

TEACHER RECRUITMENT AND RETENTION

Running head: TEACHER RECRUITMENT AND RETENTION POLICIES AND
PROCESSES

A MIXED METHODS STUDY IDENTIFYING REOCCURRING THEMES IN
POLICIES AND PROCESSES IN GROW YOUR OWN TEACHER
RECRUITMENT AND RETENTION PROGRAMS

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Doctorate of Educational Leadership and Policy Analysis

by

DIXIE MCCOLLUM

Dr. Ruth Ann Roberts, Dissertation Advisor

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TEACHER RECRUITMENT AND RETENTION

The undersigned, appointed by the Dean of the Graduate Faculty, have examined the dissertation entitled:

A MIXED METHODS STUDY IDENTIFYING REOCCURRING THEMES IN
POLICIES AND PROCESSES IN GROW YOUR OWN TEACHER
RECRUITMENT AND RETENTION PROGRAMS

Presented by DIXIE G. K. MCCOLLUM

A candidate for the degree of DOCTOR OF EDUCATION

And hereby certify that in their opinion it is worthy of acceptance.

Dr. Ruth Ann Roberts, Major Advisor
Educational Administration & Counseling

Dr. Paul Watkins
Educational Administration & Counseling

Dr. Lisa Bertrand
Educational Administration & Counseling

Dr. William Bratberg
Middle and Secondary Education

TEACHER RECRUITMENT AND RETENTION

Dedication

The writer dedicates this work to the following who made this dream possible. To her beloved parents, James Edward and Leta Keena, who instilled in her a thirst for knowledge and encouraged her to leave home to pursue a degree in higher education. To her husband, Steven, she would like to share her thankfulness for his willingness to make such sacrifices in allowing her to spend so much time in pursuit of this degree. She offers her appreciation for his patience, encouragement, concern and loving support while she was away attending class or completing this dissertation. To her son, Justin, she hope that she have set an excellent example and pray that he will always pursue his dreams as he allowed her to do.

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A MIXED METHODS STUDY IDENTIFYING REOCCURRING THEMES IN POLICIES AND PROCESSES IN GROW YOUR OWN TEACHER RECRUITMENT AND RETENTION PROGRAMS

Dixie G. McCollum

Dr. Ruth Ann Roberts, Dissertation Advisor

Abstract

Research revealed teachers are the most influential factor on student achievement and districts face their own unique set of challenges as they attempt to maintain a highly qualified teaching staff. Therefore, the purpose of this study is to examine the extent to which Grow Your Own Teacher (GYOT) programs assist districts in meeting the demand for highly qualified teachers and add to the existing pool of knowledge regarding teacher recruitment and retention practices.

The study incorporated two methodological strategies with five populations. The primary method involved policy analysis and the second involved Chi-Square analysis. Analysis of program policies and survey questions disclosed nine overriding themes and program personnel recognizing mentoring as the key component to program effectiveness. Chi-Square analyses lead to the failure to reject the null hypothesis for program three and rejection of the null hypothesis for program five.

This research leads to several implications. First, a need for longitudinal studies to examine the impact of GYOT programs over time. In addition, there is the need to investigate the differences between student achievement of those teachers who participate in GYOT programs and those who do not. Finally, more research is needed to explore GYOT best practices and to identify effective teacher candidate follow-up procedures.

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CHAPTER 1

Introduction

A growing body of research reveals that a teacher is the most influential factor regarding student achievement. Many studies have suggested the teacher is more significant to student learning than a student's race, socioeconomic level, prior academic record, or school (Darling-Hammond, 2000). Furthermore, the benefits associated with being taught by good teachers are cumulative. Research indicates that the achievement gap widens each year between students with most effective teachers and those with least effective teachers (Sanders & Rivers, 1996). Additional research suggests that the most significant gains, as much as two additional months per year, in student achievement will likely be realized when students receive instruction from good teachers in an ongoing basis (Gunning, 2004).

Recognizing the significance of the teacher and the gaps that occur in learning when students do not receive instruction from highly qualified teachers, the No Child Left Behind Act of 2001 (NCLB) included in its mandates that all public school teachers of core subject matter must be highly qualified by the end of the 2005/2006 school year (Chapman, 2007). Consequently as policymakers and educational administrators strive to provide an excellent educational experience for student populations, employing highly qualified teachers will be a priority.

The United States Department of Education National Center for Education Statistics (NCES) reported in the thirteen year period between 1992 and 2005 there was a 26% increase in demand for elementary and secondary teachers (NCES, 2008). While

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this represents a significant increase, there is further evidence suggesting the demand for teachers will increase even more. NCES has projected an increase in student enrollment causing a need for an additional 18% more teacher in the twelve year period between 2005 and 2017 (NCES). The estimated number of new hire teachers in public schools during 2005 was placed at approximately 285,000 with a projected need for new teacher hires in 2017 of approximately 364,000. This represents a 28% increase in need for new teachers by the year 2017 (NCES).

Many suggest the projected increase in demand for teachers may outpace the projected growth in the supply of teachers. Some researchers and policymakers estimate that school districts will have to hire an additional 600,000 teachers by the year 2017 to keep pace with rising student enrollments and teacher retirements for a total of 3.7 million teachers (NCES, 2008). However, researchers point out there is not an overall teacher shortage but shortages are limited to particular regions, curriculum areas, and communities. Many researchers have identified that most of the new teachers are needed in the specific subject areas of bilingual education, special education, mathematics, and science (Darling-Hammond, Berry, Haselkorn & Fideler, 1999; Bradley, 1999). While the growth in the minority student population, points to a need for more teachers of color (Clewell & Villegas, 2001).

The teacher shortage dilemma for urban and rural areas is twofold. Whereas recruitment of new teachers proves to be difficult for these communities; they also face the added challenge of retaining their teachers. Urban and rural teachers may be attracted to the higher salaries and improved teaching conditions offered in wealthier suburban school districts. As a result, urban and rural areas are experiencing greater effects of

teacher demand exceeding teacher supply (Eppley, 2009; McClure & Reeves, 2004; Guarino, Santibanez, & Daley, 2006).

Reacting to the escalating demand for teachers, especially high needs teachers, the recruitment and retention of teachers in public schools is receiving increased attention across the United States. Districts seeking to hire teachers have mounted numerous aggressive programs to attract and retain more qualified teachers to staff high needs schools and positions (Flynt & Morton, 2009; Clewell & Villegas, 2001). The research of Boyd, Lankford, Loeb and Wyckoff (2005) has produced additional information to guide the search of new teachers by suggesting that when seeking their first position, teachers search close to their hometowns. Based on this information and information from similar studies, districts are beginning to look within their own populations for potential future teachers with innovative programs such as Grow Your Own Teachers (GYOT). GYOT is a collaborative effort between the school districts, communities and universities with a purpose to provide guidance in identifying, attracting and encouraging a cadre of the best and brightest to pursue college course work that will lead to an undergraduate degree in the teaching profession. The central concept of GYOT is for school districts to look within their own student bodies, parents and community members to develop the homegrown teacher (Grow Your Own Illinois, 2009).

Statement of the Problem

The purpose of this research was multifaceted. First, this research used policy analysis to identify reoccurring themes in the programs and processes of various GYOT initiatives as they attempt to enhance school personnel's ability to employ and retain highly qualified teachers in high demand areas and/or in hard to staff schools. Efforts to

address the remaining two aspects of the study's purpose included analysis of data from completed questionnaires. Data gleaned from each question response provided insight to the perceptions of GYOT program personnel as to what constitutes best practices in meeting teacher recruitment goal of showing an increase in the pool of qualified teacher candidates. Finally, replies to queries were examined in an attempt to compare the turnover rate of teachers who have been supported by GYOT programs and the turnover rate of teachers in general with a purpose to determine if there is a statistical difference in teacher retention rate of the two groups.

Clarification of the Problem Statement

Definition of Terms

Important terms used in this dissertation and their definitions are presented below.

No Child Left Behind Act of 2001. No Child Left Behind Act was ratified January 8, 2002, as an United States Act of Congress proposed by the administration of President George W. Bush. NCLB is the latest federal legislation that incorporates the theory of standards-based education reform, which is based on the belief that setting high standards and establishing measurable goals can improve individual outcomes in education. The Act requires states to develop assessments in basic skills to be given to all students in certain grades if those states are to receive federal funding for schools (United States Department of Education, 2001).

Highly Qualified Teachers. To be deemed highly qualified as outlined by NCLB, teachers must have: 1) a bachelor's degree, 2) full state certification or licensure, and 3) prove that they know each subject they teach (United States Department of Education, 2001).

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Grow Our Own Teachers Programs. The Grow Your Own Teachers initiative is an innovative program which received national attention in the May, 2000, issue of the professional journal, *Principal Leadership*, from the National Association of Secondary Principals. The program targets promising prospective teachers from among local high school and college students, paraprofessionals, parents and other active community members. It encourages and supports these individuals as they pursue post-secondary training to become highly qualified teachers in specific areas of need or to teach in hard to staff schools. The end goal is for the development of homegrown teachers to add depth and caliber to the pool of candidates available to serve our students and families.

Teacher Candidate. Individuals enrolled in programs with the intent to complete an accredited university program to become an elementary or secondary teacher.

Hard to Staff Schools. Schools representing hard to staff schools are those located in rural and urban areas (Guarino, Santibanez & Daley, 2004).

High Needs Areas. High Needs areas are represented by secondary science, secondary mathematics, industrial technology, bilingual/foreign language, special education and teachers representing minority populations (American Association of Employment in Education, 1999).

Teacher Turnover. Teacher turnover in this study refers to both cross-district movers and leavers. Cross-district movers are teacher employed in a classroom teaching role in a school one year who are employed as a classroom teacher at a different school the next year. Leavers are teacher employed in a classroom teaching role in one school year and not employed as classroom teach in any district the next year (National Commission on Teaching and America's Future, 2007).

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New Teachers: A teacher is considered to be a new teacher for a school for a given year if the teacher teaches in that district that year but had not taught in that district in the previous year. A teacher who moves from teaching in one district to the another district is considered a new teacher hire but a teacher who moves from one school to another school in the same district is not considered a new teacher hire (National Center for Educational Statistics, 2008).

Assumptions

The following were considered by the researcher to be true assumptions:

1. The researcher assumed all participating program personnel will give 100% effort.
2. The researcher assumed all survey respondents will answer a survey truthfully.
3. Based on the review of literature, the researcher assumed that many public school districts are experiencing a limited pool of potential teacher candidates representing the areas of science, mathematics, special education, foreign language/bilingual education, industrial technology and minorities.
4. The researcher assumed that both rural and urban public school districts are experiencing difficulties attracting and retaining teachers, especially those representing the areas addressed in item four.
5. The researcher assumed the number of school districts agreeing to participate demonstrated a representative sample the target population.

Delimitations

This research was conducted within the following parameters:

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1. The study was retrospective and consists of an analysis of policies and processes existing Grow Your Own Teachers programs.
2. The study included an analysis of a questionnaire completed by personnel working in existing Grow Your Own Teachers programs.
3. The study's document analysis was conducted with a purposive sample of four Grow Your Own Teachers programs presently operating in various states within the United States.
4. The study's 15 item questionnaire was conducted with a purposive sample comprised of only program administrators, teachers and staff member responsible for the development, implementation and monitoring of the targeted GYOT programs.

Limitations

Limitations placed on this research over which the researcher had no control are presented below.

1. Due to the nature of the study, the target sample for the research was purposive. Goals of purposive sampling are two-fold. The first goal was to find instances that are representative or typical of a particular type of case on a dimension of interest. The second was to achieve comparability across different type cases on a dimension of interest (Clark & Creswell, 2008). This non-probability method is often used during preliminary research efforts. According to Fink (2006), non-probability sampling techniques are useful when there are limited resources, an inability to identify members of the population, and a need to establish the existence of a problem. The

disadvantages of non-probability sampling are that findings are less definitive thereby, making inferences to the entire population questionable (Fink). It is a completely unstructured approach and the subjectivity of the selection process could lead to questionable validity and credibility due to selection bias. In addition, the reliability of the results cannot be evaluated which results in the user not knowing how much confidence can be placed in any interpretations of the survey findings. Consequently, results need to be extrapolated in order to fine tune them to be applicable (Fink).

2. Due to the relatively short history and existence of the Grow Your Own Teacher Movement, the number of programs available for research was limited. Consequently, the target sample consisted of various programs at different maturational levels. Programs in their early stages of development may not have had the opportunity to perfect various program features as programs which have been in existence longer. This could possibly affect the overall results of this research.
3. Diligence in responding to survey items may have affected research results.
4. Inability to access all necessary program policies, processes and records may have affected the thoroughness of the research.

Conceptual Framework

One important challenge facing schools is the attraction and retention of highly qualified teachers (Chapman, 2007). This problem has a tendency to be multifaceted. While some schools find their challenge to be related to finding teachers for specific grades and/or specific curriculum areas (Boe & Cook, 2006; Moin, Dorfield & Schunn,

2005), other schools discover their obstacles to be their geographic location or inability to attract minority teachers (National Clearinghouse for Professions in Special Education, 2003). To solve these issues, many schools have implemented recruitment and retention programs with varying degrees of success. One of the more promising models, GYOT, is being pursued by some school districts in an attempt to find strategies to help solve concerns of teacher recruitment and retention (Monk, 2007). This model takes advantage of aspiring teachers' tendency to prefer to return home to teach (Boyd, et. al, 2005). With its focus to cultivate interest and skills in teaching in subject areas and schools which are hard to staff, districts are looking within the local citizenry as a potential resource to meet their needs.

Since state departments of education and districts are calling for more information and guidance regarding best practices and new retention/recruitment models, this research project proposes as its focus the investigation of the GYOT concept (Guarino, Santibanez & Daley, 2006). Research was conducted from the post-positivism paradigm. A less stringent and less severe perspective of research, the post-positivist epistemology, is based on the concept of critical realism. This paradigm implies there is an answer out there independent of our perception of it and that the objective of science is to try and understand the answer (Creswell, 2003). A model, grounded in the recognition that observations and measurements are inherently imperfect, calls for investigation to use multiple techniques (Creswell). Accordingly, the examination of two of the three critical research questions as stated below was multifaceted. First, the researcher completed an analysis of existing policies and processes of multiple schools' GYOT programs. Second, an open-ended survey was conducted with all participating programs. Since the post-

positivist epistemology regards the acquisition of knowledge as a process that is more than mere deduction (Creswell), the understanding of the purposed phenomena was acquired through both deduction and induction. Essential to advancing knowledge on the subject, deductive analysis of various sets policies will lead to the identification of particular processes employed by each program as they attempt to attract highly qualified teachers in high needs areas. As data triangulation occurred, information was analyzed and synthesized which allowed the researcher to begin to detect patterns and regularities in GYOT activities as they occur across the various programs.

Using the inductive analysis format, the researcher then reflected on the specific observations and data regarding the patterns and regularities in GYOT activities to formulate some tentative general conclusions or theories regarding GYOT programs' ability to meeting their goals in regard to recruiting teacher candidates who will stay in the field and community. In summary, this research critically reviewed the various GYOT programs regarding the recruitment of highly qualified teachers and sought to identify reoccurring themes in policies and process of various existing GYOT programs as they attempt to maintain a staff of highly qualified teachers. This project also attempted to identify programs personnel perceptions regarding best practices in their efforts to increase the pool of qualified teacher candidates. In addition, the study identified if there is a statistical difference in the turnover rate of teachers who have been supported by Grow Your Own Teacher programs and the turnover rate of the teaching population in general.

Significance of the Study

For years educators, policy makers and researchers have long debated which variables have the most influence on student achievement. Some have suggested student characteristics such as language background, poverty, or minority status while others point to school variables such as class size, curriculum, district spending level, and teacher resources as the most significant factors increasing student achievement (Darling-Hammond, 2000). While all are noteworthy, the findings of Darling-Hammond's study suggest that states interested in improving student achievement may be well-advised to focus on the preparation and qualification of the teachers. Their research and that of others proposed the impact of the teacher on student achievement can be stronger than the influences of all other variables (Darling-Hammond, 2000; Monk, 2007). All supporting the concept that increased student learning is more likely to be realized when students are taught by highly qualified teachers.

As constituents and policy makers demand school reform and accountability, those variables that increase student success, particularly those which are related to student academic achievement will be forefront in the minds of educators. Consequently, at the top of school improvements lists will be recruitment and retention of highly qualified teachers to educate their student population. As school districts across the nation scramble each year to fill teacher vacancies, they are being faced with a number of shortages. For many schools, there is a lack of minority teachers (Guarino, Santibanez, & Daley, 2006). While at the same time, teachers licensed in bilingual education, special education, industrial technology and secondary science and math represent areas of deficiency for other districts. (Clewell & Villegas, 2001; Flynt & Morton, 2009; Monk,

2007; Guarino, Santibanez, & Daley). For urban and rural districts where the obstacles of working conditions considered less desirable and few resources create shortages for these communities (Ingersoll, 2004).

As stated earlier, a key challenge in making a positive impact on student learning is to develop and retain a staff of highly qualified teachers. This challenge makes it imperative for school districts, administrators and educators primarily responsible for hiring teachers to have an understanding of recruitment programs and policies and their impact on the ability to fill teaching vacancies. As a result, the findings of this study should provide school districts with information that will be beneficial to assist in maintaining a staff of highly qualified teachers. The investigation of policies and programs and the examination of survey responses resulted in a compilation of vital information regarding teacher recruitment program.

Purpose of the Study

The purpose of this mixed-method, post-positivism study was to identify reoccurring themes and procedural patterns, highlight GYOT personnel perceptions of best practices and determine if there was significant statistical difference in the turnover rate of teachers supported by GYOT programs and those who teach in the general teaching population. Policy analysis was used to examine research question number one. This research question concerns the theme and procedural patterns that reoccurred as programs attempt enhance a district's ability to employ and retain highly qualified teachers in high demand areas and /or in hard to staff schools.

Second research question was designed to identify the perceptions of program personnel regarding what constituted GYOT best practices. While the third research

question deliberated the issue is there a significant statistical difference in the turnover rate of teachers supported by GYOT programs and those who teach in the general teaching population. The researcher analyzed data from a questionnaire to discover answers to these two final research questions.

Design Components

Research Question

The researcher investigated answers to the following questions listed below.

1. What are the reoccurring themes and procedural patterns existing in various GYOT teacher recruitment policies and programs?
2. What are the perceptions of GYOT programs personnel regarding best practices in meeting their teacher recruitment goals?
3. Is there a statistical difference in the turnover rate of teachers, who have been supported by Grow Your Own Teacher programs and in the turnover rate of the teaching population in general?
 - a. The null hypothesis (H_0) states there is no significant statistical difference in the turnover rate of teachers, who have been supported by Grow Your Own Teacher programs and those who taught in the general teaching population.

Population

This research project involved a purposive sample to insure that the participants were uniquely suited for the intent of the study (Fink, 2006). This study's purposive sample for document analysis included five GYOT programs located across the United States. In addition to the analysis of program documents, responses to a personnel

questionnaire were also central to the collection of research data. The population sample included district administrators, teachers and staff members responsible for the development, implementation and monitoring of the GYOT programs targeted for analysis. The researcher gathered data during the fall and spring semesters of the 2010-11 school year, a period representing the most optimal time to access all needed staff members.

Instrumentation and Methodology

This research project utilized a mixed-methods methodology where instrumentation involved both qualitative and quantitative components in a single study or multiphase study (Clark & Creswell, 2008). More specifically, this study can be described as a dominant-less dominant mixed-methods approach. According to Creswell and Clark, in a dominant-less dominant research, the researcher conducts the study within a single dominant paradigm with a small component of the overall study drawn from an alternative design. For this specific research project, qualitative research served as the dominant guiding paradigm and the quantitative methodology was the alternate design providing only a small component of the data for the overall study.

Data Collection

Qualitative methods represent the dominant data collection procedures for this study. The qualitative methods used by this researcher include a questionnaire and document analysis. The questionnaire contains both open-ended and closed questions. This instrument has been designed to elicit individuals' feelings, beliefs, attitudes, and perceptions towards their GYOT programs. In addition, this approach revealed information regarding districts' experiences as they attempt to meet their specific GYOT

recruitment and retention goals. The analysis of the various GYOT programs' policies and procedures documents was also examined and studied qualitatively. Data gathered as documents were examined was analyzed using the constant comparative method to identify reoccurring themes, patterns and specific sets of common policies and processes in the various studied GYOT programs. This is a method widely applied as a method of analysis in qualitative research. First, the researcher employs deductive reasoning. Deductive analysis occurs as each program is broken down into its more specific components. Next, the researcher takes each piece of data and compares it to similar data from the other research participants to determine what makes this piece of data different and/or similar to other pieces of data. The examiner then takes on an inductive role as new meanings and broader generalizations and theories emerge (Strauss & Corbin, 1998). In this study these new meaning and broader generalizations became the reoccurring themes that exist across the various programs being studied.

The quantitative component represented the less dominant method. Statistical analysis of data can be inferential or descriptive. This study focused on descriptive and inferential statistical methods. Descriptive statistics were used to reveal patterns through the analysis of numeric data. Portraying and explaining the data that has been collected is core to descriptive statistics. Commonly used descriptive statistics include frequency counts, ranges, means, modes, median scores, and standard deviations (Field, 2005). In addition, the quantitative approach of Chi-Square goodness of the fit was be used. Chi-Square goodness of fit test is a non-parametric test used to find out if the observed value of a given phenomena is significantly different from the expected value. In Chi-Square goodness of fit test, the term goodness of fit is used to compare the observed sample

distribution with the expected probability distribution. Chi-Square goodness of fit test determines how well theoretical distribution fits the empirical distribution (Gravetter & Wallnau, 2004).

To strengthen research rigor and findings, data gleaned was subjected to methodological triangulation. Patton (1987) identifies four types of triangulation: a) collecting different types of data on the same question; b) using different fieldworkers and interviewers to avoid bias; c) using multiple methods in a research project; and d) using different perspectives to interpret the data. This particular study incorporated two of the four types of triangulation. The first, collecting different types of data on the same questions, was addressed in the previous paragraph as it included the discussion of the research data collection procedures of questionnaire and policy analysis. The second type, using multiple methods in a research project, was addressed by this study's dominate-less dominant approach. This project embeds a less-dominant quantitative method in a predominately qualitative study.

Using data collected from both qualitative and quantitative techniques, a cross-sectional analysis of information was used to answer the following questions: What are the reoccurring themems and procedural patterns existing in studied GYOT teacher recruitment policies and programs? What are the perceptions of GYOT programs personnel regarding best practices in meeting their teacher recruitment goals? Is there a statistical difference in the turnover rate of teachers who have been supported by Grow Your Own Teacher programs and the turnover rate of teachers who taught in the general teaching population?

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Summary

Information arising from this dissertation and the grounding literature added to the body of knowledge which serves as a resource for districts as they attempt to meet the ever increasing demand of recruiting and retaining highly qualified teachers to serve diverse learners in hard-to-staff schools and high needs curricular areas. Using the dominant-less dominant mixed methods approach, this study examined three questions. First, what are the reoccurring themes and procedural patterns in various GYOT teacher recruitment and policies and programs studied? Second, what are the perceptions of GYOT programs personnel regarding best practices in meeting their teacher recruitment goals? Finally, Is there a statistical difference in the turnover rate of teachers who have been supported by Grow Your Own Teacher programs and the turnover rate of teachers who taught in the general teaching population?

Chapter two includes a comprehensive review of literature describing teacher shortages, the nature of those shortages and the significance of such shortages for schools. The review also examined existing initiatives designed to assist districts as they attempt to address teacher shortages and maintain a staff of highly qualified teachers. The discussion closed with a summary that recapitulates the main issues present in a comprehensive interpretation of what is known to date and reveals the focus of this dissertation.

Chapter three presents a detailed description of the methodological design employed in this research. A review of the study's purpose and research questions was provided. The research setting and participants was methodically clarified in this section. Also, the rational for selecting a dominant-less dominant mixed-methods approach was

presented. In addition, the data collection procedures, including the quantitative instrumentation and the qualitative surveys, were discussed. The chapter concluded with a description of the analyses techniques utilized to answer the research questions.

Chapter four contains a description of the findings resulting from the study. First, the discussion reviewed the outcomes of the qualitative methods of policy analysis and analysis of the open-ended surveys items. Next, the narrative introduced the quantitative portion of the study. Tables and charts were used to present and analyze quantitative results generated by frequency counts and corresponding percentages of the results of the policy analysis component and opened ended surveys. Finally, chapter four ended with the discussion of the statistical method of Chi-Square and those results.

Chapter five presents a summary of the research by providing an overview of the analysis and synthesis of research findings. After that, the chapter presented the conclusions draw from the study's results and concludes with a discussion implications for further study relating to Grow Your Own Teachers recruitment and retention programs.

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CHAPTER 2

Review of Literature

According to the National Center for Education Statistics (2008), the total public and private elementary and secondary school enrollment reached a record 3.6 million in fall 2005 representing a 27% increase since fall 1992. Between 2005 and 2017, a further increase of 18% is expected. Due to the increased projected enrollments in both public and private schools and vacancies recreated by attrition and retirement, the nation's school will need to hire a half million additional teachers (NCES, 2008) to meet these rising needs. The challenges faced by districts as they attempt to fill these positions may seem daunting with many claiming the nation's schools to be facing a teacher shortage dilemma (Monk, 2007; Guarino et al, 2006; Eppley, 2009; Boe, 2003; Moin, Dorfield, & Schunn, 2005).

The Nature of Teacher Shortages

An article published by Smith-Davis and Billingsley (1993) increases our understanding of the teacher shortages by shedding light on the topic of teacher supply and demand by describing it as a puzzle based on the interaction between quality and quantity. Analysis of teacher shortages requires a distinction between these two types of demands. Boe (2006) describes one as quantity demand or supply. This need refers to the number of teachers required to fill all teaching positions that have been created and funded in districts. In regard to supply, the United States annually produces many more new teachers than its schools hire. Only about 60% of newly prepared teachers enter the field of teaching right after they graduate with many reporting that they cannot find jobs

(American Association of Employment in Education, 1999). The American Association of Employment in Education (AAED) further examined the issue of the teacher workforce and found there to be surpluses of teachers in the areas of elementary education, English, art, business education, health education, physical education and social studies. On the other hand, in fields like mathematics, science, special education, industrial technology and foreign language/bilingual education, school districts across the United States find themselves facing a significant shortage in supply of eligible teachers.

