-judgments the researcher may have of the phenomenon (Moustakas, 1994). Utilizing transcendental phenomenological research methods allowed the participants of the study an opportunity to share personal teaching experiences. Ten participants were selected using purposeful sampling from a rural Title 1 school district in North Georgia. Purposeful sampling was required for this study to include only teachers who were currently or had previously taught Early Intervention Math Programs. Creswell (2007) and Guba (1981) support the method of purposeful sampling in qualitative designs. For this study, data was collected using three different methods. These three collection instruments included open ended, semi-structured interviews, focus groups, and reflective journaling.

### **Delimitations and Limitations**

Delimitations are purposeful decisions the researcher makes to limit or define the boundaries of the study. The goal of this study was to understand Georgia's early intervention program through the experiences of the stakeholders in the school district. The delimitations in this study included the choice to study one school district and the participants all being stakeholders in the program. The selection of the participants was limited to teachers having participated in Georgia's Early Intervention Program. The focus was solely on math EIP interventions, not reading, which was also a part of the Early Intervention Program.

This study was limited in size and scope. The focus of this study was on one early intervention program using the qualitative method of transcendental phenomenology. Study participants were solely comprised of K-5 teachers who were teaching or had previously taught Early Intervention Program classes in a specific school district in North Georgia. Therefore, the results may not be generalized to the teachers teaching other classes in the school district or to schools in other areas of the state or country. The results cannot be applied to schools using alternate intervention models or to schools comprised of different demographics. Findings may not apply to other schools that have different percentages of students scoring far below basic, below basic, and basic on standards assessments.

Educator answers may be biased in certain ways. Teachers may be embarrassed to admit any lack of knowledge regarding Georgia's Early Intervention Program or may not want to admit a need for more training in a particular area. Teachers could also feel rushed when answering interview questions due to the overwhelming tasks they must accomplish during the school day.

Finally, biases and/or perceptions provide interpretations of the data that may not be shared by me or other readers. As Creswell (2013) pointed out, it is imperative for a researcher

to write without personal bias. According to Creswell (2013), “All research is value laden and includes the value system of the participants” (p. 247). Researchers interpret the data; however, other interpretations may be given (Briggs & Coleman, 2007).

### **Definitions**

**Early Intervention Programs (EIP):** Early Intervention Programs offer comprehensive, one-on-one services for young children with a variety of developmental delays (Jablow, 1988).

**Mathematics:** Mathematics is a language spoken through numbers and interrupted differently dependent upon who is asked. It often refers to a science involving numbers, quantity, and space. It is an abstract concept that is studied in its own content or as applied to other things (Padula, 2011).

**Elementary Schools:** Elementary school encompasses a wide range of grade levels. In some regions, it includes kindergarten through eighth grade. In other areas, it goes through the fifth grade, and sixth grade (Allington, 2004).

**Qualitative:** Creswell (2007) defines qualitative research as the following: “Qualitative research begins with assumptions, a worldview, the possible use of a theoretical lens, and the study of research problems inquiring into the meaning individuals or groups ascribe to a social or human problem” (p. 37).

**Phenomenology:** According to Moustakas (1994), “Phenomenology is concerned with wholeness, with examining entities many sides, angles, and perspectives until a unified vision of the essences of a phenomenon or experience is achieved from” (p. 58); the phenomenologist’s focus is on what participants have in common as they experience a phenomenon.

### **Summary**

Georgia Department of Education identifies students not performing on grade level as children at risk of academic failure. Early intervention programs are implemented into Georgia's elementary schools in an effort to bridge gaps and bring students to grade level standards (Georgia Department of Education - CI Services, 2011). The purpose of this transcendental phenomenological study was to investigate teachers' perceptions of Georgia's mandated Early Intervention Math Program on at risk learners in a school district in a rural, North Georgia community. This chapter provided information on the background and problem that prompted the study, plans that guided the study, and information about the researcher and the limitations of the study design.

## **CHAPTER TWO: LITERATURE REVIEW**

### **Overview**

Research demonstrates schools providing early intervention programs to learners in academic trouble are needed and supported. Intervention programs come in many different variations to serve the needs of all students. The model chosen usually depends on the needs of each child served. Unknown, are the perceptions of teachers implementing intervention programs and teacher's feelings regarding the best models and interventions for struggling learners.

This study investigated teachers' perceptions of Georgia's Early Intervention Math Program through a constructivist theoretical framework. The research sought to develop an understanding of the math intervention program being used in a North Georgia elementary school by conducting a transcendental phenomenological study of teachers' perceptions using interviews, focus groups, and reflective journaling. In this chapter, literature on constructivism and current research on early intervention programs was discussed, and a clear description of Georgia's Early Intervention Program was provided.

### **Theoretical Framework**

#### **Constructivism**

Constructivism as a theory is discussed in several fields of study, particularly psychology, sociology, and education. Constructivism theorizes learning as a part of ongoing experiences. The learning evolves around personal traits, one's environment, as well as a person's experiences (Henson, 2003).

An ongoing battle exists in education today on how learners best acquire knowledge. Dewey coined the idea of progressivism, which changes the role of the student to be more active

and the teacher to be more of a facilitator of the learning experience, and since that time, educators have worked to become more student-centered in the classroom (Tanner, 1997). Constructivist theorists, such as Piaget and Vygotsky (Piaget, 1977; Powell & Kalina, 2009; Vygotsky & Kozulin, 1987), discuss how students construct and develop knowledge and advise educators to focus on the needs of the learners in their classrooms, which will allow for growth socially, personally and academically of the students. In addition, teachers also learn with active classroom engagement and community interaction with other educators and classroom learners.

With mandates like No Child Left Behind, teachers in education today are choosing more conventional approaches for the delivery of curriculum and instruction. The more conventional approach leads to an improved ability to recall facts and to achieve on standardized tests, which are typically the measures of success for policy makers, administrators, and parents in American school systems today (Geiser, 2008). Constructivists encourage more hands-on learning for meaning, instructional models based on the needs of the learners, student-focused curriculum, socially interactive classrooms, and process-oriented learning, which are all encouraged elements for Early Intervention Programs (Johnson, G., 2004).

Progression of math skills is dependent on informal and formal student education from teachers, parents, and others having higher-level knowledge (Devlin, 2000). Math development is entrenched in Vygotsky's (1987) social constructivist theory. Constructivist-centered classrooms recognize the role mental schemas play in cognitive development and involve students in activities that will allow students the opportunity to develop their own knowledge and will direct them in developing new knowledge with their prior schemas (Brooks & Brooks, 1999). Constructivist philosophy explained by educational theorists involves planning a student-centered environment maximized by each student's strengths and potential (Henson, 2003;

Devlin, 2000; & Johnson, G., 2004). Meaningful instruction begins with engaging and teaching students to become responsible for their own learning styles by identifying how they learn best. Effective instruction involves educators who are interested in the whole student while demonstrating support in a classroom where content is linked across the curriculum (Daniels & Perry, 2003). Students engaged in this type of learning environment have the opportunity to construct and share knowledge, the substance of the constructivist learning theory.

## **Related Literature**

### **Historical Movements in Education**

Early Childhood Education (ECE) is an area of education regarding children 0 to 9 years of age. In the United States, Early Childhood Education evolved through many historical movements. Many of these movements led our country to the development of the kindergarten program, the Montessori program, the nursery school program and the day care program (Snow, Burns, & Griffin, 1998).

The German educator Friedrich Froebel created the first kindergarten program during the 1800s in Germany. This was the first organized Early Childhood Education approach in reaching children through direct instruction (Gillett & Temple, 2000). In 2001, Peterson found Froebel's beliefs were influenced on basic foundational principles. Froebel believed education should be fostered in an environment where instruction is nurtured, safe, and free, and he encouraged incorporation of play into all curriculums because it is a child's most natural behavior. Froebel also expressed the importance of play being free and not always structured by adults (Peterson, 2001).

Froebel's instructional kindergarten included students ages three to six years old. His curriculum focused on language, numbers, being on time, manners, cleanliness, and eye-hand



coordination (Gillett & Temple, 2000). He encouraged natural child behaviors of children and helped to guide those natural behaviors into situations they could use to relate to their peers and the other people in their lives (Gillett & Temple, 2000).

Guralnick (1997) stated that United States kindergartens were developed as a reaction to major changes in the American culture occurring during the 1800s related to the waves of immigrants arriving in the many cities along the American coasts. Schools began facing many social problems (Spring, 2002). The United States used schools as a tool to help immigrants become more like Americans and to support them in adjusting and becoming successful in their new situation (Spring, 2002).

The growth of kindergartens throughout the United States can be attributed to several different individuals. One of Froebel's previous students opened her own German speaking kindergarten in Watertown, Wisconsin (Spring, 2002). In 1860, after the German speaking kindergarten was opened, an English speaking kindergarten was established in Boston by Elizabeth Peabody (Spring, 2002). It was not until 1872 that the superintendent of St. Louis public schools opened the first public kindergarten, and with the help of Susan Blow, the kindergarten began to be formalized throughout public schools across the nation (Spring, 2002).

In addition to the inclusion of kindergarten in the curriculum, public schools continued to grow throughout the United States and offered many other opportunities in the schools, such as adult education and after school activities, and the educational culture expanded throughout the communities (Spring, 2002). While Early Childhood Education was growing across the nation, many attempts to exclude specific ethnic groups and particular groups of immigrants were on the rise (Spring, 2002). Originally, kindergartens were created to provide an environment that was focused on the child; however, as kindergartens opened throughout public schools across the

nation, the focus turned to instructing about morals (Spring, 2002). Social activists began to view kindergartens as a way to compensate for children experiencing culture problems or for children living in a lower economic situation made of mostly immigrant families having both parents working away from the home (Kunesh, 1990).

Early Childhood Education continued to grow throughout the country and an International Kindergarten Union was established with members including teachers, directors, and trainers involved in the kindergarten movement. It became one of the largest organizations in education and with this growth came much controversy on how to best educate these students (Spring, 2002). Contributing to this growth and controversy were Hall and Dewey. They participated in the progressivism of kindergarten reform by linking research and scientific thinking with education (Peterson, 1987).

Educational reform continued with debates between progressivists and traditionalists and was continually supported with bodies of research from early childhood research centers and schools (Gillett & Temple, 2000). The American people started to examine the development of children and the issues that may have an effect on their development (Pettersen, 1987). Professionals began to research school curriculum, the social and emotional development of children, and the types of instruction students were receiving while in school (Pettersen, 1987). With these new developments in educational reform, more research evolved examining the experiences children have prior to enrolling in school, educational experiences students were having as they entered school for the very first time, and the importance of these experiences (Spring, 2002).

Early childhood education and early intervention programs continued to evolve throughout the world with another contributor, Maria Montessori, who began her work in Italy

with mentally challenged children (Montessori, 1964). Montessori opened a home for children, ages three through seven in 1907, located in the most poverty stricken and crime filled area of Rome with hopes to minimize destruction of young children within the city (McWilliam, 2003). The program became extremely successful and gained world recognition for not only preventing the destruction of children but for the academic growth of children at such a very young age (McWilliam, 2003).

The Montessori classroom incorporated many different areas of learning. As a group, the focus was directed towards the use of good manners, being responsible for personal hygiene, and the use of role-playing and manipulatives to solve problems (Montessori, 1964). The lead focus in a Montessori classroom was the individual. Learners were instructed on an individual level with the freedom to make choices in a carefully structured classroom (Montessori, 1964). Heterogeneous grouping practices were a key instructional element in Montessori learning. Creating groups with as many diverse learners in the areas of interest, pace ability, age, involvement interest, and academic ability increased student leaning and boosted the opportunity for student involvement (Kunesh, 1990).

The passion for the Montessori movement diminished in 1916 but then was revitalized again in the 1960s and facilitated the organization of many private schools in the United States (Montessori, 1964). Present day Montessori establishments continue to stress the importance of early intervention practices in young students through personalized intervention plans and individualized strategies (Kunesh, 1990).

In 1910, another educational movement began greatly influencing early childhood intervention. The nursery school movement was established and had a great influence on the United States and the expansion of early intervention programs (Kunesh, 1990). Margaret and

Rachel McMillian began a clinic in England for children in Britain needing care and soon established a “nursery school” in this clinic. Their school focused on educating the whole child and worked to meet their needs intellectually, physically, emotionally, and socially (Kunesh, 1990). The movement slowly moved to the United States, and individuals began to open private nursery schools in the areas of Detroit and Boston (Peterson, 1987). During the 1930s, over 200 nursery schools had evolved in the United States. Many of these nursery schools were established in universities along with private nursery schools and nursery schools associated with child welfare services (Peterson, 1987).

Gillett and Temple (2000) described the political and economic situation of the country in the 1930s that had a great influence on the progress of the educational system’s growth and development. Mothers had to leave the home and enter the work force due to the difficult times of the Depression and World War II to financially support their families. This major change in American society forced the United States government to assist American families with nursery schools and childcare. In 1940, the Lanham Act was passed and provided support for children of working mothers in a non-health related role (Guralinick, 1997).

Although nursery schools and preschools continued to grow, many changes occurred after World War II ended. Federal funding began to dwindle, and most socioeconomically disadvantaged families could not afford the childcare programs offered (Guralinick, 1997). Preschools became schools for more prosperous families, while the families at an economic disadvantage were unable to have their children attend (Kunesh, 1990). Programs were shortened to half days or were reorganized into two or three-day programs versus the original five-days a week programs. The curricula of the programs were altered, and the programs functioned with a wide range of basic kindergarten skills focusing mostly on social development

(Kunesh, 1990). Parents began to notice the positive influence early intervention preschools had concerning their child's educational, social, and emotional growth, causing demand for preschools to develop and grow rapidly (Guralinich, 1997). As enrollment of children in preschools continued to grow and the gap in achievement became larger each year, support to increase the growth of preschool programs came from many agencies, such as Council of Chief State School Officers, National Governor's Association, and Committee for Economic Development (Kunesh, 1990).

The administration under John F. Kennedy began the Head Start Program in an effort to serve disadvantaged communities. In addition to the Head Start movement, Lyndon B. Johnson assisted in the funding of preschool programs in public schools, as part of the Elementary and Secondary Act (ESEA), as an attempt to end the War on Poverty (Spring, 2002). Head Start was designed to meet many different needs in this country. The program was created to help children in disadvantaged homes enter regular kindergarten programs better prepared and to provide positive learning experiences for children in hopes to enhance intellectual development (McWilliam, 2003). Another initiative of the Head Start Program was to establish an environment for children who are deprived of educational stimulation, have poor nutrition, and are part of an underprivileged home (McWilliam, 2003). This program began delivering a full variety of services to non-handicapped and handicapped young children in a unified setting with the intention to provide better prepared upcoming kindergartners (NECTAS & START, 1998).

### **Development of Remediation**

Remediation development opportunities in elementary, middle, and secondary public schools have not always been offered on a daily basis during the regular school day. Delivery of remediation to students below grade level has begun to evolve with the implementation of No

Child Left Behind, the changes made to Individuals with Disabilities Education Act, the initiation of Response to Intervention (RTI) and Race to the Top. Learners not successful in the regular education classroom and/or performing below grade level based on state standards measured with standardized tests are referred to the RTI process, a tiered intervention system that adds additional support at each tier until the student is successful, or moved up a Tier if already placed in the intervention process (Justice, 2006).

Creating a curriculum challenging and motivating for students is a difficult task for educators working with students below grade level (Bahr, 2008). Instruction for students in need of remediation must be more than repeating the same instruction over and over again (Patrick, n.d.). Teaching with the same method to the identical students that did not comprehend it the first time will not bridge gaps in learning. Using an engaging, motivating curriculum will be most successful with students needing remediation (Patrick, n.d.). In (2008), Bahr found that the extent and depth of the curriculum does affect student achievement.

Research collected on elementary math intervention suggests math intervention is effective to learners needing remediation. In a recent study conducted by Mong and Mong (2010), two remediation strategies were created to improve math fluency and were evaluated. Cover, Copy, and Compare and Math to Mastery were both evaluated and proven to be effective strategies increasing mathematical fluency for students in elementary classrooms.

Another study conducted by Bryant, Bryant, Gersten, Scammacca, and Chavez (2008) observed the effects of an intervention involving small group mathematical tutoring sessions grouped by ability, made up of three to four first and second grade children. The study disclosed no significant gains in the first graders involved in the intervention but did observe a significant change in the second grade students involved in the small group ability tutoring.

Ketterlin-Geller, Chard, and Fien (2008) examined the effects of two math intervention strategies implemented with low achieving math students. One intervention was created to reteach mathematical fundamentals, and the other intervention was to provide extended time in the curriculum being studied. The interventions took place for 156 weeks involving 51 low achieving math students in grades fifth through eighth. The authors of the study found the students involved in both interventions outperformed students in the group with no interventions implemented.

Universities have offered remedial mathematics and writing classes to learners for many years. Entrance exam scores and standardized test scores are used to govern if students are required to register for remedial courses in writing and mathematics before being allowed to enroll in on track college courses. A study conducted in 2000 by the United States Department of Education found 22% of college freshmen were required to register for a remedial math course before being eligible to register for on track college math courses (Wirt, et al 2004). Educational leaders began to understand the importance of creating educational and social interventions to children underprivileged of these experiences and stimulations so that they may be successful upon entering a formal educational track (Gillett & Temple, 2000).

### **National Policies**

The United States Department of Education has verified an increase in enrollment percentages concerning minorities, students speaking English as a second language, and low-income students qualifying for special education services (Hosp & Reschly, 2004). The summary of No Child Left Behind Act (Bush, 2001) states that almost 70 percent of fourth graders were below the national average on standardized testing of basic skills, and close to a third of freshman beginning college were enrolled in remedial courses before they were allowed

to enroll in regular education classes. These facts led the U.S. to reauthorize the ESEA as the No Child Left Behind Act, legislation geared to improve student performance, focus on student-centered learning, increase accountability, and empower parents (Bush, 2001). Demands for educational reform practices in the main areas of reading and math are the drive behind federal laws included in NCLB and IDEA. Both of these national policies stress the need to implement research-based practices into the decisions of educational reform and development. IDEA (Individuals with Disabilities Education Act) 2004 required states to implement RTI to deliver preventive strategies in order to help identify and support struggling students before they are grade levels behind (GADOE, 2008).

President Bush signed the revised Elementary and Secondary Education Act (ESEA) into mandated law in 2002 as No Child Left Behind. The revised law established specific deadlines for states to broaden the design and frequency of academic testing, to improve academic accountability, and to place highly qualified teachers in each classroom with 100% of students being evaluated. These laws included those students from low-income families, students with minority backgrounds, and students with disabilities (Hanushek & Raymund, 2004). The federal law administering special education was revised to require early intervention services and evaluation processes for students not making academic progress and for students with disabilities (Hanushek & Raymund, 2004).

