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Intervention Program *Graduate on Time* as Related to the Number  
of High School Dropouts in a Rural Northeast  
Tennessee High School

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A dissertation  
presented to  
the faculty of the Department of Educational Leadership  
and Policy Analysis  
East Tennessee State University

In partial fulfillment  
Of the requirements for the degree  
Doctor in Education in Educational Leadership

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by  
Mischelle Nichole Gambill Simcox  
December 2011

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Dr. Pamela Scott, Chair  
Dr. Eric Glover  
Dr. Don Good  
Dr. Cecil Blankenship

Keywords: At-Risk Youth, High School Dropout, Retention,  
Intervention Program

## ABSTRACT

Intervention Program *Graduate on Time* as Related to the Number of High School Dropouts in a Rural Northeast Tennessee High School

by

Mischelle Nichole Gambill Simcox

The purpose of this study was to investigate the intervention program *Graduate on Time* as related to the number of high school dropouts in a rural northeast Tennessee high school. Graduation rates and dropout rates were gathered from Report Card information from the Tennessee Department of Education website. Archival data for the students in this study were obtained from the STAR student management data system. Former students in the *Graduate on Time* program were surveyed for their perceptions about the program.

The population for this study consisted of 96 students who were enrolled in the *Graduate on Time* program from the 2007-2008 school year through the 2010-2011 school year at Johnson County High School in Mountain City, TN. Participants in the program were made up of 56 males and 40 females. The ethnic breakdown of the participants in the program consisted of 97% White, 2% Hispanic, and 1% African American. Over 85%, or approximately 82 students, qualified for free- and reduced-price meals and were considered low socioeconomic students in this study.

This quantitative study was guided by 5 quantitative research questions, with 1 qualitative research question consisting of a participant survey on perceptions of the *Graduate on Time* program. In Chapter 3 each quantitative research question had 1 null hypothesis. Two research questions were analyzed by using the Chi-Square test for independence and 3 research questions were analyzed by using a single sample t-test. The qualitative part of this study examined student's perceptions of the *Graduate on Time* program.

The results of the Chi-Square test showed there was no significant difference in the graduation rate or the dropout rate of those students who participated in the Johnson County High School *Graduate on Time* program and the graduation rate or the dropout rate of nonparticipants. However, there was a statistically significant difference between the retention rate of *Graduate on Time* participants and the retention rate of nonparticipants. From the results of this study, it was revealed that the students' perceptions did affect their success rate in the Johnson County High School *Graduate on Time* program.

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## DEDICATION

This work is dedicated to my loving husband Dirk Simcox and our beautiful children Dylan and Connor. Thank you for your love, patience, and guidance during this process.

I also dedicate this to my wonderful parents Sonny and Gail Gambill. Without your constant support, I would not be where I am today.

To my dear friends, Michele Cooke and Mechelle Arney, thank you for your friendship and always believing in me.

This work is also dedicated in the memory of my loving grandparents, Howard and Waunita Jennings and Henry and Opal Gambill. Their constant encouragement and love helped make me the person I am today.

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## CONTENTS

	Page
ABSTRACT.....	2
DEDICATION.....	5
ACKNOWLEDGEMENTS.....	6
LIST OF TABLES.....	11
LIST OF FIGURES .....	12
Chapter	
1. INTRODUCTION . . . . .	13
Statement of the Problem . . . . .	14
Research Questions . . . . .	15
Research Question 1 . . . . .	15
Research Question 2 . . . . .	15
Research Question 3 . . . . .	15
Research Question 4 . . . . .	15
Research Question 5 . . . . .	16
Research Question 6 . . . . .	16
Significance of the Study . . . . .	16
Definition of Terms . . . . .	16
Delimitations and Limitations . . . . .	17
Overview of the Study . . . . .	18
2. REVIEW OF LITERATURE . . . . .	19
Introduction . . . . .	19
Poverty . . . . .	21

Chapter	Page
Retention . . . . .	23
Effects of Retention . . . . .	26
Intervention Programs for Retention . . . . .	27
At-Risk Students . . . . .	29
Economic Impact of Dropouts . . . . .	31
Intervention Programs to Reduce the Dropout Rate...	34
Freshman Initiative Programs . . . . .	36
Factors that Promote Academic Success . . . . .	38
Summary . . . . .	40
3. METHODS AND PROCEDURES . . . . .	42
Introduction . . . . .	42
Research Design . . . . .	42
Reliability and Validity . . . . .	43
Population . . . . .	43
Data Collection Procedures . . . . .	44
Quantitative Procedures . . . . .	44
Quantitative Research Questions and Null Hypotheses..	45
Research Question 1 . . . . .	45
Research Question 2 . . . . .	45
Research Question 3 . . . . .	46
Research Question 4 . . . . .	46
Research Question 5 . . . . .	46
Quantitative Data Analysis . . . . .	47

Chapter	Page
Qualitative Procedures . . . . .	47
Qualitative Research Question . . . . .	48
Research Question 6 . . . . .	48
Qualitative Data Analysis . . . . .	48
Summary . . . . .	48
4. ANALYSIS OF DATA . . . . .	50
Research Question 1 . . . . .	50
Research Question 2 . . . . .	51
Research Question 3 . . . . .	53
Research Question 4 . . . . .	55
Research Question 5 . . . . .	56
Research Question 6 . . . . .	58
Summary . . . . .	61
5. FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS . . . . .	63
Quantitative Results . . . . .	63
Research Question 1 . . . . .	63
Research Question 2 . . . . .	64
Research Question 3 . . . . .	65
Research Question 4 . . . . .	66
Research Question 5 . . . . .	67
Qualitative Results . . . . .	67
Research Question 6 . . . . .	67

Chapter	Page
Recommendations for Practice . . . . .	69
Recommendations for Further Study . . . . .	70
Summary . . . . .	71
REFERENCES . . . . .	75
APPENDICES . . . . .	83
Appendix A: Letter to Participants . . . . .	83
Appendix B: <i>Graduate on Time</i> Student Survey . . . . .	84
Appendix C: Letter of Permission . . . . .	85
Appendix D: IRB Approval . . . . .	86
VITA . . . . .	87

LIST OF TABLES

Table	Page
1. Overall Graduation Rate in Comparison with Graduate on Time Graduation Rate . . . . .	51
2. Overall Graduation Rate in Comparison with Graduate on Time Graduation Rate . . . . .	53

LIST OF FIGURES

Figure	Page
1. Distributions of the Number of Graduate on Time Participants Who Were Retained . . . . .	54
2. Distributions of the Number of Female Graduate on Time Participants Who Were Retained . . . . .	56
3. Distributions of the Number of Male Graduate on Time Participants Who Were Retained . . . . .	58

## CHAPTER 1

### INTRODUCTION

As academic rigor increases and standardized tests become more numerous, retention is likely to increase, and at-risk students may drop out of high school. "Too many of our kids are dropping out of schools. That's not a black, white or brown problem. That's everyone's problem." President Barack Obama was quoted as saying this after describing education quality as the "civil rights issues of our time" (as cited in D'Orio, 2011, p. 64). The high school dropout problem is a crisis in the United States. According to Bridgeland, Dilulio, and Morison (2006) dropouts are more likely than high school graduates to experience health problems, engage in criminal activities, and become dependent on welfare and other government programs.

Among developed nations, the United States ranks 17<sup>th</sup> in high school graduation rates and 14<sup>th</sup> in college graduation rates (Alliance for Excellent Education, 2011). Each year almost one third of public high school students fail to graduate from high school (Bridgeland et al., 2006). The United States has moved toward an increasingly global economy with more individuals discovering that higher levels of education are critical for individual success. Ninety percent of the fastest growing jobs in today's world require some postsecondary education (Alliance for Excellent Education, 2011). Understanding the extent of the

dropout problem in the United States and the factors associated with dropout rates are critical in developing effective dropout prevention strategies.

#### Statement of the Problem

This study focuses on the Johnson County High School *Graduate on Time* program that provides students an alternative path to earn a high school diploma. This program is used when all other possibilities for a high school diploma have been exhausted. Students are given the opportunity to meet the graduation requirements set by the state of Tennessee for an alternative State Diploma and the No Child Left Behind requirements needed for graduation rates.

Focus and groups made up of administrators, school board members, counselors, and teachers from the Johnson County School System have met quarterly since the implementation of the Graduate on Time program in the 2007-2008 school year. The goal of the focus groups is to determine the perception the Graduate on Time program has on the success rate and if the requirements need to be changed or updated on a yearly basis. Therefore, the purpose of this study is to investigate the intervention program Graduate on Time as related to the number of high school dropouts in a rural northeast Tennessee high school.

## Research Questions

The focus of this study was to investigate the intervention program Graduate on Time as related to the number of high school dropouts in a rural northeast Tennessee high school. The following research questions guided this study.

### Research Question 1

Is there a significant difference between the overall graduation rate and graduation rate of students who participated in the Johnson County High School Graduate on Time program since its implementation in the 2007-2008 school year?

### Research Question 2

Is there a significant difference between the overall dropout rate and dropout rate of students who participated in the Johnson County High School Graduate on Time program since its implementation in the 2007-2008 school year?

### Research Question 3

Is there a significant difference between the retention rate of Graduate on Time participants and the retention rate of nonparticipants?

### Research Question 4

Is there a significant difference between the retention rate of female Graduate on Time participants and the retention rate of female nonparticipants?

### Research Question 5

Is there a significant difference between the retention rate of male Graduate on Time participants and retention rate of male nonparticipants?