Smith-Davis and Billingsley (1993) further explain the demand as an issue of quality. In this case, demand focuses on specific qualifications, areas of certification and teaching experiences. Recognizing the importance of the quality of teachers and its relationship to improving student learning, NCLB (United States Department of Education, 2001) has made the issue one of its focal points. NCLB has mandated that all public school teachers of core subject matter to be highly qualified by the end of the 2005/2006 school (United States Department of Education). The highly qualified teacher as defined by NCLB has three criteria, 1) a bachelor's degree, 2) full certification and 3) demonstrated expertise in the subject matter of each core subject taught. Thus, the federal statutory has placed added burden on school districts as these districts compete for the highly qualified teachers in the significant shortage areas of mathematics, science, special education, technology or bilingual/foreign language education.

To gain a better understanding of the nature of the teacher workforce additional issues pertaining to geography and teacher demographics must be addressed. Through a simple analysis of data regarding the geographic locations of hard-to-staff schools, one can quickly identify rural and urban schools as the districts facing greater difficulties

recruiting and retaining highly qualified teachers (National Comprehensive Center for Teacher Quality, 2009). Ingersoll (2001, 2004) claims that this shortage is not the result of teacher supply, but instead is the result of teachers simply choosing not to teach in these schools. Monk (2007) noted numerous characteristics such as small size, sparse settlement and distance from population concentrations as obstacles faced by rural schools when attracting potential teachers. Poverty of the regions also proved to be a deterrent. Monk found there are almost 8 million children attending public school in rural areas. He also reported, of the 250 poorest counties in the United States, 244 are rural. As a result, 2.5 million of the eight million rural students live in poverty suggesting poorer working conditions and lower salaries. Much like the rural school, urban schools also face several barriers in attracting and retaining teachers. In addition to higher proportion of low-income students, research revealed barriers for urban schools included significant number of student representative of minority groups and at-risk groups which contain traditionally low achieving students (Guarino et al, 2006). Compounding this issue for rural and urban districts, teacher labor markets have a tendency to be highly localized. Research by Boyd, Lankford, Loeb and Wyckoff (2005) shows new teachers want to teach in schools near the place they grew-up preferring their hometowns. For example, 61 percent of teachers just entering the market in the state of New York from 1999 to 2002 accepted teaching positions within fifteen miles of their hometown; 85 percent began teaching within forty miles of their hometown (Monk). The hardships of localized teacher market pose additional barriers for urban and rural schools since they have a tendency to produce lower numbers of college graduates when compared to suburban areas (Monk).

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A second problem is the concern of demographics or the need for teachers of color. The United States Census Bureau (2005) reported the nation's minority population totaled 98 million or 33% of the country's total population while the National Collaborative on Diversity in the Teaching Force, (2004) reported minorities account for 44 percent of the student enrollment in public schools. A byproduct resulting from the high number of minority students is the increased need for minority teachers; however, trends indicate the teaching force is becoming increasingly white and middle class (McNulty & Brown, 2009). It is reported that over one-third of U.S. students are children of color, while fewer than 16% of teachers report minority status (Gordon, 2005). Student of color pursuing college degrees report numerous reasons for not entering the field of education with the first being lack of respect and low status of teachers. Many report their own families and communities did not encourage them to enter the teacher profession. Others reflected on the level of teacher salaries citing economic reasons. For those not entering college, minorities cited negative school experiences, lack of academic and emotional preparedness, and lack of support and encouragement (Gordon, 2005). Regardless of the reason for not entering the teaching profession, not having ample teachers of color impacts all students. For Black, Hispanic, Asian and Native American children having a teacher of color means having a role model. Educators and policymakers have long expressed concern that this dwindling pool of minority teachers along with an increased numbers of minority students will lead to an absence of role models for minority students in the public school systems. Furthermore, having a teacher of color is equally important for white students for it presents an opportunity to learn from an individual who reflects the broad cultural and social diversity of society

(Gordon). Thus, the lack of minority teachers in the nation's school will result in further educational deficits for all of the nation's youth and according to the National Collaborative on Diversity in the Teaching Force (2004) these deficits threaten America's future prosperity.

In addition to regional and demographical concerns contributing to the difficulties in schools attracting and retaining highly qualified teachers, specific subject areas are increasingly becoming difficult to staff. The United States Department of Education List of Teacher Shortages Areas Nationwide list (2009) indicates trends in needs are similar across the states. This data also supports the notion that teacher shortages do not exist across the board but are specific to the subject areas of foreign language/bilingual education, special education, industrial technology, math and science. To be more specific, researchers have noted that mathematics, science and technology subject areas suffer from teacher shortages that result in high teacher turnover (Moin et al, 2005; Sterling, 2004; Ingersoll, 2000, 2004). In addition, the U.S. Bureau of Labor Statistics recently noted that employment of special education teachers is expected to increase through 2014 faster than the average occupation (U.S. Department of Labor, 2008-09). Two significant reasons for this are 1) increases in the number of students requiring services and 2) position openings that are expected as a result of special education teachers switching to general education, changing careers entirely or retiring (Friend, 2011; Payne, 2005; Zascavage, V., Winterman, K., Armstrong, P., & Schroeder-Steward, J. 2008). In addition, the nation's large and changing immigrant population and its call for nationwide development of national standards for foreign language, the need of district will perpetuate a high demand on small pool bilingual/foreign language teachers.

(Diaz-Rico & Smith, 1994). Consequently, such shortages have resulted in districts hiring teachers who have emergency or out-of-field credentials resulting in a less than a high qualified staff thus compromising the public school education system (Clewel et al, 2000).

Growing student enrollments, high turnover rates, and escalating teacher retirements have education and policy experts estimating the teacher shortage will create a higher than average number of openings for teachers in the nations elementary and secondary schools. Consequently, the topic of teacher shortages has received increased attention from policy makers. Federal and state governments as well as local districts have responded with various recruitment and retention policy options which utilize traditional and nontraditional means of tapping into pools of potential candidates to strategically increase the teaching force.

Current Recruitment and Retention Efforts

The majority of government and local district recruitment and retention efforts can be classified into five categories: 1) programs targeting middle and high schools students; 2) minority recruitment programs; 3) alternative certification programs; 4) programs for mid-career transition of professionals or paraprofessionals; and 5) reentry programs. Each category of recruitment and retention efforts has its own unique focus, while at the same time sharing the goal of providing highly qualified teachers for today's student population.

Programs targeting secondary students include cadet teacher organizations such as Future Teachers of America, Future Educators of America and pre-college recruitment initiatives such as the Grow Your Own Teachers (GYOT). Very innovative in their

approach, these programs encourage academically able students who possess exemplary interpersonal and leadership skills to consider teaching as a career (Clewell et al, 2000). Recruitment and selection strategies focus on exposing talented and interested students to early and extensive field experience during both the school year and summer vacation (Clewell et al). The programs provide mentors who carefully monitor student progress to assist and advise potential teacher candidates in their academic preparation for entering teacher education programs. In addition to supports provided by teacher cadet programs, provision of various types of financial support ranging from grant forgiveness programs to teacher fellowships to four-year scholarships for students who major and earn degree in the field of education at colleges and universities (Clewell et al) are available. A second goal of this type of recruitment program is to provide high school students insight into the nature of education, the problems of schooling and the critical issues affecting the quality of education in America's schools. Thus, developing and deepening the pool of future community leaders with an understanding about teachers and schools so that they will be civic advocates of education (Clewell et al).

A second government and local district recruitment and retention effort includes an array of approaches designed to specifically address the need for a more diverse teaching population. Integral to these initiatives is the overall effort to increase the number of African American, Hispanic/ Latino, Native American, and Asian American teachers and administrators in public schools. In addition to identifying and supporting minority secondary students who might be interested in becoming fully certificated teachers (Clewell et al, 2000); many recruitment and retention plans to enhance diversity go beyond this population. The state of Illinois looks extensively into its parent

population for potential minority teacher candidates (Grow Your Own Illinois, 2009) while others target minority teacher aides and junior college students. As with the secondary teacher candidate programs, potential minority candidates are offered similar forms of academic, financial, field and mentor support (Clewell et al.). However, Gordon (2000) notes that overcoming obstacles for increasing the number of minority teachers must go beyond addressing traditional barriers. Torres, Santos, Peck and Cortes (2004) state it is imperative that minority teacher recruitment programs understand and address the complexity of reasons for the under representation of minorities in the field of education. These program components must speak to issues such as the inadequate academic preparation of those who attend poor, underserved schools where poverty and dropout rate are high and achievement rates are low; the attraction of other careers for minority students entering college; and the unsupportive cultures and social support that exist within every socially-constructed category of individuals. This will enable educators to make the K-12 school experience a more positive experience for students of color. Consequently, more students of color will continue their education and graduate from colleges and universities increasing the potential of more students of colors selecting teaching as a profession and being a part of the pool of candidates from which districts can fill vacant positions.

Alternative teacher certification programs, often called career switcher programs, represent one of the largest categories of teacher recruitment programs. Designed to ward off severe shortages of teachers and efforts to eliminate emergency certificates, alternative teacher certification programs represent state level initiatives focused on enlarging the pool of teachers (Rosenberg & Sindelar, 2001). These initiatives act as

bridges for individuals holding non-educational bachelor's degrees or higher in meeting teacher certification requirements (Keller, Brady, Duffy Forgan & Leach, 2008).

Alternative routes to teacher certification continue to not only grow and change rapidly, but also to profoundly impact the teaching force in nearly every state in the nation (Keller et al). What began in the early 1980s as a way to ward off projected shortages and replace emergency certification has evolved into a sophisticated model for recruitment, preparation and certification of teachers. When the National Center for Education Information (n.d.) first began in 1983 asking state certification officials the question, What is your state's status regarding alternatives to the traditional college teacher education program route for certifying teachers?, eight states responded by describing some type of alternative route to teacher certification already in existence. The variation in numbers and types of routes for alternative teaching certificates issued by states, as well as requirements for obtaining them through traditional college-based undergraduate teacher education programs, has been huge. National Center for Education Information (NCEI) reported in 2010 forty-eight states and the District of Columbia report having at least some type of alternate route to teacher certification. A total of 136 state-defined alternate routes to teacher certification now exist in the states and the District of Columbia. In addition, states report that nearly 600 programs are implementing the established alternative routes to teacher certification. Based on data submitted by the states to the National Center for Education Information (NCEI), it is estimated that 59,000 individuals were issued certificates to teach through alternative routes in 2008-09 (NCEI).

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Comprehensive alternative certification program include several components with the first being a rigorous screening process of candidates. The next critical element involves a well thought plan of course work designed to prepare individuals holding non-educational degrees in becoming teacher. Vital components include an understanding of child development, classroom management, curriculum development and instruction, and hands-on experience in a classroom setting. Additional requirements for an effective alternative certification program include a strong mentor and induction program for participants manned by high quality teachers who demonstrate teaching proficiency across various types of learning and subject matter (Keller et al, 2008).

Mid-career transition programs represent another non-traditional path to increase the number of teachers needed to alleviate shortages. To assist military, Department of Defense employees, and Peace Corps personnel in transitioning to public education, the federal government implemented the mid-career transition concept by creating the Defense Activity for Nontraditional Support Program (Feistritz, Hill & Willet, 1998). Troops to Teachers (TTT) is one example (Defense Activity for Non-Traditional for Education Support, n.d.). TTT is a U.S. Department of Education and Department of Defense initiative that helps eligible military personnel embark on new careers as teachers in public schools. TTT, established in 1994 as a Department of Defense program, provides counseling and referral services to military personnel interested in beginning a second career as a teacher in public education ((Defense Activity for Non-Traditional for Education Support). The No Child Left Behind Act of 2001 authorized the continuation of the TTT program modifying the program's focus by placing emphasis upon the need to recruit eligible military personnel to become highly qualified teachers in

schools that serve students from low-income families. TTT continues to focus on relieving teacher shortages, especially in math, science, special education as well as other critical subject areas. Funding is appropriated annually to provide financial assistance, referral services, and to maintain a network of state offices to assist military personnel in making successful transitions to second careers in teaching (Defense Activity for Non-Traditional for Education Support).

Para-educators already working in schools represent another promising group of individuals supported by the mid-career transition programs (Eubanks, 2001). In his 1996 report, *Breaking the Class Ceiling: Para-educator Pathways to Teaching*, Haselkorn, examined 149 nontraditional avenues designed to target para-educators as a resource to increase diversity within the ranks of the teaching profession and increase the number of teachers in critical shortage areas. A number of studies indicate there are other significant benefits from programs tailored to help school paraprofessionals attain the education credentials needed to become fully certificated teachers (Clewel & Villegas' 2001; Eubanks, 2001; Southeast Center for Teaching Quality, 2002). In addition to having pre-existing knowledge of teacher responsibilities and experience in the field, these candidates are more likely to continue teaching in high-needs areas with retention rates as high as 94% (Southeast Center for Teaching Quality; Clewell and Villegas).

The final category of teacher recruitment and retention programs includes reentry programs designed to encourage teachers back into the classrooms. Echoing trends found in many other states, Kansas reported in 2001 that 70,866 individuals held a valid educator certificate with only 44,066 currently employed and an additional 74,977 individuals having expired Kansas certificates. A study completed by the state

department staff in 2000 revealed a large number of teachers who have held teaching certificates but are no longer practicing would consider returning to the profession (Kansas State Department of Education (n.d.). The results of this study and similar findings from other states have prompted State Boards of Education to create programs for those who have taught and later let their teaching certificate expire renew their certificate (Gerald & Hussar, 1998). Providing a temporary fix to their own pending shortages, other states have followed suit and adopted similar policy revisions for reentry programs for retired teachers. The focal point of policy revisions revolves around allowing retired teachers to teach and earn a salary without losing their pension (Clewell et al, 2000).

When considering the range of recruitment and retention strategies sanctioned by states and employed by local districts, researchers agree the most effective practices share several characteristics. These characteristics can be classified as being strategic, specific, sustaining and the most distinguishing being identified as “rootedness” in the community (McClure & Reeves, 2004). Being strategic and specific involves collecting state and local data regarding teacher supply and demand. Then, utilize the data collected to analyze and identify each district’s specific needs. Findings would then serve as a guide as each individual school develops its own recruitment and retention plan. The concepts of strategic and specific deemphasize the theory that the broad, one-size-fits-all, an approach which is not likely to produce the desired results (Murphy & DeArmond, 2003). Another critical component of being strategic and specific is utilization and maximization of all resources. Developing partnerships at the state, local district and university levels

will provide a forum for needed revisions of organizational barriers, to be more flexible, and responsive to individual district specific needs (Murphy & DeArmond).

Recruitment and retention should focus on practices that sustain and strengthen a district's teaching population (McClure & Reeves, 2004). During the past twenty years many schools have established teacher induction programs in an effort to employ and retain high quality teachers. Induction programs are a structured form of support for beginning educators. These programs should be designed according to the specific needs and characteristics of districts newly hired teachers to help new teachers improve practice, learn professional responsibilities and ultimately positively affect student learning (McClure & Reeves). In addition to involving district veteran teachers in the support of newly hired teachers, induction programs should also involve the community as a whole. Research supports the conclusion that retaining teachers in the profession increases when the responsibilities of recruiting and retaining high-quality teachers are evenly distributed among community members, the teacher, the principal, the superintendent and state decision makers (McClure & Reeves). As induction programs are formalized and become an ongoing part of the school culture, they typically lead to improvements in the school, the community and working conditions resulting in increased teacher retention (McClure & Reeves).

A distinguishing characteristic of effective recruitment and retention programs is its ability to capitalize on the power of "rootedness" (Boyd et al, 2005). This research found that in seeking their first teaching jobs, prospective teachers appear to search very close to their hometowns or in regions that are similar to those in which they grew up. This suggests that there is proximity for teachers as they search for employment and

suggests the need to consider local supply when designing policies and programs to recruit and retain teachers. Grow Your Own Teacher (GYOT) is an example of teacher recruitment efforts which take advantage of the research regarding the attraction of home for new teacher graduates. GYOT is an initiative to educate and train traditional and non-traditional candidates from within the community to become qualified teachers to fill high need positions. GYOT programs represent a continuum of innovative partnerships between community organizations, higher education institutions and school districts that support students, parents, community members and paraprofessionals in becoming highly qualified educators. GYOT programs are becoming more common as they create a pipeline of highly qualified teachers of color, teachers for hard-to-staff schools, and teachers for hard-to-fill positions. At the same time GOYT helps increase the community connectedness of teachers. The premise is straightforward; significantly enrich and increase the pool of available teacher candidates by targeting promising prospective teachers from the community; support them in their post-secondary training and ensure that their preparation is compatible with the areas of need (McClure & Reeves, 2004). Research conducted at the Southeast Center for Teacher Quality (2002) and Hare and Heap, (2001) has identified there is merit in such initiatives and investment in local candidates. Districts who invest in grow your own programs designed to meets their specific needs regarding difficult to fill positions are finding overwhelming success. A typical example can be found in Wichita Public schools. Their GYOT program began in 1989 with the selection and enrollment of 20 individuals with a primary purpose to increase diversity in the teaching staff. To date, one hundred and thirty-six participants have completed their college education and ninety-nine individuals are currently

employed as teachers in Wichita Public Schools. In the 2008-09 academic year, thirty-nine students, ranging in status from freshmen to seniors, were participating in the program (Wichita Public School USD 259, 2009).

Historical Overview of Grow Your Own Teachers Programs

Over the years, GYOT programs have appeared all across the nation in a variety of formats. One of the first publicized Grow Your Own Teacher programs was found in 1988 by the Fort Worth School District-Texas. They created partnerships with the Tarrant County Junior College District and three area universities to start a GYOT program in 1988 to combat the dwindling supply of public school teachers (Rogge, 1991). This program concentrated on identifying and assisting the district's non-teaching employees who wished to become teachers. Support included paid time off to attend classes and an annual bonus for completing 12 credit hours (Rogge).

In 1989 in Sedwick County Kansas, the Wichita Public Schools created its GYOT program which is still in existence today (Wichita Public School USD 259, 2009). Its main goal is to diversify the teaching ranks to better reflect the community. The Wichita GYOT program identifies individuals interested in pursuing a career in teaching through high school counselors, institutions of higher education, and self-referrals. It targets those who have graduated or will graduate from one of the state accredited high schools in Wichita; who are employees of the Wichita Public Schools; or who are community members and meet the eligibility requirements for admission in one of its partner colleges or universities. Components of the program include seminars, financial support, work experiences, mentor support and assistance with job placement upon successful completion of all requirements for teacher licensure (Wichita Public School USD 259).

During the next decade written accounts of GYOT programs were appearing all across the nation. The early nineties saw several schools in California developing GYOT programs to alleviate the demand for minority teachers. Long Beach Schools, one example, offered teacher cadet classes for high school students. These classes provided instruction in the development of lessons, selection of teaching materials and allowance class members to play the role of teacher at their elementary schools (Kopetman, 1990).

The mid to late 90s published news reports featured Pittsburgh Schools and South Carolina schools (Riechmann, 1996; Longshaw, 1998) who were attempting to address teacher shortages with Grow Your Own programs by offering loan forgiveness and support to attract their own students into the field. The article, "Graying of America's Teachers" featured recruitment programs in Minnesota, Georgia and Pennsylvania which focused on high school students, college students, mid-career professionals and victims of corporate or government downsizing with the purpose of attracting potential candidates into the teaching field (Riechmann).

The Fall 1999 issue of Blueprint Magazine featured an article by Peter Hutchinson and Louise Sundan outlining a multifaceted plan of strategies for improving teacher quality in the Minneapolis school system. In part, their strategy was based on the built-in advantages of the Grow Your Own Teachers initiatives. The first recommendation was to open a teaching magnet high school to encourage promising students to pursue teaching as a career. The magnet high school would provide opportunities for student internships and tutoring designed to encourage careers in teaching. Their second recommendation was to offer college scholarships, internships, and even part-time jobs to support candidates in college who commit to teach. This

financial support would also include classroom aides and paraprofessionals seeking teacher degrees. Their final recommendation was to grow your own teachers by providing alternative pathways into teaching for individuals within the community who already had degrees and wanted to give back to their communities (Hutchison, & Sudin). The year of 1999 also saw the Aurora School District in Colorado attempting to meet their need for science and math teachers with a grow your own teachers program. The targeted population was the paraprofessionals already working in the schools. Candidates who met specific criteria: gender, race, lingual abilities, or willingness to teacher underserved students received grants to attend college and train with a mentor during the certification process (Gonzales, 1999).

With the turn of the century Florida's Volusia County and Broward County Public Schools outlined GYOT programs aimed at heading off the shortage of qualified educators willing to work in special education and in urban schools. The Volusia County program provided future teacher clubs that targeted interested high school teens and provided them experience tutoring younger children and working as teachers' helpers (Brownfield & Trimble, 2002). Broward County also focused on high school students who displayed potential as future teachers and provided these individuals intensive academic mentoring along with a full college scholarships (Donnelly, 2006). In 2006 the Arizona Star featured Vail Unified School District's efforts to curb teacher shortages by cultivating its own teaching staff from among its classified employees. Potential candidates included class aides, bus drivers, cafeteria workers and custodial, landscape and maintenance staffers. The district teamed with Pima Community College Center and

offered classes on one of its high school campuses. The district offered financial support by paying college tuition for eligible candidates (Matas, 2006).

In 2004, the Illinois State Legislature took the concept of GYOT one step further by passing the Grow Your Own Teachers Education Act. This law sets a goal of 1,000 GYO teachers by 2016. Potential candidates include non-traditional applicants such as parents, community members, and school aides to serve as teachers in hard-to-staff school with substantial number of low-income students. More importantly, the act appropriated state funding to support GYOT programs paving the way for the development of a consortia of public schools, communities, and institutions of higher education to develop teachers willing to work with low income students (Grow Your Own Illinois, 2009).

Fort Zumwalt District in O'Fallen, Missouri, is a more recent example the ever evolving GYOT project. This district has developed partnerships with area universities with accredited teacher preparation programs to address its teacher shortages. Their GYOT program offers mentoring for interested candidates during high school continuing after they enter college. Its focus targets students interested in pursuing degrees leading to certification in the high needs areas of science, math, foreign language, technology and special education. Once in the accredited teacher preparation programs, GYOT candidates are offered financial support with the promise of future employment upon graduation (Fort Zumwalt Education Foundation Program, n.d.).

Summary

The review of literature has revealed an assortment of factors that play a role in teacher shortages for various schools. While some have expressed concern with an ever

increasing number of minority students paired with a decreasing number of minority teacher candidates, others have expressed concern with the inability to retain and attract specific subject area teachers. Still even others identify the rural or urban districts with few appealing characteristics as a factor making it difficult to attract and retain personnel. The inconsistency in areas of teacher shortages is reflected by the inconsistency in programs and policies employed by various schools to meet the challenge of the lack of specific teachers. District reactions range from change of policies that govern teacher training and teacher retirement to programs that target selection and support of traditional and nontraditional candidates who show the potential and desire to become a teacher. Regardless of all the variations in needs and responses to those needs, research does reveal some commonalities. Information from the review of literature makes it evident that recruitment efforts should be collaborative. State Departments of Education, local districts and university teacher preparation programs need to partner and ensure their efforts are complimentary (McClure and Reeves, 2004). Recruitment programs must include ongoing evaluation. Stakeholders should be carefully analyzing specific data regarding supply and demand to determine what the areas of greatest need are. Then programs and policies can be tailored to meet district's own specific needs and enlist the best possible teacher candidates for the areas of greatest need (McClure & Reeves).

Even though there is a well-documented need, research consistently pointed out there is simply not adequate information available on specific recruitment and retention strategies employed by states and districts (Murphy & DeArmond, 2003, Allen, 2005, Gibbs, 2000; Guarino et al, 2006) Consequently, identifying relevant research is

difficult. This clearly points to a need for more research on effective and rigorous recruitment efforts being employed to meet the challenge of teacher shortages. Future research should provide policymakers and educators the data needed to determine with certainty: 1) a thorough and accurate appreciation of teacher characteristics and the effect those characteristics have on teachers' decisions to enter and remain in the profession; 2) a collection of effective strategies for recruiting, supporting, and retaining a sufficient supply of highly qualified teachers; 3) whether less of the target population would have gone into teaching had the targeted programs and strategies not been in place; and 4) whether any other specific program goals, such as recruitment into hard to staff schools, recruitment of minority teacher or recruitment of teachers for high needs areas have been met (Allen).

Chapter 3 presents a detailed description of the methodological design employed in this research. A review of the study's purpose and research questions was provided. The research setting and participants was methodically clarified in this section. Also, the rationale for selecting a dominant-less dominant mixed-methods approach was presented. In addition, the data collection procedures, including the quantitative instrumentation and the qualitative surveys, was discussed. The chapter concludes with a description of the analyses techniques utilized to answer the research questions.

Chapter 4 contains descriptive findings resulting from the qualitative methods of open-ended surveys with school personnel in districts with GYOT programs and analysis of their existing policies and programs. In addition, tables and charts was used to present and analyze quantitative results generated by frequency counts and corresponding percentages of the results of the policy analysis component and opened ended surveys.

Chapter 5 presents an analysis and synthesis of research findings. Conclusions and implications for further study are also included in the final chapter.

CHAPTER 3

Research Design and Methodology

Educators have known for a long time nothing helps a child learn as much as a great teacher. A study conducted by Sanders and Horn (1994) revealed a thirty-nine percentage point difference in achievement between students with the most effective teacher and those with teachers identified as less effective. Research completed by Marzano (2003) corroborates this sentiment by citing classrooms lead by teachers recognized as most effective, students posted achievement gains of fifty-three percentage points over the course of one academic year, whereas in classrooms run by less effect teacher, student achievement gained an averaged 14 percentage points. These research studies, as well as political opinions, that reflect what parents have always known is that teachers make the most important difference in whether or not children learn and reach higher academic standards (Darling-Hammond & Youngs, 2002; Sanders & Rivers 1996).

With a focal point of increased student achievement, the reauthorization of the Elementary and Secondary Education Act better known as No Child Left Behind (NCLB), holds district accountable for its programs (United Stated Department of Education, 2001). NCLB's central theme is increased learning for all students and specifically highlights the traditionally low performing groups such as poor, minorities and those with disabilities. Recognizing teachers as a key component in student learning, NCLB mandates districts to employ "highly qualified" teachers for all students including those who are traditionally low achievers. In addition, schools must assemble and report

on information revealing the distribution of under qualified teachers, and must submit a plan outlining the steps to take to ensure that disabled, poor and minority children are not disproportionately assigned to inexperienced, uncertified, and out-of-field teachers (United States Department of Education). Consequently, as the educational community has focused its efforts to improve student achievement and comply with NCLB, it will be paying more attention to teacher quality.