### **Mathematics Instruction**

Mathematics instruction has been in a constant state of change in the United States since the early 1900s. As the methods of instruction have continued to evolve, the new strategies have been ineffective because of the lack of presence of the basic principles of learning, such as student perception, metacognition, attention to student learning styles, and memory (Miller &



Mercer, 1997). Today's American schools are not demonstrating the mathematics achievement necessary to compete economically at a global level (United States Department of Education, 2004). Loveless (2003) shared that some believe the current American classrooms are not focusing enough instruction on basic number concepts and foundational information, while the opposing view believes the American classrooms overemphasize the basic mathematics concepts at the expense of applying learned knowledge, therefore holding higher level achievement of students back.

The National Council of Teachers of Mathematics examined these opposing views in 2003. The council found learning mathematics through discovery was the most effective way for children to learn and that instructional methods without hands-on activities to teach math were not best practices for students (Loveless, 2003). Rote learning without application was found to not result in lasting learning that is needed to be able to apply higherlevel math concepts. (Loveless, 2003).

Debates over mathematic achievement and reorganization in the United States are often split down the middle involving two conflicting views (Loveless, 2003). Georgia's elementary school teachers are mandated to use the Common Core Georgia Performance Standards for the delivery of curriculum and instruction. There are diverse strands within each standard including everything from number recognition and shapes to geometry and data analysis. These strands include detailed descriptions of what each student should have mastered by the end of each grade level. All of Georgia's mathematic standards and strands direct an emphasis on problem solving, reasoning, and explanation (Georgia Department of Education, 2008). Georgia's standards are designed to engage students in mathematical learning experiences related to real life situations. The standards are created in a way so that skills are maintained and new concepts are built upon

those mastered in early grades (Georgia's Department of Education, 2008). Table 1 offers an example of Georgia's Mathematics Curriculum and how the standards and strands are organized.

Table 1

*Fifth Grade Math Standard Numbers and Operations (M5M)*

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Students will further develop their understanding of whole numbers.

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<u>Number</u>	<u>Strand</u>
1	Classify the set of counting numbers into subsets with distinguishing characteristics (odd/even, prime/composite).
2	Find multiples and factors.
3	Analyze and use divisibility rules.

---

Students will further develop their understanding of decimal fractions as part of the base-ten number system

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<u>Number</u>	<u>Strand</u>
1	Understand place value.
2	Analyze the effect on the product when a number is multiplied by 10, 100, 1000, 0.1, and 0.01.
3	Use $<$ , $>$ , or $=$ to compare decimals and justify the comparison.

---

Students will further develop their understanding of the meaning of multiplication and division with decimal fractions and use them.

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<u>Number</u>	<u>Strand</u>
1	Model multiplication and division of decimal fractions by another decimal fraction.
2	Explain the process of multiplication and division, including situations in which the multiplier and divisor are both whole numbers and decimal fractions.
3	Multiply and divide with decimal fractions including decimal fractions less than one and greater than one.
4	Understand the relationships and rules for multiplication and division of whole numbers also apply to decimal fractions.

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Students will continue to develop their understanding of the meaning of common fractions and compute with them.

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<u>Number</u>	<u>Strand</u>
1	Understand division of whole numbers can be represented as a fraction.
2	Understand the value of a fraction is not changed when both its numerator and denominator are multiplied or divided by the same number because it is the same as multiplying or dividing by one.
3	Find equivalent fractions and simplify fractions.
4	Model the multiplication and division of common fractions.
5	Explore finding common denominators using concrete, pictorial, and computational models.

- 6 Use  $<$ ,  $>$ , or  $=$  to compare fractions and justify the comparison.
- 7 Add and subtract common fractions and mixed numbers with unlike denominators.
- 8 Use fractions (proper and improper) and decimal fractions interchangeably.
- 9 Estimate products and quotients.

Students will understand the meaning of percentage.

<u>Number</u>	<u>Strand</u>
1	Explore and model percents using multiple representations.
2	Apply percents to circle graphs.

*Table 1.* Fifth grade math numbers and operations strands and elements. Georgia Department of Education. (2008).

### **Georgia's Intervention Programs**

Georgia's General Assembly approved funding for early intervention programs to support the needs of learners at risk of not meeting state standards or maintaining previous grade level standards. The Early Intervention Program was created with the purpose of supporting students to achieve grade level standards and with the purpose of students graduating the program in a timely manner (Georgia Department of Education - CI Services, 2011). The legislation specifically addressed concerns related to length of time students participate in the EIP in the following statement: "It is not the intent of the General Assembly that students be assigned in this program on a continuing or permanent basis" (Georgia Department of Education - CI Services, 2011, p. 1). The Department of Education produced a survey in 2004 for school

districts in the state of Georgia participating in the Early Intervention Programs receiving state funds for the program (Johnson, G., 2004). Across the state, administrators were asked to complete the survey in efforts to determine if EIP was being used in the school systems, to compile data regarding the program, and to judge how effective the program was in assisting with learning goals in regards to learners mastering skills to exit the program. The survey results indicated students were staying in the program for more than two years, on average, and students were mainly being pulled out of regular education services each day to receive EIP services. Though the analysis of the survey recommended there be data gathered each academic year to watch the growth and effectiveness of the program, no other data has been collected (Georgia Department of Education - CI Services, 2011).

There is a significant lack of data and research on the effectiveness of Georgia's Early Intervention Program and teachers' perceptions of the program. With this state project in place to support and improve achievement of students at academic risk, all students needing these services, kindergarten through fifth grade, are eligible through state funding. It is a priority of the EIP program to provide instant assistance to these learners so that they may be successful and on grade level. The Georgia Department of Education claims to accomplish this by placing these students with highly qualified teachers in the appropriate early intervention small group model (Georgia Department of Education - CI Services, 2011). The Department of Education (DOE) made a considerable change to how EIP services were delivered throughout the state in 2004 when over \$7 million dollars in secondary funding were reduced (Georgia Department of Education - CI Services, 2011).

The purpose of Georgia's Early Intervention Program is to provide additional support and educational resources to students performing below grade level. While providing these supports

and resources, the goal of the program is to have learners obtaining the academic skills necessary to advance to the next grade level in the shortest possible time frame (Georgia Department of Education, 2008). Johnson (2004) compiled a survey displaying results representing a large number of socioeconomically disadvantaged students and students belonging to minority groups enrolled in Georgia's Early Intervention Program. He found that students qualifying for early intervention services in Georgia are often placed together. The many models of Early Intervention contain smaller class sizes so students may receive additional services in the academic areas where the student is showing the greatest academic gaps (Johnson, 2004).

Johnson (2004) reported that 51% of schools identified most students enrolled into the Early Intervention Program have an average enrollment of 2 years or longer; 72% of schools identified 5% or less of their students re-entered the program after graduating, and 12% of schools identified more than 10% re-entered to the program after graduating the program. Johnson (2004) also reported schools using the pullout only models show a shorter rate of enrollment in the Early Intervention Program and were less likely to re-enter, and students enrolled in schools utilizing the self-contained early intervention model were enrolled in the program longer and were more likely to re-enter the program after graduating.

**Program funding.** According to the state EIP survey, school districts involved in the EIP specified that the method of early intervention program service delivery is decided primarily by funding (Johnson, 2004). Preceding year 2004, the state provided additional funding for supplemental teacher positions to assist with program application. These funds allowed schools to preserve general education teacher positions when the number of general education students in each subject area dipped below the minimum class size, termed "make whole" because they were used to maintain classrooms or make them whole. Make whole funding was utilized with

schools serving students through pull-out or augmented EIP models. For example, in a fourth grade classroom of 28 learners, the minimum class size is 23. If there were less than 23 learners on roll in the classroom for any segment of the school day, the school lost funding for that regular education teacher's salary during that segment. In this example, up to five students could be served through pull-out or augmented EIP services without generating make-whole funds. If six or more students were served, the supplemental funding adjusted for the extra student. In 2004, approximately 14 million dollars in these supplemental funds were cut from Georgia's education budget (Georgia Department of Education - CI Services, 2011). This budget loss guided districts to intensely modify how EIP services were provided to enrolled students.

**Demographics.** In 2001, Georgia's Early Intervention Program was implemented. Since that year, 27% of Georgia's enrolled students in grades kindergarten through fifth are served in this program. The survey conducted in 2004 reports 48% of EIP students are Black and 14% of EIP students are Hispanic. The overall elementary population in the state of Georgia at the time of the survey was 37% Black and 7% Hispanic (Johnson, 2004).

**Identification process.** There are two methods in which a child can qualify for Early Intervention Program services. The first and most common method of determining eligibility is to use standardized test scores administered by the state and school districts each academic year. The standardized method requires the educator to examine if students meet the minimum competency criteria on The Criterion Referenced Competency Test (CRCT), administered third through fifth grades; District Benchmarks, administered first through third grades; and Georgia Kindergarten Inventory of Developing Skills (GKIDS), administered in Kindergarten.

One example of qualifying using standardized test scores is students performing at the DNM (did not meet standard) level on the CRCT by earning a score below 800. The passing

score is indicative of the student demonstrating a limited knowledge of the specific domain tested (Georgia Department of Education, 2010a). Students scoring below 800 on the 5<sup>th</sup> grade mathematics CRCT have an underdeveloped understanding of mathematical numbers and operations and demonstrate marginal evidence of computation and problem solving involving word problems. The students falling into the DNM category are limited in solving mathematical problems using variables, creating expressions, and analyzing data. Application of mathematical vocabulary to solve problems is often not demonstrated by students scoring below an 800 on the Math section of the CRCT (Georgia Department of Education, 2010a).

The state also offers an alternative method to provide eligibility to those students meeting the minimum requirement on standardized testing measurements. This method involves a checklist system created by the Georgia Department of Education's Office of Student Accountability. The checklist contains grade level objectives that each student should be performing successfully at a consistent rate. Along with these checklists, it is acceptable to include work samples, other forms of assessments, portfolios, and any documentation supporting the desired eligibility. If a student is determined eligible for Early Intervention Program services, they too will be served through one of the five delivery models. Systems choosing to use this alternative method to serve students meeting standardized standards cannot rise above 3% of EIP students in each grade level placed using this method (Georgia Department of Education - CI Services, 2011).

**Student grouping practices.** Students lacking academic foundation that have the need to build skills to improve academic success may benefit from ability grouping or remedial class grouping. Some students demand more attention and greater direction and facilitation of skills than students of higher achieving potential (Burns, 2008).



The term “tracking” refers to the educational practice of separating students according to a range of criteria during at least part of the school day (Oakes, 1986). Tracking students has been a common practice amongst elementary, middle, and high schools since the early 1920s. Many variations of the practice exist and are used to group students by their academic ability. A combination of teacher’s recommendation, IQ scores, and achievement ability are used to decide where a learner will be best placed (Slavin, 1993). It is common to separate students based on ability groups created for high achieving, average, and below grade level learners. Older students can also be grouped based on what kinds of career paths they may take after high school is complete (Ornstein, Behar- Horenstein, & Pajak, 2003).

Ability grouping, a type of tracking, is very common for academic instruction. Homogeneous grouping, which is the process of grouping learners by like academic abilities, is the most frequently used type of ability grouping, (Adelson & Carpenter, 2011). A school system can also choose to ability group by teacher with a heterogeneous classroom. Heterogeneous grouping is a type of distribution of students among various classrooms of a certain grade within a school (Hallahan & Kauffman, 2006). In this method, children of approximately the same age are placed in different classrooms in order to create a relatively even distribution of students of differing abilities as well as different educational and emotional needs (Adelson & Carpenter, 2011). For example, gifted children were scattered throughout the various grade level classrooms, rather than all together in one classroom.

Ability grouping is a method used to track and organize students as they progress through their education (Reed, 2008). With the wide range of learners school systems encounter today, grouping students by ability is an efficient way to facilitate learning and teaching (Hallahan & Kauffman, 2006). These homogenous grouping efforts enable educators to motivate and

differentiate more effectively when learners in the classrooms are similar. Students performing above grade level on standardized testing are placed in classes with similar performing students (Adelson & Carpenter, 2011). Students performing in the classroom at a high achieving levels but not performing as well on standardized testing can also be placed in an ability group of high achievers (Reed, 2008). When a student performs below grade level on standardized tests or in the classroom, they are placed into classes of students with similar abilities or subgroups pulled from the classroom (McPartland & Slavin, 1990). In one study of homogeneously grouping students by ability, Biesinger and Crippen (2008) followed two groups of students: One, which took a remediation class to pass the state exam; and the other, which did not participate in the program. The study results indicated that students who were enrolled in the program significantly outperformed those who did not take the class.

Those in support of academic ability grouping argue the opportunity to provide enrichment for learners being successful at a higher ability and the chance for remediation in the classroom for students performing below grade level. Proponents argue the importance for like learners to have the opportunity to be with similar peers that are capable of stimulating each other with like activities. The argument exists that lower level learners are capable of keeping higher achieving students back below their potential, and different ability groups need access to varying teacher support and instruction. Higher performing students work at a faster instructional pace, while lower level learners need greater assistance and slower working classroom environments (Ansalone, 2004; Slavin, 1993; Tieso, 2003).

Those against tracking, or homogeneous ability grouping, often propose that these practices are against the principles on which public education was founded. They believe grouping by academic ability takes away from the equality of education in public school systems

(Frattura & Topinka, 2006). Anti-ability grouping advocates say this does not only occur through the curriculum and standards taught in the classroom. They state that the Social status of students is very obvious in the different leveled groups, and students are aware of the disparities between each group, how skills are taught, and the pace at which the curriculum is delivered (Hallam, Ireson, & Davies, 2004).

**Delivery methods.** Individual school systems are accountable for applying the appropriate EIP model to best suit their students' academic needs. The Georgia Department of Education has approved five models from which to choose (2004). School systems are also given the flexibility to submit alternative EIP models to the state for approved authorization, with the state guidelines as a suggestion. All delivery models of instruction must have a program to accelerate student learning, provide instruction with a certified teacher, and use Early Intervention Program funds to provide additional instruction above the state mandated curriculum (GADOE, 2004). The four models each school system has to choose from are listed below:

***Self-contained.*** The self-contained model is the most restrictive delivery model out of the five models. This classroom service model only consists of EIP students and is required to be at a reduced class size compared to the regular education classes.

***Pull-out.*** In the pull-out model, EIP students are served by being pulled out of their regular education classroom to be served for either reading or math. Some EIP students are pulled for both reading and math. These groups being pulled cannot be larger than 14 students. With this service delivery model, students are being exposed to their math and reading standards twice each day. Often these students are pulled from science or social studies to receive this second math or reading instruction.

***Reduced class-size.*** The reduced class-size model is based on the ratio of EIP students to non-EIP students. This model reduces the total class size overall. For example, if a typical general education classroom is set at 28 students, it may be reduced to 18, with 4 students being served for EIP and 16 students on a regular education track. This also reduces the ratio of students to teacher.

***Augmented.*** With the augmented model of Early Intervention, the regular education teacher is assigned an EIP teacher to attend the regular education math and reading instruction every day. Many school districts refer to this model as Push-In due to the Early Intervention teacher lending services as they are pushed into the classroom. During that time, EIP students are typically pulled to a small group within the regular education classroom setting by the intervention teacher to receive differentiated instruction based on their academic needs.

**Program goals.** Georgia Department of Education EIP guidelines are to provide students with differentiated and/or accelerated instruction in order to develop the students' mastery of grade level material (Johnson, 2004). School systems should have continual monitoring of students' progress, and once the students have reached grade level achievement, they are to be moved from the program. Georgia Legislature specifically indicated that the Early Intervention Program was not only to be used for remediation but should also focus on accelerated learning situations. Implementing challenging and instructional activities are strongly focused on student academic deficits in content area, and are used in order to assist students in reaching grade level standards in the shortest possible time (Johnson, 2004). The GADOE mandates EIP students should be taught using research based instructional practices focused on closing gaps in student achievement.

**Response to Intervention.** Response to Intervention (RTI) programs were implemented because of the amendments made to the Individuals with Disabilities Act of 2004 (Thirty-five Years, 2010). RTI was created to support learners with multiple tiers of intervention for students considered at risk academically as early as prekindergarten (Justice, 2006). The RTI model was designed to better guide the process for deciding which students will need what interventions. Schools using the RTI process use a three-tier model. All students begin in Tier I using research-based instruction to guide their learning in the classroom. Those students moving on to Tier II are provided with additional interventions, such as being placed in an Early Intervention Program. If the learner is then placed on Tier III, progress monitoring occurs to collect data on the success of the interventions in place. If the student is not successful on the last tier with interventions in place, they are referred to receive special education testing and maybe special education services (Justice, 2006). Veilutino, Scanlon, Small, and Fanuele (2006) warned students are often misdiagnosed with learning disabilities because of the following factors: Insufficiently created materials and specific instruments used in testing and identification, lack of an empirical foundation to approaches used, and little or no encouragement by school systems for proactive interventions for students with early achievement difficulties.

VanDerHeyden (2009) views Response to Intervention as a tool for educational reform that provides a clear framework for establishing which students need assistance. He refers to RTI as the science of decision making to enhance student achievement. Through RTI, the newly designed framework is intended to be diagnostic so that the screening process evaluates the whole child and is able to identify all gaps of instruction (Justice, 2006). This framework process prevents all low performing students from being tested for special education services (VanDerHeyden, 2009).

Response to Intervention and Georgia's Early Intervention Program are both regular education programs. EIP is often part of the RTI process, allowing regular education teachers and early intervention teachers to implement interventions within the process of the student's RTI (Justice, 2006). EIP services are considered Tier 2 interventions with charting of the student's progress being a requirement. Dependent on the student's progress in the program, the student can remain on Tier 2 and in EIP services, or with lack of growth and progress, the student can advance to Tier 3 for consideration of additional academic support (Justice, 2006).

**Developing math proficiency.** Elementary grade students develop concepts through investigation and hands on experiences. In these early years of education, students learn basic math skills and form their beliefs and attitudes about mathematics (Reys & Fennell, 2003). No Child Left Behind stressed the value in improving learners' mathematical understanding by selecting mathematic domains all students must successfully master by the year 2014. Recent data collected on student performance and on national assessments of mastering mathematical skills report significant gaps exist between students' abilities and students' performance and the expectations of the legislature (Bryant et al., 2008; Ketterlin-Geller, Chard, & Fien, 2008). The National Assessment of Educational Progress (NAEP) reported students receiving small group instruction made considerable achievements in the area of mathematics, reducing achievement gaps in students fourth through eighth grade. Recent educational reforms are pushing for early preventive measures (Mullins, 1994).

IDEA and RTI procedures and processes guide schools to monitor and identify students not meeting standards so that these students are identified as early as possible and are provided with appropriate instruction and interventions suited for the students' needs. A collective practice for school districts identifying at risk students includes using previous year standardized

test scores and teacher recommendations. Many researchers suggest screening all students or all students scoring below the 25<sup>th</sup> percentile with screening tools capable of providing diagnostic predictions of mathematical achievement (Gersten, et al, 2009).

**Classroom environment.** Structure and environment also play critical roles in student achievement. There are many different ways to structure a classroom. One effective way to structure a classroom is to have smaller numbers of students in the classroom. A classroom with fewer students allows teachers to be more effective and lends the opportunity to instruct children on their individual needs. It creates a safer environment and supports a teacher in building individual relationships with each student. Differentiated and individualized instruction is better managed when student numbers are at a minimum in the academic classroom. A classroom containing 20 children or fewer can improve student performance and help to close the achievement gap, particularly for students who are disadvantaged (U.S. Department of Education, 1999).