### Research Question 6

How have student perceptions affected their success rate in the Johnson County High School Graduate on Time program since its implementation in the 2007-2008 school year?

### Significance of the Study

Limited resources are available offering information on intervention programs to help decrease the high school dropout rate. The findings of this study may provide valuable information to school administrators who want to offer intervention programs to help decrease the high school dropout rate. The results of this study will be shared with all Johnson County school board members and administrators during their annual retreat. At risk students, especially those who are of greatest risk of failing, must be identified early so that intervention programs can be established. Implementation of intervention programs could help school administrators proactively address issues related to high school dropouts.

### Definition of Terms

*At-risk Youth:* Any primary or secondary grade student who is at risk as a result of substance abuse, teen pregnancy, recent

migration, disability, ESL (limited English proficiency), juvenile delinquency, illiteracy, extreme poverty, or dropping out of school (United States Department of Education, 2011).

*High School Dropout:* The event of leaving school before completing high school and the status of an individual who is not in school and who is not a high school completer. High school completers include both graduates of school programs as well as those completing high school through equivalency programs such as the GED (General Education Development). Transferring from a public school to a private school, for example, is not regarded as a dropout event. A person who drops out of school may later return and graduate but is called a "dropout" at the time he or she leaves school (National Center for Educational Statistics, 2011).

*Intervention Programs:* Provides content for instruction intended for use in differentiated instruction and/or intensive instruction to meet student learning needs in one or more specific areas (Foundations for Literacy, 2011).

*Retention Rate:* A measure of the rate at which students persist in their educational program at an institution, expressed as a percentage (National Center for Educational Statistics, 2011).

#### Delimitations and Limitations

This was a quantitative study conducted with a limited number of participants. The study was limited to students enrolled in a

rural high school in northeast Tennessee. Therefore, the results may not be generalized to other rural high schools and anywhere else. The participants in this study were limited to students enrolled in the Graduate on Time program from the 2007-2008, 2008-2009, 2009-2010, and 2010-2011 school years.

A limitation to this study is the number and type of Graduate on Time program graduates who return the survey. The study is limited to the accuracy of participant responses and to researcher interpretation of data.

#### Overview of the Study

This study is organized into 5 chapters. Chapter 1 includes the introduction, statement of the problem, research questions, significance of the study, definition of terms, delimitations and limitations, and an overview of the study. Chapter 2 provides a review of literature that addresses causes associated with why students drop out of high school and the intervention programs that may help decrease the dropout rate. Chapter 3 describes the research methodology and procedures that were used in completing this quantitative study. Chapter 4 provides both a description of quantitative data obtained through interviews and the statistical data obtained from Tennessee State Report Card and STAR student management data system. Chapter 5 contains the summary, findings, conclusions, and recommendations for practice and further research.

## CHAPTER 2

### REVIEW OF LITERATURE

#### Introduction

Nearly one million students who start high school every year do not make it to graduation (Sanchez & Wertheimer, 2011).

According to Sellers (2011):

Nearly 3 out of every 10 students in America's public schools still fail to earn a diploma. That amounts to 1.2 million students falling through the cracks of the high school pipeline every year, or 6,400 students lost every day. (p. 1)

Bridgeland et al. (2006) stated in a report released in March of 2006 by the Bill and Melinda Gates Foundation called *The Silent Epidemic: Perspectives of High School Dropouts* that:

There is a high school dropout epidemic in America. Each year almost one third of all public high school students - and nearly one half of all Blacks, Hispanics, and Native Americans - fail to graduate from public high school with their class. (p. i)

The report also stated that while some students drop out because of significant academic challenges, most are students who could have been successful in school if a quality intervention program had been in place.

Thornburgh (2006) predicted that one out of three public high school students would not graduate from high school. Many researchers have suggested that more than half a million children drop out of high school every year (Heckman & LaFontaine, 2007; Warren & Halpern-Manners, 2007). In a study

completed by The Advancement Project in 2010, the United States graduates fewer than 7 out of every 10 high school students. In 2008 the United States ranked 20<sup>th</sup> in high school graduation rates among developed nations (Organization for Economic Co-Operation and Development, 2010). The high school graduation rate in the United States has reached its highest level since the 1980s, with a national average of 72% of public school students receiving a regular diploma in 2008 (EPE Research Center, 2011).

Zero tolerance offences and standardized tests have turned schools into intimidating environments for many youth, in essence treating them as dropouts-in-waiting (Levine, 2005). Poland (2009) suggests that grade retention is one of the most powerful predictors of a student dropping out of school. According to the *National Center for Educational Statistics* (2011) the dropout rate represents the percentage of 16- through 24-year-olds who are not enrolled in school and have not earned a high school diploma. In the state of Tennessee the dropout rate declined from 4.5% in 1999 to 3.9% in 2009. This decline could be the result of the efforts of school intervention programs as well as outreach and GED attainment programs (Tennessee Department of Education, 2009).

## Poverty

Poverty is not just a condition of not having enough money. It is a way of life for some that includes a set of particular rules, emotions, and knowledge (Payne, 2005). In the 20th century the first major hint of poverty affecting school success came in 1966 when the U.S. Commissioner of Education released a report known as the "Coleman Report." The purpose of this report was to investigate the availability of equal educational opportunities for individuals based on religion, race, color, or national origin in all public institutions in the United States. The report included data from 3,100 schools across the nation. Wong (2004) stated that one major finding was that the "background characteristics of students in the school had a large statistically significant effect on students' academic achievement" (p. 128). Malanga (2007) suggests that poverty is one of the strongest predictors of educational attainment. Payne and Slocumb (2011) state that poverty level and dropout rate are epidemics that go hand in hand.

Payne (2005) describes poverty as "the extent to which an individual does without resources" (p. 7). Payne defined two types of poverty in the world today: generational and situational poverty. Generational poverty was defined as "being in poverty for two generations or longer" (p. 47). Situational poverty was defined as being "a shorter time period and

unexpectedly caused by an unforeseen circumstance such as death, illness, or divorce" (p. 47). Although a lack of income was the same in both types of poverty, the attitudes of the individuals in poverty were quite different. According to Payne those in situational poverty communicated an attitude of pride often followed by a refusal to accept charity. Those in generational poverty had accepted their impoverished state as a fact of life. Payne suggests that the majority of the failing economically disadvantaged students in schools today have come from a generational poverty background.

Bridgeland et al.'s (2006) research has shown that the low socioeconomic population is at greatest risk for failure in today's high schools. A study conducted by the Annie E. Casey Foundation (2011) found that children who lived in poverty and who were not reading proficiently by the third grade were six times more likely to not graduate on time. Students who dropped out were much more likely than their graduating peers were to be unemployed, living in poverty, receiving public assistance, in prison, unhealthy, divorced, or single parents with children who dropped out of high school themselves (Bridgeland et al., 2006). Moretti (2007) and Muenning (2007) agreed that dropping out of high school dramatically increases a person's chances of being in prison, increased health problems, and lower life expectancies. Buckner (2001) wrote that, "Children growing up in

impoverished circumstances in the United States increasingly faced homelessness, residential instability, violence, and other stressors in their lives" (p. 47).

Bill Gates (2011) was quoted as saying "A child's success should not depend on the race or income of parents and that poverty cannot be an excuse for a poor education" (para. 1). A study titled The 2011 Kids Count Data Book conducted by the Annie E. Casey Foundation (2011) suggested that schools need to address the dropout problem early in a child's education. This study showed that 22% of children who have lived in poverty do not graduate from high school, compared with 6% who have never been poor. Thirty-two percent of students who spend more than half their childhood in poverty do not finish high school on time. Donald J. Hernandez, a sociology professor who conducted the study, said:

These findings suggest we need to work in three areas: improving the schools where these children are learning to read, helping the families weighed down by poverty and encouraging better federal, state and local policy to improve the lot of both schools and families. (p.1)

### Retention

Grade retention has been a century-long practice. In the United States the practice of retention became common around the 1860s, when students were promoted based on mastery of content (Owings & Magliaro, 1998). Retention refers to the practice of requiring a student who has been in a given grade level for a

full school year to remain at that level for a subsequent school year (Jimerson, Anderson, & Whipple, 2002). Academic leaders believed at one time that grade retention provided benefits to students with academic or social difficulties (Jimerson et al., 2002).

Research done in 1972 by Stroup and Robins started to change this opinion. They found that retention was the greatest predictor of a dropout, followed by excessive absences and frequent school changes. Lloyd's (1978) research showed that retention was associated with dropping out of school, stating that 70% of high school dropouts could have been identified in the third grade. Barro and Kolstad (1987) stated that students who were overage for their grade were 2-3 times more likely to drop out of high school. In 1989 research done by Cairns, Cairns, and Neckerman stated that grade failure and age were predictive of dropout for both boys and girls. Tuck's (1989) research showed that 78% of dropouts were retained one grade, while 52% of dropouts were retained two or more grades. In 1992 the National Center for Education Statistics did a study that showed that students retained in kindergarten through fourth grade were almost five times as likely to drop out, with students repeating fifth through eighth grade almost 11 times more likely to drop out than students who had never repeated a grade. Research done in 1995 by Rumberger showed that grade

retention was the single most powerful predictor of dropping out of school, with retained students being 11 times more likely to drop out than nonretained students. Poland's (2009) and Jimerson's (2001) research showed that students who were held back a grade were more likely to drop out of high school. Early grade retention increases the risk of dropping out by 30%-50%, while holding a child back twice makes dropping out of high school 90% certain. According to Poland (2009) more than 3 million children in the United States fail a grade each year. Jacob and Lefgren (2009) stated that retaining low-achieving eighth grade students in elementary school significantly increases the likelihood that these students will drop out of high school.