To meet NCLB demands to provide the nation's students with optimal learning opportunities, government policy makers and local district personnel are faced with the daunting task of staffing classrooms with quality teachers. With reports that estimate school district will need to hire two million more teacher over the next decade (United States Department of Education, 2001), the mission to provide every student with a highly qualified teacher becomes overwhelming. Compounding the difficulty of the search for the highly qualified teacher, national and state studies have predicted impending teacher shortages every year for the past ten years (United States Department of Education). Darling-Hammond and Sykes (2003) purpose the following idea: as districts strive to maintain a highly qualified teaching staff they will not only be confronted with a shortage of teachers to fill vacant positions, but they will also be challenged to retain highly qualified teachers already employed.

Research indicates that each district faces its own unique set of challenges as it attempts to recruit and retain effective teacher (Darling-Hammond & Sykes, 2003). Some studies indicate a sufficient supply of available teacher exists for some students but, not for others. Ingersoll (2000) reported most significant shortages are more likely to exist for poor children and those of color. Inflating the concern there is the increased likelihood

for poor and minority students to be taught by inexperienced, underprepared, and ineffective teachers (Darling-Hammond, 2000; Monk, 2007; National Collaborative on Diversity in the Teaching Force, 2004). Inquiries also indicate districts demographics can prove to an obstacle. Reports point out many teachers are reluctant to accept employment or stay in districts and communities where there is a lack of recourses and student performance is low. In addition, investigations suggest most teachers prefer and choose to teach in school near where they were raised or attended college (Boyd et al, 2005). For rural and urban districts who customarily produce fewer college graduates, this becomes a significant issue (Monk, 2007; Ingersoll, 2004).

Researchers and policy analysts have also stressed that shortfalls are not solely related to providing highly qualified teachers for poor and minority students. Teacher shortages affect some teaching Field more than others. According to the American Association of Employment in Education (1999), current shortages of licensed teachers are more severe in the areas of special education, mathematics, science, bilingual/foreign language and technology. Mathematics and science, in particular, have often been targeted as fields with an insufficient supply of highly qualified teachers. In recent years, concern over shortages of math and science teachers and their impact on the state of math and science education have reached new heights. Many have directly tied teacher shortages to the quality of math and science education and in turn to the future well-being of the economy as well as the nation (Ingersoll, 2000).

In addition to the area of science and math, shortages of special education teachers have been a growing concern over the last few years. Special education teachers have one of the largest numbers of shortages identified in the field of education (Boe &

Cook 2006). Obstacles confronting leaders responsible for addressing the shortage of special education teachers are many. First, there are fewer numbers of available teachers who hold a degree or degrees in special education than there are vacancies (Boe, 2003). Second, students with disabilities represent the fast growing section of our student populations (Friend, 2011). The final challenge addresses the concept of being highly qualified as defined by IDEA, 2004 and NCLB.

If special education teachers teach core subject areas, they must hold full state certification as a special education teacher or pass state special education teacher licensing examination and hold a license to teach special education and must demonstrate subject matter competence in the grade level academic subjects they teach (United States Department of Education Office of Special Education Programs, n.d.). Guarino, Santibanez, and Daley (2006) suggests the areas bilingual education and foreign language pose districts problems similar to those found in math, science and special education as districts as the attempt to maintain a staff of highly qualified teachers to effectively deliver services to the students in our increasingly diverse population.

To meet the needs of the students in the 21st century, educational leaders will need to carefully examine all factors that challenge their districts as they attempt to recruit highly qualified teachers. In addition they must also be aware of district and community dynamics that retain or fail to retain highly qualified teacher in their districts once they get them there. All of which makes the knowledge of effective recruitment and retention practices crucial for today leaders as the attempt to provide a quality education for all students.

Problem and Purpose Overview

Every elementary and secondary school in the United States seeks to provide a high-quality education to its student population. To do so, school districts are faced with the important challenge of attracting and retaining a staff of highly qualified teachers. Consequently, federal and state governments and school districts are constantly engaged in activities related to the recruitment and retention of teachers. The growing concerns of accountability and the increasing diversity of students has compounded the difficulty of the task as schools and districts struggling to compete for the available bright new teachers and seeking to retain their most effective existing teachers. These dual goals of recruiting and retaining effective teachers are often difficult to realize due to of the insufficient and sometimes dwindling pool of available teachers. It is, therefore, of particular importance that those charged with the responsibility of teacher recruitment and retention to be aware of strategies, policies and programs which promote the recruitment and retention of teachers.

The majority of government and local district recruitment and retention efforts can be classified into one of five categories: 1) programs targeting middle and high schools students; 2) minority recruitment programs; 3) alternative certification programs; 4) programs for mid-career transition of professionals or paraprofessionals; and 5) reentry programs. Each category of recruitment and retention efforts has its own unique focus, while at the same time sharing a common goal of providing highly qualified teachers for today's student population.

The first category represents programs targeting promising secondary students. These include cadet teacher organizations such as Future Teachers of America, Future

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Educators of America and pre-college recruitment initiatives such as the Grow Your Own Teachers (GYOT). Very innovative their approach, these programs encourage academically able students who possess exemplary interpersonal and leadership skills to consider teaching as a career. These recruitment and selection strategies are made-up of many components. They focus on exposing talented and interested students to early and extensive field experience during both the school year and summer vacation (Clewell, Darke, Davis-Googe, Forcierer & Manes, 2000). Academic support and mentoring are provided in high school and in college. Finally, various forms of financial aid are provided to assist with college expenses (Donnelly, 2006).

The second recruitment and retention program includes an array of government and local district efforts designed to specifically address the need for a more diverse teaching population. Integral to these initiatives are their overall effort to increase the numbers of African American, Hispanic/Latino, Native American, and Asian American teachers and administrators in public schools. Often these programs go beyond the secondary student population to find potential teacher candidates (Grow Your Own Illinois, 2009). Illinois's efforts are examples of a state wide initiative of such GYOT endeavors. They look extensively into its parent population for potential minority teacher candidates (Grow Your Own Illinois). At the same time, other GYOT programs recruitment efforts attempt to attract minority teacher aides, bus drivers, and other non-certified staff members into the field of teaching (Matas, 2006).

Alternative teacher certification programs often referred to as career switcher programs represent the third category of teacher recruitment strategies (Keller et al, 2008). These initiatives act as bridges for individuals holding non-educational degrees

(Keller et al) in meeting teacher certification requirements. Much like the alternative certification programs, the Mid-career transition programs represent another non-traditional pathway to alleviate teacher shortages. The Troops to Teachers (TTT) is one example of a Mid-career transitions program. The federal government created the Defense Activity for Nontraditional Educational Support division to oversee the TTT project as it assists Department of Defense, military and Peace Corps personnel in transitioning to public education (Feistritzer et al, 1998).

Another especially promising mid-career transition program is the one that targets licensure for para-educators already working in schools (Eubanks, 2001). Federal grants, state and private foundations provide funding for para-educator-to-teacher programs (Haselkorn, 1996). Recognizing there is a vast pool of individuals holding a valid or expired teacher certificate who have elected to leave the profession or retired, the final category of teacher recruitment and retention programs includes reentry initiatives. With a focus of revisions policies, these programs are designed alleviate teacher shortages by encouraging teachers back into the classrooms (Clewell et al, 2000).

Knowing that state departments of education and districts are calling for more information and guidance regarding best practices in retention/recruitment models (McClure & Reeves, 2004), this study focused on the identification of reoccurring themes in policies and procedures of existing Grow Your Own Teacher recruitment and retention programs. The review of literature suggested there is a vast number of programs and amount of programs information existing, so this research was conducted from the post-positivism paradigm. Accordingly, this study examined three critical research questions.

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As educational decision makers face the challenge in making a positive impact on student learning is to develop, they will focus on the recruitment and retention of highly qualified teachers. This challenge makes it imperative for school districts, administrators and educators primarily responsible for hiring teachers to have an understanding of recruitment programs and policies and their impact on the ability to fill teaching vacancies. As a result, the purpose of this research was to identify common themes in the policies and processes of various GYOT programs as they attempt to enhance school personnel's ability to employ and retain highly qualified teachers in high demand areas and/or in hard to staff schools. In addition, data gleaned from question responses provided insight to the perceptions of GYOT program personnel as to what constitutes best practices in meeting their teacher recruitment goal of showing an increase in the pool of qualified teacher candidates. Finally, replies to queries were examined in an attempt to identify does GYOT programs make a statistical difference in the retention of highly qualified teachers.

Research Questions

The researcher investigated answers to the questions listed below.

1. What are the reoccurring themes and procedural patterns existing in various GYOT teacher recruitment policies and programs?
2. What are the perceptions of GYOT programs personnel regarding best practices in meeting their teacher recruitment goals?
3. Is there a statistical difference in the turnover rate of teachers, who have been supported by Grow Your Own Teacher programs and in the turnover rate of teachers who taught in the general teaching population?

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- a. The null hypothesis (H_0) states there is no significant statistical difference in the turnover rate of teachers, who have been supported by Grow Your Own Teacher programs and those who taught in the general teaching population.

Research Design

This study was conducted with a post-positive stance. Principles that guide the post-positivist researcher are the discovery of new meanings and the construction of new knowledge. Critical to the post-positive researcher are the findings which support value-led social movements. As a result the researcher recognized the importance of values, passion and politics in inquiries. The post-positive researcher believes the idea that the only way to do research is to follow a scientific model can often fall short when one seeks to learn about how people live, how they view their work, how they cope with life, how they change and so on (Ryan, 2006). For the post-positivist researcher, research is more than just the facts; devoid of context. The post-positive perspective views research as a tool in understanding the rich complexity of social life. In order to develop a more holistic appreciation of existing GYOT programs; personnel perceptions of GYOT best practices and the level of program efficacy, this research was conducted with a post-positive lens.

As a result, the post-positive social researcher assumes a learning role rather than just a testing one. These researchers believe that their research methods and data should mirror reality and enhance one's ability to see the whole picture (Ryan, 2006). Research must be open-ended, exploratory in nature. The post-positive researcher constructs new meanings through dialogue and discourse. Valid knowledge often emerges as conflicting

interpretations and action possibilities are explored (Nguyen personal comment, July 24, 2007). This does not mean that post-positivism and qualitative methods are one and the same. Quantitative methods can also be useful to the post-positivists. Quantitative data can provide the post-positivists with abroad familiarity with cases. It can be useful in examining patterns across many cases and show that problems are numerically significant (Ryan). This research utilized a mixed-methods methodology where instrumentation involved both qualitative and quantitative components in a single study or multiphase study (Clark & Creswell, 2008). More specifically, this study can be described as a dominant-less dominant mixed-methods approach.

In a dominant-less dominant approach both quantitative and qualitative research data, techniques and methods are included. According to Clark and Creswell (2008), in dominant-less dominant research, the researcher conducts the study within a single dominant paradigm with a small component of the overall study drawn from an alternative design. More specifically this research project was more indicative of the Concurrent Nested Design. Clark and Creswell describe the Concurrent Nested Design as one example of the dominant less dominant approach to research. The design is identified by its use of one data collection phase during which quantitative and qualitative data both are collected simultaneously. With an embedded or nested design, one dominant method guides the project while the nested method proves a supportive or secondary role in the study. Clark and Creswell report this design is often used for one of two reasons. The first motive for using the concurrent nested design is to provide the researcher with a broader and richer perspective regarding the topic of study. The second rationale is that it can provide more valid and reliable result when studying different

groups. For this specific research project, the qualitative design was the primary guide for collecting data and identifying reoccurring themes (Clark & Creswell) and took the form of analysis of policy and open-ended survey questions. Quantitative analysis served a less dominate role as the researcher included closed-ended questions in the survey and attempted to quantify data collected by using descriptive and inferential statistics.

To add to the base of knowledge regarding the GYOT initiatives, this project used a mixed-methods approach. The various GYOT programs' policies were analyzed to identify commonalties in their teacher recruitment efforts. Surveys were administered to district personnel to provide additional information pertaining to their perceptions of what constitute program best practices. Resulting data was then be triangulated. Consequently as data was expanded and condensed, a deeper and richer picture of existing GYOT programs evolved. Thus, establishing a basis for answering the research questions: What are the reoccurring themes and patterns existing in various GYOT teacher recruitment policies and programs? and What are the perceptions of GYOT programs personnel regarding best practices in meeting their teacher recruitment goals?

Additionally, the quantitative approach of Chi-Square was used. The Chi-Square is a "goodness of fit" test. It answers the question of how well do experimental data fit expectations (Patten, 2004). This method was used to address the research question: Is there a statistical difference in the turnover rate of teachers who have been supported by Grow Your Own Teacher programs and the turnover rate of teachers who taught in the general teaching population?

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In summary this research critically reviewed the various schools' GYOT programs and identified policies and processes common to existing GYOT programs as they attempt to meet their recruitment goals and show an increase in the pool of qualified teacher candidates and/or an increased number of candidates ready to enter a demanding teacher preparation program. In addition, data gleaned from both qualitative and quantitative methods was used to determine: 1) What are the reoccurring themes and procedural patterns existing in various GYOT teacher recruitment policies and programs? 2) What are the perceptions of GYOT programs personnel regarding best practices in meeting their teacher recruitment goals? and 3) Is there a statistical difference between the retention rate of teachers who have been supported by Grow Your Own Teacher programs and that of teachers who taught in the general teaching population?

Population

The population of interest for this research project was existing GYOT programs. This study had as the goal to unearth reoccurring themes and patterns regarding best practices in existing GYOT retention/recruitment models. The defined population was nationwide but the sample groups for this research includes five key informant school districts or programs located in various regions of the United States. The sample population was determined through the use of nonprobability sampling. Nonprobability sampling does not involve *random* selection participants (Fink, 2006). Many methods of nonprobability sampling are more purposive in nature. Purposive sampling starts with a purpose in mind and then one or more specific predefined groups is selected to include groups who suit the purpose and exclude those who do not (Clark & Creswell, 2008). Because the study was exploratory in nature and sought to examine and compare a

specific program within each participant, this research sample was purposive. Sampling for the project targeted unique cases or districts employing the GYOT program to maintain a highly qualified teaching staff. As a result, the sample targeted for document analysis was five GYOT programs located across the United States. In addition within each program, the personnel responsible for the program were asked to complete a 15 item questionnaire. Responsible personnel included administrators, teachers and/or staff members specifically responsible for the development, implementation and monitoring of the GYOT program.

Data Collection and Instrumentation

As stated earlier this study utilized the Concurrent Nested Design for data collection. According to Clark and Creswell (2008) this design used two different methods of data collection in an attempt to confirm, cross-validated or corroborate finding within a single study. Typical of the concurrent triangulation strategy, this study employed the data collection procedures of document analysis and questionnaires to discover the answers to the research questions: 1) What are the reoccurring themes and procedural patterns in various GYOT teacher recruitment policies and programs studied?; 2) What are the perceptions of GYOT programs personnel regarding best practices in meeting their teacher recruitment goals? and 3) Is there a statistical difference in the turnover rate of teachers who have been supported by Grow Your Own Teacher programs and the turnover rate of those who taught in the general teaching population?

The targeted sample for the project was purposive. Consequently the sample included five unique programs or districts utilizing the GYOT format to recruit and retain effective teachers.

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The identification of the sample population for this project involved sending the potential districts a cover letter and consent to participate. The cover letter identified the researcher, purpose of the study, research procedures involved, estimated time required on the part of districts, description of any risks involved, description of potential benefits, statements regarding confidentiality, participation and withdrawal, and contacts for question regarding the study or their rights as a research subject. Included with the letter was a "Giving of Consent" form. This research was to identify and gain consent from at least five districts representing various sections of the nation. Cover letter and letters of consent were sent to the districts via United States Postal Service as registered mail and included a self-addressed envelope for their return.

Subsequent to identifying research participants, the next phase of research was initiated. This phase included a request for each individual district historical documents to be analyzed. Because document analysis often provides insights into a setting and/or group of people that cannot be observed or noted in another way (Westat, 2002), this procedure represented the primary format for identifying reoccurring themes and patterns existing in various GYOT recruitment policies and programs. Internal records to be examined included historical accounts, program mission statements, policy manuals, GYOT handbooks, demographic material, and descriptions of program development and evaluation. These provided the researcher with a rich description of program characteristics, such policies and procedural processes. The request for documents was sent to the districts via United States Postal Service register mail and electronic mail. Responding districts had two options for returning requested documents to the researcher. The first option included sending the documents for analysis via the United

States Postal service in a provided, self-addressed, stamped envelope. Districts were also allowed to respond and provide documents via electronic mail.

The second method of data collection was in the form of a questionnaire. The questionnaires were sent to the research participants simultaneously with the request for program documents. The questionnaire included both open-ended and closed questions. Open-ended format questions are those that ask for unprompted opinions. There are no predetermined set of responses, and the participant is free to answer however he or she chooses (Fink, 2006). These questions were used to solicit subjective data and reflect the opinions of the respondents regarding personal experiences in developing and managing each district's GYOT program. Closed format questions can be answered with either a single word or a short phrase or take the form of a multiple-choice question (Fink). They can be answer quickly and are easy for the respondent. They were to provide the researcher facts regarding participating program demographics and research questions. This particular questionnaire consisted of 15 closed and open-ended questions. Questionnaires were available in both paper and electronic format. The electronic format consists of a copy of the survey in word document and was be emailed to the participating school. Paper formatted surveys were sent to the districts via the United States Postal Services as register mail. After receiving the initial survey and having two weeks to complete the initial document, a reminder was sent to participating programs that have not completed and returned the document.

Patton (1987) suggested that validity and reliability are two factors which any researcher should be concerned about. However to be relevant to the qualitative researcher, reliability and validity must be redefined to reflect multiple ways of

establishing trustworthiness (Goafshani, 2003; Lincoln & Guba 1985). Since this study was a mixed-methods project dominated by the qualitative paradigm, while designing the study, collecting information and analyzing data the researcher took care to establish credible research that is dependable and trustworthy.

To increase research validity much attention was focused on the development of research questions and questionnaire prompts. Development remained consistent with Goafshani's suggestions (2003) for improving reliability and validity. Accordingly, research questions developed provided direction for the project. The questions were clear, focused and specific. Items were concise, easily understood by anyone reading them and are feasible or doable.

The use of multiple methods of collecting data was implemented in order to corroborate data sources and increase the dependability and trustworthiness of the findings. Methodology for this study included a combination of analysis of historical documents and analysis of participant responses to the questionnaire. As a result, different angles or points-of-view of the same question were obtained. The use of multiple methods research was completed in order to corroborate data sources increases the consistency or reliability of conclusions made. The use of several data sources and different methods is referred to as triangulation (Goafshani, 2003). The idea behind triangulation is that the more agreement of different data sources on a particular issue, the more reliable the interpretation of the data.

Data Analysis

The analysis was established within different models depending upon the research data. The qualitative construct or the dominant research component involved the analysis

of program documents and survey results. These components utilized the constant comparative method of data analysis developed by Glaser and Strauss (1967). The basic strategy of the constant comparative method is compatible with the inductive, concept-building orientation of qualitative research (Merriam, 1998). The basic strategy of this method was to do just what its name implies – constantly compare. The research began by reviewing data collected from a particular participant's questionnaires and documents outlining program policies. The researcher looked for key issues, recurrent events, or activities in the data to identify emerging categories for focus. Tentative categories were then identified and coded. Each data set was analyzed using the same format. Then comparisons were made between data sets. Codes and themes were compared to find consistencies and differences from the various data sets. As codes and themes became more prevalent among the data sets, certain categories became more central and were explored in an attempt to answer the following questions: 1) What are the reoccurring themes and procedural patterns existing in various GYOT studied?; 2) What are the perceptions of GYOT programs personnel regarding best practices in meeting their teacher recruitment goals? and 3) Is there a statistical difference in the turnover rate of teachers who have been supported by Grow Your Own Teacher programs and those who taught in the general teaching population?

As stated earlier this mixed methods research was representative of the concurrent nested design. In this model, both qualitative and quantitative data was collected simultaneously with one predominant method serving as guide and the other method providing secondary support (Clark & Creswell 2008). In this study the quantitative method served as the less dominate approach. Data collected via the questionnaire and

document analysis was summarized using descriptive and inferential statistical methods. This study used univariate analysis to quantify data collected through the analysis of documents and questionnaire items. Univariate is a form of descriptive statistics used to describe individual variables. Univariate analysis separately explores each variable in research. It looks at the range of values, as well as the central tendency of the values. It describes the pattern of response to the variable. It describes each variable on its own (Field, 2005). This study used frequency distributions as its less dominant form of analysis. Frequency distributions were used to summarize the actual number of observations falling in each range or the percentage of participant response citing specific variables.

This project also employed inferential statistical methods. Inferential statistics are used to draw conclusions and make predictions based on the descriptions of data (Field, 2005). To determine if there is a statistical difference between the retention rates of teachers who have been supported by Grow Your Own Teacher programs and those who taught in the general teaching population, this research employed the inferential statistical method of Chi-Square to data collected via the questionnaire. There are two kinds of Chi-Square tests. The first is called Chi-Square for goodness of fit, and the second is called Chi-Square test for independence. The purpose of both is to determine whether or not there is a relationship between two variables (Gravetter & Wallnau, 2004).

Summary

This chapter reviewed the dominant-less dominant mixed methods approach, more specifically the concurrent nested model, used by this study as it examines the following questions. First, are the commonalities in studied GYOT teacher programs and their

procedural policies? Second, what are the perceptions of GYOT programs personnel regarding best practices in meeting their teacher recruitment goals? Finally, is there a statistical difference in the turnover rate of teachers who have been supported by Grow Your Own Teacher programs and the turnover rate of those who taught in general teaching population?

In addition this chapter described how adhering to the post-positivists viewpoint, the research design and methodology, subject selection and procedures generated data to be added to the body of knowledge which serves as a resource for districts as they attempt to meet the ever increasing demand of recruiting and retaining highly qualified teachers to serve diverse learners in hard-to-staff schools and high needs curricular. Also outlined were the process to be employed to ensure research reliability and validity.

Chapter 4 presents findings resulting from the questionnaire completed by personnel from existing GYOT programs and analysis of their existing policies and programs. This chapter includes descriptions of how data was triangulated to identify existing themes and efficacy of programs and establish reliable, valid findings. In addition, this chapter included tables and charts used to present and analyze quantitative results generated by frequency counts and corresponding percentages of the results of the policy analysis component and opened ended surveys.

Chapter 5 presents conclusions and meanings drawn from the research. Information that added to the body of knowledge which serves as a resource for districts as they attempt to meet the ever increasing demand of recruiting and retaining highly qualified teachers to serve diverse learners in hard-to-staff schools and high needs

curricular was highlighted. Chapter 5 also emphasized areas recommended for further study.

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CHAPTER 4

Data Analysis

When considering all factors which make a difference in student learning, research overwhelming identifies the teacher to be more significant than a student's race, socioeconomic level, prior academic record, or school (Darling-Hammond, 2000). Furthermore, the benefits associated with being taught by good teachers are collective. Studies reveal that the achievement gap widens each year between students with most effective teachers and those with least effective teachers (Darling-Hammond).

The need for good teachers is well documented. According to the National Center for Education Statistics (2008), the total public and private elementary and secondary school enrollment reached a record 3.6 million in fall 2005 representing a 27% increase since fall 1992. Between 2005 and 2017, a further increase of 18% is expected. Due to the increased projected enrollments in both public and private schools and vacancies created by attrition and retirement, the nation's school will need to hire a half million additional teachers to meet these rising needs (NCES, 2008). The challenges faced by districts as they attempt to fill these positions may seem daunting with many claiming the nation's schools to be facing a teacher shortage dilemma (Monk, 2007; Guarino et al, 2006; Eppley, 2009; Boe, 2003; Moin, Dorfield, & Schunn, 2005).

The need for good teachers to meet the rising demand is not across the board. In regard to supply, the United States annually produces many more new teachers than its schools hire. Only about 60% of newly prepared teachers enter the field of teaching right after they graduate with many reporting that they cannot find jobs (American Association of Employment in Education, 1999). The American Association of Employment in

Education further examined the issue of the teacher workforce and found there to be surpluses of teachers in the areas of elementary education, English, art, business education, health education, physical education and social studies. On the other hand, in fields like mathematics, science, special education, industrial technology and foreign language/bilingual education, school districts across the United States find themselves facing a significant shortage in supply of eligible teachers.

To completely understand the nature of the teacher shortage, additional issues pertaining to geography and teacher demographics must also be considered. Through a simple analysis of data regarding the geographic locations of hard-to-staff schools, one can quickly identify rural and urban schools as the districts facing greater difficulties recruiting and retaining highly qualified teachers (National Comprehensive Center for Teacher Quality, 2009). Ingersoll (2001, 2004) claims that this shortage is not the result of teacher supply, but instead is the result of teachers simply choosing not to teach in these schools. A second problem is the concern of demographics or the need for teachers of color. The United States Census Bureau (2005) reported the nation's minority population totaled 98 million or 33% of the country's total population while the National Collaborative on Diversity in the Teaching Force, (2004) reported minorities account for 44 percent of the student enrollment in public schools. A byproduct resulting from the high number of minority students is the increased need for minority teachers; however, trends indicate the teaching force is becoming increasingly white and middle class (McNulty & Brown, 2009). It is reported that over one-third of the students in the United States are children of color, while fewer than 16% of teachers report minority status (Gordon, 2005). Reacting to these teacher shortages, the emphasis of this study was to

examine teacher recruitment and retention programs as they attempt to develop and retain highly qualified teachers for hard to staff schools and/or high needs areas. The remainder of this chapter presents the organization of data analysis, the presentation of the description of the respondents and participants, the analysis of quantitative and qualitative data, the findings and concludes with a summary of the results of the study.

Organization of Data Analysis

The prevailing purpose of this mixed-method, post-positivism study was to examine the Grow Your Own T recruitment and retention efforts currently being employed to develop and retain highly qualified teachers for hard to staff schools and/or high needs areas. This study can be described as a dominant-less dominant mixed-methods approach.

In a dominant-less dominant approach both quantitative and qualitative research data collection methods are included. According to Clark and Creswell (2008), in dominant-less dominant research, the researcher conducts the study within a single dominant paradigm with a small component of the overall study drawn from an alternative design. More specifically this research project was more indicative of the Concurrent Nested Design. Clark and Creswell describe the Concurrent Nested Design as one example of the dominant less dominant approach to research. The design identified by its use of one data collection phase during which quantitative and qualitative data both are collected simultaneously. With an embedded or nested design, one dominant method guides the project while the nested method proves a supportive or secondary role in the study.