Project STAR is a study conducted in Tennessee revealing information to educators in regards to the impact of class size on academic achievement. Research showed that students participating in a smaller classroom setting performed better academically than those students participating in a classroom with a larger number of students. The research findings were consistent regardless of race, sex, or socioeconomic status (U.S. Department of Education, 1999). Research also shows reduced class size is most effective the younger the student and, when complemented with additional intervention strategies, can greatly enhance academic achievement (U.S. Department of Education, 1999).

Another successful classroom environment strategy is known as looping. The practice of looping allows students to stay with the same teacher for two or more consecutive years.

Schools that use the looping model show evidence of increased student attendance, decreased retention rates, improved faculty attendance, and less discipline problems throughout the school year (Grant, Johnson, & Richardson, 1996). Looping gives the teacher an opportunity to know the students from the first day of instruction, allowing them to individualize instruction and understand the students' strengths and weaknesses from the beginning. This practice also builds a deeper relationship and level of trust between student and teacher (Grant, Johnson, & Richardson, 1996). A study was conducted in Cleveland, Ohio, involving a school district implementing looping. The school district population was 99.4 percent African American, and the majority of these students were from single-parent homes, with more than half living at or below the poverty level. Researchers compared math and reading student achievement in the traditional classes and the looping classes and reported meaningful differences between the two class environments. In some students, the growth was as much as a 40-point gain for those students in the looping group when compared to the traditional group (Reynolds, Barnhart, & Martin, 1999).

**Teacher preparation and math achievement.** A teacher's foundation and knowledge of mathematical materials can affect students' understanding and ability to master math concepts in class. Kajander (2010) discovered some teachers did not have the knowledge necessary for teaching assigned curriculum. As the classroom changes to a more standards based design, Kajander finds teachers are not trained or prepared for this change, leaving them unable to appropriately deliver the instruction.

Hill, Rowan, and Ball (2005) studied how a teacher's understanding of mathematical concepts affects a student's math achievement. The researchers used a tool, the Mathematical Knowledge for Teaching, created by the University of Michigan, providing researchers the



ability to examine the level of understanding an educator needs in order to instruct students successfully in mathematics. Participating researchers selected first and third graders from 89 America Choice program schools, Success for All program schools, and Accelerated Project Schools in order to conduct the study thoroughly. Hill et al. (2005) reported results, as measured by the Mathematical Knowledge for Teaching (MKT), indicating teachers' understanding of mathematical concepts and student academic achievement growth were considerably related to one another.

A lack of collaboration leaves intervention teachers often feeling unsupported and unprepared. One way to serve students in Georgia's Early Intervention Program is the pull-out delivery model. This is the most common model in the state of Georgia, and this allows very little time for teachers to collaborate with cooperating teachers regarding standards and student achievement (Johnson, D., 2004). Stobie, Boyle, Woolfson, Trunswell, and Connaughton (2004) investigated the topic of collaboration among faculty members involved in early interventions of at-risk students. This qualitative study involved interviews, observations, and questionnaires to examine an intervention program in Scotland, United Kingdom. The researchers looked at two different intervention approaches. One approach included multi-strands in which educators were provided teacher development, parental involvement ideas, and a full time faculty tutor for implementing interventions. The other approach was a single strand approach only including one strand of the students' educational experience. Researchers found the multi strand approach to be more effective than the single strand approach based on the experiences of the teachers. Effective intervention programs require school community support, and research based strategies must be implemented to affect and change academic achievement (Sparks, 2010).

Often early intervention teachers are unprepared or under trained for the task at hand. MacLean (2003) studied the effectiveness of three different professional development models on under achieving students in first grade within an inner-city school district. The first model delivered to teachers consisted of a full implementation of Math Recovery with a one-to-one intervention training for students. Consistent professional development training provided by Math Recovery trainers supported the first grade intervention teacher throughout implementation (MacLean, 2003). The first model involved leaders modeling, joint teaching, professional presentations, and collaboration. The next model implemented involved the same Math Recovery program, strategies, theory, continued professional development, and classroom activities but did not include an on campus instructor visiting the classroom teacher to work on development and collaboration (MacLean, 2003). The third implemented model involved classroom teachers participating in a Math Recovery development meeting and listening to a quick overview of the program with no discussion or development of the Math Recovery strategies, theories, or methods (MacLean, 2003). MacLean (2003) discovered the full Math Recovery implementation model with collaboration and an on campus trainer significantly outperformed both the continued professional development implementation without the on campus trainer and the model involving the Math Recovery training meeting and quick overview.

**Teachers' perceptions of differentiated instruction.** There are new obstacles early childhood educators face each year in the field of education, including increased diversity in both culture and language, and the rise in the number of students with disabilities. An educator's perception of the effectiveness of the delivery of instruction, methods, strategies, or missions within a school district, school, or grade level, plays a role in the success of the program and the success of the desired learning outcomes. Stronge (2007) emphasized the role a teacher's attitude

towards teaching plays in the success of the teacher and his or her students. An effective teacher is dedicated to his or her profession and tasks, willingly collaborates with others to offer ideas and strategies and is motivated to seek continued guidance and education (Schulte, Slate, & Onwuegbuzie, 2008). When teachers struggle with implementation of a program due to their perceptions, then the outcome will not be a desired one. According to Hertberg-Davis & Brighton (2006), a teacher changing his or her current teaching style to differentiate based on student needs greatly depends on the internal factors of the teacher, and if a teacher is unwilling or negative about a program, form of assessment, or model, it could inhibit a teacher's willingness or ability to facilitate the appropriate learning.

Teachers often perceive alternate forms of instruction as overwhelming, complex, and time consuming while also feeling they have to acclimate to all new forms of classroom management techniques (Hertberg-Davis & Brighton, 2006). Boiser (2007) reports that negative perceptions alongside alternate forms of instruction have a non-constructive effect on a learner's academic achievement. Teachers' perceptions of the effectiveness of programs used in schools today are a necessary piece in the implementation and development of early intervention programs designed to enhance academic abilities. When using alternate models of instruction to reach the needs of students, teachers must still collaborate with regular education teachers, have the ability to group students based on their individual needs, and have discussions about the best possible delivery of instruction for their students (Carolan & Guinn, 2007).

Tomlinson (1999) described differentiated instruction as concentration on key strands of the curriculum, awareness of student differences, knowledge from ongoing assessments, and collaborative in one purpose. Tomlinson (1999) named several methods of how teachers can incorporate differentiation into their classrooms. Methods such as teacher guided small group

activity, partner investigations, independent unit study, or curriculum collection projects, are examples of how to begin reaching all learners. Watt (2002) explained teachers using different methods of student interactions and instructions, such as modeling, working individually with the student, and encouraging appropriate academic behaviors supports students working at their own pace successfully. Educators successfully implementing differentiated instruction are aware of developmental learning differences as well as personal learning styles, and they apply this knowledge while creating lesson plans and assessments (Tomlinson, 1999).

### **Summary**

Through funding and legislation, opportunities for interventions for students not meeting academic standards and students with disabilities continue to increase. Before the seventies, students struggling with academic achievement did not have the opportunity to participate in free public education (United States Department of Education, 2012a). Educational laws have now been amended to support all students with disabilities from birth to 21 years of age, and support is offered to begin interventions before children are of age to attend schools (National Dissemination of Center for Children with Disabilities, 2011).

Georgia's Early Intervention Program was created to assist learners falling into an academic risk category by providing instructional guidance and assistance in reading and math. There is room for individual school district interpretation of the program, but the intent of Georgia's Legislature was to offer high quality instruction that increases students' learning, allowing them to eventually exit the program instead of being placed in the program for an extended amount of time (Johnson, 2004).

The guidelines for Georgia's Early Intervention Program specifically direct a need for differentiation and acceleration of elementary student learning. The literature reviewed

expressed important practices to increase and support student achievement. These practices include recognizing multiple learning styles, professional and student collaboration, ongoing assessment, and a classroom environment that includes and involves all learners.

This literature review was intended to inform the reader of the educational history and description of Georgia's Early Intervention Program. The importance of this information is crucial for the betterment of intervention programs and for the development of the intentions of the programs established with educational policies.

## **CHAPER THREE: METHODS**

### **Overview**

This phenomenological study investigated the perceptions of K-5 teachers involved in delivering Georgia's Early Intervention Math Program in a school district in a rural North Georgia community. A quantitative study would not fit the goals of this research due to the researcher seeking to understand the experiences and perspective of teachers teaching Georgia's Early Intervention Math Program. The purpose of phenomenological study was to "describe and interpret an experience by determining the meaning of the experience as perceived by the people who have participated in it" (Ary, Jacobs, Razavieh, & Sorensen, 2006, p. 461). From these data, the researcher can interpret the meaning of the phenomenon without attempting to solve a problem (Van Manen, 1990).

It is important that teachers see value in what they teach in their classrooms, and their individual perceptions cannot be represented with statistics. This study provided a clearer picture of teachers' experiences with the Early Intervention Math Program. This chapter describes in detail the design of the study with specifics on the setting, participants, researcher's role and procedures, including data collection and subsequent analysis that guided the researcher. Issues with trustworthiness and ethical concerns are also included.

### **Design**

A qualitative research design was used for this study based on the type of data sought. More specifically, a transcendental phenomenological approach was chosen because the goal was to understand teachers' perceptions toward Georgia's mandated Early Intervention Math Program. According to Moustakas (1994), "Phenomenology is concerned with wholeness, with examining entities many sides, angles, and perspectives until a unified vision of the essences of a

phenomenon or experience is achieved from” (p. 58); the phenomenologist’s focus is on what participants have in common as they experience a phenomenon. The phenomenon in this study was implementation of Georgia’s Early Intervention Math Program.

Several sources of qualitative data collection methods were used to gather information on the experiences of EIP K-5 teachers in a rural north Georgia school district. Research questions in this study focused on the experiences of Georgia’s Early Intervention Math Program teachers. This phenomenological study used interviews, focus groups, and reflective journaling to gather data on teachers’ experiences of Georgia’s Early Intervention Math Program. Ary, Jacobs, Razavieh, and Sorenson (2006) and Patton (2002) sustain this type of design, as guiding questions intend to establish the essence of the experience as perceived by the participants. Moustakas (1994) also supports the method and states researchers should search to uncover the phenomenon through behavior and experiences. Also suggested by Moustakas is the need for the researcher to bracket out any assumptions and beliefs that could possibly compromise the purity of the data by inserting personal interpretation through the lens of the researcher. For this study, researcher thoughts and biases were notated in the margins of the collected data to be considered in analysis (see Appendix A).

### **Research Questions**

This study was guided by the following research questions:

1. How do K-5 teachers describe their experience with Georgia’s Early Intervention Math Program as an early math intervention for at-risk learners?
2. How do participants describe their experiences with Georgia’s EIP regarding student math preparedness?

3. How do participants perceive the EIP program in comparison to the regular education math program?

### **Setting**

This study involved two elementary schools in a small, rural school district in North Georgia. This district has one high school, one middle school, and three elementary schools. North Springs Elementary (pseudonym used to protect confidentiality) was established in 2003 as a result of the growing population in the area, while South Springs Elementary has served the community since the early 1920s. Also included in the district was West Springs Elementary, which was excluded from the study due to the conflicting interest of the researcher teaching on that faculty.

The schools are located in a rural community that depends on tourism for most of its income. The local college is growing, and recent attempts to share resources across the school district and college have proven useful to both organizations. The school district hosts future teachers for the college, and the college provides dual enrollment options for high school students and support with district initiatives when needed. Though the school district and college share a sense of responsibility for educating the community, there are still many families, typically in the most rural areas of the county, who do not value education. It is, at times, difficult for teachers and other school faculty to communicate student needs to these families. To assist in this communication, the school district employs a system social worker and partners with local agencies to provide basic household necessities to these families in the hopes that they will trust the district enough to cooperate for the benefit of their children. Many of the EIP students are housed in these high poverty households in which education is not valued.



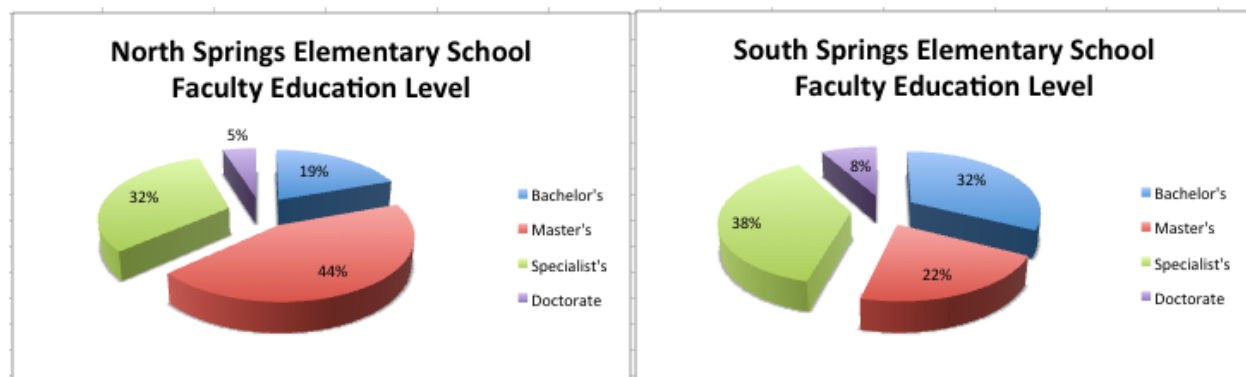
For the 2013-2014 school year, the school district had an enrolment of 4,078 students, with 1,809 of those attending elementary school. Across the district, 55% of students qualified for free or reduced priced meals (this number may actually be higher since it only represents self-report data and excludes any families who do not complete the paperwork to request this type of assistance). Of the students in the district, 3% were Limited English Proficient, 12.4% were served for a disability, 11.6% received services for gifted students, 24.8% of K-5 students received EIP services, and 1.8% were served in English to Speakers of Other Languages (ESOL). There is not much cultural diversity with 89% of students being white, 1% Asian, 1% black, 7% Hispanic, and 2% multiracial.

The elementary schools in this research study were previously using the self-contained model for the delivery of Early Intervention Program services, in which students were homogeneously grouped in a classroom only containing EIP students, but funding was cut for the EIP teachers. Students previously served in self-contained EIP classrooms were now homogeneously mixed with peers of varying academic abilities in the regular education setting. Classroom teachers were expected to differentiate instruction for all levels of learners in the classroom while providing and documenting additional support for students identified for the EIP program.

### **Participants**

The faculty of North Springs Elementary School, pseudonym used for the protection of the participants, is composed of 41 teachers. Teachers range in experience from 1 to 30 years in education with the average years of experience being 15. South Springs Elementary School employs 37 teachers, ranging in experience from several months to greater than 30 years. The average teacher in South Springs has 16 years of experience. There is no diversity racially, as all

teachers in both schools are white. Diversity can be found in the years of experience and education held by the teachers. Of the 78 potential participants from the two schools, 27 of these had previous or current experience working in the EIP program. Study participants were recruited from this portion of the teaching population that had worked with and had extensive experience in providing interventions for learners identified for the EIP program.



*Figure 1.* Education level of faculty in the two study settings.

Ten participants were selected from between the schools using purposeful sampling, required for this study because the population only included the 27 teachers who were currently or had previously taught Early Intervention Math Programs. Creswell (2007) and Guba (1981) support the method of purposeful sampling in qualitative designs. To achieve maximum variation, study participants varied in the grade level they taught, their number of years of experience in education, and their current teaching role (former versus current EIP teacher). The goal was to have five participants from each school with a range of years of experience and education level across participants that would result in data saturation. Data saturation is the point in the data collection process in which no new information is being gleaned and responses begin to be repetitive (Simon, 2011). Data saturation was achieved in this study with the originally chosen set of participants with no need to add additional participants. It was obvious

near the end of the interviews that the responses were generally mirroring those responses of previously interviewed participants.

The 2013/2014 EIP teachers across the school district provided services for 374 children. Each of these teachers was required to teach all subjects to their students with segments of intervention-based math and reading each day. All teachers in the school who are currently teaching in the EIP program or who have previously taught in the program were invited to attend. An email was sent to all teachers explaining the purpose of the study and asking for volunteers. Of those who volunteered, participants were chosen based on the criteria above that allowed for maximum variation.

### **Procedures**

Institutional Review Board (IRB) approval was obtained from Liberty University (see Appendix B), permission from the school district administration given (see Appendix C), and informed consent from all participants secured (see Appendix D). Data collection then took place. Participants were recruited via email and selected for the study based on specific criteria, including teaching experience with EIP, years of total teaching experience, grade level taught, and education level. Data collection procedures included individual interviews, focus groups, and reflective journaling. Participants took part in a one-on-one interview session with the researcher to gather initial study data from each individual. Interviews were recorded, and a professional transcriptionist created transcripts of the interviews to assist the researcher in coding and bracketing themes, ideas, and possible biases. Several weeks later, the participants participated in a focus group of five participants in an attempt to glean deeper information as they built on each other's ideas and responses. These focus group discussions were also recorded and transcribed for data analysis. Reflective journaling was used throughout the study

to gather deeper thoughts from participants. Interviews and focus groups required immediate responses that did not allow for the type of reflective thinking that can be found in a journal. By using these three data sources, there emerged a thorough description of these participants' perceptions of the early intervention program.

Data analysis began with a thorough review of the transcripts from the interviews, focus groups and the journal entries. Each was coded individually for emerging themes and ideas that contributed to the findings of the study. Themes and ideas were then compiled from each source, and a description emerged that painted a picture of collectively how these participants perceived the programs and their usefulness. A detailed report was prepared that used the participants own words and ideas to provide a comprehensive view of early intervention programs from those who were personally involved in implementing them.

### **The Researcher's Role**

Many ways of providing services to children in the classroom setting are relevant to qualitative research. Some of these aspects include being involved in the decisions made within the building concerning learners' education, the constant search for validity of data within the school regarding student achievement, and the urge to constantly look for themes emerging from programs implemented to ensure student achievement. I am currently an elementary regular education and inclusion teacher for mainstreamed special education students in the elementary school that was excluded for participation in the study but is in the same district as the two schools selected for the sites of this study. Three elementary schools operate in the system, and participants were chosen from the two elementary schools in which the researcher is not employed to avoid researcher influence on peers and their responses. I hoped being a teacher in the system laid a solid trustworthy foundation for the participants in the study. I have worked

with regular education, special education, and at-risk students for 10 years, and due to these personal classroom experiences, I am a supporter of differentiated instruction. In addition, I was cognizant of my employment and influence with the system for which I work while I was a researcher. I ensured all participants throughout the study that their identity and responses would all be protected and not revealed to anyone at any time. I used bracketing techniques to separate personal experiences and bias within the school system from my role as a researcher (see Appendix A).