The National Research Council (2011) states that 15%-19% of United States students are retained in the lower elementary grades each year, with the most frequently repeated grade being kindergarten through second grade. The cost of retention has increased dramatically over the last 25 years, with retention today estimated to cost over 13 billion dollars per year to pay for the extra year of schooling (Poland, 2009).

Light's retention scale manual (2006) offered school administrators, teachers, and parents help in determining whether to promote or retain a student. It is critical that parents are involved in the process to evaluate the needs of

their child when retention is a factor. The Parent Guide used in the Light's Retention Scale Manual described 20 identifying factors used to answer the question "should my child be retained" in detail, and the rationales used in making the decision of whether or not to retain a student.

#### Effects of Retention

The emotional impact of retention will continue throughout a student's life (Jimerson, 2001). Poland (2010) discussed the negative outcomes that retained students' experience which include decreased attendance, academic achievement below their peers, and emotional adjustments. Jimerson et al. (2002) added that sixth grade students ranked grade retention as the most stressful life event, followed by losing a parent. Students who are retained tend to get into trouble, dislike school, and feel badly about themselves more often than students who go on to the next grade (Thomas, 2010).

The National Association of School Psychologists (2003) stated the most important academic deficit for a retained student was in reading. Reading is a strong prevailing factor of success in all academic areas. Research has shown that a major cause of retention is the result of not being able to read proficiently in the 4<sup>th</sup> grade (Balfanz, Bridgeland, Moore, & Fox, 2010). Students who are unprepared in reading have a 15% chance of succeeding in math and a 1% chance of succeeding in science,

while students who are good readers have a 67% chance of succeeding in math and a 32% chance of succeeding in science (ACT, 2008). High stakes testing can be devastating to students who do not score well on tests (Advancement Project, 2010). A study by The Advancement Project in March 2010 revealed that the results from high stakes standardized tests are used to retain students. Because of the focus on test scores and the consequences that are attached to them, students are being labeled as academic failures and are being retained (Nichols & Berliner, 2007).

#### Intervention Programs for Retention

Early intervention is essential to help reduce the need for retention. Poland (2010) suggested that a quality preschool program is one of the most effective prevention strategies for reducing retention. According to the *Chicago Longitudinal Study* children who attend a high-quality preschool are more likely to achieve higher levels of education, socioeconomic status, and job skills as adults than children who do not go to preschool (Zwang, 2011). Temple and Reynolds (2007) suggest that high-quality preschool programs exceed most other educational interventions, especially those that begin during the school-age years such as reduced class sizes in the elementary grades, grade retention, and youth job training. During the preschool years of learning, prerequisite skills in the academic areas of

reading, writing, and mathematics begin to form. Preschool programs help ensure that all students, especially those from low-income families, have the prerequisite skills of reading, writing, and mathematics that are needed to be successful in kindergarten (Poland, 2010).

Research completed by the National Center on Response to Intervention (NCRTI) in March 2010 indicated that early interventions in the classroom helped to decrease the number of students being retained. The 2008 ACT report, *The Forgotten Middle*, suggested that intervention with students who are not on track to become successful in high school or even college ready should begin in the upper elementary grades and continue through middle school. When a student's needs are identified, an evidence based-intervention program such as Response to Intervention (RTI) that is specific to each student's need can be implemented. The NCRTI (2010) stated that one of the primary goals of RTI is to prevent academic failure by using prevention and early identification methods to identify a student's level of achievement

A positive classroom culture can make a strong impact on any student. Students work harder for teachers they like, especially when those teachers seem to care about them (Kemple, 2004; Quint, 2006). Larson and Rumberger (1998) recommended that teachers and administrators take the time to provide

students with the tools they need to enjoy school and to be successful. Realistic goals for interacting with others must be set; this will help them ensure academic success. Sagor and Cox (2004) raised the point that when teachers and schools focus on meeting the basic psychological needs of all students, the dropout rate will be reduced. The students' needs of competence, belonging, usefulness, potency, and optimism must be met for all students to be successful.

#### At-Risk Students

Edley and Wald (2002) named grade retention as the largest predictor of whether a student will drop out of high school. The 2008 ACT report, *The Forgotten Middle*, also stated that failing a course is a strong predictor of dropping out of school. Data from the 2008 ACT report shows that fewer than 2 in 10 eighth graders are on target to be ready for college level work by the time they graduate from high school. This report also suggested that academic discipline and orderly conduct had a significant impact on whether a course was failed in the 8<sup>th</sup> grade. The Alliance for Excellent Education (2011) reported that the lowest-performing readers are most at risk of dropping out of high school.

Balfanz et al. (2010) suggest that at risk students are identified as dropouts as early as the fourth grade because they cannot read proficiently. These students do not have the skills

or knowledge they need to be successful in high school and are 20 times more likely to dropout than top performing students (Alliance for Excellent Education, 2011). The majority of Americans believe that helping young people graduate from high school is a meaningful objective (Dynarski et al., 2008).

The Bill and Melinda Gates Foundation examined the views of youth who failed to complete high school in a 2006 study titled *The Silent Epidemic: Perspectives of High School Dropouts*. In this study there were five major reasons that dropouts identify for leaving school: 47% were bored with school; 43% had missed too many days and could not catch up; 42% spent time with people who were not interested in school; 38% had too much freedom and not enough rules in their lives; and 35% were failing (Bridgeland et al., 2006). The 2010 *Speak Up* survey found that just one third of high school students were interested in what they were learning, while 47% of student's wished their classes were more interesting. These findings show that engagement in learning is a key factor in helping keep students from dropping out of school (Nastu, 2011).

In March 2010 The Advancement Project published a report addressing how zero tolerance and high stakes testing are decreasing graduation rates and increasing dropout rates. The number of states now requiring passing of standardized tests in order to graduate from high school has increased significantly

over the last 20 years. Blanz et al. (2010) stated, "At least 38 states have adopted Common Core Standards in English language arts and Math" (p. 10). The common core standards are designed to be more rigorous and relevant to the real world, reflecting the knowledge and skills that students need for success in college and careers (corestandards.org, 2011). Because there is so much pressure for students and teachers to do well on standardized tests, meaningful instruction that supports higher order thinking skills has been replaced with teachers teaching to the test. As a result of standardized test scores, students are retained which makes them more likely to drop out (The Advancement Project, 2010).

#### Economic Impact of Dropouts

The Alliance for Excellent Education (2011) stated that nationally more than 7,000 students become dropouts every day. This adds up to over 1 million students annually who will not graduate from high school. This study also suggested that if the Class of 2010 had decreased its dropout rate by 50%, those graduates could have collectively boosted their collective earnings by millions each year and poured millions in spending and tax revenue into the economy. According to the Government Accounting Office (2002) school dropouts only earn half as much annual income as high school graduates; half of our prison populations are dropouts, and half of the heads of households on

welfare are high school dropouts. High school dropouts are three times more likely to be welfare recipients when compared to high school graduates who do not attend college.

According to the August 2011 Tennessee State Collaborative on Reforming Education (SCORE) Report the state of Tennessee has a long way to go to ensure that students are prepared for the workforce. In January 2010 more than 322,000 Tennesseans were unemployed, with 14.6% of those not having a high school diploma (Tennessee Department of Labor and Workforce Development, 2010). In Tennessee an estimated 28,200 students did not graduate from high school in 2010 (Alliance for Excellent Education, 2011).

Levine (2005) acknowledged that while not every high school graduate plans to attend college, the majority of today's jobs require a minimum of a high school diploma. A student needs to realize that the consequences of dropping out of high school will affect future plans. According to Bridgeland et al. (2006) high school dropouts earn on average \$9,200 less per year than high school graduates. Dedmond (2005) stated that high school dropouts are 72% more likely to be unemployed. Dropouts normally earn less than graduates: the average earning difference is estimated to be \$9,000 a year and \$260,000 over the course of a lifetime. In 1964 a high school dropout earned ¢.64 for every dollar earned by someone with at least a high school degree. In

2004 the high school dropout earned only ¢.37 for every dollar earned by someone with a high school degree (Rouse, 2007).

Our nation's economy requires more students to graduate from high school with a diploma. Bob Wise, president of the Alliance for Excellent Education (2011), is quoted as saying, "The best economic stimulus is a high school diploma. Everyone wins more when students graduate from high school" (para 7). In January 2011 the unemployment rate among individuals without a high school diploma was more than 3 times the rate of those with a bachelor's degree or higher (U.S. Department of Labor, 2011).

In 2009 The Tennessee State Collaborative on Reforming Education (SCORE) outlined a plan to make Tennessee schools number one in the Southeast within 5 years. Bill Frist, chairman of SCORE and former Tennessee State Senator, stated that "After realizing that far too few of our students are graduating with the skills they need to be successful in life, Tennesseans rose to the challenge and began to lay the foundation to dramatically improve our schools" (SCORE Report, 2011, p. 1). Business and community leaders will continue to stress the importance of obtaining a high school diploma and pursuing postsecondary training and education by highlighting sectors that will face job shortages because of a lack of qualified applicants.

## Intervention Programs to Reduce the Dropout Rate

Decades of research make it clear that dropping out of high school is a very serious issue. The data imply that students at risk of dropping out are a high-risk population that deserves specific interventions aimed at increasing the likelihood of success in high school (PSEA, 2010).

