

TEACHER EFFICACY FOR HOMEGROWN TEACHERS

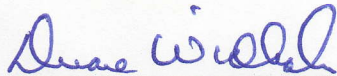
MATT BUSHEY

2019

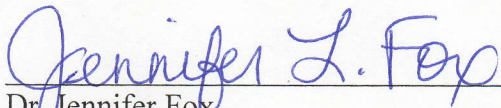
The undersigned, approved by the Department Chair of Graduate Studies in Education, have examined a dissertation entitled:

TEACHER EFFICACY FOR HOMEGROWN TEACHERS

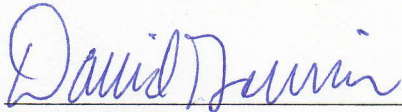
Presented by Matt Bushey a candidate for the degree of Doctor of Education and hereby certify that in their opinion it is worthy of acceptance.



Dr. Duane Widhalm, Advisor/Chair
Southwest Baptist Graduate Education



Dr. Jennifer Fox
Southwest Baptist Graduate Education



Dr. David Geurin
Principal Bolivar High School

TEACHER EFFICACY FOR HOMEGROWN TEACHERS

A Dissertation
Presented to
The Faculty of the Graduate Education Department
Southwest Baptist University

In Partial Fulfillment
of the Requirements for the Degree

Doctor of Education

By
Matthew Bushey, B.S., M.S., Ed Spec.

Dr. Duane Widhalm Dissertation Advisor

May 2019

ACKNOWLEDGEMENTS

I want to thank my family for inspiring me to take on this project. Specifically, I want to thank my mother. She continues to serve as an educator in a career that has spanned over several decades in a variety of school contexts. Her passion and dedication to her craft has been as an example to me and has served as an inspiration to dedicate myself to completing this current endeavor. I also want to thank my wife and two children for supporting me as I have worked on this project. They provide my life with both love and humor which helps me keep everything in proper perspective.

I want to also thank the members of my committee and SBU faculty for their support. Dr. David Guerin and Dr. Jennifer Fox both took time away from their busy schedules and each provided a unique perspective that aided to the project. I want to especially thank my Advisor Dr. Duane Widhalm for his encouragement and availability throughout the process. His calm demeanor and wise council served as true guidance through the project completion. Finally, I would like to also thank Dr. Benny Fong for his support with the statistical analysis associated with the project. He truly helped make a complicated process seem a little simpler.

Table of Contents

ACKNOWLEDGEMENTS i

ABSTRACT v

CHAPTER ONE 1

 Theoretical Framework 4

 Problem Statement 6

 Purpose Statement and Research Questions 7

 Research Questions/Hypotheses 9

 Limitations/Delimitations/Assumptions 10

 Design Controls 11

 Definitions of Key Terms 12

 Summary 13

CHAPTER TWO 15

 Introduction 15

 Teacher Efficacy 18

 Outcomes of teacher efficacy 27

 Rural Context 28

 Teacher Shortages in Rural Schools 32

 Grow Your Own Teacher Initiatives 36

 Questions on Hiring Homegrown Teachers 37

 Rural Teachers and Place Connection 38

 Summary 39

CHAPTER THREE 42

Introduction.....	42
Research Design.....	44
Participants.....	45
Survey Instrument.....	45
Survey Validity and Reliability	46
Data Collection	47
Data Analysis	48
Human Participants and Ethics Precautions	49
Summary.....	49
CHAPTER FOUR.....	51
Introduction.....	51
Participants.....	53
Supporting Research Question 1.....	54
Supporting Research Subquestion 2A	58
Supporting Research Subquestion 2B.....	60
Supporting Research Subquestion 2C.....	61
Summary.....	63
CHAPTER FIVE	65
Introduction.....	65
Survey Methods	66
Summary of Findings.....	67
Conclusions From Results	69
Professional Implications.....	72

Summary	76
APPENDIX A: EXAMPLE OF SURVEY CONSENT LETTER	97
APPENDIX B: PERMISSION TO USE SURVEY INSTRUMENT	98
APPENDIX C: SURVEY INSTRUMENT	100

ABSTRACT

Teacher self-efficacy has been linked to student achievement. This quantitative study was conducted in order to compare teacher self-efficacy of homegrown teachers to other teachers in small rural schools in Missouri. The study used the Teacher Sense of Efficacy Survey (TSES) developed by Tschannen-Moran and Hoy (2001) to gauge a teacher's self-efficacy in the areas of student engagement, classroom management, and instructional strategies. Teacher survey respondents were grouped into three categories for comparison including homegrown teachers, nearly homegrown teachers, and transplanted teachers. The study also looked to find if teacher self-efficacy was impacted by the years of experience that a teacher had in their current rural school district for each of the groups of teachers. Results from the study suggest that homegrown teachers have a higher sense of efficacy than transplanted teachers in the area of student engagement. Years of experience in a teacher's current school district predicted teacher efficacy scores for transplanted teachers, but not for the other groups of teachers.