### **Data Collection**

The data collection window began in September 2015. Approval for the study was secured from Liberty University and the International Review Board (IRB) prior to data collection. Participants volunteered for the study and were informed of the purpose. All of the participants were informed that the data collected would be the basis of the research for this dissertation and were assured anonymity throughout the entire process and subsequent research report.

The primary source of data was participant interviews. The study was focused on the teachers' experiences of Georgia's Early Intervention Program. Focus groups and reflective journaling were also used to triangulate interview data and helped to assist with trustworthiness of the findings. Before beginning the interview sessions, the questions for the interview were piloted. Piloting these questions improved the interviews and allowed any changes to be made prior to meeting with participants. This piloting was completed by three colleagues, each of whom hold master's degrees in education, of the researcher who were not included in the study but answered the questions prior to study data collection, allowing the researcher to determine if

the wording was appropriate to elicit the information sought and to correct any confusing language. No changes were necessary at the conclusion of the pilot.

## **Interviews**

Open-ended interviews were conducted individually with each teacher. The interviews were one-on-one in the school building before or after school and were audio recorded. Recordings were transcribed by a transcriptionist employed at a local university to allow the researcher to be able to bracket out assumptions, code themes, and make notes in the margins. The researcher reassured participants of their confidentiality and the safety of the data collected from them. Member checking procedures were explained to them, and they were informed that there are no correct or incorrect answers to the questions. It was important the participants know their opinions and experiences of the program were the most important aspects during the interview experience. The purpose of the interview questions was to allow the participants to express their lived experiences with the Early Intervention Math Program. Themes that emerged were identified in relation to the research questions, and findings around the themes were organized. The interview questions were:

1. What is your gender and race?
2. Where did you go to college?
3. Did you grow up in this community?
4. Do you have any children, and tell me a little about them if you do?
5. How many years have you been a teacher?
6. How many years have you worked in an elementary school?
7. Tell me about a typical day in your teaching position.

8. Describe what your experiences have been with the Early Intervention Math Program (EIP).
9. How many years have you served Early Intervention students in your classroom?
10. Describe the model you teach currently. Have you taught another model before?
11. How many of your students have qualified for EIP this year? What method was used to qualify these students?
12. What interventions have you observed occurring in your classroom? If your students are also pulled-out of the classroom, what interventions are you aware of that are occurring with your EIP students?
13. Would you say the interventions are having a positive, negative, or no effect at all on your EIP students' math performance? Why?
14. Would you say that the interventions are having a positive, negative, or no effect at all on the rate of retention in your classroom and within your grade-level?
15. How do you feel Early Intervention Program's prepare students for the next grade level?
16. Describe the support given to EIP students by the administration, teachers, and parents.
17. How do you collaborate as an EIP teacher?
18. How do you plan lessons as an EIP teacher?
19. What types of interventions do EIP teachers use?
20. Describe your greatest challenges as an EIP teacher.
21. What is your greatest success story as an EIP teacher?

### **Reflective Journal**

Journals were maintained by the researcher and participants throughout the data collection process. After interviewing participants, the researcher recorded thoughts about what

was observed and the discussions that ensued (see Appendix F for an example). By recording thoughts or questions the researcher had, further questions were formulated for the focus group discussions with participants. Journaling also helped to clarify some of the information gathered from the interviews. Researcher bias was identified during the journaling process that can limit the interpretation of the data collected. Journals were compared to transcripts from the interviews to increase validity of researcher reflections.

The participants were asked to keep a journal as well. This journal was a place for the participants to reflect for two weeks during the time of the study. Any thoughts, feelings, or experiences the participants had were welcomed in the journal. They were asked to write down a couple of sentences each day during the two week period any thoughts or experiences that they felt could contribute to the researcher's understanding of their experiences with the early intervention program. Participants were also asked to collect any documentation they felt could support the study in any way. Only three of these participant journals were returned, with the other seven participants stating that they did not have time to devote to writing in a journal.

### **Focus Groups**

The focus group was composed of EIP math teachers and provided a more inviting, open conversation environment than the individual interviews. The group met after school hours in the media center of the school in which the researcher taught. Five of the study participants were present to contribute to the focus group. Discussions were recorded and transcribed by a professional transcriptionist to ensure accuracy of reported ideas. The focus group discussed strengths and weaknesses related with Georgia's Early Intervention Math Program. Themes were identified that related to the research questions, and findings were organized around those themes.



I collected qualitative data from the focus group interviews to answer three research questions:

1. How do K-5 teachers describe their experience with Georgia's Early Intervention Math Program as an early math intervention for at-risk learners?
2. How do participants describe their experiences with Georgia's EIP regarding student math preparedness?
3. How do participants perceive the EIP program in comparison to the regular education math program?

### **Data Analysis**

Data analysis is the process of methodically probing, examining, classifying, and categorizing data collected in a research project (Stake, 1995). Data analysis is figured to make sense of the findings and to allow those findings to be expressed to others. Stake (1995) states that data analysis comes from reading and rereading the data, by thinking deeply, and then our understanding of the data comes forth and begins to develop on paper. Data should be examined and broken into themes and codes. Data analysis for this study followed the transcendental phenomenological research design outlined by Moustakas (1994). Steps included data analysis throughout the data collection period, bracketing of researcher thoughts and biases, coding of themes, and creation of a detailed description of the findings using the participants' own thoughts and words when possible.

The analysis process first began with the reduction process with removing any personal bias the researcher had about the phenomenon. Doing this allowed the researcher to be "in a state of openness and freedom, facilitates cleaner seeing, makes possible identity, and encourages the looking again and again that leads to deeper layers of meaning" (Moustakas,

1994, p. 96). Several forms of data were analyzed as a result of the research conducted. Information was gathered from individual interviews, focus groups, and reflective journaling. The data were organized and prepared by transcribing interviews and focus groups. Data were first read to obtain a general sense of the information and to reflect on its overall meaning (Creswell, 2013). With the initial stages of data, open coding was conducted to find events and themes from the data. These common themes stood out as meaningful events (Hatch, 2002). The researcher also used memoing and group participants' experiences using horizontalization regarding the ideas presented during these times. Horizontalization narrows the scope of data into specific categories (Creswell, 2013). Themes were identified and organized as they corresponded to the research questions. After the themes were organized and categorized, codes were reanalyzed to determine if the data fit in its selected categorized theme.

### **Trustworthiness**

Validity in qualitative research is often described as the level of trustworthiness one can place on the conclusions obtained from the data (Creswell, 2013). The techniques implemented in the study consisted of member checking, triangulation, and peer reviews. Participants joined in the process of member checking, which gave each participant the opportunity to review transcripts and results after the coding process. Committee members served as a peer review team, insuring the quality and validity of the study, and three or more sources of data collection were used to establish triangulation within the study.

### **Credibility**

Credibility regards the accurateness of the researcher's interpretation of participants' meanings (Creswell, 2013). In this study, one factor assisting to increase the credibility of the research was triangulation, or relying on several sources of data and data collection methods

(Creswell, 2013). Several educators from North Springs Elementary participated and data was collected from interviews, focus groups, and reflective journaling.

In addition, bracketing increased credibility by a researcher revealing his or her biases and roles and differentiating them from those of other participants (Creswell, 2013). This bracketing also helped to prevent the view of the researcher having other purposes other than the research. One example of bracketing was, when one of the participants began sharing about math interventions she was providing in her class, my bracketed thoughts were that the strategies she was using did not seem age appropriate and were not connected to the standards being taught. I was only aware of this because I teach the same grade level and am very familiar with the curriculum and developmental levels of the students, so I felt it was important to include my insight to keep myself aware of this bias and awareness that existed because of my job. Any thoughts I had in relation to my understanding of the standards was bracketed in the margins of the data to ensure I was aware of potential biases as I analyzed the data. In this study, the researcher released any relationships to the participants and any preceding experience as an educator at the research site. The researcher guaranteed participants that the interest in their thoughts and ideas were not related to those of other staff members at the site of interest.

To avoid making discriminations before examining the data gathered, the researcher had to be mindful of their own preconceptions as a teacher with ideas and views. Moustakas (1994) argues this as looking at a phenomenon “freshly, as for the first time” (p. 34). While the goal was to examine the data with no preconceived ideas, it may not be completely possible, because a person’s values and ideas form the structure for any discussion or thinking. For example, research topics, from conception, are based on existing knowledge or perceived ideas.

**Dependability**

Guba and Lincoln (2007) clarified judging dependability in research includes examining the research process. To increase dependability in qualitative research, the research procedures used in a study should be related in such detail that the research could be replicated (Shenton, 2004). The research included thorough descriptions of the processes employed and contained copies of instruments used.

**Transferability**

Transferability details whether the results of study can be transferred to other settings and contexts (Creswell, 2013). According to Guba and Lincoln (2007), transferability should be dealt with by providing descriptive data about the framework of the research. Transferability is so other researchers can shape informed assessments regarding the transferability of the findings of the research to other contexts.

**Confirmability**

Confirmability is also concerned with the reproducing of both the procedure and findings of a study (Guba & Lincoln, 2007). Trochim (2006) defined this as “the degree to which the results could be confirmed or corroborated by others” (para. 6). Shenton (2004) described this as making sure the findings are based on participants’ experiences, not researcher biases or preferences. Triangulation, bracketing, and member checking were helpful in reducing biases and increasing the confirmability of the study. Member checking was completed after the data collection phase of the study, where each participant was given a copy of his typed interview responses to review for possible inaccuracies. All agreed that the transcripts were accurate and reflected the responses they intended.

### **Ethical Considerations**

First and foremost researchers have a responsibility to protect the participants in their studies. Participants had a complete understanding of the purpose and methods of the study and the demands they were to experience in agreeing to be participants of this study. All data collected was confidential, and pseudonyms were used in the report. Participants' names were never and will never be released. In all of the data collection, field notes and transcripts, there were no personal identifiers. All of the data was locked up and password protected if on an electronic device. None of the data was shared with anyone who was not part of the study team.

### **Summary**

The purpose of this phenomenological study was to “describe and interpret an experience by determining the meaning of the experience as perceived by the people who have participated in it” (Ary, Jacobs, Razavieh, & Sorensen, 2006, p. 461). From these data, the researcher can interpret the meaning of the phenomenon without attempting to solve a problem (Van Manen, 1990). This phenomenological study will be used to understand the perceptions of teachers involved in delivering Georgia's Early Intervention Math Program for the purpose of improving the program as a whole by giving feedback to stakeholders that are involved in the decision making process about such programs. A quantitative study would not fit the goals of this research due to the researcher seeking to understand the experiences of teachers teaching Georgia's Early Intervention Math Program. This chapter provided a blueprint of the study, describing the setting, participants, researcher, and all procedures used to gather and analyze data.

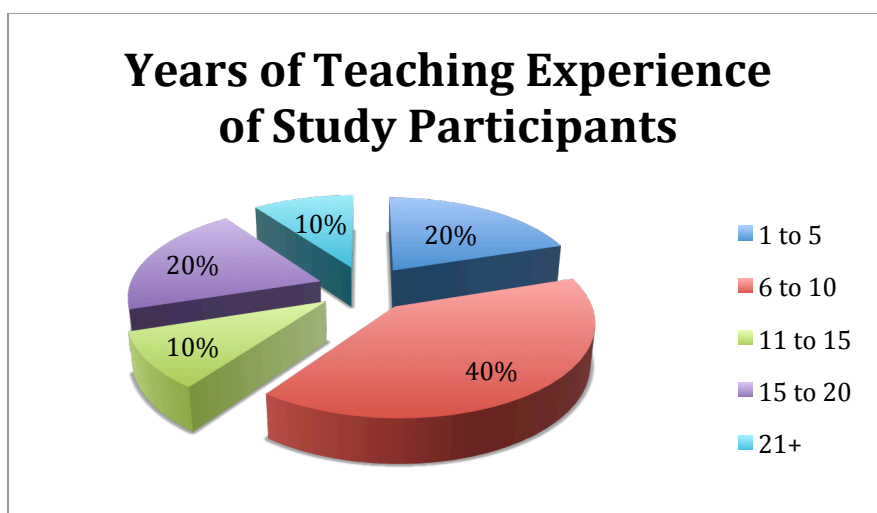
## CHAPTER FOUR: FINDINGS

### Overview

The purpose of this transcendental phenomenological study was to investigate K-5 teachers' perceptions of Georgia's mandated Early Intervention Math Program on at-risk learners in a school district in a rural, North Georgia community. Chapter four includes a description of the participants and a detailed report of their perceptions shared using their own reflections and words. Codes and emerging themes identified from a thorough analysis of the data are included within this chapter, as well.

### Participants

The study was conducted using 10 participants who volunteered to share their perceptions on Georgia's Early Intervention Math Program. All were white females, representative of the population of elementary educators in the participating school district in which there are only a few male elementary teachers and no ethnic or racial diversity within the staff. Range of experience for the teachers was from 3-21 years of experience teaching and 3-20 years of experience teaching at the elementary level. Only three of the ten participants were



*Figure 2.* Years of teaching experience of study participants.

natives of the county in which the study took place. Of the remaining seven participants who grew up outside of the town, five of them received their undergraduate degrees from the local university. All participants have had experience with serving EIP students at some point during their teaching careers, and each had a unique perspective of the experience. Ten participants allowed data saturation, in that, a sufficient amount of data was collected until the data began to be redundant (Creswell, 2013).

Table 2

*Study Participants*

<u>Name</u>	<u>Gender</u>	<u>Grade(s) Teaching</u>	<u>Years of Experience</u>	<u>Native of Town</u>
Katie	F	1	10	no
Alyssa	F	1-4	7	no
Carlie	F	1	21	no
Amy	F	2	3	yes
Ashley	F	4	11	yes
Joanne	F	K	17	no
Melissa	F	3	16	no
Mary	F	2	20	no
Elizabeth	F	K	5	no
Kelly	F	4	10	yes

**Katie**

Katie did not grow up in the community but has been teaching there for the last 10 years. She received her degree from the local university and is married to another teacher in the school system. She and her husband have three children, one who is in high school, one in elementary school, and one who attends daycare (“Katie”, personal communication, September 9, 2015).

Including her student teaching, Katie has spent 12 years working in the elementary school. She currently teaches first grade and uses music and writing throughout her lessons.

Katie described the activities of a typical day in first grade:

Morning time is all academic teaching time. Lots of singing of skills and writing.

Reading and math. Very structured and intensive. In the afternoon, we do reading groups. I use leveled small group instruction and cover reading and ELA skills.

(“Katie”, personal communication, September 9, 2015)

She does not have any students this year who are served through the EIP math program, but she differentiates instruction for varying reading levels through the use of leveled readers, much in the same fashion that math is differentiated in the EIP classroom (“Katie”, personal communication, September 9, 2015).

Katie’s experience in EIP was when she previously taught kindergarten. Her students were pulled out of her classroom by another teacher, who provided small group math instruction to them and other struggling students who were pulled out of the other kindergarten classes for additional help.

Of her experience with EIP math, Katie said:

I had the most experience with EIP math in kindergarten. For about two to three years, I had a few students pulled out for small group math EIP time. The teacher moved at a slower pace but still covered all the skills the students needed to know in kindergarten using the same math program we were using in the regular classroom. Now, there is a greater push for EIP reading in the younger grades. (“Katie”, personal communication, September 9, 2015)



In Katie's current teaching position, funding has been cut for the EIP program, so she is expected to provide the appropriate interventions for these students within the regular classroom setting without the aid of an additional teacher. She indicated that she is overwhelmed by the task of managing the various levels of learners and ensuring they all are taught in a manner appropriate for their readiness and ability levels. All documentation required to maintain EIP funding, according to Katie, has fallen on the classroom teacher to do in addition to the already full load of teaching, planning, and holding meetings with parents ("Katie", personal communication, September 9, 2015).

### **Alyssa**

Alyssa has been teaching for seven years, all of which have been at the elementary level. She is not from the community, but she graduated from the local university. She has no children, yet ("Alyssa", personal communication, September 9, 2015).

In her current position, Alyssa works with small groups of special education students throughout the day. She teaches special education resource second grade math, special education resource first grade reading, and special education resource third and fourth grade combined reading. She is also the teacher providing special education services and support in an inclusion second grade classroom. Consistent with scheduling across the county, her resource classes consist of ten or fewer students who are all receiving special education students. In the inclusion classroom, she provides additional support to all students while the regular education teacher conducts class. She is scheduled in the inclusion classroom to specifically provide for the needs of the small group of special education students who are scheduled in the class; however, she provides interventions for all students in the class who need additional support, even if they are not in the special education program ("Alyssa", personal communication, September 9, 2015).

While Alyssa's current teaching position is in the special education department, she has worked with EIP students in the past, as well. She continues working with EIP students now in the inclusion setting, where she is providing interventions for all students who need additional help. While she agrees that any interventions and additional instruction and support provided to students benefit them, she feels strongly about the method in which those supports are provided. She feels that, if not provided in the appropriate manner, these supports become meaningless and can hinder progress by slowing the learning to the point that the student is hindered in the next grade level because of lack of exposure to the full curriculum of the current grade level ("Alyssa", personal communication, September 9, 2015).

She supports EIP but feels as though the services need to be provided as additional instructional time above and beyond the regularly scheduled instructional time for students. Alyssa feels as though there is simply not enough time in the regularly scheduled class to provide the repetition of content and spiraling in reviews and re-teaching of previous material that is necessary to help the EIP students gain a thorough understanding of the curriculum. By adding an additional class, these students can receive interventions tailored specifically to their needs without the teacher having to also differentiate instruction to reach higher-level learners in the same class. Struggling students attend the regular math class, where they are exposed to the instruction and discussions that occur in a classroom with multiple levels of learners, and then attend a pull-out math class that focuses only on the skills that require more instruction and review to understand ("Alyssa", personal communication, September 9, 2015).

### **Carlie**

The most experienced teacher in the sample was Carlie, who has taught for 21 years.

She has two grown daughters and a son that attends the local high school. She did not grow up in the community, but her children have. Because she has raised her family in the town in which this study was conducted, she has a deep understanding of the community, the schools, and the students and parents it serves (“Carlie”, personal communication, September 12, 2015).

She accounts her experience with EIP:

I began teaching EIP at the elementary school eight years ago as a K-1 pull-out program for math and reading. The first three years, I also did a third grade EIP math. After the first three years, I pulled K-2 reading and first grade math. I would pull 16 of the lowest readers for each class. This was an additional reading class. For math I would pull 16 of the lowest math students and teach their regular math class. Two years ago, I taught 16 EIP first grade students as a whole class all day. Last year, I taught just K-2 reading.

(“Carlie”, personal communication, September 12, 2015)

Carlie’s current position is teaching first grade in a class that is heterogeneously grouped by ability level, meaning that there is a mix of higher-level learners, regularly functioning students, and individuals struggling to learn. Differentiating instruction for various levels of learners is crucial for the success of her students. She has to teach challenging lessons that are appropriate for her higher-level learners, while differentiating her delivery and the work required of the students to reach the needs of all other students in her classroom (“Carlie”, personal communication, September 12, 2015).