The most effective intervention programs to decrease the dropout rate include tracking and identifying at-risk youth, maintaining a focus on every student's progress starting during the freshman year of high school, and addressing indicators of student engagement and enrollment status (Christenson & Thurlow, 2004). The 2008 ACT report, *The Forgotten Middle*, stated that failing a course is a strong predictor of dropping out of school. Data from the 2008 ACT report show that fewer than 2 in 10 eighth graders are on target to be ready for college level work by the time they graduate from high school. Azzam (2007) suggests that schools should promote smaller learning communities and alternative schools to help deal with the dropout epidemic. Smaller learning communities make it easier for teachers to encourage at-risk students to create a culture for instructional improvement, which will in turn enhance student learn (Supovitz & Christman, 2005). According to the National Center for Education Statistics (2010) alternative

schools are designed to address the needs of students that typically cannot be met in a regular school environment. The students who attend alternative schools are at risk of educational failure, which are indicated by poor grades, truancy, disruptive behavior, pregnancy, or factors associated with temporary or permanent withdrawal from school.

Watson and Gemin (2008) state that online learning programs offer courses, academic credits, and support toward a diploma. On-line credit recovery courses can help at-risk students get back on the path to graduate (Nastu, 2011). Thirty states and more than half of the school districts in the United States offer online credit recovery courses (Watson & Gemin, 2008). The International Association for On-line Learning (iNACOL) defines credit recovery as the following:

The process where a student as satisfied seat time requirements for the course in which they were initially unsuccessful and instead can focus on earning credit based on competency as defined by content standards. iNACOL also points out that the goals of credit recovery programs typically focus on helping students stay in school and graduate on time. (p.2)

These courses allow students to go at their own pace and set their own schedules (Nastu, 2011). Credit recovery programs in general have a primary focus of helping students stay in school and graduate on time. The PLATO on-line credit recovery program allows at-risk students the opportunity to earn credits

for a course that was failed during the regular semester. The PLATO Learning (2011) describes its program as the following:

Every student deserves the best possible chance to succeed. With PLATO on-line credit recovery, you can make sure at-risk students have targeted online curriculum that will help them achieve their goals. By focusing on instruction that fills learners' knowledge gaps and providing them with personalized learning experiences, PLATO targets the specific issues that have prevented learners from moving forward. (p.1)

As Susan Patrick, CEO of the North American Council for Online Learning, states "When students have struggled, and online learning opens up new pathways to success, they can find alternative ways to learn and to graduate, while also developing new skills for success in life" (as cited in Watson & Gemin, 2008, p. 17).

The most effective intervention programs deal with areas that motivate students to learn. Intervention programs should meet the needs of all students, especially those who are at risk of dropping out (PSEA, 2011).

#### Freshman Initiative Programs

One solution to dropout prevention is implementing a freshman initiative program that has whole-school buy in. Dedmond (2005) suggested that ninth grade is the most significant year for determining the success of a student's future. At-risk students need to be flagged early because they are more likely to drop out of high school following a

transition from middle school (Allensworth & Easton, 2007; Roderick & Camburn, 1999). During the middle school years a student's interest in school and academics may start to decrease. Those at risk of dropping out during the transition to high school will need rigorous individual support (Dynarski et al., 2008). Getting students off to a positive start in high school should increase the probability that they will become productive and contributing members of society (PSEA, 2011).

ACT (2008) and Kemple and Snipes (2000) have suggested that a Freshman Transition course is one way to help make students successful, allowing them to learn the benefits of staying in school and helping them to realize the consequences of dropping out of high school. Students who had a comprehensive freshman transition course were more motivated to stay in school than those who did not (National Research Council, 2004).

Levine (2005) added that a key component for successful motivation was to have students develop a 10-year plan that allowed them to see success beyond college to make a smooth transition into the workforce. Dedmond (2005) developed a 10-step plan that outlined goals that would help reduce the dropout rate by helping students make the transition into productive and self-sufficient citizens:

1. Gather resources
2. Create a vision
3. Form a team of champions

4. Generate community "buy-in" for the new course and 10-year plan
5. Identify a curriculum that will accomplish your goals
6. Recruit your most energetic and experienced teachers to conduct the course
7. Provide professional development and course planning time
8. Make your freshman transition initiative a school wide effort
9. Share all students' 10-year educational and academic plans
10. Recognize and reward (p.18)

Some of the most successful freshman intervention programs focus on providing high level academic curriculum that are connected to the real world through real world experiences such as service learning and hands-on learning in business and industry settings (PSEA, 2010).

#### Factors that Promote Academic Success

The National Resource Council (2004) suggested that helping all students envision a positive future is essential to drop-out prevention and academic success.

Student engagement and learning are fostered by a school climate characterized by an ethic of caring and supportive relationships, respect, fairness and trusts; and teachers' sense of shared responsibility and efficacy related to student learning. (p. 103)

Balfanz et al. (2010) suggest setting high expectations, having a rigorous curriculum, and engaging coursework will boost academic achievement for all students. Motivating students who have failed in the traditional classroom setting is key to success (Watson & Gemin, 2008).

A personalized learning environment will help create a sense of belonging to those students at-risk of dropping out. This will promote a school climate where students and teachers get to know one another and provide academic, social, and behavioral encouragement (Kemple, 2004; Quint, 2006). Watson and Gemin (2008) suggest that teachers who are working with at-risk students discover they are helping students set goals; which in turn help to identify and modify negative behavior early on. Quint (2006) suggested that a school-wide intervention program must be implemented to ensure students have the necessary skills to complete high school as well as the skills to succeed in college and the workforce.

Quint (2006) recommended that students must be prepared for postsecondary opportunities and careers beyond high schools. Key business leaders in the United States believe that if students are to succeed in 21st century America they must be:

- able to analyze, synthesize, and evaluate information;
- able to effectively communicate with others;
- proficient in science, mathematics, computer/technical skills, foreign languages, as well as history, geography, and global awareness;
- capable of collaboratively working in culturally diverse settings;
- leaders who see projects through to completion;
- responsible decision makers who are self-motivated and active political participants; and
- ethical individuals who are committed to their families, communities, and colleagues (Brockman & Russell, 2009, p.1).

Allowing students to earn credit for work or community service allows them to be engaged in a valuable activity outside of school and to have this experience count towards graduation. It also motivates students to complete their program of study (Watson & Gemin, 2008).

One way to promote academic success is to allow all students, especially those at-risk of dropping out of high school, to have multiple pathways in the area of career and technical education (CTE). According to Kazis (2005, the CTE program tends to help less-motivated and more at-risk students stay in high school and graduate. The CTE curriculum allows students to learn and apply academic concepts and skills for a practical function, while at the same time exposing them to career-based opportunities (Kemple & Snipes, 2000). Data from several studies are clear in showing positive impacts that CTE programs have on graduation rates in high school. Both high school principals and teachers commonly share anecdotes such as: "S/he would have dropped out if it weren't for the auto tech program, or health academy, or culinary concentration, or IT strand" (Kazis, 2005, p. 41).

#### Summary

Payne (2005) is quoted as saying "The role of the educator is not to save the student, but rather to offer a support

system, role models, and opportunities to learn, which will increase the likelihood of the student's success" (p. 113).

Students drop out of high school for many reasons. As education reformers reveal, the number of students who drop out of school every year is a reflection of the American Public education system (Watson & Gemin, 2008). Failing a student is one of the single largest predictors of whether a student will drop out of high school. Schools must provide students with the knowledge and motivation they need to be successful in school. Intervention programs provide an opportunity for students to learn the skills and knowledge they need to be successful in school.

Most educators have agreed that at-risk students need to be flagged early because they are more likely to drop out of high school following a transition from middle school. Several studies (Allensworth & Easton, 2007; Dedmund, 2005; Dynarski et al., 2008; Roderick & Camburn, 1999) have addressed the link between ninth grade success and high school graduation. Early intervention with at-risk students is the key to academic success. President Obama has said "This country needs the talents of every American and dropping out of school is not an option" (Advancement Project, 2010, p.7). Every student deserves an opportunity to receive a high quality education no matter what it takes.

## CHAPTER 3

### METHODS AND PROCEDURES

#### Introduction

The purpose of this study was to investigate the intervention program *Graduate on Time* as related to the number of high school dropouts in a rural northeast Tennessee high school. Graduation rates and dropout rates were gathered from Report Card information from the Tennessee Department of Education website. Archival data for the students in this study were obtained from the STAR student management data system. Former students in the Graduate on Time program were surveyed for their perceptions about the program. This chapter provides a description of the research design, reliability and validity, selection of the population, data collection procedures, quantitative procedures, quantitative research questions and null hypotheses, quantitative data analysis, qualitative procedures, qualitative research questions, qualitative data analysis, and a summary of the chapter.

#### Research Design

The research design is vital to the success of the study as it provides valid, credible conclusions to the research questions and describes the structures for the study (McMillian & Schumacher, 2010). This quantitative study with a qualitative component was designed to provide a comprehensive representation

of the intervention Program Graduate on Time as related to the Number of High School Dropouts in a Rural Northeast Tennessee High School. The quantitative section of this study was analyzed by using the Chi-Square test for independence and the single sample t-test. The qualitative component was used in the form of a survey to determine how the perceptions of participants in the Graduate on Time program affected their success rate. The years being studied were 2007-2008, 2008-2009, 2009-2010, and 2010-2011.