CHAPTER ONE

INTRODUCTION

Little and Miller (2007) stated, “the overall effectiveness of any organization is predicated on the quality of its personnel” (p. 118). School districts continue to strive to find quality educators in order to meet the challenges of school improvement. A quality teacher has a great impact on student achievement (Marzano, 2003). Teacher beliefs, characteristics, and school contextual variables can also affect student-learning outcomes (Rubie-Davies, Flint, & McDonald, 2012). Specifically, a teacher’s belief about one’s self-efficacy can have an impact on student achievement (Blevins, 2017; Caprara, Barbranelli, Steca, & Malone, 2006; Gulistan, Hussain, & Mushtaq, 2017; Kim & Seo, 2018; Ross, 1992; Tschannen-Moran & Hoy, 2001; Tschannen-Moran & Hoy, 2007). Self-efficacy is the belief that an individual has about the ability to successfully accomplish a given task (Bandura, 1997). Teachers who believe they have the capability to meet the challenges of a teaching task are more motivated and work harder, while those who lack such beliefs put forth less effort (Bandura, 1997; Tschannen-Moran & Hoy, 2001). These beliefs can be impacted by the particular context of the task or activity being performed (Pajares & Schunk, 2001; Tschannen-Moran, Hoy, & Hoy, 1998). Furthermore, the context of a rural school is uniquely different from nonrural schools (Hudson & Hudson, 2008).

Rural schools today are faced with many challenges including declining enrollment, lack of resources, and teacher shortages (Reeves, 2003; Showalter, Johnson, Klein, & Hartman, 2017). Rural schools find it difficult to recruit and retain teachers due to isolated locations and lack of resources (Bland, Church, & Luo, 2016). Rural school

districts have specific disadvantages when it comes to meeting the requirements established by The Elementary and Secondary Education Act (ESEA) signed in 2002. Some of the challenges include lack of funding, staffing challenges, difficulty in providing professional development, and lack of flexibility (Yettick, Baker, Wickersham, & Hupfeld, 2014). At the same time high-stakes testing has forced all schools to analyze what factors to consider most in order to improve student achievement.

Many rural schools hire teachers from within the local community to help with the issue of teacher shortages. Many beginning teaching candidates seek a job in their hometown or places similar to it (Boyd, Lankford, Loeb, & Wyckoff, 2005; Brown, 2016; Taylor, 2012). Not only do teachers want to return to their hometown, they are more likely to stay in their home school district (Hammer, Hughes, McClure, Reeves, & Salgado, 2005).

In an attempt to improve teacher recruitment and retention, grow your own strategies are being developed throughout the country as a way to develop teachers from within the local community (Swanson, 2011). These strategies include identifying potential teaching candidates early and providing incentives for these students to get teacher certification and return to their home district (Lemke, 1994). Grow your own strategies may also include aiding existing paraprofessionals in a school district in obtaining teacher certification in hopes of hiring them as teachers in the district (Beesley, Atwill, Blair, & Barley, 2010).

The Missouri Department of Elementary and Secondary Education (DESE) in 2016 published a resource guide for schools on grow your own initiatives. The guide outlines reasons to promote the teaching profession through incentives and exposure to

high school students in an attempt to recruit them as teachers after college. The guide suggests that grow your own initiatives will improve teacher retention as well as provide for diversity in urban schools. The resource outlines several strategies used in specific grow your own initiatives. Strategies include starting Future Teachers of America (FTA) chapters in high school, early recruitment of potential teaching candidates, job guarantees for homegrown teaching candidates, loan forgiveness programs for homegrown candidates, and scholarships. The guide also references the Community Foundation of the Ozarks program to give high school students from small towns in Southwest Missouri \$4,000 of scholarship per year to those who agree to teach in rural communities (DESE, 2016).

Kreuz (2005) pointed to the need for extensive research on teacher quality in rural schools. School districts may be targeting local candidates due to their ability to retain them, but questions also need to be answered about whether these candidates possess attributes that positively affect student outcomes. Teacher self-efficacy is one such attribute, as it has been linked to student achievement (Blevins, 2017; Caprara et al., 2006; Gulistan et al., 2017; Kim & Seo, 2018; Ross, 1992; Tschannen-Moran & Hoy, 2001; Tschannen-Moran & Hoy, 2007). A homegrown teacher's familiarity with the district may aid in their efficacy beliefs, and a transplanted teacher's lack of knowledge of the local community may inhibit their self-efficacy. If this is the case, there may be additional benefits to hiring homegrown teachers beyond just the ability to keep them in their position. Furthermore, Shoulders and Krei (2015) noted there was a specific need for research on teacher efficacy in rural schools.

Theoretical Framework

This study used the theoretical framework of Tschannen-Moran et al. (1998) and their construct on teacher efficacy. Their work defined teacher efficacy as “the teacher’s belief in his or her capability to organize and execute courses of action required to successfully accomplish a specific teaching task in a particular teaching context” (Tschannen-Moran et al. 1998, p. 233). Their model on teacher efficacy considers the two major conceptual ideas on teacher efficacy outlined by Rotter (1966) and Bandura (1977, 1997). Rotter (1966) looked at teacher efficacy through how much control over the environment teachers viewed themselves as having in order to accomplish a given result. Bandura (1977, 1997) outlined the idea of teacher-perceived self-efficacy. Perceived self-efficacy is how the individual teacher views their ability to perform a give task to create a certain outcome. Both theorists suggested that teacher efficacy is a motivating factor that drives effort and persistence to overcome obstacles to teaching tasks.