For this dominant-less dominant research project, qualitative data collection methods were the central information gathering processes employed. Analysis of program documents and participant responses to questionnaire items exemplify the principle means of gathering data. These two strategies were utilized to identify prevailing policies of current GYOT programs and perspectives of the personnel regarding GYOT best practices. Nested within the survey were a number of closed questions. Program personnel responses to these questions were designed to assist in determining if programs practices were aiding in resolving specific teacher shortages. The data collected from the responses to these closed questions was used to complete the statistical analysis of Chi-Square. Overall all, the study was guided by the following research questions:

1. What are the reoccurring themes and procedural patterns existing in various GYOT teacher recruitment policies and programs studied?
2. What are the perceptions of GYOT programs personnel regarding best practices in meeting their teacher recruitment goals?
3. Is there a statistical difference in the turnover rate of teachers, who have been supported by Grow Your Own Teacher programs and in the turnover rate of those who taught in the general teaching population?
 - a. The null hypothesis (H_0) states there is no significant statistical difference in the turnover rate of teachers, who have been supported by Grow Your Own Teacher programs and those who taught in the general teaching population.

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The first question of the study was resolved by analyzing program documents. Policy manuals, written procedures and program literature of study respondents were reviewed to illuminate themes within each program. The findings obtained from the investigation of each program were then cross referenced with discoveries from other programs to determine frequency of occurrences and ideas that span across multiple GYOT programs.

In addition to policy analysis, the study also utilized a 15 item questionnaire (Appendix C) to address research question two. Survey questions 2, 3, 8, 9, 10,11,12,13 and 14 were open-ended queries designed to shed light on the perceptions of GYOT programs personnel regarding best practices in meeting their teacher recruitment goals, showing an increase in the pool of qualified teacher candidates. Specific items were developed to reveal personnel views regarding best practices, difficult to manage practices and unique practices. Univariate analysis, a form of descriptive statistics, was employed to separately explore these research variables as they evolved. This method is specifically used for analyzing data on one variable at a time (Field, 2005). For this study the univariate analysis method of frequency distributions was used. Frequency distribution is a listing of categories of possible values for a variable, together with a tabulation of the number of observations in each category (Field).

Responses to questionnaire items 1, 4, 5, 6, 7 and 15 were used to investigate the third research question. These responses were employed to determine if there is a statistical difference in the turnover rate of teachers who have been supported by Grow Your Own Teacher programs and the turnover rate of teachers who taught in the general teaching population. This study made use of the inferential statistics method of Chi-

Square to shed light on this final research question. Representing the less-dominant data method for this project, Chi-Square is a quantitative measure used to determine whether a relationship exists between two categorical variables. The purpose being to determine whether the observed frequencies significantly differ from the frequencies that we would expect by chance (Field).

Presentation of Demographic Characteristics of Respondents/Participants

A mixed-methods design utilizing policy analysis and fifteen item survey guided this data collection process. The sample population was determined through the use of nonprobability sampling. Nonprobability sampling does not involve random selection participants (Fink, 2006). Many methods of nonprobability sampling are more purposive in nature. Purposive sampling starts with an objective in mind. One or more specific predefined groups are then selected to serve as the study sample. Members of this purposive sample are those who suit the purpose and exclude those who do not (Clark & Creswell, 2008).

This research project involved a purposive sample to insure that the participants were uniquely suited for the intent of the study (Fink, 2006). Potential respondents were initially identified as the review of literature was conducted and then by an internet search for GYOT programs. This research revealed a pool of prospective research participants ranging from individual school district supported programs to department of education sponsored programs to government maintained consortiums. The final defined population is a nationwide sample including five key school districts or programs.

First, a Participant Informed Consent Form (See Appendix C) was prepared and sent to all potential participants. The Consent Form outlined statements of confidentiality,

right to withdrawal, lack of risk and all other ethical issues or concerns. Research participants two, three, four and five signed and returned the form to the researcher; however, according to district policy, the informed consent developed for this study nor the University's IRB approval was sufficient to gain permission to complete research with respondent one's district personnel. To gain permission to complete research with study contributor one's personnel, students and district, one must complete their IRB process(See Appendix B). Once respondent one's IRB process had been completed and permission granted, a request was made to acquire the program policies of the five participating initiatives depicted in Table 4.1. In the next phase of the study, participants were asked to complete the fifteen item questionnaire (See Appendix C). Persons targeted to participate in this phase were individuals who were involved in implementing and monitoring the GYOT initiatives in each program. It was estimated that respondents would take an average of 20 minutes to complete the questionnaire.

The following paragraphs contain an overview and in-depth description of research participants. Initially, eight invitations were extended to be a member of the research population. Two of the eight declined. One, a public school district, declined due to restructuring of the program resulting from financial concerns and citing any program information would not be indicative of the program to be employed. The second program was an initiative supported by a state department board of education seeking to increase the number of Native American highly qualified teachers. It was the program director's opinion that there would not be sufficient data to make a positive contribution to the research's findings. The third program failed to respond. An overview of the five

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consenting Grow Your Own Teachers (GYOT) programs is reported in Table 4.1. A more in-depth narrative of descriptions of research participants follows.

Table 4.1

Demographics of Participating Grow Your Own Program

<i>Research Participant</i>	<i>Demographics</i>
GYOT Program 1	Located in Southeast United States Number of students: 258,904 Urban
GYOT Program 2	Located in Midwest United States Number of students: 18,840 Suburban
GYOT Program 3	Location - Southwest United States Number of students: 69,000 Urban
GYOT Program 4	Consortium of 14 Schools Location - Midwest United States Each district serves less than 2000 students Rural
GYOT Program 5	Location – Central United States Number of Students – 50,033 Suburban

Source: GYOT web sites/surveys

The first GYOT program participant is one of the nation's largest public school systems and the largest fully accredited district in the nation, with over 260,000 students. The district is located in Southeast United States with its first two public schools opening in 1899. The district now serves students in more 286 institutions: 138 elementary schools, 43 middle schools, 33 high schools, 16 adult/vocational schools, 16 centers and 56 charter schools. In addition, the district serves over 200,000 adult and continuing education students. Students who attend this district's schools are from 165 countries and represent 53 language groups. During the 2009/10 school year, there were 25,020

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students identified as English Language Learners with a large number of these students being Hispanic. The district employs 17,000+ teachers. Its total of 1,662 Nationally Board Certified Teachers is second in the nation, and leads its state. GYOT program one's teacher preparation model was designed to develop, hire and retain high-performing and motivated educators in predominantly poor minority urban schools. The program began in January 2000. This initiative included two distinct components, the creation of a high school GYOT program and establishment of four professional development schools. The program is supported by the district revenues and Educational Foundation. According to district documents, the completed GYOT program:

Beginning in the ninth grade, students interested in teaching careers . . . are prepared for future teaching careers within their own urban communities. Their preparation includes a rigorous four-year high school curriculum, earned college credits, and early field experiences in urban classrooms. Teacher candidates are paired with mentors, are trained in teaching techniques and classroom theory. All of which can lead to a fully paid college tuition in one of four partner colleges and a guaranteed teaching position within the district.

GYOT program two is a reorganized public school district that grew from a one-room school established in 1807. Its first of four presently existing high schools was established in 1960 and is located in Midwest United States. According to the district web site, the district educates 18,840 students from portions of suburban areas in one of the largest metropolitan cities in Midwest United States. The district serves a student population with an ethnic diversity reflective of the United States. The district includes 15 elementary schools, four middle schools, four comprehensive high schools, one career/technology center and one alternative school. According to the self reported demographic information provided by the project's survey, the district's GYOT program

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has existed less than five years and is funded by an Education Foundation. Program documents revealed:

(The District's) Grow Your Own Teachers Program provides financial assistance in the form of a forgivable loan to individuals selected to participate in the program. The purpose of providing this financial assistance is to allow program participants to complete their undergraduate degree in a high needs area of teacher education, with the ultimate goal of receiving their teacher certification and working as a teacher in the District. The GYOT Program identifies individuals who will be graduates of the District and who are interested in pursuing careers in teaching areas of high needs. The GYOT committee will review high needs areas annually and base their decisions on selection of participants on the State's "Shortage Area" and on District's needs. The areas may include, but are not limited to: special education, industrial technology, high school science, physics, high school math, high school foreign language and English Language Learners. The selection process is competitive. Components of the program include financial support, seminars, work experiences, mentor support and job placement upon successful completion of all requirements for teacher certification and criteria of the program.

The third GYOT program is a unified public school district established in 1946 and is located in Southwest United States. According to district web site, the district educates students in one of the top 40 largest cities in the United States. With approximately 69,000 students, the district serves an urban population with a large numbers of Hispanic and Native American students. The district includes 57 elementary schools, 11 junior high schools, six comprehensive high schools and several alternative schools. The district employs 10,000 individuals. Self reported demographic information provided by the project's survey, the district's GYOT program has existed between 6 plus years and has two goals. The primary goal is to increase the number of highly qualified teachers who will return to the district and the secondary focus is to increase the number of teachers who are bilingual. The program is funded by grants and District Education Foundation. Candidates are selected during their senior year of high school. Students may

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elect to apply for the program, or they may be nominated by a teacher or counselor at the high school. The junior high “Teens ‘n Teaching” class, as well as the high school “Teacher Training” courses are resources used to identify and recruit. Acceptance in the program is competitive and based on completed applications. Once accepted into the program, program participants are provided workshops addressing financial aid, college admissions, required coursework and electives, internships requirements, academic life, assessments, mentoring and tutoring, and becoming acquainted with their assigned academic advisor. Students are given guided tours on the college and university campuses. Benefits include experience as a teacher aide during the teacher candidate’s college career.

GYOT program four is one of sixteen Grow Your Own consortia located within a state located in Mid-West United States. It serves a large geographical area of predominately small, mostly rural communities. It represents 14 school districts with each district serving less than 2000 predominately low-income students. In its efforts to diversify the teaching personnel of these difficult to staff districts, it has adopted a mission that is two-fold. The first is to increase the number of highly qualified special education teachers. The second is to increase the number of minority highly qualified teachers employed. Consortium records revealed:

The consortium was funded for the first time in 2007 and is supported by the state legislature’s passage into state law of the concept of Grow Your Own Teachers. The law sets a goal of 1,000 GYOT teachers by 2016. Its cohorts include non-traditional candidates comprised of parents, community members and school aides. Its first cohort has 30 active participants (teacher candidates), of whom 3 are men; 60% are white and 30% African-American. Their median age is 38. All but one of the candidates had some college experience before entering the program. Of the 29 who are employed (23 full-time), 16 work in the schools; 27 have dependent children in their households.

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The fifth GYOT program is the largest school district in the state located in North Central United States. According to the districts web site, its schools educate approximately 11 percent of all public school students in the state. The district's September 2010 enrollment was a reported 50,033 students. Enrollment has grown by more than 1,100 students over the last five school years. With more than 88 languages spoken in the homes of district students, its ethnic demographics are reflective of those of the United States. The district has 56 elementary schools, 16 middle schools, two K-8 schools, 10 high schools and 16 other special program locations. Of these school sites, 26 house magnet programs. District facilities encompass more than 8.5 million square feet, with an additional 1.9 million square feet to be added through 2008 bond issue improvements. Nearly 4,100 teachers, 3,000 classified and support staff and 165 administrators are dedicated to the education of its children. The school district is the third largest employer in the four county metropolitan area. Information provided by the research survey revealed the district has utilized the GYOT concept for recruiting and retaining teacher for over 20 years. As its primary purpose for implementing and maintaining its GYOT, the district has targeted an increase in the number of high qualified minority teachers for its urban student population. Program documents indicated:

The GYOT program identifies individuals through high school counselors, colleges of education and self-referral, who have graduated or will graduate from one of the state accredited high schools in the district or is an employee of the district or meets the eligibility requirements for admission to one of the partner colleges or universities and who are interested in pursuing a career in teaching. Components of the program include seminars, financial, work experiences, mentor support and

assistance with job placements upon successful completion of all requirements for teacher licensure. The program began in 1989 with the selection and enrollment of 20 individuals.

Program policies of these five study participating program were analyzed to identify the reoccurring themes and patterns existing in various GYOT teacher recruitment and retention efforts. Response from a 15 item questionnaire completed by individuals involved in the implementation and monitoring of these five GYOT initiatives were examined to expose the perceptions of GYOT programs personnel regarding best practices in meeting their teacher recruitment goals. Lastly, data gathered from questionnaire analysis was used to ascertain if there is a statistical difference in the turnover rate of teachers, who have been supported by Grow Your Own Teacher programs and in the turnover rate of teachers who taught in the general teaching population.

Analysis of Data

As previously stated, three research questions guided this study, A Mixed Methods Study Identifying Reoccurring Themes in Policies and Processes in Grow Your Own Teacher Recruitment and Retention Programs. The qualitative phase of research, review of documents and survey responses, was guided by research question one and two. To resolve the third research question, the researcher employed the quantitative method of Chi-Square.

Analysis of data to solve research question one required examining, sorting and reexamining program documents. For this research project, data was managed according to Krueger and Casey (2000) recommended Long-Table Approach. This process is suggested for those who are doing their first qualitative analysis project. The Long-Table

Approach is a low tech data management system that allows the researcher a means to organize, retrieve and analyze data. It provides the researcher a systematic way to break the task down into doable chunks and make the analysis a visual process (Krueger & Casey). Initially, program documents were reviewed several times in order to begin to develop categories of phenomena. These categories were called codes. Codes were usually a word or short phrase that suggested how the data segments addressed the research question. These codes were written in the margins of the documents; documents were color coded and photocopied and the originals were stored. Then color coded photocopies were cut up and the text segments were sorted into piles according to codes. The coded data was then stored in files. Coded information was then examined using the constant comparative method to disclose reoccurring themes, patterns and specific sets of common policies and processes in the various existing GYOT programs (Merriam, 1998).

The constant comparative method is widely applied as a method of analysis in qualitative research (Merriam, 1998). It requires the researcher to take one piece of data and compare it to pieces of data from other studied programs to determine if they are either similar or different. During this process, codes were resorted and analyzed on an ongoing basis. As the investigation progressed, the researcher used the constant comparative method to continually look at what makes this piece of data different and/or similar to other pieces of data so that codes could be added to, collapsed and refined. Synthesis of data ceased when few or no new categories of data were being encountered or refined. This analytical process was inductive in nature, as the researcher began to examine data critically and draw new meaning from the information (Strauss & Corbin, 1998). Using this method, the researcher was allowed to identify and track ideas

so common policies could be recognized. As a result, the researcher was able to write a narrative focused on themes which would solve research question one.

What are the perceptions of GYOT programs personnel regarding best practices in meeting their teacher recruitment goal, represents the second research question. Investigation of this query involved qualitative analysis of questionnaire items and program policies. More specifically, participants' responses to survey items 2, 3 and 8-14 as well as information gained from policy analysis were identified as key data sources for research question two. Responses to queries two and three revealed personnel views of best populations from which to recruit potential GYOT candidates and what were the greatest need areas to be addressed by their program. Items eight and nine provide data revealed personnel opinions regarding the impact of their GYOT program and best processes to monitor program success. Items 10 through 13 revealed personnel beliefs concerning processes which contribute most and least to the overall program. The final survey item 14 addresses research question two by having program respondents to describe any unique feature of their GYOT program.

When analyzing data which speaks to research question two, the research used Univariate analysis of data collected from questionnaire items and policy analysis. Univariate analysis separately explores individual variables as they emerge in research (Field, 2005). The univariate analysis of frequency distributions was used to summarize the actual number of observations falling in each range or the percentage of participant response citing specific variables.

The third and final research question attempted to discover if there a statistical difference in the turnover rate of teachers, who have been supported by Grow Your Own

Teacher programs and in the turnover rate of teachers who taught in the general teaching population. The research made use of the quantitative approach of Chi-Square to resolve this question. Data addressing this research question was gathered through questionnaire items four through seven which were purposely designed to illicit information to be used to identify the teacher retention rate of GYOT supported teachers for programs participating in the study. Chi-Square allows the researcher to know or make decisions about the goodness to fit between the observed and expected. Chi-Square goodness of fit test is a non-parametric test that is used to find out how the observed value of a given phenomena is significantly different from the expected value and were the deviations, differences between observed and expected, the result of chance, or were they due to other factors. The Chi-Square analysis is always testing the null hypothesis, which states that there is no significant difference between the expected and observed result (Gravetter & Wallnau, 2004). For this specific research project, Chi-Square is the statistical test which was used address research question three.

Findings

The three research questions and their related findings are presented consecutively to enable comprehension. The first question employed qualitative data analysis and was reported in terms of themes. Question two also made use of qualitative data analysis and results were presented as themes and frequency counts. The final research question utilized quantitative data analysis and was described by the use of scores and frequencies. Table 4.2 provides an overview of reoccurring themes and is followed by an in-depth narrative describing those themes. The X indicates a theme and/or procedural pattern present in that specific program.

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Table 4.2

Reoccurring Themes in Grow Your Own Programs

	GYOT Programs				
	1	2	3	4	5
Post Secondary Financial Support	X	X	X	X	X
Mentorships	X	X	X	X	X
Partnerships	X	X	X	X	X
Targeted Population: High School Students	X	X	X		X
Application/ Selection Process	X	X	X	X	X
Program Goals	X	X	X	X	X
Agreement and Statements of Commitment	X	X		X	X
Educational Foundations	X	X	X		X
Program Coordinators	X	X	X	X	X

Source: Program Documents

Research question 1. What are the reoccurring themes and patterns existing in various GYOT teacher recruitment policies and programs?

Policy analysis of the participating programs disclosed several meaningful patterns or recurring themes among the research contributors. Nine overriding themes evolved as the documents of the five participating programs were examined. Post

secondary financial support, mentorships, partnerships, target population: high school students, application/selection process, program goals, agreements/statements of commitment, education foundations and program coordinators are common components that emerged as programs were analyzed.

GYOT Reoccurring Themes

Post Secondary Financial Support: All programs offered various levels of post secondary financial assistance. The amount of financial aid ranged from teaching fellowships paying the full costs of teacher education programs to partial scholarship paying textbooks fees. Four of the five GYOT programs have established their teacher candidate financial assistance as loan forgiveness programs. These loan forgiveness programs offered to eliminate all of teacher candidate GYOT loans in return for returning to the supporting districts and working for a predetermined number of years. In addition to giving monetary support, all programs assisted teacher candidates in the search for various grants, both private and government supported, to offset teacher preparation costs.

Mentorships: The second theme identified was that of teacher candidate mentorship. The objective of GYOT mentorships was to ensure teacher candidates had a meaningful career experience through the development of a one-on-one relationship with someone they can regard as a coach, teacher, counselor or friend. In addition, mentors were to provide teacher candidates with information, knowledge and experience in his/her area of expertise. Several variations of mentorship were discovered as program documents were reviewed, with all holding the main focal point of being individualized,

focused attention to further a teacher candidate's knowledge and abilities in an area of interest.

All five programs provided teacher candidates with some type of mentorship. The onset of mentoring varied for every program. Program three began mentoring in junior high school with their "Teens N' Teaching" program and continued this support through high school and college. GYOT participant one's program policies revealed a four year high school course of study was core to its mentorship. Its program documents revealed, "Beginning in 9th grade and continued through college, this preparation includes a rigorous four-year curriculum, earned college credits, and early field experiences designed to prepare teacher candidate for future teaching careers within their own urban communities." GYOT initiatives two and five select teacher candidates during their senior year in high school and mentoring continues throughout their college careers. GYOT program four teacher candidates enter into its mentorship program once accepted into the program which is designed for nontraditional college students.

Once identified as a GYOT teacher candidate, the responsibilities of mentors from all five participants included following teacher candidates as they moved through the teacher preparation process. Mentor tasks included monitoring teacher candidates' academic progress, emotional and personal adjustments and to create a sense of camaraderie. All GYOT program personnel responses were similar to research respondent one's comment, "... the first mentor was a school district teacher who guides, advises, coaches and assists in modeling effective teaching strategies. The second [mentor] assists juniors and seniors gain admission into college. Once in college, this

second mentor's tasks include checking at last once per month to track grades, financial needs, placement testing, etc.”

GYOT program two, three, four and five documents revealed ongoing professional development played a key role in mentoring its teacher candidates. GYOT programs two and five provide teacher candidates with a “comprehensive support system including but not limited to retreats, seminars, and workshops on goal setting, study skills, test-taking, communication skills, interview techniques and college survival techniques.” GYOT program four offers its teacher candidates “...approximately 16 workshops devoted to improving teacher candidates academic competencies addressed by the Test of Basic Skills, increasing candidates' awareness of the importance of professional dress, speech, manners, and attitudes, interview simulation and workshops from local banks to help candidates becoming financially astute.” Examination of program three policies revealed a highly organized five year professional development plan which begins in the teacher candidate's senior year of high school and extending throughout college. Its first year of training included a carefully designed program addressing topics such as Welcome GYOT, Writing for Scholarships and Grants, Launching from the Nest, Time Management Skills, Communication Skills, Interpersonal Skills and Perspectives on Diversity and Inclusion.

Partnerships. Examination of GYOT documents pinpointed program and higher education partnerships as a guiding tenet of all research participant programs. Analysis of the various set of documents revealed all research respondents had both a 2 + 2 and traditional four year pathways designed for their teacher candidates to pursue as they earned their teaching degrees. The 2+2 option is a degree program offered by selected

community colleges and four-year higher education institutions. Each 2+2 degree program enables students to take advantage of some unique benefits by attending a community college during the first two years of the teacher preparation process. These advantages include lower tuition rates, convenient locations and smaller class sizes. Upon completion of the associate degree and all 2+2 requirements, students transfer into four year universities and colleges to complete their degree.

Each GYOT program had identified specific community colleges and four year institutions where students were to attend. GYOT program implementers and director described relationships developed with specific faculty members, counselors and administrators to serve as resources as they worked to track its teacher candidates and strengthen its program. GYOT program three documents identified specific college counselors/advisors assigned to guide its GYOT teacher candidates as they completed the teacher preparation program. Inspection of four of the five sets of documents disclosed GYOT programs consistently sponsored campus visits exclusively for its GYOT teacher candidates. These visits serve as a private orientation to familiarize teacher candidates with the campuses, training programs and to build relationships with college counselors, administrators and faculty members.

Targeted Population, High School Students: High school students represent the predominant pool from which programs recruit potential candidates. This theme materialized as documents from program one, two, three and five were being examined. For programs sponsor by local school districts, most often secondary students represented the preferred target population. When considering increased return on investment, these candidates adhere to the research of Boyd, Lankford, Loeb and Wychoff (2005) which

found teachers express preferences to teach in and will more likely continue to teach in districts close to where they grew up and they prefer areas with characteristics similar to their hometown. As policies from programs four and five were examined, nontraditional college students emerged as a secondary target group theme. Students are identified as nontraditional if they meet one of the following criteria. The student does not enter postsecondary education in the same calendar year that he or she finished high school; attends part time for at least part of the academic year; works 35 hours or more per week while enrolled; is considered financially independent for purposes of determining eligibility for financial aid; has dependents other than a spouse, usually children; is a single parent either not married or married but separated; or does not have a high school diploma, completed high school with a GED.

Application and Selection Process. GYOT candidate application and selection process was another reoccurring theme to evolve as the five sets of program documents were analyzed. Program one's documents revealed at the ninth grade level all interested students were accepted into its high school preparation program and this number varied each year depending on student interest. However, program one participant's questionnaire response indicated "the number of candidates selected to receive the Teaching Fellowship Scholarship depends on how many qualify." These statements lead to the conclusion GYOT program one students advancing on to receive post-secondary support were required to complete an application and participate in a selection process similar to that of the other research participants. The four remaining programs submitted copies of the applications future teacher candidates must complete to be admitted into the program.

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Review of all applications revealed a number of common components. All GYOT applications, submitted for analysis, included personal information sections. Here applicants were to provide information relating to their GED/high school transcript information, GPA, areas of teaching interests, work experience, ACT/SAT information, etc. In addition, applications required students to complete short answer questions and/or essays. Essay and short answer section required potential GYOT teacher candidates to address issues such as those that follow. What are your primary goals in life? Why you think you should be accepted in the program? Describe the contributions you have made to your community?" What qualities do you possess that will contribute to your success as an educator? Why do you desire to become a teacher? The application for program one and four also included sections addressing financial need of the applicants. The final shared application element entailed applicants submitting letters of recommendations and reference reports.

Documents submitted by research participants two, three, four and five included rating scales to guide in the selection of the applicants. These rating scales consist of a set of categories designed to elicit information about the quantitative or a qualitative attributes of applicants. Most often ordinal scales were used. Measurements with ordinal scales are ordered in the sense that higher numbers represent higher values (Field, 2005). Raters were to select the number which is considered to reflect the perceived quality of the applicant's credentials or response. Evaluators were provided with rubrics with assigned points for various levels of GPA, quality and thoroughness of letters of recommendations and the quality of content and mechanics of essays and short answer response. To protect against

biasness and establish inter-rater reliability, applications were assessed by multiple evaluators.

No consistent pattern could be identified regarding the number of GYOT teacher candidates being annually accepted. Research participant programs one and four did not place a cap on the number accepted each year. While programs three and five documents and interviews revealed they would accept as many as thirty per year. Only GYOT program two limited the number of application to two per year.

Program Goals. GYOT program information revealed all programs held the common goal to increase the pool of highly qualified teachers willing to return to their districts to seek permanent employment. Another commonality found was that each district had closely examined its present and projected future demands to identify specific areas of focus. Questionnaire responses and documents analysis revealed Program one, three, four and five were highlighting hard to staff schools. Programs one, three and five had projected a deficit of highly qualified teachers willing to work in urban schools while program four recognized their need as the number of teachers willing to work in rural schools.

Examination of program policies also identified several programs targeting hard to staff positions. Acknowledging a shortfall of specific content teachers, programs two and four targeted increasing the number of teachers for areas such as special education, secondary science and math, technology and foreign language. Program documents revealed several programs aware of the present and anticipated increasing demands to provide for a highly diverse student and parent population. This was demonstrated by research participant three program goals which included an increase in the number of bilingual teachers to serve is high percentage of English as a Second Language population. Whereas, policies

analysis of programs four and five validate the need to increase the number of minority teachers.