#### Reliability and Validity

According to McMillan and Schumacher (2010), "Validity is a judgment of the appropriateness of a measure for specific inferences, decisions, consequences, and use of the result from the scores that are generated" (p. 173). There are several key elements to designing a research study that can improve the overall validity and reliability. According to Baxter and Jack (2008) there must be enough detail present in the study to allow the reader to know it is creditable information. Mills (2003) states that it is generally accepted in research "that researcher's should not rely on any single source of data, interview, observation, or instrument" (p. 52).

#### Population

The population for this study consisted of 96 students who were enrolled in the Graduate on Time program from the 2007-2008

school year through the 2010-2011 school year at Johnson County High School in Mountain City, TN. Participants in the program were made up of 56 males and 40 females. The ethnic breakdown of the participants in the program consisted of 97% White, 2% Hispanic, and 1% African American. Over 85%, or approximately 82 students, qualified for free- and reduced-price meals and were considered low socioeconomic students in this study. Upon successful completion of the Graduate on Time program, participants were eligible for a State of Tennessee high school diploma. This population was examined for retention data and perceptions of the program.

#### Data Collection Procedure

Prior to the beginning of this research, project permission was obtained from the Institutional Review Board (IRB) of East Tennessee State University and Dr. Pamela Scott, the chair of the Educational Leadership and Policy Analysis department. A survey instrument with six open-ended questions was developed and distributed by mail to the entire Graduate on Time participants (Appendix A & B). All responses were confidential and the information collected did not reveal the participants in the study.

#### Quantitative Procedure

The study began with a quantitative methodology for investigative purposes and assessing numerical data. The

quantitative data in regards to graduation rates and dropout rates were gathered from Report Card information from the Tennessee Department of Education website. Archival data for the students in this study were obtained by the researcher from the STAR student management data system. Retention data were collected for each Graduate on Time participant and nonparticipants.

### Quantitative Research Questions and Null Hypotheses

#### Research Question 1

*Is there a significant difference between the overall graduation rate and graduation rate of students who participated in the Johnson County High School Graduate on Time program since its implementation in the 2007-2008 school year?*

Ho1: There is no significant difference between the overall graduation rate and graduation rate of students who participated in the Johnson County High School *Graduate on Time* program since its implementation in the 2007-2008 school year.

#### Research Question 2

*Is there a significant difference between the overall dropout rate and dropout rate of students who participated in the Johnson County High School Graduate on Time program since its implementation in the 2007-2008 school year?*

Ho2: There is no significant difference between the overall dropout rate and dropout rate of students who participated in

the Johnson County High School Graduate on Time program since its implementation in the 2007-2008 school year?

Research Question 3

*Is there a significant difference between the retention rate of Graduate on Time participants and the retention rate of nonparticipants?*

Ho3: There is no significant difference between the retention rate of Graduate on Time participants and the retention rate of nonparticipants.

Research Question 4

*Is there a significant difference between the retention rate of female Graduate on Time participants and the retention rate of female nonparticipants?*

Ho4: There is no significant difference between the retention rate of female Graduate on Time participants and the retention rate of female nonparticipants.

Research Question 5

*Is there a significant difference between the retention rate of male Graduate on Time participants and retention rate of male nonparticipants?*

Ho5: There is no significant difference between the retention rate of male Graduate on Time participants and retention rate of male nonparticipants?

### Quantitative Data Analysis

The Statistical Process for the Social Sciences (SPSS) was used to analyze the quantitative data in this study. The Chi-Square test for independence was used to see if there was a difference between the overall graduation rate and graduation rate of students who participated in the Johnson County High School Graduate on Time program since its implementation in the 2007-2008 school year. The Chi-Square test for independence was used to see if there was a difference between the overall dropout rate and dropout rate of students who participated in the Johnson County High School Graduate on Time program since its implementation in the 2007-2008 school year.

A single sample t-test was used to determine if there was a difference between the retention rate of Graduate on Time participants and the overall retention rate. A single sample t-test was used to determine if there was a difference between the retention rate of female Graduate on Time participants and the overall female retention rate. A single sample t-test was used to determine if there was a difference between the retention rate of male Graduate on Time participants and the overall male retention rate.

### Qualitative Procedures

Qualitative data were collected from surveys mailed to the entire population of former students who completed the Graduate

on Time program. The former Graduate on Time participants answered six survey questions that were designed to gain insight on their perceived effectiveness of the program (Appendix B). This perception is an integral part of the study. The objective of this study was to gain an understanding of how the Graduate on Time program impacted the number of high school dropouts and how effective the participants believed the program was for completion of their education.

#### Qualitative Research Question

##### Research Question 6

*How have student perceptions affected their success rate in the Johnson County High School Graduate on Time program since its implementation in the 2007-2008 school year?*

#### Qualitative Data Analysis

The qualitative data in this study were recorded in a field notebook. The former Graduate on Time participants answered six survey questions that were designed to gain insight on their perceived effectiveness of the program and the postsecondary plan that was created with the counselor. Survey answers were analyzed to determine if the perception of students in the Graduate on Time program affected the success rate.

#### Summary

Chapter 3 reported the methodology and procedures for conducting the study. After a brief introduction, a description

of the research design, selection of the population, the data collection procedures, research questions and null hypotheses, and the resulting data analysis procedures were defined.

## CHAPTER 4

### ANALYSIS OF DATA

The purpose of this study was to investigate the intervention program *Graduate on Time* as related to the number of high school dropouts in a rural northeast Tennessee high school. The six research questions presented in Chapter 1 were used to guide the study. The five hypotheses presented in Chapter 3 were used to test the data. Analysis and discussion of the findings for each question and hypotheses follows.

#### Research Question 1

*Is there a significant difference between the overall graduation rate and graduation rate of students who participated in the Johnson County High School Graduate on Time program since its implementation in the 2007-2008 school year?*

H<sub>01</sub>: There is no significant difference between the overall graduation rate and graduation rate of students who participated in the Johnson County High School Graduate on Time program since its implementation in the 2007-2008 school year.

The Chi-square test for independence was used to determine if there was a significant difference between the overall graduation rate and graduation rate of students who participated in the Johnson County High School Graduate on Time program. The mean of the overall graduation rate is 91.65% and the mean of the graduation rate of students in the Graduate on Time program

is 91.10%. The results of the test show no significant difference in the overall graduation rate and the graduation rate of those students who participated in the Johnson County High School Graduate on Time program,  $X^2(2, N=4) = .6601, p < .05$ . Because the  $X^2$  value of .6601 does not exceed the critical value of 7.815, the null hypothesis was retained. Table 1 shows the results of the overall graduation rate and the graduation rate of students who participated in the Johnson County High School Graduate on Time program.

Table 1

*Overall Graduation Rate in Comparison with Graduate on Time Graduation Rate*

Years	Observed frequencies (GOT)	Expected frequencies (Overall)
2007-2008	87.2	87.9
2008-2009	88.9	90.3
2009-2010	96.0	90.5
2010-2011	92.3	97.9

Research Question 2

*Is there a significant difference between the overall dropout rate and dropout rate of students who participated in*

*the Johnson County High School Graduate on Time program since its implementation in the 2007-2008 school year?*

Ho2: There is no significant difference between the overall dropout rate and dropout rate of students who participated in the Johnson County High School Graduate on Time program since its implementation in the 2007-2008 school year?

The Chi-square test for independence was used to determine if there was a significant difference between the overall dropout rate and dropout rate of students who participated in the Johnson County High School Graduate on Time program. The mean of the overall dropout rate is 5.02% and the mean of the dropout rate of students in the Graduate on Time program is 5.60%. The results of the test show no significant difference in the overall dropout rate and the dropout rate of students who participated in the Johnson County High School Graduate on Time program,  $X^2(2, N=4) = 3.556$ ,  $p < .05$ . Because the  $X^2$  value of 3.556 does not exceed the critical value of 7.815, the null hypothesis was retained. Table 2 shows the results of the overall dropout rate and the dropout rate of students who participated in the Johnson County High School Graduate on Time program.

Table 2

*Overall Dropout Rate in Comparison with Graduate on Time Dropout Rate*

Years	Observed frequencies (GOT)	Expected frequencies (Overall)
2007-2008	5.1	3.1
2008-2009	5.6	4.8
2009-2010	4.0	6.8
2010-2011	7.7	5.4

Research Question 3

*Is there a significant difference between the retention rate of Graduate on Time participants and retention rate of nonparticipants?*

Ho3: There is no significant difference between the retention rate of Graduate on Time participants and retention rate of nonparticipants?

A single sample t-test was conducted to determine if there was a difference between the retention rate of the Graduate on Time participants and retention rate of nonparticipants. The nonparticipant mean of 1.246 (SD = 0.4972) was significantly different from the Graduate on Time participant mean of 1.326,  $t(42) = 7.717, p < .01$ . The null hypothesis was rejected. The

95% confidence interval for the retention rate of the Graduate on Time participants ranged from .5003 to .8485. The  $\eta^2$  index of .35 indicates a large effect. The results indicate that there is a difference between the retention rate of Graduate on Time participants and the retention rate of nonparticipants. The retention rate for the Graduate on Time participants was higher than the retention rate for nonparticipants. Figure 1 shows the distribution of the number of Graduate on Time participants who were retained.