Tschannen-Moran et al. (1998) designed a model of teacher efficacy that included the four sources of teacher efficacy proposed by Bandura (1997). These sources of efficacy include mastery experiences, vicarious experiences, social persuasion, and physiological arousal. Each of these sources are factors in how an individual cognitively processes the task at hand.

Tschannen-Moran et al. (1998) added two key elements to the ideas of Bandura that influence teacher efficacy. Efficacy is task specific. Teachers must analyze the task as well as the context of the task in order to make judgments about the ability to accomplish it. In analyzing the task teachers must consider what outcomes they seek and

what abilities they possess to contribute to the given outcome considering the context of the task. In conjunction with task analysis Tschannen-Moran et al. (1998) suggested that teachers must assess their personal competence in order to determine teacher efficacy. In making this assessment a teacher must consider their abilities in context to the task. For instance, a teacher may think they have the tools and abilities necessary for a specific assignment, but not for the same assignment in a different setting or context.

Tschannen-Moran et al. (1998) agreed with the outcomes of teacher efficacy outlined by Bandura (1997) including goal setting, effort, and persistence. A teacher with high levels of efficacy will work harder and be more committed to accomplishing a teaching task. A teacher with low efficacy in contrast will put forth less effort as a result of their feelings of little control and incompetence. The positive or negative consequences of teacher efficacy thus impact student performance, which becomes a new source of efficacy. Thus Tschannen-Moran et al.'s (1998) model suggests that teacher efficacy is cyclical in nature.

Tschannen-Moran and Hoy (2001) designed an instrument to measure teacher efficacy called the Teacher Sense of Efficacy Scale (TSES). Their work reviews the development of teacher efficacy scales and cites several limitations of the scales used at the time. The researchers explained that many of the scales are either too broad or too narrow to identify the desired results. Their instrument was designed to measure overall teacher efficacy along with three important subscales. These subscales were a result of a focus group of teachers selected to identify the most important aspects of the overall tasks of teaching. Three dominant areas were identified and have become the subscales for the instrument. These include classroom management, instructional strategies, and student

engagement. Their instrument has been used in numerous studies on teacher efficacy since its development.

Problem Statement

Rural schools propose a unique and challenging context for teachers (Hudson & Hudson, 2008). Poverty, professional isolation, geographic isolation, heavy workloads, lack of resources, and community expectations all propose specific challenges for teachers in rural districts (Hadre, 2009; Reeves, 2003; Showalter et al., 2017). This difficult context can present staffing challenges for rural school administrators (Bland et al., 2016; Monk, 2007) and may also have an effect on a teacher's confidence to accomplish his or her given teaching task (Azano & Stewart, 2015).

Rural school administrators are faced not only with a challenge to find a quality teacher during the interview process, but they must also consider how long this teacher will stay in a rural community. Most teachers look for a job close to their hometowns or places similar to where they grew up (Boyd et al., 2005; Brown, 2016; Lemke, 1994). This fact has lead many administrators to seek homegrown teachers as a way to aid in overcoming the staffing challenges in recruiting and retaining teachers in rural schools. In fact many homegrown teacher initiatives have been created to train and develop teachers from within the local community (Clewell & Villegas, 2001; Swanson, 2011).

While researchers suggest hiring homegrown teachers may help with recruitment and retention (Brown, 2016; Lowe, 2006; McClure & Reeves, 2004; Sutchter, Darling-Hammond, & Carver-Thomas, 2016), research is lacking on other impacts hiring homegrown has on education (Gist, Bianco, & Lynn, 2018). Hadre (2009) pointed out that some administrators fear that hiring homegrown teachers can lead to a closed

community. Little and Miller (2007) worried that rural school administrators hire based on community fit rather than teacher quality. Finally, in his study in rural Pennsylvania, Strauss (1999) revealed a negative link between homegrown teachers and student achievement. The outcomes of these studies reveal lingering questions that demand attention on potential consequences of hiring homegrown teachers beyond retention.

Purpose Statement and Research Questions

The purpose of this causal comparative study was to compare the self-efficacy of teachers based on where they graduated high school. The independent variables included a teacher's status as homegrown, nearly homegrown, or transplanted and the years of experience survey respondents had been employed in their respective school district. A homegrown teacher was one who graduated from the school district in which they were currently employed at the time of the study. For the purpose of this study, a nearly homegrown teacher was one who graduated from a school district within 20 miles of the district in which they were employed at the time of the study. A transplanted teacher was a teacher who graduated from a school district outside of the area in which they taught at the time of the study. The dependent variable of teacher self-efficacy was defined by a teacher's belief in their ability to accomplish a given teaching task in a particular context (Tschannen-Moran et al., 1998). The setting of the study included small rural school districts in Missouri.

Educational researchers are challenged to find answers to which factors truly make a difference for student achievement within schools (McGuigan & Hoy, 2006).

One such factor that has been identified as impacting school achievement is teacher self-efficacy (Bandura, 1993; Hoy, Tarter, & Hoy, 2006). Self-efficacy includes a teacher's

belief in their ability to accomplish a given teaching task in a specific context (Tschannen-Moran et al., 1998). A teacher's self-efficacy can influence their behavior such as their effort, goals, and aspirations (Tschannen-Moran & Hoy, 2001).