Agreements and statements of Commitment. Program/teacher candidate agreement and statement of commitment represents the concepts that appeared in four of the programs considered. This component involved two distinct themes, obligations made by the program and the teacher candidate responsibilities. Topics repeatedly appearing in program documents addressing agreements on behalf of the GYOT programs included financial support, employment support and continuing professional development. Four of the five research respondents provided financial support in the form of loan forgiveness programs for teacher candidates who meet certain requirements. Loan forgiveness is a process wherein the GYOT program cancels a portion or the entirety of a student loan. Documents and/or information provided by programs directors from research respondents one, two, four and five indicated loan forgiveness was based on the teacher candidate returning to the district or district in the consortium and serving as a teacher for a designated number of years.

The second GYOT program agreement involved providing teacher candidates with ongoing professional development. Research participants one, two, three and five made professional development available beginning in high school and continuing through college. These professional development opportunities focused on essential skills needed to increase teacher candidate knowledge of college life, successful study habits, team work, academic content, teaching skills, P-12 student learning, perspectives on diversity, etc. The final program in the study, GYOT program four for nontraditional students, sponsored 16 workshops for teacher candidates. These workshops were devoted

to improving the skills needed to pass the Test of Basic Skills, increasing candidates' awareness of the importance of professional dress, speech, manners, attitude, being financially astute, etc.

The final program agreement involved employment or employment assistance for teacher candidates. Programs one, two, and five provide job placements upon successful completion of all requirements for teacher certification and criteria of the program. Programs three and four provide placement assistance and priority considerations in its district or districts' application process.

Teacher candidate commitments to the district or consortium represented the second piece of the agreement/commitment statements. As policies were analyzed the following themes became apparent: becoming a highly qualified teacher with certification to fill positions in hard to staff schools or in high needs areas, maintaining the good citizen status, allowing program monitoring or tracking of their progress, renewing of the annual commitment/agreement statement on an annual basis and seeking employment in their supporting district or consortium district. All five research participants required teacher candidates to gain teaching licensure. This would include meeting college entrance criteria and maintaining full-time student status as described by two programs as "be consecutively enrolled in at least twelve credits hours per semester . . ." In addition, teacher candidates were required to successfully complete the basics skills test required for acceptance into accredited teacher education programs and successfully pass teacher licensure exams. Four of the five participants in this research required teacher candidates provide assurance to their sponsoring program of their faithfulness to this component by providing documents of their compliance or allow monitoring or tracking of their

progress by giving sponsoring programs access to their records. Finally, teacher candidates are responsible for annually renewing the agreement/commitment contract.

The second teacher candidate commitment consists of maintaining good citizenship. Research programs' view of good citizenship was twofold. The first view was through the lens of obedience to society's expectations as formulated in laws. Teacher candidates agree to be a role model by adhering to and obeying the law. Citizenship guidelines were often explicitly similar to those submitted by research respondent two. These guidelines include but were not limited to violation of the Safe Schools Act and school and district codes for school suspension.

The second lens viewed citizenship as that of an individual who acts responsibly within his community by participating as an active member of community organizations and/or improvement efforts. In programs one, two, three and five, teacher candidates demonstrate social citizenship by consenting to volunteer in the school and/or community events. Research program one documents indicated this reinvestment occurs while teacher candidates were in high school. These candidates agreed to served as volunteers in urban school classrooms and attend professional development. Research programs two, three and five teacher candidates pledged to reinvest while in high school and in college. Research program three teacher candidates commit to serving as district instructional aides while in college. Research program two and five teacher candidates promised to actively participate in all Grow Your Own Teacher Program activities which includes both school and community service while in college.

The final shared theme consists of the promise of service to the supporting districts. After earning their teacher certification, teacher candidates in research

respondents one, two, four and five agreed to employment in the supporting district or consortium district. In these programs, teacher candidates pledged to remain in these districts for a designated period of time. The tenure for employment varied by respondents but did not exceed five years. Failure to comply with this component or any other element of the agreement/commitment statement would result in teacher repayment of all post secondary financial support. Program contracts of all research participants, with the exception of respondent three, contained statements similar to the declaration found in programs two and five documents, “In the event that I [teacher candidate] fail or refuse to perform one of the requirements, I [teacher candidate] agree that I [teacher candidate] will repay the full amount of the GYOT Program funds expended on my behalf.”

Educational Foundation. Document analysis identified four sources of financial support for GYOT programs. The first three to be discussed did not occur with the frequency needed to be identified as a reoccurring theme but still deserve to be pointed out. Research participant one used its local tax dollars to support its program as it existed in grades nine through twelve. Research respondents three and four documents revealed teacher candidates were encouraged to and assisted as they searched and applied for government and private funded grants and scholarships. GYOT program four teacher candidates were supported by state legislation and supporting funds were provided by annual governor approved appropriations. However, post-secondary support for GYOT teacher candidates overwhelmingly came by the means of Education Foundations. Program documents from GYOT programs one, two, three and five revealed most of the financial support for their teacher candidates was obtained from Education Foundations.

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Education Foundations are privately operated, nonprofit organizations established to assist public schools and qualify as charitable organizations (Clay, Hughes, Seely & Thayer, 1989). A public school foundation is designed to augment, supplement or complement programs and activities currently being provided by the district (McCormick, Baver & Ferguson, 2001). Currently in the U.S. there are over 6,500 school foundations in 14,500 school districts (McCormick et al., 2001). They have their own board of directors and staff members, both paid and volunteer. Most school foundations operate as an independent entity, with no formal, legal relationship to the school district (De Luna, 1995).

Program Coordinators: All five GYOT programs participating in the study had designated program coordinators. In many of the programs, coordinators served other roles in the district; however, in program four it was the coordinator's sole duty. These positions were comprised of a variety of responsibilities. Coordinators were responsible for implementing the program's policies and process. Often implementation included provisions for information dissemination and community relations. Coordinator duties also included creating and executing the program's plan for teacher candidate mentorship and professional development. Communicating program expectations; ensuring teacher candidate fulfillment of commitments and acting as a teacher candidate resource served as a primary responsibility for program coordinators. In programs two and four, the role of the coordinator included understanding the district/program budget, district/program budgeting/spending process and working within this system to secure adequate resources for program implementation.

Research question 2. What are the perceptions of GYOT programs personnel regarding best practices in meeting their teacher recruitment goals?

The study utilized a 15 item questionnaire (Appendix C) to address research question two which was designed to shed light on the perceptions of GYOT programs' personnel regarding best practices in meeting their teacher recruitment goals, showing an increase in the pool of qualified teacher candidates. The term Best Practice has been used to describe a way of achieving specific results under specific circumstances in an effective and efficient way. It is a concept based on lessons learned by one group that are passed on to other groups. In this way a best practice tends to spread throughout a field after a success has been demonstrated (Duignan, 2009). Utilization of known best practice is a way an individual or organization can focus on performance of the task rather than first determining the best way to accomplish the task. This can save both time and money. In addition, the use of best practices can facilitate a more consistent set of results (Duignan).

Progress would be stifled if every time an organizations had to use trial and error to determine the most efficient and effective way of achieving the task. Organizational advancement can be increased when practitioners share best ways of doing things so that they do not all have to reinvent the wheel. In addition, the proven method, known as a best practice, can then be tweaked if necessary to meet specific needs of their organization, thus further increasing the likelihood of program success (Duignan, 2009). Central to this research is identifying those practices that would increase the likelihood of current and future GYOT programs' success.

Survey items 9, 10, 11, 12, 13 and 14 were designed to identify program

personnel perceptions of what represented best practices, least effective practices and unique program practices. The following discussion followed those insights as discussion pathways. First the narrative will present those perceived best practices that promote program effectiveness. The second position will attend to those practices directors and personnel perceive as obstacles to program progress or find the most difficult to manage. The final discourse addresses aspects of their programs personnel perceive as unique. Table 4.3 provides an overview of program personnel perceptions and is followed by a more in-depth narrative discourse of these perceptions. The X indicates perceptions of program personnel as to what constitutes GYOT best practices.

Table 4.3

Program Perceptions of Best Practices and Unique Practices

	GYOT Programs				
	1	2	3	4	5
Mentoring	X	X	X	X	X
Partnerships			X	X	
Professional Development		X	X		
Program Coordinators			X		
Geography				X	

Source: Research Surveys

The parameters of this research project specify best practices are those techniques, methods or processes recognized by study participants as strategies that lead to effectively and efficiently accomplishing its program goals. Analysis of respondents' responses to questions items 10, 12 and 14 lead to the identification of mentorships and partnerships perceived to be GYOT best practices.

Perceived Best Practices:

Mentoring. Bozeman and Feeney (2007) define mentoring as a process for the informal transmission of knowledge, social capital and the psychosocial support perceived by the recipient as relevant to work, career or professional development. Mentoring entails informal communication, usually face-to-face and during a sustained period of time, between a person who is perceived to have greater relevant knowledge, wisdom or experience and a person who is perceived to have less. All five GYOT programs have included this type of mentoring programs for teacher candidates. Three of the five programs identified mentoring as the practice which contributes most to its success.

In addition to being perceived as best practices by GYOT program personnel, mentoring is a research proven practice. Mentoring has been shown to have a positive effect on one's career. Research by Gerard Roche (1979) found that of the 63.5 percent of the 1,250 respondents who had a mentor, defined as a person who took a personal interest in their career and who guided or sponsored them, on the average were more satisfied with their work and careers than their non-mentor counterparts. Kram (1986) discovered that mentoring facilitates the socialization of new hires into the organization, reduces turnover, minimizes mid-career adjustments, enhances transfer of knowledge and values and facilitates adjustments.

Analysis of questionnaire responses and program documents revealed GYOT program mentors provide an array of supports including but not limited to spiritual, emotional and professional support to groom teacher candidates for future roles in the district. A variety of mentoring formats were noted within each program. The two most

predominate designs pinpointed what could be considered as informal and structured. The American Speech-Language and Hearing Association (ASHA, n.d.) provides us with the following definitions of informal and structured mentoring. Informal mentoring is what most people think of when they think of mentoring. It is a spontaneous, casual relationship where a senior person takes a junior person under his or her wing and provides long-term guidance and counsel (ASHA). Structured mentoring programs are designed to create a culture where people can proactively support the development of one another. In these programs, mentors are generally matched with mentees to support specific goals such as leadership development, diversity or retention.

All five programs provided informal and structured mentorships. Program documents indicated informal mentorship was ongoing in programs one, two, three and five, beginning in high school and continuing throughout the teacher candidates' college career. Initially, mentors were master elementary/secondary teachers and later expanded to include post secondary teachers and academic advisors. In program four, mentors were assigned as teacher candidates entered into the program with these supports continuing throughout their college career. Each GYOT program provided structured mentorship with most being well thought-out plans of professional development which supported its program goals of development and retention of teachers.

At this point it should be noted that the differentiation of the various GYOT mentoring programs was not black and white, rather they exist more on a continuum with informal on one end and structured on the other end. For example, organizations often assigned one-to-one mentors with specific guides to serve as the mentee was being prepared. However, these mentor/mentee relationships often evolved to more casual

relationship where mentors voluntarily became personally invested in the success of the mentee.

Partnerships. Analysis of program documents revealed all five GYOT programs had developed partnerships. Survey responses from research participants three and four revealed forming partnerships as a practice lead to the effectiveness of their programs. These partnerships represent collaborative/cooperative efforts of three separate entities: the private/business sector, area institutions of higher education and the GYOT program. All of these entities work in concert to make an impact on the teacher shortage by designing a proactive plan to increase the numbers of students entering the teaching profession and increasing the numbers of qualified teachers available to fill positions, particularly in areas of critical need. The first partner is represented by the private/business sector. Educational foundations were the primary representatives of this component. With a focus to provide support for teacher candidates while in college, these foundations seek private donations, sponsor community events such as golf tournaments, black-tie affairs, get to know your local GYOT events, etc. to solicit local financial support.

Area institutions of higher education represent the second key piece of the partnership. With the goal of creating a smooth transition into college, each program had designated specific institutions as a collaborator. Each GYOT program had developed specific pathways for teacher candidates to follow as they earned their teaching certification and, in some cases, higher education institutions offered GYOT scholarships. Research participant three referred to “The close relationships we have with college retention counselors help us make students successful.” While respondent four

cited “The component contributing most to [its] success are the excellent working relationships between the consortium partners, especially the Colleges and Universities ...”

The final partner is represented by the school district or consortium of districts whose responsibilities included developing monitoring and implementing the GYOT programs for teacher candidates. The primary focus of this final cohort member is to encourage and enable teacher candidates to pursue full-time teachers to work in hard to staff schools and/or to fill high needs areas. This assistance exists in the form of financial assistance and mentorships, both informal and structured.

In addition to identifying practices which encourage and promote growth of their GYOT program, personnel were asked to name practices they perceived to be unique to their programs. Survey responses did reveal research participant four’s geographical characteristic and consortium make-up as being unique to only its program. Two additional practices, professional development as identified by research participants two and three and assigned coordinators as identified by study respondent three, were also identified by program personnel as unique. However, analysis of documents and survey responses indicated professional development and assigned coordinators were common to many programs.

Perceived Unique Practices:

Professional Development: In resolving research question two which sought to identify those components perceived to be GYOT best practices, the questionnaire asked respondents to describe any unique feature of their program. Survey responses identified two of the five programs indicated professional development was a unique practice for

their program. Analysis of all program documents indicated professional development played an important role in all GYOT programs. As the component of professional development was reviewed, it was found that each GYOT program had developed an intensive plan of professional development for teacher candidates.

Program Coordinator: The second component discussed was the appointment of a program coordinator. Coordinator responsibilities included assisting teacher candidates while preparing for college, mentoring and assisting students while in college, tracking and monitoring teacher candidate progress. Again, this element was identified by program three as being unique to its program, but analysis of data revealed all five programs had coordinators.

Geography: GYOT program four pointed to the composition and geography as being unique to its program. This proved to be the only unique factor identified. GYOT program 4 is a consortium composed of 14 school districts and two special education cooperatives which represents a large geographical area of the state.

In addition to best and unique practices, the parameters of this research project sought to specify practices perceived by program personnel as those that are most difficult to manage and those which contribute least to program effectiveness. Analysis of responses to questions items 9, 11, 12 and 13 lead to the identification of program funding, tracking/monitoring of students and geography as practices or program characteristics that are the most difficult to manage or contribute least to program effectiveness. Table 4.4 provides an overview of respondents' responses and is followed by a more in-depth narrative describing each component. The X indicates perceptions of

program personnel as to what constitutes GYOT practices that pose obstacles to program effectiveness or that are difficult to manage.

Table 4.4

Personnel Perceptions of Least Effective or Most Difficult to Manage Practice

	1	2	3	4	5
Funding	X	X	X	X	X
Tracking and Monitoring			X		
Geography				X	

Source: Research Surveys.

Personnel Perceptions of Least Effective or is the Most Difficult to Manage:

Funding: Analysis of survey responses brought to light that often the most difficult to manage and those which contributed the least to program success were one and the same. All research respondents identified economic issues as the most difficult to manage or the primary obstacle hindering program success. “Right now we are met with economic issues we have not faced before ...”; “As our district faces cut backs due to dwindling budget, positions being vacated are not being filled and responsibilities are being reallocated. So, we are all doing more will less.”, “We have no control over state payments, and for the past three years have operated for most of the grant year with little or no funding.” “Budget reductions for the year include: . . . suspending new appointments to the Grow Your Own Teacher Program.” All statements are of concern expressed by program personnel in regards to managing the financial demands of maintaining a GYOT program.

Tracking and Monitoring: Tracking and monitoring teacher candidate progress once they enter college was a practice program personnel found difficult to manage or as

an obstacle. When asked, how does your program monitor success of your GYOT program, all research participants referred to tracking teacher candidates while in college and/or once they become employed. Tracking teacher candidate progress was most often completed by teacher candidates completing an annual survey/evaluation form or programs relied on college and university personnel. “Keeping up to date records is difficult due to the fluid nature of college students not living at home” was cited as a major restraint when programs attempted to monitor their teacher candidates. Once hired in the district, a last name change due to marriage was presented as another barrier for tracking.

Geography: Again, with its unique composure of 14 districts and two special education cooperatives, GYOT program four identified “Geography affects us negatively...” Not only did it affect coordination of program efforts, it also focused on the issues faced by a nontraditional population. For this program, teacher candidates must drive long distances to attend classes and professional development.

Research Question three: Is there a statistical difference in the turnover rate of teachers, who have been supported by Grow Your Own Teacher programs and the turnover rate of teachers who taught in the general teaching population?

Evidence suggests the consequences of teacher turnover are substantial. Not only is there an enormous financial cost, there is a depletion of human resources that severely undermines schools’ ability to provide students with high quality education. A study in Texas revealed that state’s annual turnover rate of all teachers to between 16 and 17 percent. Even more alarming, this study revealed a 40 percent attrition rate for teachers in their first three years and higher rates of teacher turnover for many low-income and rural

communities. In addition, those who enter teaching through some alternative pathway, the attrition rate rose as high as 60 percent (National Commission on Teaching and America's Future , 2007). Forbes magazine estimates the national financial costs of teacher turnover alone to be a staggering \$7.3 billion a year (Kain, 2011). However, more serious than the economical drain is that high teacher attrition diminishes teaching quality, student achievement and human resources. High turnover rates reduce schools' ability to create a staff evenly balanced with inexperienced and seasoned teachers. As a result, district staffs become inundated with inexperienced teachers, with less than two to three years of experience, who are often found to be discernibly less effective (National Commission on Teaching and America's Future, 2007). Furthermore, as new teachers are thrust into the profession, they find very limited opportunities for mentoring by accomplished teachers. The ever increasing rate of teacher attrition continues to plague our nation's schools and classrooms as they are left with an uphill climb to provide students with a level of education deemed to be excellent.

As the competition to find and keep quality teachers grows, districts are becoming more aggressive and creative in the way they recruit new teachers with the hopes they will remain in the district. With new programs and incentives cropping up every year, educational leaders are faced with the daunting task of determining which strategies are working and which are not. Which brings to light the third question guiding this research which asks, is there a statistical difference in the turnover rate of teachers who have been supported by Grow Your Own Teacher programs and in the turnover rate of teachers who taught in the general teaching population. To address this research question, this study has employed the statistical test Chi-Square. For questions about the proportions or

relative frequencies for the distribution of data for this study, Chi-Square test for goodness of fits was used. The Chi-Square test for goodness of fit uses sample data to test hypotheses about the shape or proportions of a population distribution. The test determines how well an obtained sample proportion fits the population proportions specified by the null hypothesis (Gravetter & Wallnau, 2004).

The third research question sought to resolve the question, is there a statistical difference in the turnover rate of teachers who have been supported by Grow Your Own Teacher programs and in the turnover rate of teachers who taught in the general teaching population. The model for comparison, the population proportions specified by the null hypothesis, is represented by the number of public and private school teacher movers and leavers as identified by The National Center for Educational Statistics (NCES). In the 2008, NCES reported there to be a total of 3,867,600 public and private school teachers. Public school teachers represented 3,380,300 of that total while 487,300 teachers worked in private schools. Since only two of the five research participant programs have been in existence long enough to have teacher candidates to earn teacher licensure, the obtained sample only reflects data from these programs. The obtained sample proportions represent information provided by research participant districts three and five. The total number observed for GYOT program three was 30. The total number observed for GYOT program five was 150. For this study, the hypothesis is that the number of leavers in the obtained population samples was significantly different when compared to that of the teachers who taught in the general teaching. The null hypothesis was that the population of leavers in the obtained populations and teacher population in general are the same or there is not a significant statistical difference in these occurrences.

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The model for comparison was developed by using statistics published by the National Center for Educational Statistics (2008). To calculate teacher turnover rate, National Center for Educational Statistics (NCES) identified three categories. The first is stayers, those teachers who remained at the same school. Movers represent the second category. Movers are those teachers who moved to a different school. The final group is leavers. Leavers are those teachers who left the profession. NCES reported in 2008 there was a total of 3,867,600 public and private school teachers. Of this group, 83.8 percent or 3,240,900 teachers represented stayers. The total number of movers and leavers represented 626,800 or 16.2 percent. For this research project, the 2008-09 teacher turnover rate for teachers who taught in the general teaching population was designated at 16.2 percent. Consequently, 16.2 percent was the model for comparison. In the following paragraphs this project presented the findings of the Chi-Square analysis in table 4.5 and 4.6 followed by a more descriptive narrative.

Table 4.5

Cross Tabulations of Program 3 Stayers and Leavers

	Program 3		<i>difference</i>	$(O - E)^2$	$(O - E)^2/E$
	(O) Observed Frequency	(E) Expected Frequency			
Stayers	24	23	1	1	.0435
Leavers	3	4	1	1	.2500
Total	27	27			

With 1 df, $p (.01) = 6.64$ for rejection of H_0

Table 4.5 demonstrates Chi-Square analysis for a one-dimensional goodness of fit statistical analysis for comparing GYOT Program three and the teaching population in general. The statistical formula the Chi-Square value for goodness of fit is $X^2 = \sum [(O - E)^2 / E]$. The Chi-Square test is always testing what scientists call the null hypothesis,

which states that there is no significant difference between the expected and observed result (Salkind, 2004). For this study, the null hypotheses (H_0) asserts there is no significant statistical difference for the teacher turnover rate for GYOT program three population and the teaching population in general. Which would indicate no inferences can be based on what is found in the obtained sample and any differences found between two groups or any relationship found between two variables based on our sample are simply due to random sampling fluctuations and not due to any significant differences. The alternate hypothesis (H_1) indicates there is a significant statistical difference between teacher turnover rates for the two groups.

For this research, a Type I error was set for .01. A Type I level of significance occurs when a significance test results in the rejection of the H_0 . A .01 level of significance means that on any one test of the H_0 , there is a 1% chance you will reject the H_0 when the null is true and conclude that there is a group difference when there really is no group difference at all (Salkind, 2004). In this research report, the statistical significance is represented as *p at the .01* and is read as the probability of observing that outcome is less than 1% of the time (Salkind). With 1 degree of freedom at the .01 level of significance, the critical value needed for acceptance of the H_0 for program three is 6.64. When using the Chi-Square test, if the obtained value is more extreme than the critical value, the null hypothesis cannot be accepted, if the obtained value does not exceed the critical value, the null hypothesis is the most attractive explanation (Salkind). Chi-Square analysis of program three data produced an obtained value of .2935 which is less than 6.64 (the .01 level). The program three critical value of .2935 results in a failure to rejection of the H_0 . As a result, with an expected number of leavers being four and the

observed number of leavers being three, it can be concluded that there is no significant difference in the teacher turnover rate of GYOT program three and the teacher turnover rate of teachers in general.

Table 4.6

Cross Tabulations of Program 5 Stayers and Leavers

	Program 5		<i>difference</i>	(O - E) ²	(O - E) ² /E
	(O) Observed Frequency	(E) Expected Frequency			
Stayers	112	126	-14	196	1.556
Leavers	38	24	14	196	8.167
Total	150	150			

With 1 df, p (.01) = 6.64 for rejection of H₀

Table 4.6 demonstrates Chi-Square analysis for a one-dimensional goodness of fit statistical analysis for comparing GYOT Program five and the teaching population in general. The statistical formula the Chi-Square value for goodness of fit is $X^2 = \sum [(O - E)^2 / E]$. The Chi-Square test is always testing what scientists call the null hypothesis, which states that there is no significant difference between the expected and observed result (Salkind, 2004). When using the Chi-Square test, if the obtained value is more extreme than the critical value, the null hypothesis cannot be accepted, if the obtained value does not exceed the critical value, the null hypothesis is the most attractive explanation (Salkind). For this study, the null hypotheses (H₀) asserts there is no significant statistical difference for the teacher turnover rate for GYOT program five population and the teaching population in general. Which would indicate no inferences can be based on what is found in the obtained sample and any differences found between two groups or any relationship found between two variables based on our sample are simply due to random sampling fluctuations and not due to any significant differences.

The alternate hypothesis (H_1) indicates there is a significant statistical difference between teacher turnover rates for the two groups.

For this research, a Type I error was set for .01. A Type I level of significance occurs when a significance test results in the rejection of the H_0 . A .01 level of significance means that on any one test of the H_0 , there is a 1% chance you will reject the H_0 when the null is true and conclude that there is a group difference when there really is no group difference at all (Salkind, 2004). In this research report, the statistical significance is represented as *p at the .01* and is read as the probability of observing that outcome is less than 1% of the time (Salkind). With 1 degree of freedom at the .01 level of significance, the critical value needed for acceptance of the H_0 for program five is 6.64. With an expected frequency of 24 and an observed frequency of 38, Chi-Square analysis of program five data produced an obtained value of 9.723 which is more than 6.64 (the .01 level). This allows for the rejection of the H_0 . Based the data collected, it can be concluded that there is a significant difference in the teacher turnover rate of GYOT program five and the teacher turnover rate of teachers in general.

Noting that program five expected frequency is significantly less than the observed frequency, the researcher returned to the program coordinator for clarification. Follow-up information revealed the observed frequency of 38 included two distinct groups. The first being teacher candidates who earned teacher certification and are no longer working in the district. The second group consists of teacher candidates who did not complete a teacher preparation program. It should be noted the second group does not fall within the definition of leavers as designated by this research. Within the parameters

of this study, any assumptions based on the observed population from program 5 would be faulty.

Summary

In summation, the purpose of this chapter was to present the findings in regard to the research questions which examined the themes and impact of existing Grow Your Own Teacher programs. While there is a significant amount of research on the need for highly qualified teachers to fill positions in hard to staff schools and high needs areas, there is a lack of research examining current teacher recruitment and retention programs and their effectiveness. To address this void in the literature, the current study sought to add to the pool of knowledge regarding reoccurring themes in existing GYOT programs and their effectiveness.

Findings for each of the three research questions are presented. In regards to the first research question, policy analysis of the participating programs disclosed nine overriding themes common to most if not all GYOT programs participating in the study. Analysis of survey responses was completed to resolve the second research question designed specifically to identify personnel perceptions regarding best, unique and most difficult to manage or least effective practices. Mentorships and partnerships were identified as perceived GYOT best practices. Program personnel identified professional development, program coordinators and geography as unique program characteristics. While funding, tracking/monitoring of students and geography were identified as practices or program characteristics perceived to the most difficult to manage or contribute least to program effectiveness.

The third research question sought to resolve the question, is there a statistical difference in the turnover rate of teachers who have been supported by Grow Your Own Teacher programs and in the turnover rate of teachers who taught in the general teaching population. For this study, H_0 states there is no significant statistical difference for the teacher turnover rate for GYOT program populations and the teachers who taught in the general teaching population. Using a Type I error set at .01, statistical analysis leads to the rejection of the H_0 for GYOT program three and acceptance of the H_0 for GYOT program five.