Her school eliminated their EIP program for this school year due to budget constraints. She does, however, have an assistant each afternoon to provide support for her differentiated reading groups. Carlie said that she is expected to provide for the needs of all of her varying

levels of learners without the support of an EIP teacher and just a small amount of reading support time each afternoon (“Carlie”, personal communication, September 12, 2015).

She stressed the need for an additional math class for the students needing EIP services to ensure that they are provided support while learning content but do not fall behind in the regular math classroom. With the state of the economy at this time, she has to work within the parameters of the regular school day and within the confines of the math class period of instruction to provide appropriate content and support to all students without the proper training and support for her as a teacher. She is vocal about her frustration with not being able to provide enough interventions for her students within the parameters of the currently available resources in her school system. She finds it very difficult to provide the initial instruction, differentiated for all learners, and include all necessary interventions for every learner with no additional support.

### **Amy**

Amy is a native of the town in which she is currently teaching and received her undergraduate degree in the college in that same town, as well. She is in her third year of teaching, all of which have been in the same elementary school, and she served as a paraprofessional for a year in that same school while completing her own education. She does not have any children of her own (“Amy”, personal communication, September 12, 2015).

Amy expressed frustration with the same budget cuts expressed by Carlie. She is expected to teach her EIP students within her regular classroom with limited resources, no training, and very little support. When asked to describe a typical school day in her elementary classroom, she said:

Lots of movement and flexibility. Nineteen in class. I have five students served through special education, five that get speech services, three that receive occupational therapy (OT), and two served by the English for Speakers of Other Languages (ESOL) program.

(“Amy”, personal communication, September 12, 2015)

With the diversity of learners in her class, she stated that it was crucial that she planned lessons that were appropriate for each individual student, resulting in hours of additional work researching and trying different interventions in an attempt to find the most appropriate ways to reach all learners in a very inclusive classroom setting. The students who receive OT and ESOL services are pulled out for interventions by their respective specialist; however, they do still have needs that must be met in the regular classroom through interventions provided by the teacher. Amy shared that it is overwhelming to teach all of her students in the most appropriate way for each individual while still continuing to move through the content at a pace that will ensure students will be taught all grade level content by the end of the year (“Amy”, personal communication, September 12, 2015).

### **Ashley**

Ashley has spent 11 years of her 14-year teaching career in an elementary school setting. She grew up in the county in which she currently works but did go out of state to college. Her time attending school and teaching in another state allowed her to be exposed to student diversity that is not available in her hometown. She feels as though the experience of working with diverse students helped her become more aware of each student’s needs within the classroom. She has no children of her own (“Ashley”, personal communication, September 12, 2015).

Ashley is an active teacher, using manipulatives and other kinesthetic activities to help students grasp concepts in the classroom. EIP students have been in her classes every year that

she has taught elementary school. She believes the program provides benefit for those students whom it serves by providing a stronger foundation on which they can build their knowledge base. Despite the positive comments about the EIP program, Ashley also believes that these students are still extremely limited in the scope of what they can accomplish academically. She feels as though students who struggle in school will always struggle learning, almost as though there is a hierarchical order of learners in which they cannot move up the hierarchy to higher levels of understanding (“Ashley”, personal communication, September 12, 2015).

### **Joanne**

Joanne is not a native to the community but did receive her undergraduate degree from the university in the town. She has no children of her own yet (“Joanne”, personal communication, September 12, 2015).

She has been teaching for seven years, all of those in the elementary school. She teaches kindergarten, focusing on hands-on, experiential learning. She said, “It is a very active age so our day is filled with a lot of group work, hands-on activities, and movement” (“Joanne”, personal communication, September 12, 2015). At this time in the school year, none of her students are in the EIP program because it is difficult to discern developmental and learning delays in kindergarten from regular learning since nearly all the skills are being learned for the first time by all of the students. She has, however, worked extensively with EIP students in her previous years of teaching. Of that time, she stated, “I taught as the regular education teacher in a push-in EIP room. I also taught four years in self-contained EIP” (“Joanne”, personal communication, September 12, 2015). She values EIP as long as it is implemented with much thought and careful planning. She stressed that the EIP classroom cannot be filled with students who have behavior issues, or very little growth can occur by the easily distracted EIP students.

In her experience, administrators often place students who have behavioral issues in classrooms with struggling learners, where they are more likely to have an additional teacher or be taught by a teacher better trained to deal with difficult students. This manner of scheduling often creates an environment that is so filled with negative influences that it is difficult for any of the students to focus on the instruction being delivered and be able to process the information in a meaningful way that results in long-term understanding and memory (“Joanne”, personal communication, September 12, 2015).

### **Melissa**

Melissa did not grow up or attend college in the community. She has been teaching 16 years, all of which have been spent at the elementary level. She has three children, two girls and one boy that are all school-aged, good students (“Melissa”, personal communication, September 13, 2015).

Melissa has been involved with EIP students each year of her teaching career. Of her experience, she said, “it has usually been pull out but in my first years teaching, it was pull in” (“Melissa”, personal communication, September 13, 2015). The value of the EIP program, according to Melissa, is the required collaboration between parents and teachers. Though the parents with which she has worked did not become actively involved in their child’s education, they were able to provide insight into the experiences the child has had prior to that year and give a clearer picture of what their home life is like to assist the teacher in providing further supports for the student. Melissa, like Ashley, also feels as though her EIP students have limited capabilities for learning and cannot ever be successful at a high level (“Melissa”, personal communication, September 13, 2015).

**Mary**

Mary received her undergraduate degree from the college in the town but did not grow up there. She has two grown sons, both of whom are in college. She has been teaching for 20 years, and ten of those have been at the elementary school level. She has had EIP students in her classes for 15 of her 20 years (“Mary”, personal communication, September 13, 2015).

When asked to describe her typical day, she said:

Rush to do attendance. Morning things and get to CAMP (computer, art, music, physical education). I teach reading and science, gifted, then switch to an average class with five EIP students for reading and science. Then I teach spelling, grammar, and writing to a group from gifted to EIP. (“Mary”, personal communication, September 13, 2015)

She previously taught a pull-out EIP class of 16 students who scored below the 25<sup>th</sup> percentile against a national sample on the Iowa Test of Basic Skills (ITBS). These students were successful in making great progress in math performance by the end of the year, but Mary remembers it as an exhausting experience for her as a teacher. She spent much of her effort trying to motivate the students as well as help them academically. The benefit of the EIP program for those students was that it allowed a smaller setting in which they could receive more individualized help from the teacher. The most difficult aspect of the class was that there were no positive role models in the class to provide encouragement for peers, resulting in students not sufficiently challenging themselves to improve. They succumbed to the status quo of the class and were content to not excel. They were able to show improvement, but Mary had to constantly encourage and support, praising even the smallest success, to help the students remain motivated to learn content that was very difficult for them. (“Mary”, personal communication, September 13, 2015)



**Elizabeth**

Elizabeth did not grow up in the town, but she did graduate from the local university. All 5 years of Elizabeth's teaching career have been spent in the elementary school. She has no children of her own yet ("Elizabeth", personal communication, September 14, 2015).

Elizabeth teaches kindergarten and has also previously taught first grade. She did not have experience with EIP as a program separate from her classroom. All of her experience with EIP was in her regular classroom setting where she was attempting to provide appropriate services for these students and document their progress while also teaching the rest of her students who were performing at or above grade level. She was expected to provide appropriate interventions for the students and was required to document all interventions along with their results to allow the school to continue to receive state funding for the students served through the EIP program ("Elizabeth", personal communication, September 14, 2015).

**Kelly**

Kelly grew up in the town in which she currently teaches, but she left town for several years to attend college for her undergraduate degree. Upon returning to town, she received her master's degree from the local university. She has one child of her own, a two-year old, who attends daycare at a local facility ("Kelly", personal communication, September 14, 2015).

Kelly has been a teacher for ten years, all of which were in the elementary school. When asked to describe a typical day, she stated, "6:45- planning and preparing, 7:30-3:30- teaching, continually assessing, helping each student academically and emotionally" ("Kelly", personal communication, September 14, 2015). Her four years of experience with EIP was with third and fourth grade EIP in math and reading, two years of which included pull-out services ("Kelly", personal communication, September 14, 2015).

She sees value in the Georgia's EIP program and has seen her students make great gains in math while being served through the program. Though she has experienced success with her students in math, she feels as though the program does not have a very positive effect on grade retention. She advocates for students to receive math EIP services outside of, and in addition to, the regular daily math classroom.

## **Results**

### **Overview**

Data provided by each participant was analyzed individually and collectively to paint a picture of the experiences teachers have had with Georgia's Early Intervention Program for Math. These experiences included daily routines and interactions with students, stories of success and frustration, and comparisons of varying intervention models used by teacher participants. In addition to an array of opinions on the methods and value of the program, common themes emerged that resounded throughout the data, creating the basis for the phenomena.

Many ideas were gleaned from the data and recorded along with the frequency of their occurrence, which assisted in identifying themes that were repeated throughout the data. The table of codes and their frequency can be found in Appendix G. From these codes emerged a collection of themes that resounded throughout the study from the ideas and experiences shared by the study participants. The following themes were identified: EIP model of delivery is important to the success of the students; lack of support, funding, and training is crippling the EIP program; and teachers are determined to support students and intervene even if no formal program is in place to do so.

**Theme One: EIP Model of Delivery Is Important to the Success of the Students**

When teachers were asked to identify models of EIP they had experienced, the most frequently mentioned model was pull-out, in which struggling students are pulled out of class to receive slower paced instruction with a separate teacher, with ten appearances. For those who discussed the pull-out model, six of eight teachers described it as an effective model for reaching struggling learners. The model mentioned with the next highest frequency was where the regular classroom teacher is expected to provide interventions and document progress within their own classroom with no additional support. None of the participants felt that this was an effective model, and several remarked about how stressful it was. Also mentioned were the self-contained classrooms in which students were taught in a homogeneous environment with other struggling learners in isolation from the rest of the grade level population, and push-in, in which an additional teacher attends the math class for the purpose of providing interventions to the students who struggled with the content. Most participants felt the self-contained model was not effective, but that the push-in model was effective.

Participants were asked how the EIP program prepares students for success in the next grade level. The most frequently expressed idea was that it provided extra practice to allow students to get caught up on skills. Also discussed in-depth was that the slower pace helps the students retain the material since more time is spent immersed in the content, and that the EIP program allows for individual support time desperately needed by these students. Several participants stated that the EIP program provided a more solid foundation of knowledge for future learning, increases student confidence as the students begin to experience success, and gives information to teachers about the need for student retention in the current grade. The only negative comments about preparation for the next grade level came from three participants who

felt as though the slower pace of the curriculum prevented the student from fully learning all content necessary for success in the next grade level. Those participants, however, also stated that students could be successful if the EIP services are delivered in instructional time that is in addition to the regular instructional time.

When participants discussed specific interventions used within the regular classroom and the EIP classroom, small group instruction was discussed with the highest frequency for both settings. In the regular classroom, the following interventions were discussed in order of their frequency, beginning with the most frequent: Software programs; hands-on activities, manipulatives, and games; additional vocabulary work; repetition of concepts; work assigned to students that is differentiated by ability; seating in close proximity to the teacher; and easier material and less work for struggling students, which was only mentioned by one participant. Other than small group instruction, which was ranked highest in both settings, interventions used in the EIP classroom in order of frequency, beginning with the highest, were: Assignments differentiated based on student ability, additional vocabulary work, repetition of content, hands-on or kinesthetic learning, group work or peer helpers, seating in close proximity to the teacher, extended time for completion of work, and reading aloud with teacher assistance. Many of the interventions used in the EIP classroom are also used in the regular classroom to help any student who is not successful. The real benefit of EIP is when an additional teacher is assigned to provide these interventions in addition to the strategies already employed by the regular classroom teacher.

Overall feelings of the effect of EIP on math performance of students were overwhelmingly positive, with only two participants, Ashley and Melissa, stating that there was no positive effect. They did not state that there were negative effects, just that they did not see

positive effects (“Ashley”, personal communication, September 12, 2015; “Melissa”, personal communication, September 13, 2015). The most frequently cited reason for the positive effect on math performance was small group instruction. Also discussed were: Students moving at their own pace, remediation provided as needed, and students grouped by ability. The negative comments were made in regards to students not participating in a pull-out or self-contained model that are being served in the regular classroom who may feel left behind in class with the faster pace required to adequately teach the grade level curriculum with no additional teacher available to provide needed interventions.

When discussing the effect of EIP on grade level retention, several ideas emerged that could not be categorized as simply positive or not. Most participants felt as though EIP had a positive effect on grade level retention, meaning that the students were able to be promoted or placed in the next grade level at the end of the school year as a result of receiving services through EIP. However, Joanne, Melissa, and Amy said that the EIP program had no positive effect on grade level retention (“Joanne”, personal communication, September 12, 2015; “Melissa”, personal communication, September 13, 2015; “Amy”, personal communication, September 12, 2015). Amy and Joanne, who felt there was no positive effect, discussed kindergarten students that are not mature enough to meet the readiness levels required by the curriculum (“Amy”, personal communication, September 12, 2015; “Joanne”, personal communication, September 12, 2015). Alyssa felt as though the students, because they were served through EIP, were often placed in the next grade level, even though they had not sufficiently mastered the content in the current grade level (“Alyssa”, personal communication, September 9, 2015). The reason this is often done is that EIP services follow the student into the next grade level, and the hope of the teachers that make the decision to place the student is that

he/she will continue to make positive gains with EIP interventions in the next grade level, hopefully closing, or at least lessening, the achievement gap between the individual student and other grade level peers. Kelly was uncertain of the effect of the program on grade level retention (“Kelly”, personal communication, September 14, 2015), and two participants, Katie and Carlie, expressed that they believed there will be poor effect on grade level retention in the future based on current program cuts occurring in their school system (“Katie”, personal communication, September 9, 2015; “Carlie”, personal communication, September 12, 2015).

Each participant felt strongly about the EIP program and its effectiveness, and much of this discussion centered on the various models used to deliver the interventions. Six of the ten participants commented that the pull-out model was the most effective. In this model, struggling students are separated from regular performing peers and are given instruction in a classroom with a different teacher that is homogeneously grouped with lower achieving students. When asked which model was most effective for serving EIP students, Kelly stated, “Pull-out was most effective. Student confidence increased. Daily application of skills improved. Scores increase” (“Kelly”, personal communication, September 14, 2015). Joanne agreed by saying:

Small group definitely has a good effect. It is, however, difficult to move at the pace they need while also serving the other students. They often feel left behind. That is why I feel pull-out can be the most effective. (“Joanne”, personal communication, September 26, 2015)

Mary said:

Some children love the small group attention. This is a time where they have a chance to shine since at home help is minimal. Years ago pull-out was a stigma but now it seems that the stigma is gone and more of a variety of children are pulled out. (“Mary”,

personal communication, September 26, 2015)

Katie shared:

I feel it greatly prepares them for the next grade level. Some students will always struggle, but EIP pull-out gives them the tools they need to apply their skills in a classroom setting. The time that is given to these students is precious in a small group setting as well. It is essential for struggling learners to develop reading and math skills that will support them throughout their school career. (“Katie”, personal communication, September 9, 2015)

Several also stated that this model could really have a positive impact when used in addition to the regular math class. In this case, students would attend the math class in the regular heterogeneously grouped setting and then participate in an additional daily math class that is homogeneously grouped by math ability for the purpose of content repetition to increase retention of the material. Kelly said, “Having math in regular ed class and then pull-out as well helps students gain the extra practice, stronger foundation, and confidence needed to move ahead” (“Kelly”, personal communication, September 14, 2015).

In the self-contained classroom, students are homogeneously grouped based on ability. While this may seem easier for the teacher to not have multiple levels of learning requiring differentiated lessons and activities, it is reported as ineffective by participants. They feel as though this setting often riddled with students who have behavior problems and, because all of the learners are struggling, does not allow for the higher-level discussions that can be witnessed in the regular education setting. Kelly stated that self-contained:

...can be successful but students have no other students to challenge them or compete.

Higher teacher burn-out. Too many EIP plans for one teacher. Behavior problems

should not be placed in these classes. It should be strictly students that qualify. (“Kelly”, personal communication, September 26, 2015)

Alyssa, who previously taught a self-contained EIP math class of 16 students stated, “Having a room full of 16 EIP only kids was my biggest challenge. With no spark and little motivation, it was difficult to instill the love of learning and challenge higher thinking” (“Alyssa”, personal communication, September 9, 2015). None of the participants spoke in support of the self-contained model, and they all felt as though it was detrimental to the development and success of learners.

The push-in model was reported by four participants (Joanne, Carlie, Kelly, and Ashley) as being effective. Those who supported the model appreciated having a second teacher in the classroom to provide support for EIP students while ensuring they are exposed to peer interactions about content on a higher level than what they would experience in a separate setting. Carlie stated, “For math it seemed only effective when the students were doing independent work and needed help. It really just provided two teachers to answer questions compared to one” (“Carlie”, personal communication, September 12, 2015). While this model was not discussed as the most highly desired, participants spoke throughout the study about how difficult it is for the regular teacher to provide appropriate interventions without the support of an additional teacher in the classroom.

By far, the most negative feedback was provided by those teachers who have been expected to serve EIP students within the regular, heterogeneously grouped, classroom setting with no additional personnel or support services. These teachers were expected to differentiate all of their lessons and activities to meet the needs of the various levels of learners in their classrooms while also providing all of the necessary documentation that the state and local



system require for showing interventions and progress for each EIP student. Katie stated:

When we have a specified EIP pull-out teacher, I think many students make gains, many of whom are not retained because of the assistance they've received. However, now that they are served "in the classroom" I think the rate of retention will rise with our EIP students. A teacher cannot adequately serve the needs of all her/his EIP students just "in the classroom" and meet the needs of the other students as well. ("Katie", personal communication, September 9, 2015)

This model, however, is quickly becoming the norm in the school system due to budget cuts and needs identified elsewhere in the system. Carlie preferred this approach and said:

Since I prefer to have EIP math students in regular classrooms at the first grade level, I feel differentiated instruction is positive. My students can observe other students and listen to their thinking strategies as they describe how they solve problems. ("Carlie", personal communication, September 12, 2015)

Joanne has experienced several methods of delivering EIP interventions, and she shared her insight:

I have seen both pull-out and push-in methods. I have also see the "nothing method" as I like to call it because we do not have help with EIP kids. I feel that pull-out and push-in can be effective, but pull-out seems to benefit the students most. ("Joanne", personal communication, September 26, 2015)

Melissa, when asked about the EIP models she has experienced and their effectiveness, replied:

Usually pull out. No, I don't think it is effective. Second grade has done one class EIP, and I don't think it is totally effective unless the parents are onboard and that the teacher has a good relationship with the child. ("Melissa", personal communication, September

13, 2015)

While Melissa's thoughts provide a unique perspective, she was the most negative in her responses about her students. When asked about the effects of the EIP program, she stated, "The low kids tend to stay low, but this has been with older grades. I haven't done math EIP in lower grades" ("Melissa", personal communication, September 13, 2015). When asked about the effect of EIP on retention, she again commented about students in a manner that indicates a belief that struggling learners will always struggle. In her words, "Going on second grade, the ones who were retained did not benefit from EIP, however, they were very low to begin with" ("Melissa", personal communication, September 13, 2015). Ashley's thoughts reflected the same belief when she said, "I think it helps them get to the next level, but usually once behind, they will always be behind" ("Ashley", personal communication, September 12, 2015).