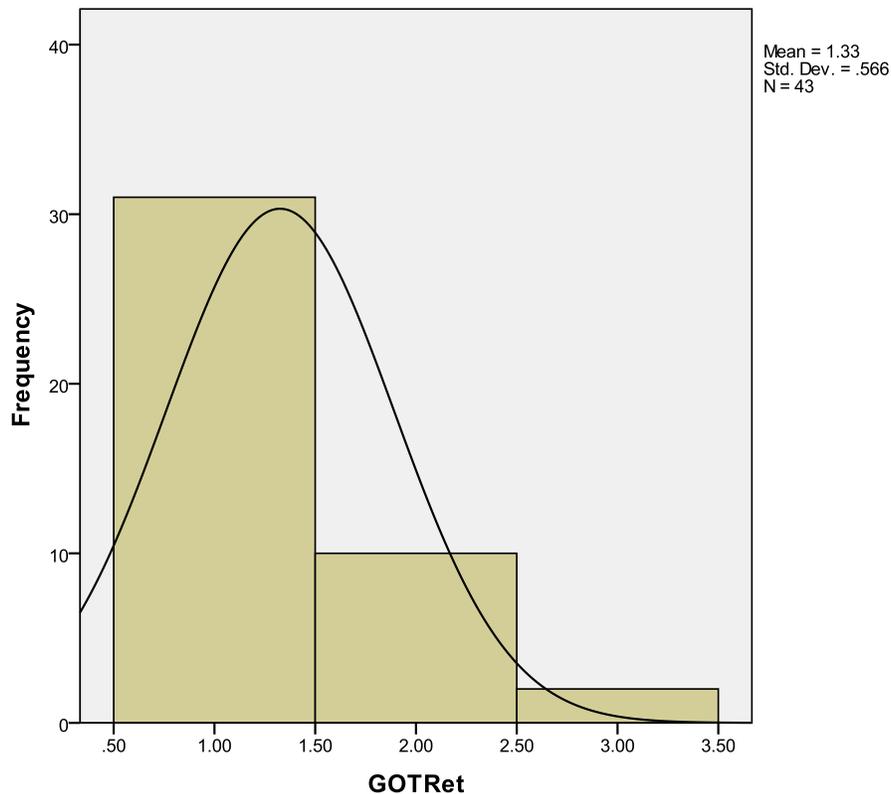


Figure 1. Distribution of the Number of Graduate on Time Participants Who Were Retained.

#### Research Question 4

*Is there a significant difference between the retention rate of female Graduate on Time participants and retention rate of female nonparticipants?*

Ho4: There is no significant difference between the retention rate of female Graduate on Time participants and retention rate of female nonparticipants?

A single sample t-test was conducted to determine if there was a difference between the retention rate of female Graduate on Time participants and retention rate of female nonparticipants. The female nonparticipant mean of 1.207 (SD = 0.4123) was significantly different from the female Graduate on Time participant mean of 1.182,  $t(10) = 6.708$ ,  $p < .01$ . The null hypothesis was rejected. The 95% confidence interval for the retention rate of the female Graduate on Time participants ranged from .5464 to 1.089. The  $\eta^2$  index of .54 indicates a large effect. The results indicate that there is a difference between the retention rate of female Graduate on Time participants and the retention rate of female nonparticipants. The retention rate for the female Graduate on Time participants was higher than the retention rate for female nonparticipants. Figure 2 shows the distribution of the number of female Graduate on Time participants who were retained.

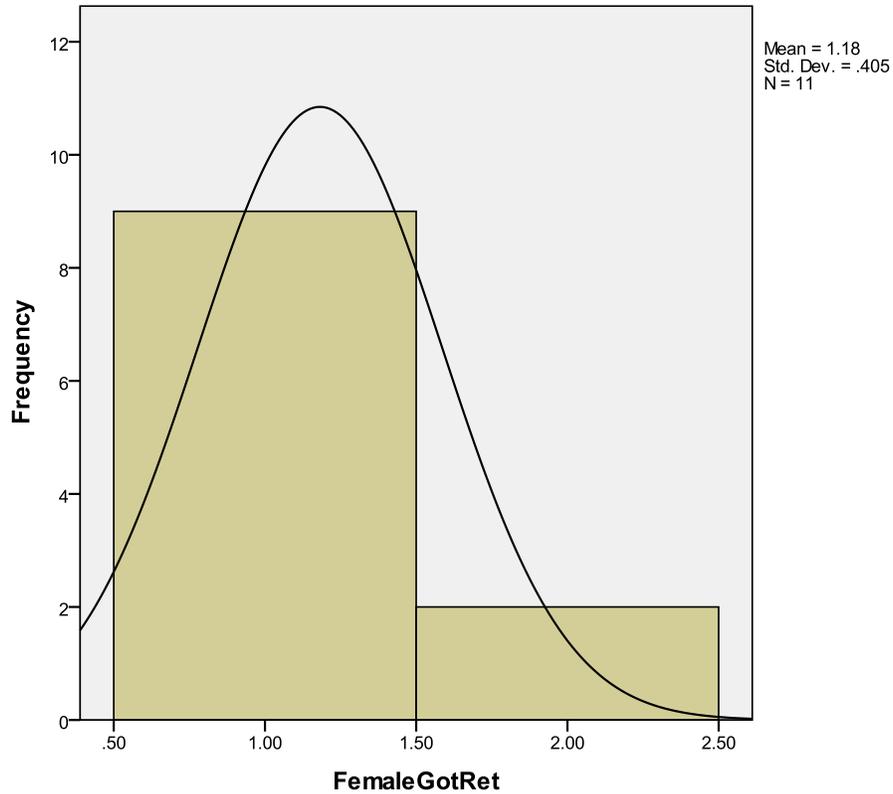


Figure 2. Distribution of the Number of Female Graduate on Time Participants Who Were Retained.

Research Question 5

*Is there a significant difference between the retention rate of male Graduate on Time participants and retention rate of male nonparticipants?*

Ho4: There is no significant difference between the retention rate of male Graduate on Time participants and retention rate of male nonparticipants?

A single sample t-test was conducted to determine if there was a difference between the retention rate of male Graduate on Time participants and retention rate of male nonparticipants. The male nonparticipant mean 1.275 (SD = 0.5541) was significantly different from the male Graduate on Time participant mean of 1.424,  $t(32) = 4.990$ ,  $p < .01$ . The null hypothesis was rejected. The 95% confidence interval for the retention rate of the male Graduate on Time participants ranged from .3407 to .8108. The  $\eta^2$  index of .26 indicates a large effect. The results indicate that there is a difference between the retention rate of male Graduate on Time participants and the retention rate of male nonparticipants. The retention rate for the male Graduate on Time participants was higher than the retention rate for male nonparticipants. Figure 3 shows the distribution of the number of male Graduate on Time participants who were retained.

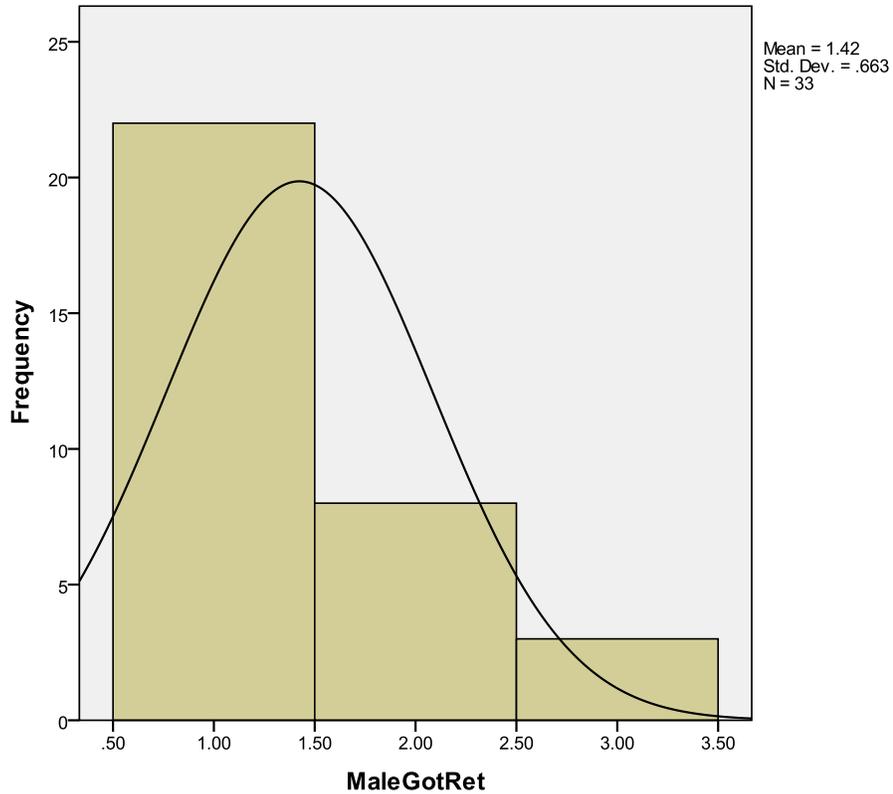


Figure 3. Distribution of the Number of Male Graduate on Time Participants Who Were Retained.

#### Research Question 6

*How have student perceptions affected their success rate in the Johnson County High School Graduate on Time program since its implementation in the 2007-2008 school year?*

Ninety-six students have participated in the Graduate on Time program since its implementation in the 2007-2008 school year. Of those 96 students, 31% were retained one time, 10% were retained two times, and 3% were retained three times throughout their school years. All former students in the Graduate on Time program were mailed a survey about their

perceptions about the program. Eighteen former students returned the survey regarding how the program affected their success rate. All participants surveyed stated that their experience in the Graduate on Time program had a positive impact on their success rate. Furthermore, all participants stated without the program in place, they would have dropped out of high school.

Ten of the 18 participants have not gone on to a postsecondary school, but all stated they would like to if the money was available. Five of the 10 participants are still trying to find a job in the workforce. Two of the 10 participants have jobs and two are planning on joining the military.