Chapter five presents an analysis and synthesis of these research findings. The chapter included five sections: Summary of the Study, Findings, Conclusion, Implications, and Future Research.

CHAPTER 5

Findings, Conclusions and Implications

This chapter consists of four sections. The first section, Overview of the Study, provides a brief synopsis of the literature review, discussion of the problem and purpose, and overview of the study, including a description of the population from which the data was drawn. The second section, Findings, presents the results from the analysis of data. The Conclusion contains a thorough synthesis of the literature and findings. The chapter continues with a discussion of the implications. This section presents practical suggestions for addressing the issues associated with GYOT Teacher Recruitment and Retention Programs and the Future Research section. Finally, the chapter ends with a summary recapping the research project.

Overview of the Study

Educators have known for a long time nothing helps a child learn as much as a great teacher. A study conducted by Sanders and Horn (1994) revealed a thirty-nine percentage point difference in achievement between students with the most effective teacher and those with teachers identified as less effective. Research completed by Marzano (2003) corroborates this sentiment by citing classrooms lead by teachers recognized as most effective, students posted achievement gains of fifty-three percentage points over the course of one academic year, whereas in classrooms run by less effective teachers, student achievement gained an averaged 14 percentage points. These research studies, as well as political opinions, that reflect what parents have always known is that teachers make the most important difference in whether or not children learn and reach

higher academic standards (Darling-Hammond & Youngs, 2002; Sanders & Rivers 1996).

With a focal point of increased student achievement, the reauthorization of the Elementary and Secondary Education Act better known as No Child Left Behind (NCLB), holds district accountable for its programs (United States Department of Education, 2001). NCLB's central theme is increased learning for all students and specifically highlights the traditionally low performing groups such as poor, minorities and those with disabilities. Recognizing teachers as a key component in student learning, NCLB mandates districts to employ "highly qualified" teachers for all students including those who are traditionally low achievers. In addition, schools must assemble and report on information revealing the distribution of under qualified teachers, and must submit a plan outlining the steps to taken to ensure that disabled, poor and minority children are not disproportionately assigned to inexperienced, uncertified, and out-of-field teachers (United States Department of Education). Consequently, as the educational community focus on improving student achievement and complying with NCLB, it will be paying more attention to teacher quality.

To meet NCLB demands to provide the nation's students with optimal learning opportunities, government policy makers and local district personnel are faced with the daunting task of staffing classrooms with quality teachers. With reports that estimate school district will need to hire two million more teacher over the next decade (United States Department of Education, 2001), the mission to provide every student with a highly qualified teacher becomes overwhelming. Compounding the difficulty of the search for the highly qualified teacher, national and state studies have pointed to teacher

shortages every year for the past ten years (United States Department of Education).

Darling-Hammond and Sykes (2003) propose the idea that as districts strive to maintain a highly qualified teaching staff they will not only be confronted with a shortage of teachers to fill vacant positions, but they will also be challenged to retain highly qualified teachers already employed.

Research indicates that each district faces its own unique set of challenges as it attempts to recruit and retain effective teachers (Darling-Hammond & Sykes, 2003). Some studies indicate a sufficient supply of available teachers exists for some students but, not for others. Ingersoll (2000) reported most significant shortages are more likely to exist for poor children and those of color. Inflating the concern there is the increased likelihood for poor and minority students to be taught by inexperienced, underprepared, and ineffective teachers (Darling-Hammond, 2000; Monk, 2007; National Collaborative on Diversity in the Teaching Force, 2004). Inquiries also indicate districts demographics can prove to be an obstacle. Studies suggest many teachers are reluctant to accept employment or stay in districts and communities where there is a lack of resources and student performance is low. In addition, investigations suggest most teachers prefer and choose to teach in schools near where they were raised or attended college (Boyd et al, 2005). For rural and urban districts who customarily produce fewer college graduates, this becomes a significant issue (Monk, 2007; Ingersoll, 2004).

Researchers and policy analysts have also stressed that shortfalls are not solely related to providing highly qualified teachers for poor and minority students. Teacher shortages affect some teaching fields more than others. Mathematics and science, in particular, have often been targeted as fields with an insufficient supply of highly

qualified teachers. In recent years, concern over shortages of math and science teachers and their impact on the state of math and science education have reached new heights. Many have directly tied teacher shortages to the quality of math and science education and in turn to the future well-being of the economy as well as the nation (Ingersoll, 2000).

In addition to the area of science and math, shortages of special education teachers have been a growing concern over the last few years. Special education teachers have one of the largest numbers of shortages identified in the field of education (Boe & Cook 2006). Obstacles confronting leaders responsible for addressing the shortage of special education teachers are multifaceted. First, there are fewer numbers of available teachers who hold a degree or degrees in special education than there are vacancies (Boe, 2003). Second, students with disabilities represent the fast growing section of our student populations (Friend, 2011). The final challenge addresses the concept of being highly qualified as defined by IDEA, 2004 and NCLB.

If special education teachers teach core subject areas, they must hold full state certification as a special education teacher or pass state special education teacher licensing examination and hold a license to teach special education and must demonstrate subject matter competence in the grade level academic subjects they teach (United States Department of Education Office of Special Education Programs, n.d.). Guarino, Santibanez, and Daley (2006) suggests the areas bilingual education and foreign language pose districts problems similar to those found in math, science and special education as districts as the attempt to maintain a staff of highly qualified

teachers to effectively deliver services to the students in our increasingly diverse population.

To meet the needs of the students in the 21st century, educational leaders will need to carefully examine all factors that challenge their districts as they attempt to recruit highly qualified teachers. In addition they must also be aware of district and community dynamics that retain or fail to retain highly qualified teacher in their districts once they get them there. All of which makes the knowledge of effective recruitment and retention practices crucial for today leaders as the attempt to provide a quality education for all students.

Every elementary and secondary school in the United States seeks to provide a high-quality education to its student population. To do so, school districts are faced with the important challenge of attracting and retaining a staff of highly qualified teachers. Consequently, federal and state governments and school districts are constantly engaged in activities related to the recruitment and retention of teachers. The growing concerns of accountability and the increasing diversity of students has compounded the difficulty of the task as schools and districts struggling to compete for the available bright new teachers and seeking to retain their most effective existing teachers. These dual goals of recruiting and retaining effective teachers are often difficult to realize due to of the insufficient and sometimes dwindling pool of available teachers. It is, therefore, of particular importance that those charged with the responsibility of teacher recruitment and retention to be aware of strategies, policies and programs which promote the recruitment and retention of teachers.

Knowing that state departments of education and districts are calling for more

information and guidance regarding best practices in retention/recruitment models (McClure & Reeves, 2004), this study focused on the identification of reoccurring themes in policies and procedures of existing Grow Your Own Teacher recruitment and retention programs. The review of literature suggested there is a vast number of programs and amount of programs information existing, so this research was conducted from the post-positivism paradigm. Accordingly, this study examined the following three critical research questions:

1. What are the reoccurring themes and procedural patterns existing in various GYOT teacher recruitment policies and programs studied?
2. What are the perceptions of GYOT programs personnel regarding best practices in meeting their teacher recruitment goals?
3. Is there a statistical difference in the turnover rate of teachers, who have been supported by Grow Your Own Teacher programs and those who taught in the general teaching population?
 - a. The null hypothesis (H_0) states there is no significant statistical difference in the turnover rate of teachers, who have been supported by Grow Your Own Teacher programs and those who taught in the general teaching population.

This study was conducted with a post-positive stance. Principles that guide the post-positivist researcher are the discovery of new meanings and the construction of new knowledge. Critical to research are the findings which support value-led social movements. As a result the researcher recognizes the importance of values, passion and politics in inquiries. The post-positive researcher believes the idea that the only way to do

research is to follow a scientific model can often fall short when one seeks to learn about how people live, how they view their work, how they cope with life, how they change and so on (Ryan, 2006). For the post-positivist researcher, research is more than just the facts; devoid of context. The post-positive perspective views research as a tool in understanding the rich complexity of social life. In order to develop a more holistic appreciation of existing GYOT programs; personnel perceptions of GYOT best practices and the level of program efficacy, this research was conducted with a post-positive lens.

As a result, the post-positive social researcher assumes a learning role rather than just a testing one. These researchers believe that their research methods and data should mirror reality and enhance one's ability to see the whole picture (Ryan, 2006). Research must be open-ended, exploratory in nature. The post-positive researcher constructs new meanings through dialogue and discourse. Valid knowledge often emerges as conflicting interpretations and action possibilities are explored (Nguyen personal comment, July 24, 2007). This does not mean that post-positivism and qualitative methods are one and the same. Quantitative methods can also be useful to the post-positivists. Quantitative data can provide the post-positivists with abroad familiarity with cases. It can be useful in examining patterns across many cases and show that problems are numerically significant (Ryan). As a result this research utilized both the qualitative and quantitative methodologies to develop a comprehensive picture of GYOT programs. More specifically, this study can be described as a dominant-less dominant mixed-methods approach.

In a dominant-less dominant approach both quantitative and qualitative research data, techniques and methods are included. According to Clark and Creswell (2008), in

dominant-less dominant research, the researcher conducts the study within a single dominant paradigm with a small component of the overall study drawn from an alternative design. This research project was indicative of the Concurrent Nested Design. Clark and Creswell describe the Concurrent Nested Design as one example of the dominant less dominant approach to research. The design is identified by its use of one data collection phase during which quantitative and qualitative data both are collected simultaneously. With an embedded or nested design, one dominant method guides the project while the nested method proves a supportive or secondary role in the study. Clark and Creswell report this design is often used for one of two reasons. The first motive for using the concurrent nested design is to provide the researcher with a broader and richer perspective regarding the topic of study. The second rationale is that it can provide more valid and reliable result when studying different groups. For this specific research project, the qualitative design was the primary guide for collecting data and identifying reoccurring themes (Clark & Creswell) and took the form of policy analysis and open-ended survey questions. Quantitative analysis served a less dominate role as the researcher includes closed-ended questions in the survey and attempts to quantify data collected by using descriptive and inferential statistics.

To add to the base of knowledge regarding the GYOT initiatives, this project analyzed various GYOT programs' policies to identify commonalties in their teacher recruitment efforts. Surveys were administered to district personnel to provide additional information pertaining to their perceptions of what constitute program best practices. Resulting data was then triangulated to develop a deeper and richer picture of existing GYOT programs and establish a basis for answering the research questions one and two.

Additionally, the quantitative approach of Chi-Square was used. Chi-Square goodness of fit test is a non-parametric test that is used to find out how the observed value of a given phenomena is significantly different from the expected value. This statistical analysis was used to compare the observed sample distribution with the expected probability distribution to determine how well theoretical distribution fit the empirical distribution (Gravetter & Wallnau, 2004). The resulting data was used to resolve the research question three, is there a statistical difference in the turnover rate of teachers who have been supported by Grow Your Own Teacher programs and the turnover of teachers who taught in the general teaching population.

The population of interest for this research project was existing GYOT programs. The defined population was a nationwide sample which included five key informant school districts or programs. The sample population was determined through the use of nonprobability sampling. Nonprobability sampling does not involve random selection participants (Fink, 2006). Many methods of nonprobability sampling are more purposive in nature. Purposive sampling starts with a purpose in mind and then one or more specific predefined groups is selected to include groups who suit the purpose and exclude those who do not (Clark & Creswell, 2008). Because the study was exploratory in nature and sought to examine and compare a specific program within each participant, this research sample was purposive. Sampling for the project targeted unique cases or districts employing the GYOT program to maintain a highly qualified teaching staff. As a result, the sample targeted for document analysis was five GYOT programs located across the United States. In addition within each program, the personnel was asked to complete a 15 item questionnaire. Targeted personnel included administrators, coordinators, teachers

and/or staff members specifically responsible for the development, implementation and monitoring of the GYOT program.

Findings

In this section, the three research questions and their related findings are presented consecutively to enable comprehension. The first question employed qualitative data analysis and was reported in terms of themes. Question two also made use of qualitative data analysis and results were presented as themes and frequency counts. The final research question utilized quantitative data analysis and was described by the use of scores and frequencies.

Research question 1. What are the reoccurring themes and procedural patterns existing in various GYOT teacher recruitment policies and programs studied?

Policy analysis of the participating programs disclosed several meaningful patterns or recurring themes among the research contributors. Nine overriding themes evolved as the documents of the five participating programs were examined. Post secondary financial support, mentorships, partnerships, target population: high school students, application/selection process, program goals, agreements/statements of commitment, education foundations and program coordinators are common components that emerged as programs were analyzed.

GYOT Reoccurring Themes

Post Secondary Financial Support: All programs offered various levels of post secondary financial assistance. The amount of financial aid ranged from teaching fellowships paying the full costs of teacher education programs to partial scholarship paying textbooks fees. Four of the five GYOT programs have established their teacher

candidate financial assistance as loan forgiveness programs. These loan forgiveness programs offered to eliminate all of teacher candidate GYOT loans in return for returning to the supporting districts and working for a predetermined number of years. In addition to giving monetary support, all programs assisted teacher candidates in the search for various grants, both private and government supported, to offset teacher preparation costs.

Mentorships: The second theme identified was that of teacher candidate mentorship. The objective of GYOT mentorships was to ensure teacher candidates had a meaningful career experience through the development of a one-on-one relationship with someone they can regard as a coach, teacher, counselor or friend. In addition, mentors were to provide teacher candidates with information, knowledge and experience in his/her area of expertise.

All five programs provided teacher candidates with some type of mentorship. The onset of mentoring varied for every program. Program three began mentoring in junior high school with their “Teens N’ Teaching” program and continued this support through high school and college. GYOT participant one’s program policies revealed a four year high school course of study was core to its mentorship. Its program documents revealed, “Beginning in 9th grade and continued through college, this preparation includes a rigorous four-year curriculum, earned college credits, and early field experiences designed to prepare teacher candidate for future teaching careers within their own urban communities.” GYOT initiatives two and five select teacher candidates during their senior year in high school and mentoring continues throughout their college careers.

GYOT program four teacher candidates enter into its mentorship program once accepted into the program which is designed for nontraditional college students.

Once identified as a GYOT teacher candidate, the responsibilities of mentors from all five participants included following teacher candidates as they moved through the teacher preparation process. Mentor tasks included monitoring teacher candidates' academic progress, emotional and personal adjustments and to create a sense of camaraderie.

GYOT program two, three, four and five documents revealed ongoing professional development played a key role in mentoring its teacher candidates. GYOT programs two and five provide teacher candidates with a "comprehensive support system including but not limited to retreats, seminars, and workshops on goal setting, study skills, test-taking, communication skills, interview techniques and college survival techniques." GYOT program four offers its teacher candidates "...approximately 16 workshops devoted to improving teacher candidates academic competencies addressed by the Test of Basic Skills, increasing candidates' awareness of the importance of professional dress, speech, manners, and attitudes, interview simulation and workshops from local banks to help candidates becoming financially astute." Examination of program three policies revealed a highly organized five year professional development plan which begins in the teacher candidate's senior year of high school and extending throughout college. Its first year of training included a carefully designed program addressing topics such as Welcome GYOT, Writing for Scholarships and Grants, Launching from the Nest, Time Management Skills, Communication Skills, Interpersonal Skills and Perspectives on Diversity and Inclusion.

Partnerships. Examination of GYOT documents pinpointed program and higher education partnerships as a guiding tenet of all research participant programs. Analysis of the various set of documents revealed all research respondents had both a 2 + 2 and traditional four year pathways designed for their teacher candidates to pursue as they earned their teaching degrees. The 2+2 option is a degree program offered by selected community colleges and four-year higher education institutions. Each 2+2 degree program enables students to take advantage of some unique benefits by attending a community college during the first two years of the teacher preparation process. These advantages include lower tuition rates, convenient locations and smaller class sizes. Upon completion of the associate degree and all 2+2 requirements, students transfer into four year universities and colleges to complete their degree.

Each GYOT program had identified specific community colleges and four year institutions where students were to attend. GYOT program implementers and director described relationships developed with specific faculty members, counselors and administrators to serve as resources as they worked to track its teacher candidates and strengthen its program. GYOT program three documents identified specific college counselors/advisors assigned to guide its GYOT teacher candidates as they completed the teacher preparation program. Inspection of four of the five sets of documents disclosed GYOT programs consistently sponsored campus visits exclusively for its GYOT teacher candidates. These visits serve as a private orientation to familiarize teacher candidates with the campuses, training programs and to build relationships with college counselors, administrators and faculty members.

Targeted Population, High School Students: High school students represent the

predominant pool from which programs recruit potential candidates. This theme materialized as documents from program one, two, three and five were being examined. For programs sponsor by local school districts, most often secondary students represented the preferred target population. When considering increased return on investment, these candidates adhere to the research of Boyd, Lankford, Loeb and Wychoff (2005) which found teachers express preferences to teach in and will more likely continue to teach in districts close to where they grew up and they prefer areas with characteristics similar to their hometown. As policies from programs four and five were examined, nontraditional college students emerged as a secondary target group theme. Students are identified as nontraditional if they meet one of the following criteria. The student does not enter postsecondary education in the same calendar year that he or she finished high school; attends part time for at least part of the academic year; works 35 hours or more per week while enrolled; is considered financially independent for purposes of determining eligibility for financial aid; has dependents other than a spouse, usually children; is a single parent either not married or married but separated; or does not have a high school diploma, completed high school with a GED.

Application and Selection Process. GYOT candidate application and selection process was another reoccurring theme to evolve as the five sets of program documents were analyzed. Program one's documents revealed at the ninth grade level all interested students were accepted into its high school preparation program and this number varied each year depending on student interest. However, program one participant's questionnaire response indicated "the number of candidates selected to receive the Teaching Fellowship Scholarship depends on how many qualify." These statements lead

to the conclusion GYOT program one students advancing on to receive post-secondary support were required to complete an application and participate in a selection process similar to that of the other research participants. The four remaining programs submitted copies of the applications future teacher candidates must complete to be admitted into the program.

Review of all applications revealed a number of common components. All GYOT applications, submitted for analysis, included personal information sections. Here applicants were to provide information relating to their GED/high school transcript information, GPA, areas of teaching interests, work experience, ACT/SAT information, etc. In addition, applications required students to complete short answer and/or essays. Essay and short answer section required potential GYOT teacher candidates to address issues such as those that follow. What are your primary goals in life? Why you think you should be accepted in the program? Describe the contributions you have made to your community?" What qualities do you possess that will contribute to your success as an educator? Why do you desire to become a teacher? The application for program one and four also included sections addressing financial need of the applicants. The final shared application element entailed applicants submitting letters of recommendations and reference reports.

Documents submitted by research participants two, three, four and five included rating scales to guide in the selection of the applicants. These rating scales consist of a set of categories designed to elicit information about the quantitative or a qualitative attributes of applicants. Most often ordinal scales were used. Measurements with ordinal scales are ordered in the sense that higher numbers represent higher values (Field, 2005).

Raters were to select the number which is considered to reflect the perceived quality of the applicant's credentials or response. Evaluators were provided with rubrics with assigned points for various levels of GPA, quality and thoroughness of letters of recommendations and the quality of content and mechanics of essays and short answer response. To protect against biasness and establish inter-rater reliability, applications were assessed by multiple evaluators.

No consistent pattern could be identified regarding the number of GYOT teacher candidates being annually accepted. Research participant programs one and four did not place a cap on the number accepted each year. While programs three and five documents and interviews revealed they would accept as many as thirty per year. Only GYOT program two limited the number of application to two per year.

Program Goals. GYOT program information revealed all programs held the common goal to increase the pool of highly qualified teachers willing to return to their districts to seek permanent employment. Another commonality found was that each district had closely examined its present and projected future demands to identify specific areas of focus. The idea each program of developing its own specific goal or set of goals, is in agreement with the findings of Murphy and DeArmond (2003). Their research suggested a one-size-fits-all approach is not likely to produce the desired results. Questionnaire responses and documents analysis revealed Program one, three, four and five were highlighting hard to staff schools. Programs one, three and five had projected a deficit of highly qualified teachers willing to work in urban schools while program four recognized their need as the number of teachers willing to work in rural schools. Examination of program policies also identified several programs targeting hard to staff

positions. Acknowledging a shortfall of specific content teachers, programs two and four targeted increasing the number of teachers for areas such as special education, secondary science and math, technology and foreign language. Program documents revealed several programs aware of the present and anticipated increasing demands to provide for a highly diverse student and parent population. This was demonstrated by research participant three program goals which included an increase in the number of bilingual teachers to serve is high percentage of English as a Second Language population. Whereas, policies analysis of programs four and five validate the need to increase the number of minority teachers.

Agreements and statements of Commitment. Program/teacher candidate agreement and statement of commitment represents the concepts that appeared in four of the programs considered. This component involved two distinct themes, obligations made by the program and the teacher candidate responsibilities. Topics repeatedly appearing in program documents addressing agreements on behalf of the GYOT programs included financial support, employment support and continuing professional development. Four of the five research respondents provided financial support in the form of loan forgiveness programs for teacher candidates who meet certain requirements. Loan forgiveness is a process wherein the GYOT program cancels a portion or the entirety of a student loan. Documents and/or information provided by programs directors from research respondents one, two, four and five indicated loan forgiveness was based on the teacher candidate returning to the district or district in the consortium and serving as a teacher for a designated number of years.

The second GYOT program agreement involved providing teacher candidates

with ongoing professional development. GYOT programs one, two, three and five made professional development available beginning in high school and continuing through college. These professional development opportunities focused on essential skills needed to increase teacher candidate knowledge of college life, successful study habits, team work, academic content, teaching skills, P-12 student learning, perspectives on diversity, etc. The final program in the study, GYOT program four for nontraditional students, sponsored 16 workshops for teacher candidates. These workshops were devoted to improving the skills needed to pass the Test of Basic Skills, increasing candidates' awareness of the importance of professional dress, speech, manners, attitude, being financially astute, etc.

The final program agreement involved employment or employment assistance for teacher candidates. Programs one, two, and five provide job placements upon successful completion of all requirements for teacher certification and criteria of the program. Programs three and four provide placement assistance and priority considerations in its district or districts' application process.

Teacher candidate commitments to the district or consortium represented the second piece of the agreement/commitment statements. As policies were analyzed the following themes became apparent: becoming a highly qualified teacher with certification to fill positions in hard to staff schools or in high needs areas, maintaining the good citizen status, allowing program monitoring or tracking of their progress, renewing of the annual commitment/agreement statement on an annual basis and seeking employment in their supporting district or consortium district. All five research participants required teacher candidates to gain teaching licensure. This would include meeting college

entrance criteria and maintaining full-time student status as described by two programs as “be consecutively enrolled in at least twelve credits hours per semester . . .” In addition, teacher candidates must successfully complete the basics skills test required for acceptance into accredited teacher education programs and successfully pass teacher licensure exams. Four of the five participants in this research required teacher candidates provide assurance to their sponsoring program of their faithfulness to this component by providing documents of their compliance or allow monitoring or tracking of their progress by giving sponsoring programs access to their records. Finally, teacher candidates are responsible for annually renewing the agreement/commitment contract.

The second teacher candidate commitment consists of maintaining good citizenship. Research programs’ view of good citizenship was twofold. The first view was through the lens of obedience to society's expectations as formulated in laws. Teacher candidates agree to be a role model by adhering to and obeying the law. Citizenship guidelines were often explicitly similar to those submitted by research respondent two. These guidelines include but were not limited to violation of the Safe Schools Act and school and district codes for school suspension.

The second lens viewed citizenship as that of an individual who acts responsibly within his community by participating as an active member of community organizations and/or improvement efforts. In programs one, two, three and five, teacher candidates demonstrate social citizenship by consenting to volunteer in the school and/or community events. Research program one documents indicated this reinvestment occurs while teacher candidates were in high school. These candidates agreed to served as volunteers in urban school classrooms and attend professional development. Research programs two,

three and five teacher candidates pledged to reinvest while in high school and in college. Research program three teacher candidates commit to serving as district instructional aides while in college. Research program two and five teacher candidates promised to actively participate in all Grow Your Own Teacher Program activities which includes both school and community service while in college.

The final shared theme consists of the promise of service to the supporting districts. After earning their teacher certification, teacher candidates in research respondents one, two, four and five agreed to employment in the supporting district or consortium district. In these programs, teacher candidates pledged to remain in these districts for a designated period of time. The tenure for employment varied by respondents but did not exceed five years. Failure to comply with this component or any other element of the agreement/commitment statement would result in teacher repayment of all post secondary financial support. Program contracts of all research participants, with the exception of respondent three, contained statements similar to the declaration found in programs two and five documents, "In the event that I [teacher candidate] fail or refuse to perform one of the requirements, I [teacher candidate] agree that I [teacher candidate] will repay the full amount of the GYOT Program funds expended on my behalf.

Educational Foundation. Document analysis identified four sources of financial support for GYOT programs. The first three to be discussed did not occur with the frequency needed to be identified as a reoccurring theme but still deserve to be pointed out. Research participant one used its local tax dollars to support its program as it existed in grades nine through twelve. Research respondents three and four documents revealed

teacher candidates were encouraged to and assisted as they searched and applied for government and private funded grants and scholarships. GYOT program four teacher candidates were supported by state legislation and supporting funds were provided by annual governor approved appropriations. However, post-secondary support for GYOT teacher candidates overwhelmingly came by the means of Education Foundations.

Program documents from GYOT programs one, two, three and five revealed most of the financial support for their teacher candidates was obtained from Education Foundations. Education Foundations are privately operated, nonprofit organizations established to assist public schools and qualify as charitable organizations (Clay, Hughes, Seely & Thayer, 1989). A public school foundation is designed to augment, supplement or complement programs and activities currently being provided by the district (McCormick, Baver & Ferguson, 2001). Currently in the U.S. there are over 6,500 school foundations in 14,500 school districts (McCormick et al., 2001). They have their own board of directors and staff members, both paid and volunteer. Most school foundations operate as an independent entity, with no formal, legal relationship to the school district (De Luna, 1995).

Program Coordinators: In their efforts to create sustained recruitment and retention practices, all five GYOT programs participating in the study had designated program coordinators. In many of the programs, coordinators served other roles in the district; however, program four it was the coordinator's sole duty. These positions were comprised of a variety of responsibilities. Coordinators were responsible for implementing the program's policies and process. Often implementation included provisions for information dissemination and community relations. Coordinator duties

also included creating and executing the program's plan for teacher candidate mentorship and professional development. Communicating program expectations; ensuring teacher candidate fulfillment of commitments and acting as a teacher candidate resource served as a primary responsibility for program coordinators. In programs two and four, the role of the coordinator included understanding the district/program budget, district/program budgeting/spending process and working within this system to secure adequate resources for program implementation.