While teacher efficacy can be impacted by teacher characteristics and other contextual factors (Rubie-Davies et al., 2012; Tschannen-Moran et al., 1998) there is little research on teacher efficacy as it relates to teachers in a rural setting (Shoulders & Krei, 2015). Analysis of the teaching task also influences teacher self-efficacy (Tschannen-Moran et al., 1998), and the setting of small rural districts propose unique context for teachers in accomplishing teaching tasks (Hudson & Hudson, 2008). Due to their background homegrown teachers and teachers who grew up near a school district have a better understanding of a school's context than transplanted teachers (Hadre, 2009). Teacher efficacy could be impacted by the contextual knowledge that homegrown and nearly homegrown teachers possess in regard to the teaching task they face in their small rural district.

The intent of this study was to discover if teacher self-efficacy was greater for teachers who graduated from the district in which they were employed at the time of the study. One aspect that drew the researcher to this topic was the fact that prior research has shown a relationship between teacher efficacy and student achievement (Blevins, 2017; Caprara et al., 2006; Gulistan et al., 2017; Kim & Seo, 2018; Ross, 1992; Tschannen-Moran & Hoy, 2001; Tschannen-Moran & Hoy, 2007). The researcher sought to add to teacher efficacy research by identifying whether homegrown teachers have a greater sense of self-efficacy than other teachers in small rural districts. This information can be helpful to rural school leaders. If homegrown teachers have a higher

sense of efficacy due to their greater understanding of the school context, that may provide an even greater sense of purpose in targeting local candidates and developing grow your own initiatives in rural schools. Furthermore, if transplanted teachers in rural schools have a diminished sense of self-efficacy due to their lack of understanding of the school context, then rural administrators may be able to identify ways to better support these teachers.

In addition experience has shown to impact teacher efficacy (Yeo et al., 2008; Shohani et al., 2015; Tschannen-Moran & Hoy, 2007; Shoulders & Krei, 2015) and teacher efficacy is influenced by the specific context of the teaching task (Tschannen-Moran et al., 1998). This study also seeks to determine if experience in a school district has the same impact on the teacher efficacy of homegrown teachers as it does on other categories of teachers, due to homegrown teachers prior knowledge of the teaching task. This information can provide researchers with greater understanding on how contextual knowledge of the teaching task influences teacher efficacy. It can also provide information to school administrators on the efficacy development of homegrown teachers, nearly homegrown teachers, and transplanted teachers.

Research Questions/Hypotheses

1. What are the differences between homegrown, nearly homegrown, and transplanted teachers in small rural schools in Missouri regarding teacher self- efficacy including the areas of classroom management, instructional strategies, and student engagement?
2. What is the relationship between teachers' years of experience in their current small rural school district and overall teacher efficacy?

- A. What is the relationship between homegrown teachers' years of experience in their current small rural school district and overall teacher efficacy?
- B. What is the relationship between nearly homegrown teachers' years of experience in their current small rural school district and overall teacher efficacy?
- C. What is the relationship between transplanted teachers' years of experience in their current small rural school district and overall teacher efficacy?

The following null hypotheses were developed based on the above research questions:

H₀1-There is no significant difference in the teacher self-efficacy of teachers classified as homegrown, nearly homegrown, and transplanted in small rural schools in Missouri.

H₀2 A-Homegrown teachers' years of experience in their school district do not significantly predict their self-efficacy.

H₀2 B-Nearly homegrown teachers' years of experience in their school district do not significantly predict their self-efficacy.

H₀2 C-Transplanted teachers' years of experience in their school district do not significantly predict their self-efficacy.

Limitations/Delimitations/Assumptions

These limitations were present in this study:

1. The number of participants that respond to the survey;
2. The willingness of school administrators to disseminate the survey to their teachers;

3. The researcher was currently working at a small rural school, which could have lead to researcher bias.

These were the delimitation of the study:

1. Only school districts that qualified for the Small Rural School Achievement Grant were included in this study.
2. Only public schools located in Missouri were included in the study.

These assumptions were made during the study:

1. It was assumed that responses from the participants would be honest and accurate.
2. The results of this study can be generalized to public schools in small rural settings.

Design Controls

This quantitative study was conducted by surveying small rural teachers in Missouri using the (TSES). The 12-item TSES scale (Tschannen-Moran & Hoy, 2001) was used to evaluate a teacher's sense of self- efficacy in three broad areas of teaching tasks: instructional strategies, classroom management, and student engagement. Survey results were compared between teachers that identified themselves as homegrown, those who identified themselves as working in a district close to home (within 20 miles from the school they graduated), and those who considered themselves as transplanted teachers. The responses were compared using a multivariate analysis of variance (MANOVA) statistical test looking for significant differences from the mean. Post hoc tests were conducted when significant variances were detected to isolate where the variances occurred. A linear regression test was used to determine if a relationship

existed between teacher efficacy and years of experience in the district for each of the identified teacher status groups of homegrown, nearly homegrown, and transplanted.

The specific school districts included in the study were identified by looking at schools in Missouri that were eligible for the Small Rural School Achievement Grant in fiscal year 2018. A letter was sent to these districts asking permission to distribute surveys to teachers in the school district. A follow up e-mail was sent a week later in an attempt to gather more surveys. The researcher informed the administrator that overall research results would be available to districts that participated in the study.