Five of the 18 participants have gone on to attend a 2-year college, while two are currently attending a technical school. One is currently enrolled in a 4-year college.

Three of the 18 participants mentioned early-grades retention as a factor in their not liking school. One participant stated that since the death of a parent during 2<sup>nd</sup> grade, school was just never the same. They were retained during the 2<sup>nd</sup> and 4<sup>th</sup> grade years.

Another participant commented that the program was very effective in allowing them to obtain the credits needed to graduate from high school. This participant's postsecondary plan

that was created with the counselor was to find a job. There was no desire to further his education at that time.

Another former participant stated that if the Graduate on Time program had not been in place, she would have dropped out of high school because she had a child and needed to find a job to support her family.

Seeing the importance of having an education was what drove one participant to continue in the education field after succeeding in the Graduate on Time program. "The counselor made it possible for me to see that education was important and that bad choices were made during middle school." This participant is currently enrolled in a 4-year college.

The small learning environment in the Graduate on Time program was essential for one student's success. There were too many distractions for them in a regular classroom, which led to discipline problems early on in high school. This participant is currently enrolled in a 2-year college.

Two participants have now decided to enlist in the military. Both stated that they "did not want to go on to college, but felt like the military was more for them". One said "you can't make a living on minimum wage" and the military can help him to see the world while learning a job.

Several of the participants said that the postsecondary plan that was created with the counselor helped them realize

they could "start over fresh" once they left high school. One stated that "the goal setting made me realized I could be successful."

One participant stated:

I had a baby and got married my junior year of high school. I always loved school and did not want to quit. I did not have anyone to watch my baby after lunchtime. The Graduate on Time program made it possible for me to get my high school diploma and leave school early to take care of my baby.

Another participant stated:

The GOT program was different than being in high school. I didn't like school. I missed school all of the time because I hated it. My grandparents really wanted me to finish. They wanted me to be the first in my family to get a diploma. We were able to work on the things we needed to work on, one subject at a time. I didn't have to worry about anyone making fun of me because I was a slow reader. You were able to just take your time and ask questions without feeling stupid. I know have a steady job that I'm proud of. Without the GOT program, who knows where I would be.

### Summary

Chapter 4 analyzed the data to investigate the intervention program Graduate on Time as related to the number of high school dropouts at Johnson County High School since its implementation in the 2007-2008 school year. Graduation rates and dropout rates were gathered from Report Card information from the Tennessee Department of Education website. Archival data for the students in this study were obtained from the STAR student management data system. All former students in the Graduate on

Time program were mailed a survey about their perceptions about the program. Eighteen former students returned the survey. Chapter 5 includes a summary of the study and findings and recommendations of this study.

## CHAPTER 5

### FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

This chapter contains the findings, conclusions, and recommendations for readers who may use the results as a resource when implementing intervention programs that will impact the number of high school dropouts. The purpose of this study was to investigate the intervention program *Graduate on Time* as related to the number of high school dropouts in a rural northeast Tennessee high school.

#### Quantitative Results

##### Research Question 1

Is there a significant difference between the overall graduation rate and graduation rate of students who participated in the Johnson County High School Graduate on Time program since its implementation in the 2007-2008 school year?

The Chi-square test for independence was used to determine if there was a difference between the overall graduation rate and graduation rate of students who participated in the Johnson County High School Graduate on Time program. The null hypothesis was retained. The results of the test show no significant difference in the overall graduation rate and the graduation rate of students who participated in the Johnson County High School Graduate on Time program.

There was not a statistically significant difference between the overall graduation rate and graduation rate of students who participated in the Johnson County High School Graduate on Time program. The high school graduation rate in the United States has reached its highest level since the 1980s, with a national average of 72% of public school students receiving a regular diploma in 2008 (EPE Research Center, 2011). The Johnson County graduation rate was 87.90% in 2007-2008, 90.30% in 2008-2009, 90.50% in 2009-2010, and 97.70% in 2010-2011. These statistics show that the graduation rate has increased since the implementation of the Graduate on Time program.

#### Research Question 2

Is there a significant difference between the overall dropout rate and the dropout rate of students who participated in the Johnson County High School Graduate on Time program since its implementation in the 2007-2008 school year?

The Chi-square test for independence was used to determine if there was a difference between the overall dropout rate and the dropout rate of students who participated in the Johnson County High School Graduate on Time program. The null hypothesis was retained. The results of the test show no significant difference in the overall dropout rate and the dropout rate of

students who participated in the Johnson County High School Graduate on Time program.

There was not a statistically significant difference between the overall dropout rate and the dropout rate of those students who participated in the Johnson County High School Graduate on Time program. Alliance for Excellent Education (2011) stated nationally more than 7,000 students become dropouts every day. In Tennessee an estimated 28,200 students did not graduate from high school in 2010. The Johnson County dropout rate was 3.10% in 2007-2008, 4.80% in 2008-2009, 6.80% in 2009-2010, and 5.40% in 2010-2011.

### Research Question 3

Is there a significant difference between the retention rate of Graduate on Time participants and the retention rate of nonparticipants?

A single sample t-test was used to determine if there was a difference between the retention rate of Graduate on Time participants and the retention rate of nonparticipants. The null hypothesis was rejected. The results of the test show there is a statistically significant difference between the retention rate of students who participated in the Johnson County High School Graduate on Time program and the retention rate of nonparticipants. The nonparticipant mean of 1.246 was

significantly lower than the Graduate on Time participant mean of 1.326.

Researchers (Jimerson, 2001; Poland, 2009; Strout & Robins, 1972) have shown that retention was the greatest predictor of a dropout. Rumberger (1995) found that grade retention was the single most powerful predictor of dropping out of school, with retained students being 11 times more likely to drop out than nonretained students. Retention was a prevailing indicator of students in the Graduate on Time program. The retention rate of students in the program was 48.72% in 2007-2008, 50% in 2008-2009, 36% in 2009-2010, and 46% in 2010-2011.

#### Research Question 4

Is there a significant difference between the retention rate of female Graduate on Time participants and the retention rate of female nonparticipants?

A single sample t-test was used to determine if there was a difference between the retention rate of female Graduate on Time participants and the retention rate of female nonparticipants. The null hypothesis was rejected. The results of the test show there is a statistically significant difference between the retention rate of female students who participated in the Johnson County High School Graduate on Time program and the retention rate of female nonparticipants. The female nonparticipant mean of 1.207 was significantly higher than the

female Graduate on Time participant mean of 1.182. The retention rate of female students in the Graduate on Time program was 5% in 2007-2008, 11% in 2008-2009, 16% in 2009-2010, and 15% in 2010-2011.

#### Research Question 5

Is there a significant difference between the retention rate of male Graduate on Time participants and the retention rate of male nonparticipants?

A single sample t-test was used to determine if there was a difference between the retention rate of male Graduate on Time participants and the retention rate of male nonparticipants. The null hypothesis was rejected. The results of the test show there is a statistically significant difference between the retention rate of male students who participated in the Johnson County High School Graduate on Time program and the retention rate of male nonparticipants. The male nonparticipant mean 1.275 was significantly lower than the male Graduate on Time participant mean of 1.424. The retention rate of male students in the Graduate on Time program was 44% in 2007-2008, 39% in 2008-2009, 20% in 2009-2010, and 31% in 2010-2011.

## Qualitative Results

### Research Question 6

How have student perceptions affected their success rate in the Johnson County High School Graduate on Time program since its implementation in the 2007-2008 school year?

Eighteen former Graduate on Time participants contributed to the survey in regards to how the program affected their success rate. All participants surveyed stated that their experience in the Graduate on Time program had a positive impact on their success rate. Furthermore, all participants stated that without the program in place, they would have dropped out of high school.

Ninety-six students were enrolled in the Graduate on Time program since its implementation in 2007-2008. Of the 96 students in the program, 31% were retained one time, 10% were retained two times, and 3% were retained three times throughout their school years. Tuck's (1989) studies showed that 78% of dropouts were retained one grade, while 52% of dropouts were retained two or more grades. Of the 18 surveys retained, several mentioned that retention was a huge factor associated with them not liking school and wanting to drop out.

The PLATO on-line credit recovery program was mentioned by several former participants as being critical to their success. Research done by Nastu (2011) suggests that on-line credit

recovery courses can help at-risk students get back on the path to graduate. The PLATO on-line credit recovery program is an intervention program that allows students the opportunity to earn credit for a course they failed during the regular semester. Overall, there was a positive response to the PLATO on-line credit recovery program.

#### Recommendations for Practice

- Results of the study showed that many students had a difficult time during the transition years of 6<sup>th</sup> and 8<sup>th</sup> grade of school. Intervention programs need to be put in place to ensure successful transition between middle and high school. At-risk students need to be flagged early because they are more likely to drop out of high school following a transition from middle school. These results are similar to the findings of others (Allensworth & Easton, 2007; Roderick & Camburn, 1999).
- Guidance counselors should be assigned to follow cohorts of students in an attempt to establish stronger relationships with students, especially those at-risk of dropping out. Watson and Gemin (2008) suggest working with at-risk students to help them with goal-setting will modify negative behavior early on.
- Programs like PLATO are excellent intervention programs to help with those students who are failing academic courses.

PLATO programs should be put in place for students who have failed an academic course. Nastu (2011) suggested that on-line credit recovery courses can help at-risk students get back on the path to graduate.