The research of McClure and Reeves (2004) points out the importance of sustained recruitment and retention practices as being a key component of successful programs. Efforts to sustain programs include formalizing initiatives so they become part of the school culture. Program coordinators play a critical role in process of embedding the GYO concept into the district's way of life.

Research question 2. What are the perceptions of GYOT programs personnel regarding best practices in meeting their teacher recruitment goals?

The study utilized a 15 item questionnaire (Appendix C) to address research question two which was designed to shed light on the perceptions of GYOT programs' personnel regarding best practices in meeting their teacher recruitment goals, showing an increase in the pool of qualified teacher candidates. The term Best Practice has been used to describe a way of achieving specific results under specific circumstances in an effective and efficient way. It is a concept based on lessons learned by one group that are passed on to other groups. In this way a best practice tends to spread throughout a field after a success has been demonstrated (Duignan, 2009). Utilization of known best practice is away an individual or organization can focus on performance of the task rather

than first determining the best way to accomplish the task. This can save both time and money. In addition, the use of best practices can facilitate a more consistent set of results (Duignan).

Progress would be stifled if every time an organizations had to use trial and error to determine the most efficient and effective way of achieving the task. Organizational advancement can be increased when practitioners share best ways of doing things so that they do not all have to reinvent the wheel. In addition, the proven method, known as a best practice, can then be tweaked if necessary to meet specific needs of their organization, thus further increasing the likelihood of program success (Duignan, 2009). Central to this research is identifying those practices that would increase the likelihood of current and future GYOT programs' success.

The following discussion will explore insights regarding personnel perceptions as revealed by the examination of survey responses. First the narrative will present those perceived best practices that promote program effectiveness. The second position will attend to those practices directors and personnel perceive as obstacles to program progress or find the most difficult to manage. The final discourse will address aspects of their programs personnel perceive as unique.

Perceived Best Practices:

Mentoring. Bozeman and Feeney (2007) define mentoring as a process for the informal transmission of knowledge, social capital and the psychosocial support perceived by the recipient as relevant to work, career or professional development. Mentoring entails informal communication, usually face-to-face and during a sustained period of time, between a person who is perceived to have greater relevant knowledge,

wisdom or experience and a person who is perceived to have less. All five GYOT programs have included mentoring programs for teacher candidates. Three of the five programs identified mentoring as the practice which contributes most to its success.

In addition to being perceived as best practices by GYOT program personnel, mentoring is a research proven practice. Mentoring has been shown to have a positive effect on one's career. Research by Gerard Roche (1979) found that of the 63.5 percent of the 1,250 respondents who had a mentor, defined as a person who took a personal interest in their career and who guided or sponsored them, on the average were more satisfied with their work and careers than their non-mentor counterparts. Kram (1986) discovered that mentoring facilitates the socialization of new hires into the organization, reduces turnover, minimizes mid-career adjustments, enhances transfer of knowledge and values and facilitates adjustments.

Analysis of questionnaire responses and program documents revealed GYOT program mentors provide an array of supports including but not limited to spiritual, emotional and professional support to groom teacher candidates for future roles in the district. A variety of mentoring formats were noted within each program. The two most predominate designs pinpointed what could be considered as informal and structured. The American Speech-Language and Hearing Association (ASHA, n.d.) provides us with the following definitions of informal and structured mentoring. Informal mentoring is what most people think of when they think of mentoring. It is a spontaneous, casual relationship where a senior person takes a junior person under his or her wing and provides long-term guidance and counsel (ASHA). Structured mentoring programs are designed to create a culture where people can proactively support the development of one

another. In these programs, mentors are generally matched with mentees to support specific goals such as leadership development, diversity or retention.

All five programs provided informal and structured mentorships. Program documents indicated informal mentorship was ongoing in programs one, two, three and five, beginning in high school and continuing throughout the teacher candidates' college career. Initially, mentors were master elementary/secondary teachers and later expanded to include post secondary teachers and academic advisors. In program four, mentors were assigned as teacher candidates entered into the program with these supports continuing throughout their college career. Each GYOT program provided structured mentorship with most being well thought-out plans of professional development which supported its program goals of development and retention of teachers.

At this point it should be noted that the differentiation of the various GYOT mentoring programs was not black and white, rather they exist more on a continuum with informal on one end and structured on the other end. For example, organizations often assigned one-to-one mentors with specific guides to serve as the mentee was being prepared. However, these mentor/mentee relationships often evolved to more casual relationship where mentors voluntarily became personally invested in the success of the mentee.

Partnerships. Analysis of program documents revealed all five GYOT programs had developed partnerships. This is in accordance with the research of McClure and Reeves (2004). They purposed the inclusion of vital partners in complimentary and collaborative efforts plays an important role in GYOT program success. Survey responses from research participants three and four revealed forming partnerships as a practice lead

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to the effectiveness of their programs. These partnerships represent collaborative/cooperative efforts of three separate entities: the private/business sector, area institutions of higher education and the GYOT program. All of these entities work in concert to make an impact on the teacher shortage by designing a proactive plan to increase the numbers of students entering the teaching profession and increasing the numbers of qualified teachers available to fill positions, particularly in areas of critical need. The first partner is represented by the private/business sector. Educational foundations were the primary representatives of this component. With a focus to provide support for teacher candidates while in college, these foundations seek private donations, sponsor community events such as golf tournaments, black-tie affairs, get to know your local GYOT events, etc. to solicit local financial support.

Area institutions of higher education represent the second key piece of the partnership. With the goal of creating a smooth transition into college, each program had designated specific institutions as a collaborator. Each GYOT program had developed specific pathways for teacher candidates to follow as they earned their teaching certification and, in some cases, higher education institutions offered GYOT scholarships. Research participant three referred to “The close relationships we have with college retention counselors help us make students successful.” While respondent four cited the component contributing most to its success were the excellent working relationships between the consortium partners of Colleges and Universities ...”

The final partner is represented by the school district or consortium of districts whose responsibilities included developing monitoring and implementing the GYOT programs for teacher candidates. The primary focus of this final cohort member is to

encourage and enable teacher candidates to pursue full-time teachers to work in hard to staff schools and/or to fill high needs areas. This assistance exists in the form of financial assistance and mentorships, both informal and structured.

In addition to identifying practices which encourage and promote growth of their GYOT program, personnel were asked to name practices they perceived to be unique to their programs. Survey responses did reveal research participant four's geographical characteristic and consortium make-up as being unique to only its program. Two additional practices, professional development as identified by research participants two and three and assigned coordinators as identified by study respondent three, were also identified by program personnel as unique. However, analysis of documents and survey responses indicated professional development and assigned coordinators were common to many programs.

Perceived Unique Practices:

Professional Development: In resolving research question two which sought to identify those components perceived to be GYOT best practices, the questionnaire asked respondents to describe any unique feature of their program. Survey responses identified two of the five programs indicated professional development was a unique practice for their program. Analysis of all program documents indicated professional development played an important role in all GYOT programs. As the component was reviewed, it was found that each GYOT program had developed an intensive plan of professional development for teacher candidates. Monk (2007) described professional development as a key component of effective mentoring. His researched indicated professional development along with an array of other initiatives can foster positive feelings teacher

candidates hold in regards to a district and these feelings could lead to increased teacher retention.

Program Coordinator: The second component discussed was the appointment of a program coordinator. Coordinator responsibilities included assisting teacher candidates while preparing for college, mentoring and assisting students while in college, tracking and monitoring teacher candidate progress. Again, this element was identified by program three as being unique to its program, but analysis of data revealed all five programs had coordinators.

Geography: GYOT program four pointed to the composition and geography as being unique to its program. This proved to be the only unique factor identified. GYOT program 4 is a consortium composed of 14 school districts and two special education cooperatives.

In addition to best and unique practices, the parameters of this research project sought to specify practices perceived by program personnel as those that are most difficult to manage and those which contribute least to program effectiveness. Analysis of responses to questions items 9, 11, 12 and 13 lead to the identification of program funding, tracking/monitoring of students and geography as practices or program characteristics that are the most difficult to manage or contribute least to program effectiveness.

Personnel Perceptions of Least Effective or is the Most Difficult to Manage:

Funding: Analysis of survey responses brought to light that often the most difficult to manage and those which contributed the least to program success were one and the same. All research respondents identified economic issues as the most difficult to

manage or the primary obstacle hindering program success. “Right now we are met with economic issues we have not faced before . . .”; “As our district faces cut backs due to dwindling budget, positions being vacated are not being filled and responsibilities are being reallocated. So, we are all doing more will less.”, “We have no control over state payments, and for the past three years have operated for most of the grant year with little or no funding.” “Budget reductions for the year include: . . . suspending new appointments to the Grow Your Own Teacher Program.” All statements are of concern expressed by program personnel in regards to managing the financial demands of maintaining a GYOT program.

Tracking and Monitoring: Tracking and monitoring teacher candidate progress once they enter college was a practice program personnel found difficult to manage or as an obstacle. When asked, how does your program monitor success of your GYOT program, all research participants referred to tracking teacher candidates while in college and/or once they become employed. Tracking teacher candidate progress was most often completed by teacher candidates completing an annual survey/evaluation form or programs relied on college and university personnel. “Keeping up to date records is difficult due to the fluid nature of college students not living at home” was cited as a major restraint when programs attempted to monitor their teacher candidates. Once hired in the district, a last name change due to marriage was presented as another barrier for tracking teacher retention.

Geography: Again, with its unique composure of 14 districts and two special education cooperatives, GYOT program four identified “Geography affects us negatively...” Not only did it affect coordination of program efforts, it also focused on

the issues faced by a nontraditional population. For this program, teacher candidates must drive long distances to attend classes and professional development.

Research Question three: Is there a statistical difference in the turnover rate of teachers, who have been supported by Grow Your Own Teacher programs and in the turnover rate of teachers who taught in the general teaching population?

Evidence suggests the consequences of teacher turnover are substantial. Not only is there an enormous financial cost, there is a depletion of human resources that severely undermines schools' ability to provide students with high quality education. A study in Texas revealed that state's annual turnover rate of all teachers to between 16 and 17 percent. Even more alarming, this study revealed a 40 percent attrition rate for teachers in their first three years and higher rates of teacher turnover for many low-income and rural communities. In addition, those who enter teaching through some alternative pathway, the attrition rate rose as high as 60 percent (National Commission on Teaching and America's Future, 2007). Forbes magazine estimates the national financial costs of teacher turnover alone to be a staggering \$7.3 billion a year (Kain, 2011). However, more serious than the economical drain is that high teacher attrition diminishes teaching quality, student achievement and human resources. High turnover rates reduce schools' ability to create a staff evenly balanced with inexperienced and seasoned teachers. As a result, district staffs become inundated with inexperienced teachers, with less than two to three years of experience, who are often found to be discernibly less effective (National Commission on Teaching and America's Future). Furthermore, as new teachers are thrust into the profession, they find very limited opportunities for mentoring by accomplished teachers. The ever increasing rate of teacher attrition continues to plague our nation's

schools and classrooms as they are left with an uphill climb to provide students with a level of education deemed to be excellent.

As the competition to find and keep quality teachers grows, districts are becoming more aggressive and creative in the way they recruit new teachers with the hopes they will remain in the district. With new programs and incentives cropping up every year, educational leaders are faced with the daunting task of determining which strategies are working and which are not. Which brings to light the third question guiding this research which asks, is there a statistical difference in the turnover rate of teachers who have been supported by Grow Your Own Teacher programs and in the turnover rate of the teaching populations in general. To address this research question, this study has employed the statistical test Chi-Square. For questions about the proportions or relative frequencies for the distribution of data for this study, Chi-Square test for goodness of fits was be used. The Chi-Square test for goodness of fit uses sample data to test hypotheses about the shape or proportions of a population distribution. The test determines how well an obtained sample proportion fits the population proportions specified by the null hypothesis (Gravetter & Wallnau, 2004).

The third research question seeks to resolve the question, is there a statistical difference in the turnover rate of teachers who have been supported by Grow Your Own Teacher programs and in the turnover rate of teachers who taught in the general teaching population. The model for comparison, the population proportions specified by the null hypothesis, is represented by the number of public and private school teacher movers and leavers as identified by The National Center for Educational Statistics (NCES). In the 2008, NCES reported there to be a total of 3,867,600 public and private school teachers.

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Public school teachers represented 3,380,300 of that total while 487,300 teachers worked in private schools. Since only two of the five research participant programs have been in existence long enough to have teacher candidates to earn teacher licensure, the obtained sample only reflects data from these programs. The obtained sample proportions represent information provided by research participant districts three and five. The total number observed for GYOT program three was 27. The total number observed for GYOT program five was 150. For this study, the hypothesis is that the number of leavers in the obtained population samples was significantly different when compared to that of the teacher population in general. The null hypothesis is that the population of leavers in the obtained populations and teacher population in general are the same or there is not a significant statistical difference in these occurrences.

The model for comparison was developed by using statistics published by the National Center for Educational Statistics (2008). To calculate teacher turnover rate, identified three categories. The first is stayers, those teachers who remained at the same school. Movers represent the second category. Movers are those teachers who moved to a different school. The final group is leavers. Leavers are those teachers who left the profession. National Center for Educational Statistics (NCES) reported in the 2008 there was a total of 3,867,600 public and private school teachers. Of this group, 83.8 percent or 3,240,900 teachers represented stayers. The total number of movers and leavers represented 626,800 or 16.2 percent. For this research project, the 2008-09 teacher turnover rate for the teaching population in general was designated at 16.2 percent. Consequently, 16.2 percent was the model for comparison. In the following paragraphs this project presented the findings of the Chi-Square analysis.

Chi-Square analysis of GYOT Program three and the teaching population in general produced the following information. For this study, the null hypotheses (H_0) states there is no significant statistical difference for the teacher turnover rate for GYOT program three population and the teaching population in general. The alternate hypothesis (H_1) indicates there is a significant statistical difference between teacher turnover rates for the two groups. When using the Chi-Square test, if the obtained value is more extreme than the critical value, the null hypothesis cannot be accepted, if the obtained value does not exceed the critical value, the null hypothesis is the most attractive explanation (Salkind, 2004).

For this research, a Type I error was set for .01. A Type I level of significance occurs when a significance test results in the rejection of the H_0 . A .01 level of significance means that on any one test of the H_0 , there is a 1% chance you will reject the H_0 when the null is true and conclude that there is a group difference when there really is no group difference at all (Salkind, 2004). In this research report, the statistical significance is represented as *p at the .01* and is read as the probability of observing that outcome is less than 1% of the time (Salkind). With 1 degree of freedom at the .01 level of significance, the critical value needed for acceptance of the H_0 for program three is 6.64. Chi-Square analysis of program three data produced an obtained value of .2953 which is less than 6.64 (the .01 level). The program three critical value of .2935 results in a failure to reject the H_0 . As a result, with an expected number of leavers being four and the observed number of leavers being three, it can be concluded that there is not a significant difference in the teacher turnover rate of GYOT program three and the teacher turnover rate of teachers in general.

Chi-Square analysis of program five and the teaching population in general generated the following results. For this study, H_0 states for there is no significant statistical difference for the teacher turnover rate for GYOT program five population and the teaching population in general. As a result, no inferences can be based on what is found in the obtained sample and any differences found between two groups or any relationship found between two variables based on our sample is simply due to random sampling fluctuations and not due to any significant differences. On the other hand, H_1 indicates there is a significant statistical difference between teacher turnover rates for the two groups. When using the Chi-Square test, if the obtained value is more extreme than the critical value, the null hypothesis cannot be accepted, If the obtained value does not exceed the critical value, the null hypothesis is the most attractive explanation (Salkind, 2004).

For this research, a Type I error was set for .01. A Type I level of significance occurs when a significance test results in the rejection of the H_0 . A .01 level of significance means that on any one test of the H_0 , there is a 1% chance you will reject the H_0 when the null is true and conclude that there is a group difference when there really is no group difference at all (Salkind, 2004). In this research report, the statistical significance is represented as *p at the .01* and is read as the probability of observing that outcome is less than 1% of the time (Salkind). With 1 degree of freedom at the .01 level of significance, the critical value needed for acceptance of the H_0 for program five is 6.64. With an expected frequency of 24 and an observed frequency of 38, Chi-Square analysis of program five data produced an obtained value of 9.723 which is more than 6.64 (the .01 level). This allows for the rejection of the H_0 . Based the data collected, it can

be concluded that there is a significant difference in the teacher turnover rate of GYOT program five and the teacher turnover rate of teachers in general.

Conclusions

According to McClure and Reeves (2004) available data indicate that grow-your-own strategies are often viewed as successful by those involved. When considering the limited amount of formal research available regarding the effectiveness of this program, it appears that further research is needed to determine what is considered grow-your-own best practices; what works best in particular settings or with particular populations; program effectiveness in relieving shortages in high needs areas or in hard to staff schools and do these programs produce the most effective teachers. Accordingly, this study sought to shed light on reoccurring themes in existing grow-your-own programs, personnel perceptions of what constitutes program best practices and the effectiveness of such program in alleviating teacher shortage in hard to staff schools and high needs areas. Efforts to shed light on the conclusions of this study was presented in the following section. Discussion will include a synthesis of information from the policy analysis, personnel questionnaire and Chi-Square statistical analysis.

Nine global themes evolved as the documents of the five participating programs were examined. Post secondary financial support, mentorships, partnerships, target population: high school students, application/selection process, program goals, agreements/statements of commitment, education foundations, and program coordinators are common components that emerged as programs were analyzed. These findings should not imply that there is a one-size-fits-all approach. This research revealed the nine themes as part of a package of solutions from which to choose to address the multi-dimensional

needs of the various districts. For example, all programs involved post secondary financial support, mentorship, partnerships, specific program goals, and program coordinators. There was a significant range in the amount of post-secondary financial support offered by each program to defray to cost of teacher education preparation. Programs one, two, four and five provided substantial loan forgiveness programs paying for most if not all of the costs of teacher preparation programs. On the other extreme of the spectrum, program three only offered financial incentives to cover text fees and to qualify for these monies teacher candidates must participate in annual professional development workshops.

Mentorships represented the second commonality among program themes. However each programs mentorship characteristics greatly varied. Program one began its mentorship began in the ninth grade and continued throughout the teacher candidates training. Its mentorship involved formal high school curriculum designed to enhance academic readiness for college, student knowledge of teacher qualities and in class experiences regarding the demands of teachers. The mentorships in program two and five were very similar in nature. These mentorships began as the students finished their senior year in high school and involved both structured professional development and informal mentoring as students completed a program leading to teacher licensure. Mentoring in program three similar to that of program two and three involved structured professional development. One variation found in the mentorship of program three when compared to the other four programs was the requirement teacher aid experience. During their college career, program three teacher candidates were required to annually return to the district to work as an instructional assistant. The coordinator of program three cited this as an

attempt to increase teacher candidate's sense of rootedness in the district. The final program's mentorships, program four, was designed to meet the specific needs of nontraditional students.

Partnerships emerged as the next theme pattern common to all research participants. All research program respondents involved community members, university/college members and local program representative in its efforts to support grow-your-own teacher candidates. All programs had both a 2 + 2 and traditional four year pathway designed for their teacher candidates to pursue as they earned their teaching degrees. Again, program three demonstrated the uniqueness in having specifically designated advisors at each college and university assigned the responsibility of guiding it grow-your-own teacher candidates as the completed their teaching degree.

Research investigations revealed program goals and targeted populations to be common themes. Close examination again revealed within each of these themes considerable variations exists. While all research respondents indicated the program's goal was to target critical need areas. What was identified as critical needs was different for each. Some indicate the goal was to increase the number of minority and bilingual teachers in the district. While others disclosed the program objective was to develop teachers willing to serve in urban and rural areas. At the same time, other programs' end goal was to develop teachers with expertise in science, mathematics, special education, foreign language and technology. Clearly each program had carefully developed program goals to meet each own specific need.

The population targeted from which to recruit teacher candidates was overwhelmingly high school students. There was some deviation in this theme in

program three, four and five. Programs three and five had designated secondary target populations of college students who had recently graduated from their schools. Program four was the only program to only target nontraditional population such as instructional aides, parents and community members as potential teacher candidates.

The final three themes that transpired were application/selection process, program coordinators, and agreement/statements of commitments. All research participants' had implemented similar application and competitive selection process for grow-you-own teacher candidates as they entered into the college preparation phase. However, one unique component of program one occurred during the initial phase of program. Program one teacher candidates entered the program at the beginning of the ninth grade. At that time all interested students were admitted. As students proceed on to the second phase of programs one process, it then became competitive.

All programs involved personnel assigned to coordinating and monitoring program efforts. Some programs employed full time coordinators while others grow-your-own responsibilities represented only part of the job descriptions. In many cases, coordinator time allocated to the grow-your-own program was based on available district and program resources. The final theme identified was program agreements and teacher candidates' agreements. Four of the five programs had implemented formal contracts to specifically designate responsibilities of the program and teacher candidate responsibilities and the guidelines of its loan forgiveness program. The only exception to the agreements/commitment theme was program three. Program three elected not to incorporate this component as part of their program nor did their financial support exist as a loan forgiveness program.

TEACHER RECRUITMENT AND RETENTION

Clearly each Grow-Your-Own program had developed strategic and specific recruitment and retention practices as recommended by the research of McClure and Reeves (2004). Strategically each program had employed local data to analyze its needs. They had involved appropriate collaborators at the community; district and higher education level developed specific plans to leverage available resource to produce maximum results.

The second component of this research was to disclose GYOT personnel perceptions of what constituted GYOT best practices. Program personnel overwhelming referred to their mentorships programs to being the GYOT best practices. Personnel repeatedly points to mentorship components adhering to both structured and informal practices. Structured practices involved formal professional development designed to facilitate teacher candidate knowledge of the practice of teaching and skills needed to be a successful college student. Structure mentoring was designed and supported by the program to facilitate the creation and maintenance of program goals. Professional development topics included but were not limited to workshops covering financial planning and assistance, diversity, academic skills development and becoming an independent adult. In addition, some programs included as formal professional development internships for high school students in the elementary and secondary classrooms and serving as instructional aides while in college.

Informal mentoring was another mentorship component highlighted by program personnel as a best practice option. Informal mentoring involved an experienced teacher and taking a GYOT teacher candidate under his or her wing and providing them advice and guidance to assist while earning teaching certification. According to program

personnel both structure and informal mentoring served two purposes. First, it was provided academic and emotional support to the teacher candidate as they successfully completed their training. While at the same time, mentorships served to strengthen the teacher candidate's sense of belonging and commitment to the district and community.

At this point it is appropriate to discuss funding and teacher candidate tracking/monitoring practices. Program personnel cited these components as obstacles to program effectiveness. Accessing financial support for grow-your-own teacher programs has become increasingly difficult in the current economical environment. This concern has grown to the point where current programs are scaling back the number of teacher candidates being recruited and served. Resulting in the increased concern, fewer economical resources would become an addition obstacle programs would face as they attempt to meet their goals of increasing the number of highly qualified teachers willing to serve in hard to staff schools and in high needs areas.

The ability to successfully track and monitor teacher candidates and teacher supported by GYOT projects has proven to be another area of concern for programs. The fluid nature of college student populations makes it difficult to monitor college completion rates. This lack of a clear monitoring and tracking procedures have created difficulties for programs as they attempt to monitor GYOT teacher return and retention rates to address accountability issue.

The final purpose of this research was to identify if GYOT programs held the potential for alleviating teacher shortages in critical areas. To resolve the question the study employed Chi-Square analysis. The Chi-Square statistical method focuses on testing for acceptance or rejection of the null hypotheses (H_0). For this project, the H_0

states for there is no significant statistical difference in the turnover rate of teachers, who have been supported by Grow Your Own Teacher programs and in the turnover rate of the teaching population in general. For this research, a Type I error was set for .01. A Type I level of significance occurs when a significance test results in the rejection of the H_0 . A .01 level of significance means that on any one test of the H_0 , there is a 1% chance you will reject the H_0 when the null is true and conclude that there is a group difference when there really is not group difference at all (Salkind, 2004). In this research report, the statistical significance is represented as *p at the .01*. With 1 degree of freedom at the .01 level of significance the critical value needed for rejection of the H_0 is 6.64. When using the Chi-Square test, if the obtained value is more extreme than the critical value, the null hypothesis cannot be accepted, if the obtained value does not exceed the critical value, the null hypothesis is the most attractive explanation (Salkind).

Chi-Square analysis of program three data produced an obtained value of .2953 which is less than 6.64. This results in a failure to reject the H_0 . As a result with an expected number of leavers being four and the observed number of leavers being three, it can be concluded that there is no significant difference in the teacher turnover rate of GYOT program three and the teacher turnover rate of teachers in general. In respect to assumptions made regarding program three, the research notes that the small number of members in the program's sample may have influenced the results.

With an expected frequency 24 and an observed frequency of 38, the Chi-Square value for program five is 9.723 and is greater than 6.64 and allows for the rejection of the H_0 . Based the data collected, it can be concluded that there is a significant difference in the teacher turnover rate of GYOT program five and the teacher turnover rate of teachers

in general. Noting that the expected frequency is significantly less than the observed frequency, the researcher returned to the program coordinator for clarification. Follow-up information revealed the observed frequency of 38 included two distinct groups. The first being teacher candidates who earned teacher certification and are no longer working in the district. The second group consists of teacher candidates who did not complete a teacher preparation program. It should be noted the second group does not fall within the definition of leavers as designated by this research. Within the parameters of this study, any assumptions based on the observed population from program 5 would be faulty.

Implications

There are several implications that can be associated this research project addressing existing GYOT Teacher Recruitment and Retention Programs and in context with past research. The following represent practical suggestions for addressing the topics that have been introduced throughout the research. These topics include: a) effectiveness of current GYOT programs in actualizing their program goals of increasing the number of highly qualified teachers willing to serve in hard to staff schools and high needs areas, b) GYOT personnel perceptions the best practice of mentoring, c) research support for strategic and specific program designs and d) ideas for expanding GYOT practices.

First, the results of this study suggest the need for longitudinal data regarding the effectiveness of GYOT programs. Program three's small sample size and the indistinguishable group members of program five's sample make it difficult to substantiate the research of Hare and Heap (2001) and Boyd, Lankford, Loeb and Wyckoff (2005). The study of Hare and Heap suggest there is evidence of increased program effectiveness when they unite community groups, higher education institutions

and school districts in their efforts to support teacher candidates as they earn their teaching certification. While the data presented by Boyd, Lankford, Loeb and Wyckoff supports the concept that homegrown teacher candidates who possess a more sophisticated understanding of a community's particular challenges, and therefore are better prepared are more willing to serve the children of that community.