In order to control for honesty and accuracy in responses participants were assured confidentiality by the researcher. Informed consent forms included this assurance. In order to avoid personal bias, the researcher did not include his current school in the study even though it met the research qualifications.

Definitions of Key Terms

Collective teacher efficacy: A general belief that teachers in the district have in their ability to make a difference in students' lives (Hoy et al., 2006).

Grow your own teacher initiatives: Strategies used by school districts to increase the supply of teachers from the local community by recruiting and supporting local high school students and other community members to serve as teachers in the district (Sutcher et al, 2016).

Homegrown teachers: This term refers to teachers that graduated from the school district in which they were employed (Huysman, 2007).

Nearly Homegrown Teacher: For the purpose of this study a nearly homegrown teacher is a transplanted teacher who graduated high school from a district located within a 20-mile radius from where they currently teach.

Self-efficacy: Bandura (1997) defined self-efficacy as “beliefs in one’s own capability to organize and execute the courses of action required to produce given attainment” (p. 3).

Small School Rural Achievement Grant: Federal formula grant issued to rural schools with the purpose of providing educational financial assistance for the purpose of improving educational instruction. Eligibility for the grant is determined by student enrollment of less than 600 students or population density of 10 or fewer people per square mile in the county or counties in which the school district is located within. In addition to these requirements the school district must be classified as rural by the Secretary of Education or the state the school is located.

Teacher Efficacy: “The teacher’s belief in his or her capability to organize and execute courses of action required to successfully accomplish a specific teaching task in a particular teaching context” (Tschannen-Moran et al. 1998, p. 233).

Transplanted teacher: A teacher that teaches in a district other than where they graduated (Huysman, 2007).

Summary

This chapter identified the challenges small rural schools face in finding quality teachers and how some schools are targeting homegrown teaching candidates to help in this task. As more schools target the hiring of local candidates as a strategy to improve retention, it is important to understand if these teachers have certain beliefs that could

impact student achievement (Gist et al., 2018). This study intended to identify if there was a difference in teacher self-efficacy between teachers who were homegrown and other teachers in small rural districts. The purpose of this research was to provide these leaders with information to help understand how to best select quality teachers and support these teachers in their task to improve student achievement.

The following chapter highlights the themes surrounding the issue of hiring homegrown teachers in rural schools and challenges faced by rural schools including teacher recruitment and retention, grow your own teacher initiatives, and the impact of hiring homegrown teachers will be reviewed. Chapter Three describes the methodology that was used to conduct the study. Chapter Four presents the result of the study. Finally, Chapter Five summarizes the findings as well as provides speculation on the implications of the study school districts.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

Introduction

Sixty percent of teachers work within 20 miles of the town in which they grew up (Brown, 2016). Rural schools struggle to retain and recruit teachers due to isolation, poverty, and lack of resources (Monk, 2007). As a result, many of rural districts are specifically targeting local teaching candidates because of their propensity to want to work close to home (Swanson, 2011).

Teacher self-efficacy has been linked to student achievement (Blevins, 2017; Caprara et al., 2006; Gulistan et al., 2017; Kim & Seo, 2018; Ross, 1992; Tschannen-Moran & Hoy, 2001; Tschannen-Moran & Hoy, 2007). Teachers with high self-efficacy are more motivated, persistent, and have higher levels of job satisfaction (Bandura, 1997; Karabiyik & Korumaz, 2014; Tschannen-Moran & Hoy, 2001). Teacher self-efficacy is impacted by the context of the teaching task (Klassen & Chiu, 2010; Tschannen-Moran et al. 1998). Rural schools provide a unique and challenging context (Hudson & Hudson, 2008; Showalter et al., 2017; Reeves, 2003). Homegrown teachers have a deeper understanding of the context in which they work due to their background (Hadre, 2009). The intent of this study was to determine if homegrown teachers had a higher sense of efficacy as a result of this understanding.

Understanding what makes a quality teacher is necessary to understand whether or not teachers believe they have the ability to influence student outcomes. Teachers search for understanding of what is necessary to be successful at the given teaching task as well as understanding of the context of a given teaching assignment when developing

beliefs about teacher efficacy (Tschannen-Moran et al., 1998). Therefore the researcher found it prudent to review literature surrounding the context of small rural schools including the unique challenges as well as unique benefits associated with such a teaching task. Finally, the researcher viewed that it was necessary to review literature on homegrown teachers to gain better understanding on their unique perspective in small rural schools.

The review of related literature in Chapter Two provides relevant findings from previous research as they relate to the research questions as to the relationship between teacher efficacy in small rural schools and a teacher's place of origin. These research topics that are explored include the importance of teacher quality and what attributes make a quality teacher, the construct of teacher self-efficacy and its impact on educational outcomes, the rural school context, the challenges and strategies to recruit and retain teachers in small rural schools, rural school teachers place connection, and the impact of hiring homegrown teachers.