Joanne, when asked about the effectiveness of EIP models shared:

Push-in was effective. Students had an opportunity to watch other students and their successes. Self-contained was effective in third grade. Students had the chance to shine when they wouldn't in other classes. It also put everyone around the same level. It is not effective where the class is filled with behavior issues instead of only academic. EIP students need an environment with very little distractions. ("Joanne", personal communication, September 12, 2015)

Several interventions emerged as successful for helping EIP students improve their skills in math. No matter if the students are pulled out to another classroom or grouped within the regular classroom, having small groups of students working together or receiving instruction was discussed by most of the participants. Joanne stated, "EIP students in my classroom can have various interventions but mostly they need small group work with more hands-on activities"

(“Joanne”, personal communication, September 26, 2015). Ashley agreed by saying, “In past years, it seems small group has been the best intervention. Also, the use of manipulatives and games” (“Ashley”, personal communication, September 12, 2015).

Along with providing small groups, differentiating instruction to tailor it to the readiness levels and ability of various students in the class was also deemed important for these students’ success. Carlie stated:

Since we do not have EIP pull-out this year, we are using differentiated instruction as needed in the classroom. Having the assistant come to our rooms for 30 minutes during our leveled reading instruction is extremely helpful. (“Carlie”, personal communication, September 12, 2015)

When asked about the effect of EIP on math performance, she attributed the success to differentiating instruction:

Since I prefer to have EIP math students in regular classrooms at the first grade level, I feel differentiated instruction is positive. My students can observe other students and listen to their thinking strategies as they describe how they solve problems.

Repetition of content and stressing content vocabulary has shown to improve the students’ understanding of the material and has helped prepare them for the next grade level.

Ashley expounded:

Timed fact practice for all four operations is extremely beneficial for those lacking recall. These have been whole group and individual depending on student needs. Math vocabulary building and creating interactive math journals as a resource are also helpful. Saxon’s spiraled curriculum is frequently used. (“Ashley”, personal communication,

September 26, 2015)

Kelly stated that EIP students have positive results because their classes, “move at a slower pace within smaller groups using spiraling of concepts yet the same curriculum” (“Kelly”, personal communication, September 14, 2015). Spiraling of the concepts occurs when the teacher reviews previously taught concepts in relation to the current content, providing the repetition and making connections in their learning that these struggling learners so desperately need.

Software programs that allow students to work at their own pace and target areas of weakness allow teachers time to work with other students in the class while the EIP students are having their needs met by the computer. While these programs are not a replacement for quality instruction and interaction with the teacher, they do provide assistance that makes managing a classroom with varying levels of learners possible.

Creative teaching also helps to hold the students’ attention and keep them engaged. Alyssa stated, “Lessons and concepts have to be taught in more than one way, therefore creative, more visual lessons are thought out. Also, reviews of concepts have to be worked in every day” (“Alyssa”, personal communication, September 9, 2015).

Additional time with content is very helpful in retention of what students have learned. Katie said:

I look at the needs of my EIP students. If I need to spend more time on a skill, even if we are supposed to move on, I wait and try to help them master important skills, especially in reading. (“Katie”, personal communication, September 9, 2015)

Ashley shared:

About three-fourths of the students benefit from the fact practice, vocabulary building, and interactive notebooks. The other group, which is usually about three or four students,

need more time. They usually have deficits in comprehension, processing, or overall number sense that need to be addressed individually through an RTI that focuses on one weakness at a time. (“Ashley”, personal communication, September 26, 2015)

Joanne shared that in planning for meaningful learning experiences, her plan is always, “Starting with the goal in mind, find several activities, or strategies that will explain the standards, allowing the children to see all and decide which method makes the most sense to them” (“Joanne”, personal communication, September 12, 2015). Her greatest challenges were, “Finding different strategies, getting student interest. So often the material is very difficult for EIP so they are uninterested. By presenting it to them in different ways, they begin to understand” (“Joanne”, personal communication, September 12, 2015).

There are varying opinions on the value and role of EIP in affecting retention rates of struggling learners. Carlie felt that the effect of the interventions is positive, even if it does not result in the student being promoted or placed in the next grade level. She said:

Too early to tell for this year, but I can tell you that in years past, EIP programs did help children in first grade be promoted to second grade. In kindergarten, EIP helped promote students, but it also helped the teachers to have another teacher to discuss problems with and decide if retention was the best plan of action. It also helped determine if a child needed to begin the RTI process for SPED testing. (“Carlie”, personal communication, September 12, 2015)

Katie’s opinion was quite contrary:

I do not feel they have any effects on my student’s math performance. This year, we have no pull-out teacher and if a student is EIP reading, they are served in the classroom. Unfortunately, I feel there is not enough time in the day to serve EIP math students

effectively. (“Katie”, personal communication, September 9, 2015)

Joanne found that EIP was successful in third grade but not so in kindergarten. She stated:

In third grade, it had a positive effect with less than five kids retained in the entire grade every year I taught. In kindergarten, 23 students were retained in 2014-2015. These students had been receiving EIP services- pull-out, so I do not believe it had an overall positive effect. (“Joanne”, personal communication, September 12, 2015)

Amy also felt as though EIP in kindergarten was not effective in preventing retention. She said, “In kindergarten, most of the time a student is in EIP for extra support. It is usually an indicator they will be retained” (“Amy”, personal communication, September 12, 2015). The question remains whether the EIP is a predictor of retention or whether potential retention is the cause of the student being placed in EIP.

While the participants’ opinions varied as to the specific model that was most appropriate, overwhelmingly they felt as though the best interventions were provided when they were given at a time in addition to the regular class time. Repetition was expressed as important, as was having the students in smaller, more focused groups.

Theme one highlights the importance of planning when creating an EIP program. Participants offered feedback on the effectiveness of delivery models and possible pitfalls that may affect the quality of services offered. Interventions through the EIP program can be successful if delivered in a manner that provides an additional layer of support and does not lower the level of rigor or slow the pace of content delivery required for students to master all required standards in a school year.

### **Theme Two: Lack of Support, funding, and training Is Crippling the EIP Program**

When asked to identify the greatest challenges facing teachers in providing EIP, lack of

parental support was discussed with the highest frequency, followed by a lack of funding for resources. Also discussed by over half of the participants was that there was not enough time in the school day to provide appropriate interventions for these struggling learners and that teachers were not provided proper training to be able to implement the program successfully. Other challenges that were discussed by at least one participant but not more than two include: Meeting the needs of all students, not moving forward until all skills are mastered, finding enough personal time for each child, teaching independence, getting and holding student interest, finding different strategies, and working with different teachers.

**Lack of parental support.** Nearly every participant stated that parents are not really involved with EIP students, nor do they understand the program, even when parents meet with teachers who explain the purpose at the beginning of each year. Mary expressed her frustration by saying, “Parents say what is EIP even if their child has been in EIP the year before” (“Mary”, personal communication, September 26, 2015). Several opinions were given on this trend, such as a lack of education of the parent, little support for education in the home, and denial of the issues their children face in learning (“Mary”, personal communication, September 26, 2015). Ashley said, “Parents of EIP children are often missing from conferences and are unable to provide homework support” (“Ashley”, personal communication, September 12, 2015). While the lack of parental support was mentioned repeatedly throughout the study, it did not seem to be a hindrance to the success of EIP. Teachers and schools were allowed the autonomy to serve these students and provide the appropriate interventions regardless of the opinions or support of the parents. Carlie said, “Parents don’t always love having their students qualify for EIP but they are always grateful in the end for the progress their child makes” (“Carlie”, personal communication, September 12, 2015). Amy, when asked about parental support, looked at it

from a different perspective than the other participants who discussed the lack of support parents had for EIP when she said of the parents, “They are able to get feedback from two teachers and more extensive data on their child” (“Amy”, personal communication, September 12, 2015). It was interesting to note that she strayed from the norm in how she interpreted this question, and her response is worth pondering. Do the parents also need support from the teachers in understanding how students learn? Melissa felt as though parental involvement was crucial to the success of EIP learners. She said:

It has helped when the tracker and I are doing the parent thing, reinforcing it in both places. However, it is only when the parents have helped too, that they have really prepared the student to move on. (“Melissa”, personal communication, September 13, 2015)

Time was a factor for all teachers in the study, though that meant something different for each participant. Some participants needed more time to plan for instruction to meet the needs of the varying levels of learners in their classes, while several stated that students needed more time in math instruction, in the form of an additional math class, each day to be successful. Ashley stated:

EIP math students suffer from large gaps in foundation skills (fact fluency, vocabulary, and problem solving skills) usually due to attendance, multiple changes in schools (transiency), and deficits that have not been addressed completely. I feel the smaller class size is beneficial, but due to the varying abilities and weaknesses of the students, it is often difficult to get them on track before time is up. 45 minutes to 1 hour is too little. (“Ashley”, personal communication, September 26, 2015)

Along with discussions of time for instruction, participants also mentioned lack of time being a



factor in the availability of training opportunities that they felt could really benefit them as they provide interventions through EIP.

**Lack of funding.** The system in the study was experiencing difficulties with funding EIP and had begun cutting programs in the year in which this study was completed. Carlie said:

Administration has always been very supportive in the success of EIP students. They have tried to keep the program going through budget cuts. This year they just were not able to keep the program going, needing the funds to pay for another classroom teacher.

(“Carlie”, personal communication, September 12, 2015)

Teachers were asked to meet the needs of these students without the aid of supports previously in place. EIP teachers were cut, leaving the regular classroom teachers to provide interventions and complete documentation for these students with no additional time to plan or complete paperwork. Of her school’s situation, Kelly stated, “We have used pull-out and not had enough teachers to pull-out, leaving children that qualified without services. Based on SPED/gifted scheduling, EIP students often get neglected” (“Kelly”, personal communication, September 26, 2015). Katie expressed her frustration by stating that her biggest challenge was:

...meeting the needs of these students each and every day. Now that we no longer have a pull-out teacher (such a disservice to our kids), I struggle with helping them succeed and make adequate progress. (“Katie”, personal communication, September 9, 2015)

**Lack of teacher training.** Participants were asked about the training they received on implementing EIP, and only one expressed that sufficient training had been provided. Four of the participants stated that they had no training at all, one said that she had completed her own research on providing appropriate interventions, two stated that they had limited training in differentiation strategies for all levels of learners, and the one participant who had been trained

received that training when she taught previously in another state. No one had been specifically trained on Georgia's EIP program or the expected interventions necessary for EIP students to be successful. This lack of training was a recurring notion experienced by participants throughout the study.

Teachers in the study were expected, with the funding cuts, to provide EIP services for their students, but there was little or no training provided for them to know how to appropriately differentiate in their classrooms to meet the needs of these students. Mary's training consisted of, "Nothing special. Own research" ("Mary", personal communication, September 26, 2015). The one participant that had training in implementing interventions had previously taught and been trained in another state. Ashley stated, "I received training in another state under a similar EIP program. The training included the use of other resource-based materials, differentiation models, strategies, and documentation support" ("Ashley", personal communication, September 26, 2015). The other two who stated that they had limited training were referring to professional learning provided for them on differentiated instruction that was not specific for Georgia's EIP program. Joanne said, "I have my math endorsement, and we have received some training on differentiation. However, it is limited" ("Joanne", personal communication, September 26, 2015). Elizabeth stated that, "The pull-out teacher should be an expert or skilled teacher" ("Elizabeth", personal communication, September 14, 2015).

While it can be argued that most of the teachers serving these students are expert, skilled teachers for their content areas, they have not had specific training on the special learning needs of the students and the strategies needed in the classroom to reach them. When asked what models of EIP she had experienced and her opinion on their effectiveness, Ashley shared, "I have had push-in EIP and pull-out EIP. I have also been a push-in and pull-out EIP teacher. I

did not feel effective as an EIP pull-out teachers because of lack of training” (“Ashley”, personal communication, September 12, 2015). Ashley’s comment was very meaningful to the discussion of teacher training since she is the only teacher who stated that they had actually received previous training in EIP strategies, but that she had received her training in another state. Even with her training, she felt inadequately prepared to meet the needs of her EIP students without further support and training (“Ashley”, personal communication, September 12, 2015).

Theme two highlights important considerations for EIP programs to address needs of those providing interventions. Support of parents, though not possible to mandate, provides a layer of assistance to the teacher and student and allows them to better provide for the needs of the learner. Funding has been an issue in providing consistent services in EIP in the last several years in Georgia, and coupled with this, training has not been provided to equip these teachers with the skills and resources they need to successfully implement the program. While teachers continue to provide for their learners in the best way they can, they often feel as though better training, support, and resources could enhance their programs.

### **Theme Three: Teachers Are Determined to Support Students and Intervene**

**Love of teaching.** Despite all of the challenges that teachers face on a daily basis, each participant discussed that love of teaching and students was what makes their job fulfilling.

Katie shared a success story:

I once had a child in kindergarten who knew no letters, sounds, or numbers at the beginning of the year. With the help of EIP pull-out, and getting an extra dose of small group reading in the classroom, he was reading beyond grade level, could recognize and write his numbers to 100, and write three complete sentences with correct capitalization and punctuation. It was amazing! In kindergarten, you are able to see a vast change

anyway, but this was remarkable. He was later tested for gifted as well. (“Katie”, personal communication, September 9, 2015)

Carlie stated:

I had a second grade home schooled student who could not read anything. They put him in my first grade EIP reading class. I knew he was embarrassed, but he stuck with me. At the end of the year, he gave me a card in his handwriting that simply said, “Thank you for teaching me to read.” For that brief moment, I felt like a hero. (“Carlie”, personal communication, September 12, 2015)

Joanne’s experience with EIP where she experienced the most success was in with the EIP reading program. She reminisced:

One of my students came to me in third grade unable to read on a first grade reading level and hated reading. We began the year with word families, sight words and leveled readers. He worked so hard all year. He ended up on the third grade reading level. The success came the following year. His fourth grade teacher approached me to share with me that not only was he reading on grade level, he was reading chapter books and begging to go to the library. He, the student who came to me hating to read, had developed a love for reading. As his teacher, and quite possibly on support, I was so proud! (“Joanne”, personal communication, September 12, 2015)

Participants were asked, “Despite the challenges of serving EIP learners in the general education setting, what motivates you to continue as a teacher?” Their responses show a commitment to the profession and to their students that surpasses all challenges they face on a daily basis.

Elizabeth responded, “I love children. I love watching them grow physically, academically, and emotionally” (“Elizabeth”, personal communication, September 26, 2015). Kelly replied with a

simple, “love of children” (“Kelly”, personal communication, September 26, 2015). Mary said, “Well, it isn’t the money. I love learning and new experiences. Children keep you young and believing the best in everyone” (“Mary”, personal communication, September 26, 2015). Ashley expounded with:

Personally, as a parent and teacher, I would want my own child to have what he or she needed to address his or her ability level and needs. I try to think about what I’d want if the student was my child. For each EIP student, what would be best in servicing the child. Administrators are supportive, but due to the ever-changing EIP state mandates, they frequently do not have the resources or teachers to support these students. They do try to provide extra support with student teachers, mentors, and tutors. (“Ashley”, personal communication, September 26, 2015)

Joanne summed up by stating, “My motivation comes from the kids. When they accomplish a goal and smile, it makes my heart smile. The light bulb coming on makes us know we are helping these kids find their way” (“Joanne”, personal communication, September 26, 2015). No matter how negative some of the participants were in discussing teaching strategies and EIP requirements, they all spoke positively of the experience of being a teacher and seeing changes in their students based on services and help they have provided.

**Feelings of helplessness.** With the lack of training provided to teachers and the cuts to funding that have been recently occurring, participants share a feeling of helplessness, in that their efforts, though exhaustive and exhausting, are not enough to fully remediate these students and prepare them for success in the next grade level. They shared success stories and discussed positive gains in their classrooms, but they all expressed the notion that they could never provide enough interventions to truly meet all of the academic needs of their students.

Multiple participants expressed frustration with the level of support offered by others outside the classroom, most specifically, the parents of these struggling students. Joanne stated, “I feel like teachers give the best support they can. Parents, not so much. These students usually have little parent involvement. Administration is limited to helping because of money or funding” (“Joanne”, personal communication, September 26, 2015). She continued this sentiment later in the discussion when she said:

Many EIP students are lacking support from home. Current EIP services are not adequately serving EIP students. They need extra support. Only serving them by the general education teacher is not doing them justice, and I think it will show in upcoming years. (“Joanne”, personal communication, September 26, 2015)

Ashley said,

EIP is not given the same support in all districts. Parents of EIP children are often missing from conferences and are unable to provide homework support. Teachers have bursting classes and are not able to provide the time. Administration supports it, but sometimes does not have a plan, which frustrates the teachers. Teachers usually like it when done the right way. Parents are usually hesitant until they see how it works. (“Ashley”, personal communication, September 26, 2015)

Kelly feels as though the limited support from parents and administrators is due to time and scheduling conflicts and budget issues (“Kelly”, personal communication, September 14, 2015). Mary shared the same frustration at parents who cannot even articulate what EIP is despite their child being served each year (“Mary”, personal communication, September 13, 2015). Alyssa stated of her experience, “Unfortunately, often times there is little support from the parents of EIP students. Administration and other teachers come together to talk about how to make EIP

kids more successful” (“Alyssa”, personal communication, September 9, 2015). Katie shared:

In my experience, the majority of EIP parents do not work with their children and do not know how to help them be successful. Teachers work tirelessly to help these students be successful, but we are only one person. We do everything we can as teachers to support the students through small group instruction, individual re-teaching, and differentiated instruction. Administration is supportive of these as well. They are constantly checking fluency, grades, and tracking EIP student progress. (“Katie”, personal communication, September 9, 2015)

Carlie expressed her feelings on support with an encouraging word about administration’s efforts and parental support:

Administration has always been very supportive in the success of EIP students. They have tried to keep the program going through budget cuts. This year, they just were not able to keep the program going, needing funds to pay for another classroom teacher. Teachers have been very appreciative in getting the extra help. Many have been by to ask when we are going to have EIP again. Parents don’t always love having their students qualify for EIP, but they are always grateful in the end for the progress their child makes. (“Carlie”, personal communication, September 12, 2015)

While the participants, for the most part, agreed that EIP provides additional supports that may help struggling students achieve on a higher level, there is still degree of frustration that, in providing the supports, students are missing on other valuable instruction. Elizabeth stated:

In past years, I have worked with students that were pulled out for 45 minutes per day to work with an EIP teacher. I feel that this helped the students because they worked at a much slower rate. However, the students were not ready to advance to the next grade

level because they were not reading on grade level by the end of the school year.