Second, this research points to a need for the investigation of mentoring as a crucial component of effective GYOT programs when compared to all other practice, even post-secondary financial support. Without exception, program personnel cited mentoring as the practice contributing most to program success. Much like the ideas discovered by Kram (1986), program personnel perceived mentoring as a practice that facilitates the socialization of new hires into the organization, reduces turnover and enhances transfer of knowledge and values and facilitates adjustments.

Next, this research findings support the concept when developing a GYOT program there is not specific one model but several variations of the model from which to select. Policy analysis the five sets of program documents revealed nine common themes. However, closer of examination of each theme as it existed in each program found significant theme variations. Further investigated revealed each program had closely analyzed it own needs, made decisions and customized plans to meet those needs. This research outcome supports the past finding. Murphy and DeArmond (2003) which suggest effective recruitment and retentions practices must be specific and strategic. Specific in those efforts should be focused on needs particular to that district. Strategic in that program should involve all stakeholders in analysis local data to high light needs, develop plans to meet those unique needs and make the most efficient use of available

resources.

Lastly, research data suggests there is a need for expanding GYOT practices by researching and developing high-quality follow-up procedures. McClure and Reeves (2004) suggested as one of their promising strategies is for regular evaluation of teacher recruitment and retention efforts. To achieve this, tracking and monitoring procedures which yields reliable data must be developed. One concern noted in this study was tracking and monitoring processes were often identified as obstacles confronted as GYOT personnel as they attempted to implement programs. When considering the current concerns faced as district attempt to manage dwindling funds, it is imperative that tracking and monitoring procedures be available to validate expenditures of funds used to support such as GYOT programs.

Recommendations for Future Research

This study clearly points to the need for further research in a number of areas related to GYOT recruitment and retention programs. The first recommendation is for a longitudinal study to examine the impact of GYOT programs over time. Due to the number of programs existing for more than six years, the amount of data regarding the effectiveness of GYOT programs is limited. The researcher may wish to follow a newly developed program to monitor its longitudinal impact. Longitudinal data would provide a better understanding of the degree to which recruitment and retention programs increase the pool of highly qualified teachers to willing work and remain in hard to staff schools or in high needs areas.

The next suggestion consists of a correlation study to investigate the differences between student achievement of those teachers who participate in GYOT programs and

those who do not. A major benefit to this type of a correlation study would be prediction. If, for example, a positive relationship of sufficient magnitude existed between teachers supported by GYOT programs and increased student achievement, researchers might be able to predict that teachers who are potentially more effective with at-risk populations.

As this research evolved, the need for an additional comparative study regarding GYOT teacher candidate perceptions emerged. Examiners may wish to determine if teacher candidate perceptions regarding mentorships and post secondary financial support are the same. For example, research may wish to determine if mentorships more likely to increase the probability of teachers' desire to remain in the district when compared to that of post secondary financial assistance.

Finally, it is recommended that a comparative study would add to the quantity and qualitative of knowledge regarding effective GYOT teacher candidate follow-up procedures. A replication of this study could be conducted with a stronger and more focused purpose regarding reoccurring themes in tracking and monitoring procedures of GYOT teacher candidates. The study could be expanded to include tracking and monitoring practices in institutions of higher education that sponsor GYOT programs as well as those of GYOT programs sponsored at the high school level.

Summary

The purpose of this mixed-method, post-positivism study was multifaceted. First, policy analysis was used to highlight reoccurring themes in the policies and processes of various GYOT programs as they attempt to enhance a district's ability to employ and retain highly qualified teachers in high demand areas and/or in hard to staff schools. Second objective was to analyze the study's questionnaire to ascertain the prevailing

perceptions of GYOT programs personnel regarding best practices in meeting their teacher recruitment goals, showing an increase in the pool of qualified teacher candidates. The final research intention was to determine if there a statistical difference in the turnover rate of teachers who have been supported by Grow Your Own Teacher programs and the turnover rate of the teaching population in general.

To strengthen and ensure research rigor and findings, the study incorporated two methodological strategies with five distinct populations in an attempt to discern commonalities among GYOT program and programs' potential promise for success. First, efforts to fortify finding involved the project utilizing the dominate-less dominant approach. More specifically this research project was more indicative of the Concurrent Nested Design. Clark and Creswell (2008) describe the Concurrent Nested Design as one identified by its use of one data collection phase during which quantitative and qualitative data both are collected simultaneously. For this project, the primary technique involved qualitative analysis of both program polices and personnel responses to a questionnaire. In addition, embedded within the research survey were key questions designed to gather data for the statistical analysis task of Chi-Square. To further strengthen findings, the researcher meticulously subjected both qualitative and quantitative data to cross triangulation.

This research involved five diverse populations representing various regions of the United States. Purposive sampling was used to insure that the participants were uniquely suited for the intent of the study (Fink, 2006). Potential respondents were initially identified as the review of literature was conducted and then by an internet search for GYOT programs. This research revealed a pool of prospective research

participants ranging from individual school district supported programs to department of education sponsored programs to government maintained consortiums. The final defined population is nationwide sample including five key school districts and one consortium representing multiple school districts.

The research was guided by three key questions. The first question employed qualitative data analysis and was reported in terms of themes. Question two also made use of qualitative data analysis and results were presented as themes and frequency counts. The final research question utilized quantitative data analysis and was described by the use of scores and frequencies. Research question one was designed to draw attention to reoccurring themes and procedural patterns existing in various GYOT teacher recruitment policies and programs studied. Policy analysis of the participating programs disclosed several meaningful patterns or recurring themes among the research contributors. Nine overriding themes evolved as the documents of the five participating programs were examined. Post secondary financial support, mentorships, partnerships, target population: high school students, application/selection process, program goals, agreements/statements of commitment, education foundations and program coordinators are common components that emerged as programs were analyzed.

Post Secondary Financial Support represented the first theme to emerge. All programs offered various levels of post secondary financial assistance. The amount of financial aid ranged from teaching fellowships paying the full costs of teacher education programs to partial scholarship paying textbooks fees. Four of the five GYOT programs have established their teacher candidate financial assistance as loan forgiveness programs. These loan forgiveness programs offered to eliminate all of teacher candidate

GYOT loans in return for returning to the supporting districts and working for a predetermined number of years.

The second theme identified was that of teacher candidate mentorship. The objective of GYOT mentorships was to ensure teacher candidates had a meaningful career experience through the development of a one-on-one relationship with someone they can regard as a coach, teacher, counselor or friend. In addition, mentors were to provide teacher candidates with information, knowledge and experience in his/her area of expertise.

Examination of GYOT documents pinpointed partnerships as another theme to transpire. Analysis of all five sets of program documents revealed all research respondents relied on partnerships to achieve its goals. These partnerships consistently involved community members, institutions of higher education and GYOT programs working to support teacher candidates as they completed their education degrees

Targeted population, primarily comprised of high school students represented one more theme to evolve. This theme is a demonstration of the research conducted by Boyd, Lankford, Loeb and Wychoff (2005). They suggested when attempting to decrease teacher turnover, districts need to look with their own populations because teacher will more likely continue to teach in districts close to where they grew up.

GYOT candidate application and selection process was another reoccurring theme to evolve as the five sets of program documents were analyzed. Review of all applications revealed a number of common components. All GYOT applications, submitted for analysis, included personal information sections. Here applicants were to provide information relating to their GED/high school transcript information, GPA, areas

of teaching interests, work experience, ACT/SAT information, etc. In addition, applications required students to complete short answer and/or essays. The selection process often involved rating scales and rubrics to guide in the selection of the applicants to protect against biasness. Multiple evaluators were also used to establish inter-rater reliability.

Specific and strategically developed goals emerged as a consistent program pattern as well. GYOT program information revealed all programs held the common goal to increase the pool highly qualified teachers willing to return to their districts to seek permanent employment. However, each program had closely examined its present and projected future demands to identify specific areas of focus.

Program/teacher candidate agreement and statement of commitment represented a concept that appeared in four of the programs considered. This component involved two distinct themes, obligations made by the program and the teacher candidate responsibilities. This research revealed there to be a positive correlation between contracts of agreements and commitments and those programs offering substantial loan forgiveness programs.

Document analysis identified Education Foundations involvement as another key theme of GYOT programs. In four of the five GYOT programs documents, Education Foundations were identified as being actively involved in support of teacher candidates. Education Foundations are privately operated, nonprofit organizations established to assist public schools and qualify as charitable organizations (Clay, Hughes, Seely & Thayer, 1989).

The final theme to emerge was program coordinators. All five GYOT programs

participating in the study had designated program coordinators. Murphy and DeArmond (2003) suggested that key to the effectiveness of initiatives is the formalization of program processes and need to become part of the school cultures. With the designation of program coordinators and responsibilities, one can interpret the incorporation of the GYOT processes as a way of doing business and becoming part of the standard operating procedures.

The study utilized a 15 item questionnaire (Appendix C) to address research question two which was designed to shed light on the perceptions of GYOT programs personnel regarding best practices in meeting their teacher recruitment goals. The term Best Practice has been used to describe a way of achieving specific results under specific circumstances in an effective and efficient way. Without exception, program personnel identified its mentoring program as that component which contributed most to its effectiveness. Bozeman and Feeney (2007) define mentoring as a process for the informal transmission of knowledge, social capital and the psychosocial support perceived by the recipient as relevant to work, career or professional development. Descriptions of both informal and structured mentoring programs surfaced as program documents and survey question responses were being analyzed.

Survey responses from research participants three and four revealed forming partnerships as a practice which lead to the effectiveness of their programs. These partnerships represent collaborative/cooperative effort of three separate entities: the private/business sector, area institutions of higher education and the GYOT program. All of these entities work in concert to make an impact on the teacher shortage by designing a proactive plan to increase the numbers of students entering the teaching profession and

increasing the numbers of qualified teachers available to fill positions, particularly in areas of critical need.

The final research question attempted to identify if there was statistical difference in the turnover rate of teachers, who have been supported by Grow Your Own Teacher programs and in the turnover rate of teachers who had taught in the general teaching population. To address this research question, this study has employed the statistical test Chi-Square test for goodness of fits was be used. The Chi-Square test for goodness of fit uses sample data to test hypotheses about the shape or proportions of a population distribution. The test determines how well an obtained sample proportion fits the population proportions specified by the null hypothesis (Gravetter & Wallnau, 2004).

For this study, the null hypotheses (H_0) states for there is no significant statistical difference for the teacher turnover rate for teachers who have been supported by GYOT and the teaching population in general. As a result, no inferences can be based on what is found in the obtained sample and any differences found between two groups or any relationship found between two variables based on our sample is simply due to random sampling fluctuations and not due to any significant differences. The alternate hypothesis (H_1) indicates there is a significant statistical difference between teacher turnover rates for the two groups. When using the Chi-Square test, if the obtained value is more extreme than the critical value, the null hypothesis cannot be accepted, if the obtained value does not exceed the critical value, the null hypothesis is the most attractive explanation (Salkind, 2004).

For this study, a Type I error was set for .01. A Type I level of significance occurs when a significance test results in the rejection of the H_0 . A .01 level of significance

means that on any one test of the H_0 , there is a 1% chance you will reject the H_0 when the null is true and conclude that there is a group difference when there really is not group difference at all (Salkind, 2004). In this research report, the statistical significance is represented as *p at the .01* and is read as the probability of observing that outcome is less than 1% of the time (Salkind). With 1 degree of freedom at the .01 level of significance the critical value needed for rejection of the H_0 is 6.64. Chi-Square analysis of program three data produced an obtained value of .2953 which is less than 6.64. This allows for the acceptance of the H_0 . As a result with an expected number of leavers being four and the observed number of leavers being three, it can be concluded that there is no significant difference in the teacher turnover rate of GYOT program three and the teacher turnover rate of teachers in general. Chi-Square analysis of data from GYOT program five produced a value of 9.723 which is greater than 6.64, the .01 level, allows for the rejection of the H_0 . With an expected frequency of 24 and an observed frequency of 38, it can be concluded that there is a significant difference in the teacher turnover rate of GYOT program five and the teacher turnover rate of teachers in general.

In conclusion, this study represented investigation of Grow Your Own Teacher Recruitment and Retention programs and the power of rootedness within the community in reducing the need for teachers to work in hard to staff schools and in high need areas.

As a whole, the results of this study brought to light the following conclusion. First, there were nine global themes that emerged as the five programs were investigated. However, the researcher would suggest caution in developing the idea that there is a one-size-fits-all package. It should be noted within each of these themes, there were considerable variations as programs strategically designed each to meet its own needs.

Next, the themes of mentoring and partnerships were highlighted by program personnel as components which contributed most to program success. Finally, due the small sample size of program three and indistinguishable membership of program five sample no definitive conclusions could be made regarding the effectiveness of GYOT programs in reducing districts' teacher turnover rate

As an exploratory study, this research has achieved its goal of adding to the available pool of knowledge to assist districts as they face the challenges of recruiting and retaining teachers to fill positions in hard to staff schools or in high needs areas. The foundation has also been established that challenges future researchers to identify new and additional dimensions of teacher recruitment and retention programs focusing on home grown teacher.

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Appendix A

IRB Approvals



Campus Institutional Review Board
McReynolds Hall
University of Missouri
573-882-9585

487

February 2, 2011

Dear Investigator:

Your human subject research project entitled A MIXED METHODS STUDY IDENTIFYING REOCCURRING THEMES IN POLICIES AND PROCESSES IN GROW YOUR OWN TEACHER RECRUITMENT AND RETENTION PROGRAMS meets the criteria for EXEMPT APPROVAL and will expire on February 02, 2012. Your approval will be contingent upon your agreement to annually submit the "Annual Exempt Research Certification" form to maintain current IRB approval.

Exempt Category:

45 CFR 46.101b(2)

45 CFR 46.101b(4)

Note: All research records must be retained for 7 years following the completion of the study.

You must submit the Annual Exempt Research Certification form 30 days prior to the expiration date. Failure to timely submit the certification form by the deadline will result in automatic expiration of IRB approval.

Study Changes: If you wish to revise your exempt project, you must complete the Exempt Amendment Form for review.

Please be aware that all human subject research activities must receive prior approval by the IRB prior to initiation, regardless of the review level status. If you have any questions regarding the IRB process, do not hesitate to contact the Campus IRB office at (573) 882-9585.

Campus Institutional Review Board

TEACHER RECRUITMENT AND RETENTION



THE SCHOOL BOARD OF BROWARD COUNTY, FLORIDA RESEARCH SERVICES

600 SOUTHEAST THIRD AVENUE • FORT LAUDERDALE, FLORIDA 33301-3125 • TEL 754-321-2500 • FAX 754-321-2520

MARIA R. LIGAS, Ph.D.
Institutional Review Board (IRB) Chair
marialigas@browardschools.com

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DAVID THOMAS, NBCT

JAMES F. NOTTER
Superintendent of Schools

May 23, 2011

Mrs. Dixie McCollum
120 Mark Avenue
Jackson, MO 63755

Dear Mrs. McCollum:

Thank you for submitting your proposal, #649 — *A Mixed Methods Study Identifying Reoccurring Themes in Policies and Processes in Grow Your Own Teacher Recruitment and Retention Programs*, for consideration by the Broward County Public Schools (BCPS). Staff has reviewed your research proposal and approval has been granted for you to contact Ms. Malease Berg, in Human Resource Development-HRD.

One reviewer had this comment:

It really depends on the type of data the researcher would need us to provide. Keep in mind, that despite the program being in existence for 6 years, most students have yet to graduate college and become teachers. It will be another few years before we can really provide significant data.

This approval means that we have found your proposed research methods to be compatible with a public school setting and your research questions of interest to the school District. The expiration date on your proposal is **Wednesday, May 23, 2012**. If you are unable to complete your research by the expiration date, you must submit an Annual Report/Request for Renewal, (http://www.broward.k12.fl.us/research_evaluation/IRB.Pdf), to the Research Services Department *four weeks* prior to the expiration date. If a renewal is granted, a Renewal Approval Letter and Memorandum will be issued.

Implementing your research, however, is a decision to be reached by the affected school- or District-based staff on a **strictly voluntary basis**. To assist the school- or District-based staff in their decision to participate, please outline the operational steps to be performed by staff at their school or District Office. Based upon this information, each school- or District-based staff would then be **asked to make a decision to participate or not and inform you or the requesting research parties of their decision at the time of your/their request**. School- or District-based staff have been instructed not to cooperate unless you provide this piece of Approval Documentation.

The anticipated date for submitting an electronic copy of your research findings is **Monday, September 24, 2012**. If additional assistance is needed from our staff, **please contact me at 754-321-2500**.

Sincerely,

Maria R. Ligas, Ph.D.

MRL/MAL:bt
Attachments

Educating Today's Students for Tomorrow's World
Broward County Public Schools Is An Equal Opportunity/Equal Access Employer

Appendix B

Cover Letter and Consent

Dissertation Research

Reoccurring Themes in Grow Your Own Teachers Programs

You are being asked to participate in a research study conducted by Dixie G. McCollum. I am currently an instructor at Southeast Missouri State University and a doctoral student at the University of Missouri at Columbia, MO. The purpose of this study is to investigate answers to the following research questions: 1) What are the reoccurring themes and patterns existing in various Grow Your Own Teacher (GYOT) teacher recruitment policies and programs? 2) What are the perceptions of GYOT programs personnel regarding best practices in meeting their teacher recruitment goals, showing an increase in the pool of qualified teacher candidates? 3) Is there a statistical difference in the turnover rate of teachers, who have been supported by Grow Your Own Teacher programs and in the turnover rate of the teaching population in general? This study will contribute to the completion of my Educational Doctoral dissertation.

Research Procedures

This study consists of a questionnaire that will be administered and analysis of existing policies and procedures of participating programs located in various regions of the United States. You will be asked to provide answers to a series of questions and provide program documents that will assist in identifying reoccurring themes in the policies and processes of their GYOT program as they attempt to enhance a district's ability to employ and retain highly qualified teacher in high demand areas and/or in hard to staff schools. In addition, the research will attempt to answer the questions have the existing GYOT programs been effective in meeting their goals.

Time Required

Participation in this study's questionnaire will require a maximum of 30 minutes of your time. Additional, time may be needed to collect documents describing your program.

Risks

This investigator does not perceive more than minimal risks from your involvement in this study.

Benefits

Potential benefits from participation in this study include assisting school district as they react to the escalating demand for quality teachers, specifically high needs teachers such as secondary science and math, bilingual teachers, special education teacher, and minority teachers. More specifically, this study will assist those have developed or are developing aggressive programs to attract and retain more qualified teachers in these difficult times for staffing high needs schools and positions.

Confidentiality

The results of this research will be presented to my dissertation committee and at my dissertation defense. While individual responses are obtained and recorded anonymously and kept in the strictest confidence, aggregate data will be presented representing averages or generalizations about the responses as a whole. No identifiable information will be collected from the participant and no identifiable responses will be presented in the final form of this study. All data will be stored in a secure location accessible only to the researcher. The researcher retains the right to use and publish non-identifiable data. At the end of the study, all records will be shredded.

Participation & Withdrawal

Your participation is entirely voluntary. You are free to choose not to participate. Should you choose to participate, you can withdraw at any time without consequences of any kind. However, once your responses have been submitted and anonymously recorded you will not be able to withdraw from the study.

Questions about the Study

If you have questions or concerns during the time of your participation in this study, or after its completion or you would like to receive a copy of the final aggregate results of this study, please contact:

Researcher's Name:

Dixie G. McCollum

Department: Elementary, Early Childhood and Special Education

Southeast Missouri State University

Telephone: Office: 573-651-2443 Home: 573-243-1115

Email Address: dgmccollum@semo.edu

Advisor's Name:

Dr. Ruth Ann Roberts

Department: Educational Leadership and Policy Analysis

University of Missouri at Columbia

Telephone: Office: 573-651-2426

Email Address: raroberts@semo.edu

Questions about Your Rights as a Research Subject

Charles Borduin, PhD

Campus IRB Chair

Professor, Psychology

108A McAlester Hall

University of Missouri

[borduin@missouri.edu](mailto:borduinc@missouri.edu)

Giving of Informed Consent

I have read this cover letter and I understand what is being requested of me as a participant in this study. I freely consent to participate. I have been given satisfactory answers to my questions. I certify that I am at least 18 years of age.

Name of Research Participant (Printed)

Name of Research Participant (Signed)

Date

Name of Primary Contact Person

Primary Contact Email and Phone Number

Appendix C

Grow Your Own Teachers Research

University of Missouri

Dissertation Study

This survey has been developed with a twofold purpose. First, to highlight the reoccurring themes and patterns in existing Grow Your Own Teachers programs and the second is to identify progress these programs have made meeting the goal of providing a pool of highly qualified teachers in high needs areas or for difficult to staff schools. Your anonymous responses to this survey will help us assess our teacher preparation program and to identify areas which could be improved. I would like to thank you for taking the time to complete this survey. It should take no more than 30 minutes to finish. If you have any questions about the survey, please contact Dixie McCollum at dgmccollum@semo.edu or 573-986-9027.

Instructions

- Please indicate your answers by circling the appropriate response(s).
- For items that ask you to fill in a written response, please print your response on the blank provided. Please avoid any extraneous marks on the page.
- If you would like to change an answer, please thoroughly erase any marking.
- When you have completed the survey, please put the survey in the enclosed stamped-envelop, seal it and return it to the person whose name appears on the envelop.

1. Number of years your Grow Your Own Teacher (GYOT) program has existed?
 - a. 1-5
 - b. 6-10
 - c. 10-15
 - d. 15-20
 - e. 20+

TEACHER RECRUITMENT AND RETENTION

2. What is the target population for GYOT candidates? Circle all that apply.

- a. High School Students
- b. College Students
- c. Community Members
- d. School Staff Members
- e. Other:

Explain _____

3. What is the goal of your GYOT program? Circle all that Apply.

- a. To increase the number of science teachers
- b. To increase the number of math teachers
- c. To increase the number of bilingual education teachers
- d. To increase the number of foreign language teachers
- e. To increase the number of technology teachers
- f. To increase the number of special education teachers
- g. To increase the number of minority teachers
- h. Other:

Explain _____

4. How many candidates have been selected by your GYOT program to enter into a teacher preparation program?

5. How many candidates selected by your GYOT program have completed a teacher preparation program in their designated area of need?

TEACHER RECRUITMENT AND RETENTION

6. How many candidates selected by your GYOT program have obtained employment in your district or a supporting school?
7. How many candidates selected by your GYOT program have continued to teach in your district or a supporting district after five years?
8. Describe the impact of your GYOT program on meeting the needs for hard to staff schools or filling high needs positions.
9. How does your program monitor success of your GYOT program?
10. Describe program components which contribute most to its success.
11. Describe program components which contribute least to its success.

TEACHER RECRUITMENT AND RETENTION

12. How is financial support obtained for your GYOT program?
13. Describe programs components which are difficult to manage or control.
14. Describe any unique feature of your GYOT program.
15. Which choice best describes the entity supporting your Grow Your Own Teachers (GYOT) program? Circle all that apply.
- a. School District with a student population of 0-2000
 - b. School District with a student population of 2001-5000
 - c. School District with a student population of 5001-10,000
 - d. School District with a student population of 10,001+
 - e. Other:
Explain _____
 - f. Rural
 - g. Suburban
 - h. Urban
 - i. Other: Explain _____

Appendix D

Reminder Notice

Dear Research Participant:

This is a friendly reminder to please take a moment to fill out this very important questionnaire regarding: 1) What are the reoccurring themes and patterns existing in various GYOT teacher recruitment policies and programs? 2) What are the perceptions of GYOT programs personnel regarding best practices in meeting their teacher recruitment goals, showing an increase in the pool of qualified teacher candidates? and 3) Is there a statistical difference in the turnover rate of teachers, who have been supported by Grow Your Own Teacher programs and in the turnover rate of the teaching population in general?

The goal of this project is to provide a potential resource to assist school district as they react to the escalating demand for quality teachers, specifically high needs teachers such as secondary science and math, bilingual teachers, special education teacher, and minority teachers. More specifically, this study will assist those who have developed or are developing aggressive programs to attract and retain more qualified teachers in these difficult times for staffing high needs schools and positions. Please take a moment to complete this questionnaire and/or provide documents regarding your GYOT program's policies and process and return your responses in the enclosed self-addressed envelope. Your participation is essential to further research in this ever so important area as schools attempt to provide a quality education to our nation's students. Thank you for your time and participating in the project.

Sincerely,

Dixie G. McCollum
Doctoral Student
Department of Elementary, Early Childhood and Special Education
Southeast Missouri State University

VITA

Dixie Gail Keena McCollum was born on August 14, 1956 in Poplar Bluff, Missouri and grew-up on a farm in Southeast Missouri. She graduated from Puxico High School in 1974. After graduating in 1978 from Southeast Missouri State University, she became a first generation college graduate. With a major in Exceptional Child Education, she launched her professional career as a teacher in Missouri Public Schools. During her tenure in public education, she worked closely with P-12 students receiving special education and at-risk services. In 1980 she entered graduate school and earned a Masters of Arts in Guidance and Counseling and the additional certifications of Psychological Examiner and K-12 Reading Specialist. In 2001, she completed her Specialists in Educational Administration finished her public school service as Director of Special Education and Building Principal in Bloomfield R-XIV Schools. After retiring from public schools, she was employed to serve as a full-time instructor at Southeast Missouri State University in the College of Education and has spent the last seven years teaching in the Special Education and Reading programs. She has written and received numerous Incentive Grants and Special Education Grants for public schools and is credited for implementing the first Early Childhood Special Education Center in Bloomfield R-XIV Schools. In 2002 as building principal, she was nominated by her fellow teachers and

received the Missouri Accelerated Schools award for outstanding leadership.

In addition to professional commitment to serving individuals with exceptional needs, Dixie has also exhibited a passionate for working individuals with disabilities in her personal life. She has serve as a member of the SB 40 Board for the Developmentally Delayed in Stoddard and Cape Girardeau Counties for 26 years. Through this board, she is active in providing employment opportunities and independent living services for adults with disabilities.

Dixie was married to Steven D. McCollum on April 5, 1980 and after 31 years of marriage; they reside in Jackson, Missouri. They have one remarkable son, Justin, who just graduated from Southeast Missouri State University. She is a member of Good Sheppard Lutheran Church and has been active as a liturgists and as a teacher its education programs. Finally, she is an animal activist and owns three rescue Boston Terriers, Albert, Buddy and Molly Ann and one Flamed Tipped Himalayan cat, Lucy.