Research reveals that teacher quality is the single most important resource schools possess to impact student achievement (Rice, 2014). The most effective teachers are 5 times more effective than the least (Mincu, 2015). Marzano (2003) analyzed the impact that an effective teacher has on student achievement. The study looked at student achievement percentile over a 2-year period analyzing various inputs. These inputs included the effectiveness of a school and the teacher. Even at schools that are deemed ineffective, the quality of the teacher has a significant impact on student achievement. In each instance, an effective teacher raises achievement scores, while the reverse is true for an ineffective teacher. Teacher quality impacts student achievement more than teacher

salary, school spending, student demographics, and class size (Darling-Hammond, 1997). Goldhaber (2002) estimated that 8.5% of variance in student achievement is a result of teacher characteristics. Hattie's (2003) research cited that teachers account for 30% of variance in student achievement.

While research supports the positive impact that a quality teacher has on student achievement, it is difficult to define exactly what attributes define a quality teacher (Goldhaber, 2002). Furthermore, these attributes may depend on the context of the school environment (Korthagen, 2004). While this may be true, there is some research that provides evidence that certain teacher attributes affect student learning. Hattie's 2017 updated list of factors influencing student achievement outlined some of these. Among the teacher attributes that had the greatest influence were the teacher estimates of student achievement (1.62 effect size), teacher credibility (.9 effect size), and teacher clarity (.75 effect size). Teaching strategies overall accounted for a .57 effect size. Stronge (2018) noted that for a teacher to be effective they must be strong in the area of classroom management, be effective planners, possess positive personal characteristics, implement and monitor instruction, and display professionalism. Steele (2010) identified three characteristics of effective teachers including nonverbal communication, teacher self-efficacy, and servant leadership.

Stronge, Ward, & Grand (2011) conducted a study on the differences between the most effective teachers and the least effective teachers based on student achievement scores. The most effective teachers had fewer classroom disruptions, better classroom management skills, and better student relationships. Hattie (2003) also conducted a comparison study between the difference between expert teachers and experienced

teachers. Hattie identified five distinguishing characteristics of expert teachers. Expert teachers can identify essentials representations of their subject, guide learning through classroom interactions, monitor learning and provide feedback, attend to affective attributes, and influence student outcomes.

Teacher Efficacy

Teacher efficacy theory development. A teacher's individual beliefs have also been linked to student achievement, specifically in the area of teacher efficacy. Teacher efficacy has been a construct that has been researched in depth since Rotter's (1966) work, which examined how a person's beliefs are affected by their sense of control over a given situation. The evolution of the theoretical concept of teacher efficacy has been outlined in Tschannen-Moran et al. (1998) literature review. Rotter surmised that individuals who feel they can obtain a given reinforcement through their own behaviors have greater expectations for future success. Those who have this belief have a strong sense of internal control. Individuals who believe that a given reinforcement is determined more by the environment above one's abilities have a sense of external control. Rotter argued that those who have a greater sense of internal control would work harder to improve their environment and place a greater value on individual skills.

Rotter's work inspired future research on the topic of teacher efficacy (Tschannen-Moran et al. 1998). The RAND corporation followed Rotter's work with a study designed to measure a teacher's sense of control. Armor (1976) created a two-question survey that was designed to gauge Rotter's question of internal and external control. Gibson & Dembo (1984) proposed two specific efficacy labels including general teaching efficacy (GTE) and personal teaching efficacy (PTE). General teacher efficacy

is the belief that teachers in general have the ability to create a given result. Personal teacher efficacy is the belief that an individual teacher's abilities can overcome obstacles of teaching.

Another strand of teacher efficacy theory was initiated by several studies conducted by Albert Bandura. Bandura (1977) proposed the social cognitive theory. This theory included the concept of self-efficacy. Bandura (1997) defined perceived self-efficacy as "beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (p. 3). Bandura (2006) distinguished the difference between perceived self-efficacy and outcome expectancies. Perceived self-efficacy is the belief about one's own ability to perform a task or behavior. An outcome expectation is the belief that an outcome will occur as a result of a given behavior. Bandura (2006) also explained the difference between perceived self-efficacy and the ideas of Rotter (1966). Self-efficacy is a judgment on an individual's belief in their own capabilities; contrary to their belief about the level of control they have to produce a given outcome. Bandura (2006) also described the difference between self-efficacy and self-esteem. One's self esteem is determined by their judgment about their worth, while self-efficacy is determined by a sense of capability. Much like Rotter, many studies and measures have come from Bandura's work.

Tschannen-Moran et al. (1998) added to the ideas of Bandura's work. Their study emphasized that teacher self-efficacy is a result of an individual not only analyzing his or her own capabilities or competence, but also analyzing the context of the specific teaching task. Pajares and Schunk (2001) also noted that one's own self- efficacy is sensitive to the task or activity to be accomplished. Tschannen-Moran, et al. (1998)

explained that his task analysis involves anticipating what will be required in each given teaching situation. This helps the individual discern the difficulties that must be overcome to accomplish the task. Considerations about school context such as climate, leadership, and resources are taken into account when analyzing the task. Tschannen-Moran et al. (1998) also stressed that analyzing a teaching task requires an individual to make judgments about the necessary means needed to reach a certain end. The individual must assess what is required to accomplish the task.

At the same time analysis of the teaching task is occurring, individuals assess whether they have the competence necessary to complete the task. Tschannen-Moran et al. (1998) suggested that teachers make judgments about their current functioning when determining their competence. The analysis of the teaching task combined with the assessment of personal competence determines a teacher's efficacy (Tschannen-Moran et al., 1998). Teaching efficacy contributes to persistence and effort, which also affects performance. This performance creates a new source of efficacy for the teacher and the cycle continues.