(“Elizabeth”, personal communication, September 14, 2015)

Mary said her greatest challenge was “giving each child the personal time they need to be successful, yet teaching them to be able to work independently” (“Mary”, personal communication, September 13, 2015). Her feelings, also reflected in other participants’ thoughts, demonstrate a feeling of helplessness that there is never enough time to provide the amount of instruction and intervention necessary for some students to achieve on grade level with peers.

**Varying definitions of collaboration.** Participants were asked several questions about the manner in which they collaborate with other teachers. Their responses showed a wide array of interpretations of the term collaboration. Several participants spoke of collaboration in planning learning experiences for students, others discussed collaboration only in the context of a co-teaching classroom situation, and others considered all grade level meetings, regardless of the content discussed, to be collaboration.

Collaboration to several participants was the act of more than one teacher gathering for the purpose of discussing and improving instructional plans and experiences. Ashley’s belief was that, “EIP teachers and classroom teachers are, or need to be, a cooperative that have to collaborate to meet the needs of EIP students. I frequently collaborate regarding the student, resources, RTI’s, and conferencing” (“Ashley”, personal communication, September 26, 2015). Ashley’s description of collaboration is comprehensive and includes deep discussions about the needs of the individual students and how to specifically reach those. For her, collaboration was meaningful and focused, with all participants contributing to the discussion with thoughtful ideas. Learning experiences for varying levels of learners emerged from this group planning,



and those experiences were then discussed after being taught to determine their success (“Ashley”, personal communication, September 26, 2015).

To others, collaboration was simply not doing anything to upset another teacher. Those participants were typically EIP teachers that followed instructions or plans given to them by the regular classroom teacher. When asked how she collaborated as an EIP teacher, Kelly said, “Trying to stay on the same standards and use the same curriculum maps” (“Kelly”, personal communication, September 26, 2015). Her response demonstrates a lack of involvement in planning the lessons with the other teachers. She simply takes their plan and tries to make sure she follows the pacing as closely as she can (“Kelly”, personal communication, September 14, 2015). Alyssa shared a similar experience, “Across the school, EIP teachers don’t collaborate. In grade levels, suggestions are given from other teachers and administration” (“Alyssa”, personal communication, September 9, 2015). She continued by saying, “Lessons and concepts have to be taught in more than one way; therefore, creative, more visual lessons are thought out. Also, reviews of concepts have been part of our every day” (“Alyssa”, personal communication, September 9, 2015). While she does receive suggestions from others in the building, she is the one solely responsible for planning and providing interventions for her EIP learners. Melissa described collaboration as an EIP teacher as, “Usually with pull in, where I had a group and so did she” (“Melissa”, personal communication, September 13, 2015). Ashley said, “As a push-in, I followed that teacher’s plans. As a pull-out, I tried to follow their plan as well and make the lessons more hands on and fun” (“Ashley”, personal communication, September 12, 2015).

Collaboration for several participants was achieved anytime a group of teachers came together to meet. Carlie, when asked how she collaborated as an EIP teacher, said:

Meeting once a week with the grade level to plan instruction for math. Most weeks I was

unable to teach what they were teaching but we tried to stay on the same skill. Reading was done based on student need, so I did not collaborate as often. (“Carlie”, personal communication, September 12, 2015)

Mary expressed that collaboration happened in EIP and RTI meetings about students (“Mary”, personal communication, September 13, 2015). This is in stark contrast to the first description of collaboration discussed above in which all teachers were fully vested in the discussion about the needs of each student. In Carlie’s definition, math plans need collaboration but only because the student needs are all the same. In reading, individual needs were different, so collaboration was not possible (“Carlie”, personal communication, September 12, 2015).

Katie’s belief about collaboration changed based on the teaching situation and personnel available. She shared:

When we had a pull-out teacher, she solely focused on reading skills in a small group setting. She followed our curriculum map to develop reading and language arts skills. Now, we plan and discuss as a grade level how to meet the needs of our EIP students. (“Katie”, personal communication, September 9, 2015)

In Katie’s situation, when there was an EIP teacher providing instruction in addition to the regular classroom teacher, the job of the EIP teacher was to provide interventions to the students in isolation from the regular teacher. When there is not an EIP teacher, the grade level teachers meet to discuss ways to meet the needs of EIP learners (“Katie”, personal communication, September 9, 2015). It is interesting that the EIP teacher, when available previously at her school, was not included in collaborative discussions about student needs. Joanne’s experience with collaboration did involve EIP teachers since all teachers were working towards students’ mastery of the same content. She said she collaborated “with grade level teachers. It is

important as EIP, they are getting the same material. The goal is just to present it in different ways” (“Joanne”, personal communication, September 12, 2015).

**Resilience and resolve.** Though the job is difficult, the participants are all dedicated to helping all of their students to be successful in school and in life. Though there are not adequate resources and they have not been provided proper training, they continue to intervene in meaningful ways to help their students. Carlie, when asked her greatest challenge as an EIP teacher, answered:

Memory. EIP students don’t remember what you teach them. You can spend a month teaching a skill with every trick you have. Two months later, they will act like they have never seen it before. I have learned that I have incredible patience. (“Carlie”, personal communication, September 12, 2015)

Carlie has discovered something about her own personality as a result of teaching and re-teaching these students who find retaining content to be very difficult, if not impossible (“Carlie”, personal communication, September 12, 2015). Alyssa shared her experience with success and why she continues to teach struggling learners despite the obstacles:

There isn’t just one success story. The success comes when a student finally grasps an idea or gets excited about doing well. Knowing they have more confidence when reading and being proud of their work, puts a smile on my face. (“Alyssa”, personal communication, September 9, 2015)

Ashley continues teaching struggling learners because she thrives on “seeing a child grasp a concept that they have worked hard to learn” (“Ashley”, personal communication, September 12, 2015). All of the teachers in the study expressed a desire to continue teaching and to constantly seek better ways to provide interventions for their EIP students, regardless of the funding,

resources, and personnel made available to them within the school system.

Theme three provides a description of teachers' varying feelings as providers of EIP services. Overall, they are frustrated with how to best reach these students, but they feel as though their work is valuable and is helping. Despite their feelings of inadequacy with being able to provide a complete and permanent solution for these students, they express a love of the profession and a resolve to continue to expand their skills and find ways to better provide for their students.

### **Research Questions Answered**

Three questions guided the study and provided the researcher with a reminder of the purpose of the research and the information that was being sought. This section provides answers to those questions, gleaned from the insight given by study participants. These answers provide valuable insight into specific issues related to Georgia's EIP math program.

#### **Research Question 1**

How do K-5 teachers describe their experience with Georgia's Early Intervention Math Program as an early math intervention for at-risk learners?

Teachers in the study were very positive in their reviews of Georgia's EIP Math Program as a benefit for students; however, they experienced much frustration that it did not provide enough assistance for the students to be successful enough to be prepared for the next grade level. Joanne shared, "I have observed that with EIP students, these interventions all used together create a positive effect on their performance in math. I have seen when their reading improves, the math does, as well" ("Joanne", personal communication, September 12, 2015). With the varying models of EIP options, teachers felt as though anytime students were given another teacher, either as pull-out or push-in, in addition to the regular math teacher, they had

more positive results. The students benefitted even more if there was a separate EIP math class in addition to the regular daily math class for these struggling learners.

While there were positive reactions to the program as a whole, participants also experienced much frustration with the current year's services for their students. Budgets in the schools have been cut, resulting in funding not being available for the personnel that have served EIP students in past years. This year, these teachers are expected to provide EIP interventions and complete all required documentation with no additional personnel to provide support for them or their students. They stressed that the value of EIP will diminish over the next few years as resources are cut, resulting in students that do not have the interventions they desperately need to complete the math curriculum.

## **Research Question 2**

How do participants describe their experiences with Georgia's EIP regarding student math preparedness?

Teachers appreciate the gains that their students make each year they are served in EIP; however, there are several issues that were raised by participants. Students who participate in pull-out or resource EIP in which they do not attend their regular math class often learn at such a slow pace in the EIP classroom that they are not prepared for the next grade level at the end of the year. Despite this lack of preparation, those students are often placed in the next grade level instead of being retained simply because they are being served through EIP. Alyssa stated, "I would not say the interventions affect retention, but more so the fact that the EIP kids continue to get moved on when they aren't ready for the next grade. This puts them further behind" ("Alyssa", personal communication, September 9, 2015). These students fall further and further behind their peers since they do not complete the required grade level curriculum year after year.

Teachers whose students received EIP math instruction in addition to the regular math curriculum each day reported very positive results, though with funding cuts, they are no longer able to provide these services. Those who are attempting to provide EIP with no additional support in their classrooms were overwhelmed with the task and did not see any positive outcome for their students. Alyssa shared her thoughts on the EIP program:

When done correctly, I feel it gives them the support they need to feel confident and successful moving to the next grade. However, if the model isn't done correctly, I feel it is just a label for funding. ("Alyssa", personal communication, September 9, 2015)

Mary also felt the program has value for students if delivered in an effective manner. She said, "They have the opportunity to get caught up on missed skills but having individual support time" ("Mary", personal communication, September 13, 2015). Overall, participants responded positively in regards to the effect of the EIP program on their math students.

### **Research Question 3**

How do participants perceive the EIP program in comparison to the regular education math program?

The answers to this question vary based on which model of EIP the participant had experienced. For those attempting to serve EIP in the regular classroom without the aid of another teacher, there was no difference other than additional paperwork for those students. For those teachers who worked with another teacher in a pull-out or push-in model, the additional teacher allowed them to continue to teach at the normal pace while having another teacher provide for the needs of the EIP learners. According to several participants, the pull-out model, when used as the only math class for the student, was not effective, since the pace was so slow

that the students did not complete the entire grade level curriculum within the parameters of the school year. Joanne, however, said:

EIP presents the same material as the general education, just at a slower more broken down pace. I found that more hands-on activities and different strategies allowed EIP students to develop the solid foundation they needed to feel success in the next grade level. (“Joanne”, personal communication, September 12, 2015)

She also stated that EIP uses the same materials and teaches the same standards as the regular math classroom, but, “The goal is just to present it in different ways.”

The push-in model, though helpful in keeping the students in the regular classroom to experience the discussions and teaching level in regular education classrooms, the students often felt overwhelmed and were unable to learn at the same rate as peers, thus making them essentially isolated within their own classroom.

The most effective solution teachers expressed was to have a pull-out EIP math class in addition to the regular daily math class. Lack of time was a factor for providing the repetition these students needed to be able to grasp concepts, and by providing an additional math class each day, the students were allowed the additional time immersed in the content. There was also a much smaller teacher to student ratio, resulting in students having more individual time with the teacher to receive assistance and ask questions.

The pull-out model was discussed by multiple participants as an effective method of reaching learners. Carlie discussed pull-out:

Pulling the lowest performing students from each class to make a small group of 16 for 50 minutes. I did this with my reading groups. Even with a small group of this size, I still cut this group in half. I would take half for the small group instruction while the

other half did a reading center or writing activity. This was very effective. (“Carlie”, personal communication, September 12, 2015)

She continued her thoughts on EIP:

I feel that they prepare students well in reading by allowing them to learn at their instructional level. Students who are trying to learn to read at a difficult reading level will get frustrated and shut down. In math, I feel that they would not be prepared for the next grade since it is so difficult to finish the curriculum. If math can be an additional math instruction class, a double dose, then I think they would be very prepared.

Alyssa expressed similar thoughts, “Any extra instruction is going to be somewhat helpful. Some are more positive than others, but overall it is extra on top of what they are learning” (“Alyssa”, personal communication, September 9, 2015).

While EIP seems to help students in reading by simply providing smaller groups of learners that are on the same level, math intervention is not so simple. EIP is needed in addition to the regular math instructional time to reinforce content and provide additional practice and review of material that struggling learners so desperately need.

### **Summary**

Study participants shared their experiences working with Georgia’ EIP program for math to paint a picture of how the program is being implemented, the value teachers place on it, and the growth students experience as a result of it. Themes were identified as a result of their responses, and these themes provide the description of the phenomena on which the study is based. This chapter summarized participants’ thoughts and organized them into themes that emerged from the data analysis and provided answers for each of the research questions.



Participants stressed that the model used to deliver EIP interventions appears to affect the success rate of students being served by the program. The pull-out and push-in models that involved an additional teacher providing interventions either in the regular classroom or as a separate group pulled out for assistance were more successful than those that relied on a single teacher to provide all instruction and interventions. For math, if schools can provide an additional EIP math class each day in addition to the regular daily math class, students can spend more time immersed in the content, providing more time for the repetition necessary for these students to retain concepts.

While the model itself was identified as critical to success of the EIP program, the value of interventions was also discussed. EIP students benefit from small group instruction and discussion, repetition of content, and spiraling of previously learned concepts into current material. Negative effects on the implementation of the EIP math program include: Parents that are not involved or supportive, inadequate funding to supply necessary resources, not enough time in the school day to be able to provide the repetition of content needed, and lack of training for teachers involved in serving EIP students.

## **CHAPTER FIVE: DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS**

### **Overview**

The purpose of this transcendental phenomenological study was to investigate K-5 teachers' perceptions of Georgia's mandated Early Intervention Math Program on at-risk learners in a school district in a rural, North Georgia community. This chapter examines the study findings as it relates to the currently existing body of literature and theoretical framework used as a basis for the study. It includes the implications of the study results and suggestions for further research.

### **Summary of Findings**

The intent of the study was to gather teacher perceptions of Georgia's Early Intervention Math Program. Study participants, who are all elementary teachers in the rural town in north Georgia, discussed in depth their experiences in implementing the program, including stories of success and aspects of the program that need improvement.

A thorough review of all data sources (interviews, focus group discussions, and journal entries) revealed several themes that resonated with most participants. Themes identified were: EIP model of delivery is important to the success of the students; lack of support, funding, and training is crippling the EIP program; and teachers are determined to support students and intervene even if no formal program is in place to do so.

Each participant had insight on the model used by the teacher to deliver EIP interventions. The most effective model identified was the pull-out method, in which an EIP teacher pulls the struggling students out of the regular classroom to provide interventions and instruction in a much smaller group. Several participants also suggested that the way to most effectively deliver the pull-out model was to allow the students to remain in the regular math

class and then have a separate pull-out EIP math class in addition to the regular class. Because the struggling students seem to benefit from repetition of content, this allows them to experience the content in the regular classroom with the rich discussion that often occurs when multiple levels of learners are present, and then separately in a setting in which peers are also struggling, providing a less intimidating environment to be provided interventions to master content.

Participants, with varying levels of support or disdain expressed, discussed other models of instruction. The push-in model, where an EIP teacher joins the regular math classroom to provide interventions to those who struggle, is seen as helpful; however, it does not allow the students to have additional time immersed in the content. The success of this model also is contingent on the relationship the two teachers have with each other and how well they are able to collaborate to meet the needs of their students.

The most negative feedback came from teachers who have experienced budget cuts in their schools that have resulted in personnel that previously serving in the EIP program being reallocated to other positions within the school or school system. This has left the regular classroom teacher with a vast array of learning levels in their classroom and no additional personnel to help them navigate through the content with the learners and provide interventions as needed for those who struggle to understand each concept. The task is overwhelming, and the teachers are exhausted trying to balance the needs of all learners with few resources to assist them.

Negative themes that emerged were the absence of parental support, decreased funding of programs, lack of instructional time to implement interventions appropriately, and limited or no training provided for teachers. Parental support, though identified as a theme that resounded throughout the study, was viewed by participants as a negative aspect for these students but not

vital to the success of the EIP program. Lack of funding, time, and training were all issues that greatly affected the teachers attempting to provide interventions to these students who so desperately need them. Personnel is not available to allow the use of pull-out or push-in models of instruction, leaving teachers who have not had proper training trying to differentiate instruction for all levels of learners in a heterogeneously grouped classroom of unique learners with varying learning styles while providing and documenting interventions provided to those identified for the EIP program. Participants expressed feelings of great stress and exhaustion trying to manage this overwhelming task and still the student growth was measured, expected, and used to determine their value as an educator under Georgia's new teacher evaluation system.

### **Discussion**

Study participants were able to provide a rich description of their experiences with implementing Georgia's EIP program. Cunningham, Redmond, and Merisotis (2003) stated that the purpose of early interventions programs was to reduce dropout rates and increase the number of at-risk students attending college. In this study, those two goals were never discussed. EIP is provided at the elementary level where teachers are typically concerned with students learning the basic skills needed to be successful in middle school. While college and future drop out is always a concern of any teacher, it is doubtful that elementary teachers are looking that far into the future when determining the success of their efforts. These participants felt as though their purpose in delivering EIP services was to attempt to catch the students up, so they could be successful in the regular classroom with no additional supports necessary.

Johnson (2004) encouraged future researchers of EIP programs to expand their scope of participants beyond those who are the ones providing the EIP instruction. While the teachers in this study are currently being asked to provide those interventions due to budget constraints, they

all spoke of past experiences in which they were the regular education teacher with students in their classrooms receiving services by a separate EIP teacher. This adds a perspective to the body of research not yet captured and explored.

Bahr (2008) concluded that the extent and depth of the curriculum has an effect on student achievement. The results of this study show this to be the case, as well. Teachers expressed frustration with students being pulled out of their classes to receive lower level and slower paced instruction in the EIP classroom, since it was causing these students to miss valuable grade-level, rigorous content.

The results show that the EIP program in the elementary schools in the study is providing a constructivist approach in teaching these struggling learners. This approach calls for classrooms to be more student-centered and focused on the needs of the learner and the specific processes they use to understand information (Johnson, G., 2004). While the idea of repetition of content, mentioned by several participants as a means of providing an intervention for their students, seems to be the antithesis of what is desired in a constructivist classroom, the participants also spoke often of tailoring their instruction and differentiating learning activities so that material is presented in multiple ways in an attempt to find a way to reach all learners. Their use of the word repetition is not indicative of rote memorization of concepts but a repetition of content in various forms and contexts to help students create connections to previously learned concepts and their own life experiences, which supports the findings of Henson (2003) who found that providing student-centered learning increased students' strengths and potential. This supports the work of Gerstren, Scammacca, and Chavez (2008), which concluded that students provided additional tutoring on concepts in homogeneous groups with other struggling learners were able to show gains on required grade level curriculum.

Study participants identified pull-out programs that serve EIP students in a smaller group setting with a homogeneous group of struggling learners as the most successful model for serving students, supporting Johnson's 2004 research that showed this model resulted in students successfully exiting the program and not having to re-enter. This study also supports his finding that self-contained is not effective, since the students are not subjected to the higher levels of discussion and instruction that occur in the regular education classroom.

Mullins (1994) advocated for small group instruction for math, a sentiment that resounded throughout the analysis of data for this study. The U.S. Department of Education (1999) also supported this idea and found that small groups helped all students, regardless of race, sex, or socioeconomic status, to be more successful. Ketterlin-Geller, Chard, and Fien's (2008) work concluded that intervention that reteaches fundamentals and intervention that provides additional time in the content area both provided for better student achievement. This sentiment is echoed in this study, in that, participants discussed interventions with varying levels of success, but overall, any intervention showed positive gains for their students.