- Dedmond (2005) suggested that 9th grade is the most significant year for determining the success of a student. Freshman academy courses are a great way to help students become successful and get the support they need.
- CTE courses are a way to help less-motivated and more at-risk students stay in high school and graduate (Kazis, 2005). The creation of the Career Management Success class that all freshmen are required to take will help promote CTE courses and help at-risk students determine which CTE program of study is best for them.

#### Recommendations for Further Study

- Study the relationships of students who are in the Graduate on Time program and GPA to determine if GPA is a relating factor with students who are in the program.
- Study the relationships of students who are in the Graduate on Time program and standardized test information to determine if standardized test information is a relating factor with students who are in the program.

- Study the relationship of students who are in the Graduate on Time program and free and reduced lunch status to determine if free and reduced lunch status is a relating factor with students who are in the program.
- Study the relationships of students who are in the Graduate on Time program and attendance data to determine if attendance is a relating factor with students who are in the program.
- Study the relationship of students who are in the Graduate on Time program and social promotion to determine if social promotion is a relating factor with students who are in the program.
- Expand this research to determine if teacher perceptions of the Graduate on Time program have affected its success rate.

### Summary

This study, which is organized and presented over five chapters, used a quantitative research design and investigated the intervention program Graduate on Time as related to the number of high school dropouts in a rural northeast Tennessee high school. Chapter 1 included the introduction, statement of the problem, research questions, significance of the study, definition of terms, delimitations and limitations, and an overview of the study. Chapter 2 provided a review of literature

that addresses causes associated with why students drop out of high school and the intervention programs that may help decrease the dropout rate. Chapter 3 described the research methodology and procedures that were used in completing this quantitative study. Chapter 4 provided a description of quantitative data related to this research study along with the five quantitative research questions and null hypotheses and one qualitative research question that guided this investigation. Chapter 5 included a summary of findings, conclusions about this research study, recommendations for practice, and recommendations for future study.

There results indicated there was not a statistically significant difference between the overall graduation rate and graduation rate of students who participated in the Johnson County High School Graduate on Time program. There was not a statistically significant difference between the overall dropout rate and the dropout rate of those students who participated in the Graduate on Time program. However, the results did indicate there is a statistically significant difference between the retention rate of students who participated in the Graduate on Time program and the retention rate of nonparticipants. The nonparticipant mean of 1.246 was significantly lower than the Graduate on Time participant mean of 1.326. There is also a statistically significant difference between the retention rate

of female students who participated in the Graduate on Time program and the retention rate of female nonparticipants. The female nonparticipant mean of 1.207 was significantly higher than the female Graduate on Time participant mean of 1.182. There is a statistically significant difference between the retention rate of male students who participated in the Graduate on Time program and the retention rate of male nonparticipants. The male nonparticipant mean of 1.275 was significantly lower than the male Graduate on Time participant mean of 1.424. All participants surveyed stated that their experience in the Graduate on Time program had a positive impact on their success rate. Furthermore, all participants stated that without the program in place, they would have dropped out of high school.

Johnson County school administrators are advised to keep the intervention program Graduate on Time in place at Johnson County High School. Furthermore, school administrators in other systems are advised to implement a program similar to the Graduate on Time program. Understanding the importance of the dropout problem and the factors associated with reasons why students drop out of school are important when developing intervention programs to help decrease the number of students who drop out of high school. Future research should be focused on the importance of finding a solution to the retention problem in schools and implementing intervention programs that help at-

risk students become successful. Until schools can find a way to reduce the retention rate, more students will continue to drop out. According to the findings of this study, Johnson County High School is heading in the right direction.

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## APPENDICES

### APPENDIX A

#### Letter to Participants

Former Graduate on Time Participants,

I am obtaining my doctorate degree at ETSU by completing my dissertation on the *Intervention Program Graduate on Time as related to the Number of High School Dropouts in a Rural Northeast Tennessee High School*.

This research study will focus on the *Graduate on Time* program and the impact it may have had on you. Your participation involves a short 6 question survey and should take only 10-15 minutes. There is no foreseen risk involved with this study. Your participation is completely voluntary and there is no penalty if you choose not to participate and you may discontinue participation at anytime. Participants in this study must be 18 years of age or older. At no time will your name or be used as part of this study. The interview data will be stored in a computer file that only I will have access. The completion of your interview is considered to be your consent for participation in this study.

Thank you for taking time to complete this brief survey. Please complete the survey upon receipt and return, via the self-addressed stamped envelope, within 14 days of distribution. If you have any questions please feel free to contact me at 423.727.2640 or my chair, Dr. Pamela Scott at 423.439.7618. You may also contact the chair of the Institutional Review Board (IRB) at 423.439.6054 for information regarding your rights as a research project.

Thank you in advance for your participation!  
Mischelle Gambill Simcox

APPENDIX B

*Graduate on Time Student Survey*

1. How effective do you believe the Graduate on Time program was for you?
  
2. If the Graduate on Time program had not been in place, do you feel like you would have completed high school? Why or Why not?
  
3. What did the post-secondary plan that you created with the counselor say?
  
4. Did you attend a 2-year or 4-year college? If yes, where?
  
5. Did you go into the military? If yes, what branch?
  
6. Did you attend a technical school? If yes, where?

\*\*Please complete the survey upon receipt and return, via the self-addressed stamped envelope, within 14 days of distribution.

APPENDIX C

Letter of Permission

August 19, 2011

Mr. Morris Woodring  
Director of Schools for the Johnson County School System  
211 North Church Street  
Mountain City, TN 37683

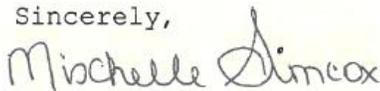
Dear Mr. Woodring,

I am a student at East Tennessee State University. I am in the Educational Leadership and Policy Analysis doctoral program. The study I am interested in completing is looking at the intervention program *Graduate on Time* and how it impacts the number of high school dropouts at Johnson County High School.

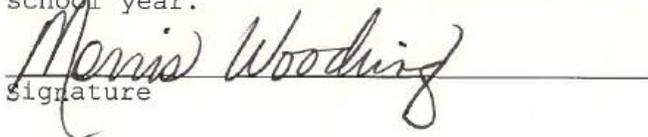
I would like to request permission to obtain and analyze records of the 96 students who have been in the *Graduate on Time* program from the 2007-2008 school year through the 2011-2012 school year. I do not need social security numbers for these students. However, I will need names and addresses of the students.

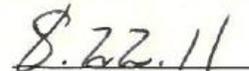
I trust that the findings of this study may be beneficial to your school system and other school systems when determining if an intervention program such as *Graduate on Time* impacts the number of high school dropouts. This study will also be beneficial to the Johnson County School System by providing a better understanding of past students' perceptions of the *Graduate on Time* program. The information will be useful in improving experiences for current and future students enrolled in the program.

Sincerely,

  
Michelle G. Simcox

Permission is granted to Michelle Simcox to obtain and analyze records of the 96 students who have been in the *Graduate on Time* program from the 2007-2008 school year through the 2011-2012 school year.

  
Signature

  
Date

APPENDIX D

IRB Approval



East Tennessee State University

Office for the Protection of Human Research Subjects • Box 70565 • Johnson City, Tennessee 37614-1707  
Phone: (423) 439-6053 Fax: (423) 439-6060

**IRB APPROVAL – Initial Exempt**

September 29, 2011

Ms. Michelle Simcox  
2729 Crackers Neck Rd  
Mountain City, TN 37683

RE: How an intervention program such as Graduate on Time impacts the number of high school dropouts in a rural northeast Tennessee high school

IRB#: c0911.9e

ORSPA#: N/A

On **September 28, 2011**, an exempt approval was granted in accordance with 45 CFR 46.101(b)(2). It is understood this project will be conducted in full accordance with all applicable sections of the IRB Policies. No continuing review is required. The exempt approval will be reported to the convened board on the next agenda.

- Form 103; Narrative (8/21/11); Potential Conflict of Interest (none identified); Assurance Statement; Letter of Permission from Johnson County School System; Letter to Participants; Student Survey

Unanticipated Problems Involving Risks to Subjects or Others must be reported to the IRB (and VA R&D if applicable) within 10 working days.

Proposed changes in approved research cannot be initiated without IRB review and approval. The only exception to this rule is that a change can be made prior to IRB approval when necessary to eliminate apparent immediate hazards to the research subjects [21 CFR 56.108 (a)(4)]. In such a case, the IRB must be promptly informed of the change following its implementation (within 10 working days) on Form 109 ([www.etsu.edu/irb](http://www.etsu.edu/irb)). The IRB will review the change to determine that it is consistent with ensuring the subject's continued welfare.

Sincerely,  
Chris Ayres, Chair  
ETSU Campus IRB

Cc: Pamela Scott



Accredited Since December 2005

VITA

MISCHELLE NICHOLE GAMBILL SIMCOX

Personal Data:                   Date of Birth: July 13, 1974  
                                  Place of Birth: Boone, NC

Education:                        Ed. D., Educational Leadership 2011  
                                  East Tennessee State University  
                                  Johnson City, TN

                                  Ed.S., Educational Administration and  
                                  Supervision 2008  
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                                  Radford, Virginia

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Professional Experience: Supervisor of K-12 Curriculum &  
                                  Instruction 2008-2011  
                                  Johnson County School System  
                                  Mountain City, TN

                                  Supervisor of Student Services  
                                  2006-2008  
                                  Johnson County School System  
                                  Mountain City, TN

                                  Biology/Chemistry Teacher  
                                  Volleyball Coach 1999-2006  
                                  Johnson County High School  
                                  Mountain City, TN