Bandura's sources of teacher efficacy. Bandura (1997) described four sources that contribute to teacher efficacy. These sources include mastery experience, vicarious experiences, verbal persuasion, and physiological arousal. Bandura noted that mastery experiences are the most important source of self-efficacy. These experiences occur when an individual perceives that their behavior and abilities have contributed to a specific outcome in the past. When the individual is faced with a similar task in the future, their beliefs are influenced by their perceived success or failure of this past

experience. Efficacy beliefs are strengthened significantly when difficult tasks are completed with little assistance (Tschannen-Moran et al., 1998).

The second source of self-efficacy outlined by Bandura (1997) was vicarious experiences. These are experiences and outcomes in which the individual draws conclusions about their own ability to accomplish a similar task. If an individual closely identifies with the circumstances of this individual, they can draw efficacy from the other person's experience. If an individual views that someone similar to them in ability facing a similar experience has been successful, then their efficacy can be enhanced. The more a person identifies with the modeler the more self-efficacy can be drawn from the experience (Tschannen-Moran & Hoy, 2007).

Bandura (1997) explained a third source of self-efficacy. An individual's efficacy can be influenced by verbal feedback provided by those around them. Tschannen-Moran et al. (1998) stated, "Specific performance feedback from supervisors, other teachers, and even students can be a potent source of information about how a teacher's skills and strategies match the demands of a particular teaching task" (p. 230). The degree to which verbal persuasion affects an individual's efficacy is impacted by the amount of credibility the individual views the source of the feedback as having (Bandura, 1986).

The final source of self-efficacy described by Bandura (1997) is physiological arousal. This is the amount of stress that an individual places on accomplishing the task. Some stress may add to efficacy but too much may decrease efficacy.

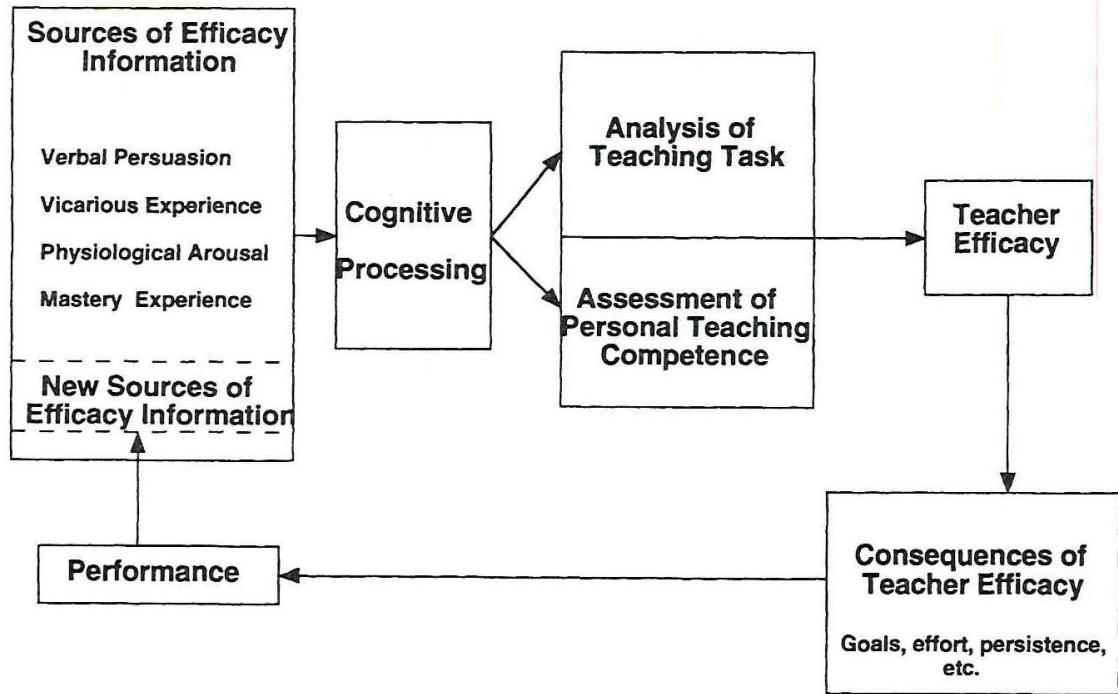


FIGURE 1. The cyclical nature of teacher efficacy. From “Teacher Efficacy: Its Meaning and Measure,” by M. Tschannen-Moran, A.W. Hoy, and W.K. Hoy, 1998, *Review and Research*, 68(2), p. 202-248.

Teacher self-efficacy construct. Tschannen et al. (1998) developed a construct (FIGURE 1) describing their theory of the developmental cycle of teacher efficacy. The cycle begins with the four sources of teacher efficacy described by Bandura (1997). These sources lead an individual to analyze both the teaching task and their own assessment of their perceived personal teaching competences. During this task analysis the teacher must analyze the context of the task. A teacher may have self-efficacy towards a given task in a given context, but have less self-efficacy when considering the same task in a different context. Once efficacy is developed the positive or negative consequences of the efficacy are realized. Greater efficacy may product positive consequences such as greater effort, goal setting, and persistence towards completing

these goals. These consequences can positively impact performance that can lead to new sources of efficacy. The current study looks specifically at the analysis of the task as it applies to a teachers understanding of school context.