Out of the ten study participants, seven received no training in implementing EIP interventions, two received limited training on differentiated instruction, and one received training in another state before moving to Georgia. This seems to be a trend across the nation, according to the body of literature. A teacher's attitude toward teaching and their feelings of effectiveness and confidence are evident in their teaching and can have a profound effect on the students' performance in the classroom (Stronge, 2007). By providing training to ensure these teachers are prepared, they can enter the classroom with the confidence and knowledge of strategies necessary to effectively reach students (Hertberg-Davis & Brighton, 2006).

The EIP program has been helpful for the students served by most of the study participants. Reys and Fennell (2003) believe that early math instruction and the success of younger students in math is critical to helping them develop a firm foundation that gives them the belief that they are capable and that math is not impossible. This study supports his research as participants spoke of students becoming more confident in their abilities and feeling successful in the math classroom. Teachers themselves, however, spoke of a lack of training and little support provided for them as they provide for these students. This study highlights the need to sufficiently train teachers in differentiation and interventions to ensure they enter the classroom with the confidence and skills necessary to reach all of their learners, no matter what level. Imagine the possibilities if the teachers who are already experiencing success with these students were better prepared and had sharper skills in teaching.

### **Implications**

The study results demonstrate the detrimental effects of funding cuts in education and the manner in which they affect teachers attempting to reach struggling learners. Study participants discussed models of EIP delivery that they have experienced that were successful in helping students achieve on a higher level in math; however, those discussions were past tense. With current budget cuts, the resources provided for those EIP programs have been eliminated, leaving these teachers alone in their classrooms with these struggling learners and no additional personnel to provide support.

The effects of budget cuts are felt in the classroom, and this study highlights a specific program that has been diminished while teachers are still held to the same standards and expectations for student performance and growth. School administrators can use this study as a basis to find additional funding to increase personnel serving students who can be identified for

EIP. Parents and other stakeholders who are interested in lobbying their school or school district to implement more effective programs for struggling learners can use the data collected from these participants to show areas in which resources should be placed to better use any resources allotted for EIP. Policy makers, from the local board of education through the state legislature and state board of education should all consider the results of this study when determining budget items and critical areas to fund in education.

Unfortunately, the implications of this study indicate that there may be a decline that should be anticipated in student achievement of those who qualify for EIP services. Since those services are not being appropriated the resources necessary to work efficiently, it is likely that they will lose their effectiveness. This study is a wake-up call to those who are concerned with school improvement and student outcomes that they need to examine the funding formula for schools and programs and allot resources to programs such as EIP that take marginal students and provide additional support to help them achieve success. Just asking the regular classroom teacher to provide the support with no additional assistance is unreasonable and is resulting in teachers being more overwhelmed and possibly more likely to leave the profession early due to stress.

It would benefit the state department of education and the legislatures providing funding for schools to examine the results of this study. With the varying models in place for providing EIP services, there is a wide array of delivery and support that may not be equitable among classrooms, schools, and school districts. Teachers have strong feelings about which models work best and how they should be implemented, including the necessary resources to be able to plan for success. It would be helpful for the state department to provide more specific guidance and information to school systems as they plan and schedule students and teachers to ensure all



schools are providing appropriately for the needs of their struggling learners.

### **Limitations**

All studies that involve human subjects have many limitations since all individuals are unique and have varying experiences in life that affect them on a daily basis. This study used voluntary participants, all of whom were from two elementary schools in a single community. The phenomena description is specific to the setting in which the study was conducted and may not be used to interpret situations and plan for experiences in a different community. There is a lack of diversity in the community and in the study participants. All teachers involved in the study were white females. The community itself is over 90% white, so the study is representative of the community population, and the majority of elementary teachers nationwide are female. Despite the lack of diversity in ethnicity, race, and gender, the study does provide valuable insight into the experience teachers have had with Georgia's EIP math program.

Data in qualitative research is, by nature, dependent on the feelings and moods of the participants. Teachers self-reported their experience in this study and may have embellished or downplayed their thoughts based on what they thought the researcher was expecting to hear. They may have not been completely honest for fear that their identity may at some point be revealed, causing someone to be offended or have it negatively affect their employment status. The responses of these participants also are dependent on the recent experiences they have had that may have altered their opinions of the program. If they have recently experienced success with a student, they may be feeling especially positive towards the program, or, if they have just left a class that was frustrating, they may be only interested in sharing negative aspects of their experience. By using multiple data collection sources over a period of time, I hope that the moods and daily experiences of research participants balanced out to give an accurate description

of the program overall that is not affected by individual experiences of one day.

Study findings are very specific to the individual community and may not relate to other communities. The school system has experienced budget cuts that have resulted in fewer resources for a program that recently was fully funded and operational. The community itself has a large population of uneducated adults, many of whom have students in the school system. These parents often do not value education or are fearful of the school system due to their own experience, so they are less likely to participate in their child's educational experience. In a community with more educated parents, parental support of EIP students and the program as a whole may be completely different. Also, the recent memory of the abundance of resources for the EIP program contrasted with the bare bones program in place now is creating feelings of frustration, and in some cases, hostility, towards the educational system and those making decisions that affect the school system. Figuratively, the wound is still raw and is going to take time to heal and become whole again. Either the program will be funded again, or the teachers will find ways to adapt their routines and procedures to compensate for the lack of resources. Teachers are resilient and creative, and they will work until they find an acceptable solution.

### **Recommendations for Future Research**

In future research, more diversity in the study population and the types of communities used as the setting would be beneficial to determine if the results are isolated to the community in the study or are applicable to multiple settings. Also helpful would be individual studies that focus specifically on the delivery models identified in this study. Teachers identified models that were used and had strong feelings about their usefulness and appropriateness. A study specifically addressing one model of delivery could provide a wealth of information on the specific aspects that make that model successful or not. If individual studies were conducted on

each delivery model, the information from those studies could be collectively reviewed to provide a guidance document for the state and local schools to use in decision-making on how to appropriately fund and provide services for students qualifying for EIP.

While this study focused on math, it would also be helpful to have information about the success of the EIP program in reading. Since much of math in Georgia centers on interpreting word problems involving real world examples, reading ability and level may have a profound effect on the student's performance in math. It would be interesting to have a study that examined performance in math of students served EIP in reading to determine if math constructs are what are causing students to struggle in math or if reading ability is more of a deterrent for success in math.

Within the field of education, future research would be helpful to determine the extent to which teacher preparation programs address the various strategies and methods of providing interventions for future teachers and to identify gaps in that learning to better prepare teachers entering the field to be able to reach all learners more successfully. Within the school building, research could provide insight into specific interventions and the immediate and long-term effects of those interventions in helping students achieve success in mathematics after previously experiencing difficulty.

### **Summary**

This study found that Georgia's EIP program for math has been successful in the community elementary schools in this rural north Georgia town. However, recent budget cuts have slashed the funding for resources for the program, leaving teachers to attempt to provide for these students without the additional personnel that had been previously supporting them and their students. Feelings of fear and frustration were evident in study participants, as they are

expected to continue to make significant gains in improvement with their students with fewer resources. Student growth is a large portion of the teacher evaluation program in Georgia, and these teachers are genuinely concerned that they are not properly equipped to provide what the students need to show the appropriate amount of growth.

Lack of training resounded throughout the study as an issue. Teachers were willing to work tirelessly to ensure the success of their students, but they felt as though the district did not provide them the proper training to know how to effectively reach their struggling learners. The only study participant that had been properly trained had taught previously in another state and had been trained while working in that state.

The most important implication of the study is the frustration over lack of resources. The state department of education and state legislature have mandated the EIP program for struggling learners in the elementary school, but they have provided very little guidance and no training in how to successfully implement an early intervention program. EIP was first mandated and funded in the state in 2001, and by 2004, the majority of funds previously allotted for these services were cut. The study participants have been fortunate that their district has been able to continue providing the financial resources to maintain personnel to adequately provide for EIP services until 2015. This year, the system could no longer sustain the programs financially using the pull-out model that provided an additional teacher to provide interventions to EIP identified students. Those EIP teachers were moved to other programs in the school system, and regular classroom teachers are now expected to provide these interventions in the classroom while also maintaining the rigor and pacing necessary to challenge the fastest learners in class. It is unfortunate that teachers have had this additional pressure put on them, and they are growing increasingly frustrated. Hopefully the results of studies such as this one will be recognized if

math scores begin to dip across the state, or at least in the study district. When the economy improves and funding cuts are restored to schools, these important programs should be among their first to be reinstated with the proper resources to ensure their success. The pull-out model of EIP has shown to not only increase achievement for struggling math students but has also allowed many to exit out of the EIP program without ever needing to return to it. This model has basically been a cure for many students, allowing them the necessary instruction to fill in gaps in their knowledge and catch up with their grade level peers. Funding these programs again would not only help with student achievement but would also increase morale in the faculty as they feel they have the necessary support to be successful.

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## APPENDIX A

### Excerpt from Participant Journal Entries with Researcher Bracketed Comments

#### Journal Entries Summary Participant 1

My thoughts-  
Bad parenting  
no excuse.  
We are  
responsible  
for being  
successful  
with students  
despite home  
life.

- 9/14/2015 “Small groups of students always show to be the most effective.”
- 9/15/2015 “So many of my students are lacking so much at home. I wish they had the parental support at home they deserve. I know it would make a huge difference.”
- 9/16/2015 “Success stories do surface from the Early Intervention Program, but it is a lot of hard work and often with out any support. I believe in early intervention and I wish more effort was put into it from others.”
- 9/17/2015 “ EIP is very difficult with out help. Reaching all learners in the classroom with no assistance or pull out can be very stressful and sometimes it can feel like a never ending circle.”
- 9/18/2015 “ I really love working with EIP and I prefer the math EIP students. Math is always the first cut over reading and as they get older it becomes very obvious math is not the focus in our Early Intervention Programs.”
- 9/21/2015 “ My grade level was sent an article today on differentiation. It was excellent and items like this can give the boost of hope so many teachers need. It is refreshing to know so many out there feel we can work miracles;-)”
- 9/22/2015 “I had a meeting today with our administration. They are always so very supportive and want whatever we feel is best. Their hands are tied with budgets and can only do and give so much.”

My thoughts:  
Sarcasm in  
this  
statement??

My thoughts-  
Necessary to  
intervene while  
still teaching  
required  
curriculum at  
the required  
pace or all  
students falls  
behind.

- 9/24/2015 “Early intervention teachers often must base their lessons on student needs rather than GPS. If teachers are not closing gaps first students cannot be successful on new material. This often keeps the class behind all year.”
- 9/25/2015 “One of my greatest challenges is teaching EIP is helping them retain and memorize information. Patience is such an important part of the job.”

## APPENDIX B

### IRB Approval

APPENDIX C

Facility Approval

## APPENDIX D

### Consent Form

The Liberty University Institutional  
Review Board has approved  
this document for use from  
9/8/15 to 9/7/16  
Protocol # 2290.090815

#### CONSENT FORM

#### TEACHERS' EXPERIENCES OF GEORGIA'S EARLY MATH INTERVENTION

#### PROGRAM: A PHENOMENOLOGICAL STUDY

Rachel Scott

Liberty University  
Education Department

You are invited to be in a research study of Georgia's Early Intervention Math Program. You were selected as a possible participant because of your experience with early intervention. I ask that you read this form and ask any questions you may have before agreeing to be in the study.

Rachel Scott, a doctoral candidate in the School of Education at Liberty University, is conducting this study.

#### Background Information:

The purpose of this study is to investigate teachers' perceptions of Georgia's mandated Early Intervention Math Program on at risk learners in an elementary school in a rural, North Georgia community.

#### Procedures:

If you agree to be in this study, I would ask you to do the following things:

- 1) Participate in one 30 minute private interview with the researcher that will be audio recorded.
- 2) Possibly participate in one 30-minute focus group that will be audio recorded with three or four other participants to further discuss the experiences of early intervention.
- 3) Participate in reflective journaling throughout the study to gather deeper thoughts from participants. The researcher will not provide prompts to the participants.

#### Risks and Benefits of being in the Study:

The risks of this study are no more than the participant would encounter in everyday life.

Participants should not expect to receive a direct benefit from participating in the study. The benefit to participation is the opportunity to be a part of research that will seek to impact educational policy based on the experiences of Georgia's Early Intervention Math Program on educators and students.

#### Compensation:

You will not be compensated for taking part in this study.

The Liberty University Institutional  
Review Board has approved  
this document for use from  
9/8/15 to 9/7/16  
Protocol # 2290.090815

#### **Confidentiality:**

The records of this study will be kept private. In any sort of report I might publish, I will not include any information that will make it possible to identify a subject. Research records will be stored securely and only the researcher will have access to the records.

#### **Voluntary Nature of the Study:**

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with Liberty University. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

#### **How to Withdraw from the Study:**

If you choose to withdraw from the study, please contact the researcher at the email address listed below. Should you choose to withdraw, data collected from you, apart from focus group data, will be destroyed immediately and will not be included in this study. Focus group data will not be destroyed, but your contributions to the focus group will not be included in the study if you choose to withdraw.

#### **Contacts and Questions:**

The researcher conducting this study is Rachel Scott. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact her at [rachel.scott@lumpkinschools.com](mailto:rachel.scott@lumpkinschools.com). If you have any questions or concerns regarding this study and would like to talk to someone other than Rachel Scott, you may contact Dr. Evans, the researcher's faculty advisor, at [vevans@liberty.edu](mailto:vevans@liberty.edu), and **you are encouraged** to contact the Institutional Review Board, 1971 University Blvd, Carter 134, Lynchburg, VA 24502 or email at [irb@liberty.edu](mailto:irb@liberty.edu)

*Please notify the researcher if you would like a copy of this information to keep for your records.*

#### **Statement of Consent:**

I have read and understood the above information. I have asked questions and have received answers. I consent to participate in the study.

(NOTE: DO NOT AGREE TO PARTICIPATE UNLESS IRB APPROVAL INFORMATION WITH CURRENT DATES HAS BEEN ADDED TO THIS DOCUMENT.)

☐ The researcher has my permission to audio-record me as part of my participation in this study.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Signature of Investigator: \_\_\_\_\_ Date: \_\_\_\_\_

## APPENDIX E

### Interview Questions

1. What is your gender and race?
2. Where did you go to college?
3. Did you grow up in this community?
4. Do you have any children, and tell me a little about them if you do?
5. How many years have you been a teacher?
6. How many years have you worked in an elementary school?
7. Tell me about a typical day in your teaching position.
8. Describe what your experiences have been with the Early Intervention Math Program (EIP).
9. How many years have you served Early Intervention students in your classroom?
10. Describe the model you teach currently. Have you taught another model before?
11. How many of your students have qualified for EIP this year? What method was used to qualify these students?
12. What interventions have you observed occurring in your classroom? If your students are also pulled-out of the classroom, what interventions are you aware of that are occurring with your EIP students?
13. Would you say the interventions are having a positive, negative, or no effect at all on your EIP students' math performance? Why?
14. Would you say that the interventions are having a positive, negative, or no effect at all on the rate of retention in your classroom and within your grade-level?
15. How do you feel Early Intervention Program's prepare students for the next grade level?



16. Describe the support given to EIP students by the administration, teachers, and parents.
17. How do you collaborate as an EIP teacher?
18. How do you plan lessons as an EIP teacher?
19. What types of interventions do EIP teachers use?
20. Describe your greatest challenges as an EIP teacher.
21. What is your greatest success story as an EIP teacher?

## APPENDIX F

## Excerpt from Researcher Journal

It is difficult as an educator who feels strongly about meeting the needs of all learners to hear in an interview with another educator that they do not feel it is their job to provide interventions for struggling learners. The teacher inside of me is wanting to give suggestions and help this individual become a better, more empathetic, involved educator. However, my place as researcher limits me to gathering information and not providing my opinion. I need to remember to remain objective as I analyze this teacher's responses, so I can gather the essence of why she feels the way she does. Whether I agree with it or not, it is the way she feels and must be represented as such in the report.

## APPENDIX G

## Codes Identified from Data Analysis

Codes Identified from Data AnalysisEarly Intervention Program Models

<u>Codes</u>	<u>Number of Appearances</u>
Models Used in Participants' Schools	
Pull-out	10
Self-Contained	3
Push-In	3
Serve Own Students (No Additional Support)	5
Pull-Out Model	
Effective	6
Not Effective	2
Self-Contained Model	
Effective	3
Everyone on Same Level So Students Can Shine	3
Not Effective	5
If Filled with Behavior Issue Students	3
Nothing to Aim For	2
Push-In Model	
Effective	5
Not Effective	1
Serve Own Students (No Additional Support)	
Not Effective	3
Stressful or Overwhelming for Teachers	5

EIP in Preparation for Next Grade Level

<u>Codes</u>	<u>Number of Appearances</u>
Extra Practice to Get Caught Up on Skills	6
Slower Pace Helps	4
Slower Pace Hinders Preparation for Next Grade	3
Provides Stronger Foundation	3
Increases Student Confidence	2
Allows Individual Support Time	4
Indicator of Need for Retention	2

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Interventions Used

<u>Codes</u>	<u>Number of Appearances</u>
In Participating Teachers' Classrooms	
Seating (Close Proximity to Teacher)	1
Small Group	10
Easier Material/Less Work for Students	1
Software Programs	6
Assigned Work Differentiated by Student Ability	3
Vocabulary Work	4
Hands-On Activities/Use of Manipulatives/Games	5
Repetition of Concepts	4
In EIP Classroom	
Seating (Close Proximity to Teacher)	1
Small Group	6
Assignments Differentiated Based on Student Ability	6
Vocabulary Work	4
Reading Aloud with Teacher Assistance	1
Group/Peer Helpers	2
Extended Time for Completion of Work	1
Repetition of Content	4
Hand-On, Kinesthetic Learning	3

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Effect of EIP on Math Performance

<u>Codes</u>	<u>Number of Appearances</u>
Positive	
Small Group	4
Ability Grouped	1
Move at Own Pace	2
Remediation Provided as Needed	2
No Positive Effect	
Feel Left Behind in Class (If Not Pull-Out Model)	1

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Effect of EIP on Grade Level Retention

<u>Codes</u>	<u>Number of Appearances</u>
Positive	
Little Positive Effect	1
No Positive Effect	
On Kindergarten Students	2
Students Placed in Next Grade When Not Ready	1
Uncertain	
Anticipate Poor Effect in Future Based on Program Cuts	2

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### Teacher Training for EIP

<u>Codes</u>	<u>Number of Appearances</u>
None	4
Teacher's Own Research	1
Limited	2
Training Provided in Another State	1

### Greatest Challenges Teachers Face in Providing EIP

Meeting Needs of All Students	2
Not Moving Forward Until All Skills Are Mastered	1
Enough Personal Time for Each Child	2
Teaching Independence	1
Getting and Holding Student Interest	2
Finding Different Strategies	1
Working with Different Teachers	1
Lack of Parental Support	9
Not Enough Time in the Day to Provide Appropriate Interventions	4
Lack of Funding	6
Lack of Training	4