Teacher experience and efficacy. Teacher efficacy is context specific (Bandura, 1997; Klassen & Chiu, 2010; Raudenbush, Rowan & Cheong, 1992). As a result several studies on the topic of teacher efficacy have been conducted looking at teacher characteristics or school contexts that may contribute to teacher efficacy. One such topic is a teacher's year of experience in relation to teacher efficacy. Bandura (1997) proposed that teacher efficacy remains stable once established. Results of other studies suggest variances between teacher efficacy levels of novice and experienced teachers (Shohani, Azizifar, Gowhary, & Jamalinesari, 2015; Shoulders & Krei, 2015; Tschannen-Moran & Hoy, 2007; Yeo, Ang, Chon, Huan, & Quek, 2008;). Other studies provide specific milestones in regard to the relationship between experience and teacher efficacy. Fives and Buehl (2010) suggested that teachers with 10 years or more experience report higher levels of teacher efficacy. Klassen and Chiu (2010) cited that teacher efficacy increases from 0-23 years and gradually declines from that point. Holzberger, Philipp, and Kunter (2013) suggested that self-efficacy changes over time dependent upon the teacher's success in the classroom.

Different aspects of teacher efficacy may be impacted by the experience level of the teacher (Wolters & Daugherty, 2007). Experience has the most impact on teacher efficacy for the area of classroom management (Rubie-Davies et al., 2012; Shohani et al. 2015). Other studies suggest that experience may not have a significant impact in the

teacher efficacy area of student engagement (Shoulders & Krei, 2015; Tschannen-Moran & Hoy, 2007).

Tschannen-Moran and Hoy (2007) discussed how the antecedents for teacher efficacy may have different impacts depending on a teachers experience level. Their study revealed that contextual factors have a greater impact on the teacher efficacy of novice teachers compared to more experienced teachers. Also, the availability of resources contributed more to the efficacy levels of novice teachers than experienced teachers. Kim and Seo (2018) suggested that experienced teachers with high efficacy have a greater impact on student achievement than novice teachers with high efficacy.

Gender and teacher efficacy. Studies vary on the degree that gender relates to teacher efficacy. Some studies suggest there is no relationship between the two (Shoulders & Krei, 2015; Tschannen-Moran & Hoy, 2007). Other studies suggest that females have greater efficacy than males (Raudenbush et al., 1992; Rubie-Davies et al., 2012). In comparison to males one specific deficiency in teacher efficacy may be in the area of classroom management for females (Klassen & Chiu, 2010; Oakes, Lane, Jenkins, & Booker, 2013; Shaukat & Iqbal, 2012).

Education level and teacher efficacy. Researchers have also looked for links between a teacher's education level and teacher efficacy. Some studies have revealed that the higher the education level of the teacher, the greater the teacher efficacy level, specifically in the areas of classroom management and instructional practices (Shoulders & Krei, 2015; Shaukat & Iqbal, 2012). Raudenbush et al. (1992) noted that the teacher efficacy level of those teachers with more advanced degrees is more negatively impacted when teaching low-achieving students than teachers with less education.

Teacher perceptions of students. Raudenbush et al. (1992) study on determinants of teacher efficacy found that a teacher's perception of their students' level of engagement had an effect on teacher efficacy. They also found that the past achievement level of students affected a teacher's efficacy. Teachers that had students that were considered lower achieving students in the past had less teacher efficacy. Achievement level had the greatest effect on the teacher efficacy of teachers that were White and had more education. Caprara et al. (2006) also noted the link between student's past academic success and teacher efficacy. Teacher efficacy can also be impacted by the cultural views of the teacher (Milner & Hoy, 2003).

School organization. Raudenbush et al. (1992) noted the organizational setting of the school relates to teacher efficacy. If the school setting allows for teachers to be more involved in instructional decisions and allows for collaboration, then teacher efficacy is enhanced. Enderlin-Lampe (2002) noted that increased decision-making does influence teacher efficacy, but lack of established decision-making roles may detract from teacher efficacy. Fritz, Miller-Heyl, Kreutzer, & MacPhee (1995) suggested three areas that enhance teacher efficacy include allowing teachers more control over the curriculum, encouraging teacher innovation, and peer support.

Grade-level and teacher efficacy. The school level taught by a teacher has also been a topic of research in the area of teacher efficacy. Some studies reveal that secondary teachers have lower teacher efficacy than elementary teachers (Klassen & Chiu, 2010; Wolters & Daugherty, 2007; Ross, 1994). Shaukat and Iqbal (2012) noted that elementary teachers had greater efficacy, specifically in the area of classroom management.

Teacher classroom preparation and teacher efficacy. Teacher classroom preparation has been linked to teacher efficacy and may be class specific (Raudenbush et al., 1992). Teachers that have to prepare for numerous classes may lack knowledge necessary to teach all of them and thus lack efficacy in a particular class. In addition this stress associated with teaching multiple subjects may also detract from teacher efficacy. Teacher efficacy is impacted by the level of stress and emotional exhaustion a teacher experiences (Dicke et al., 2014; Klassen & Chiu, 2010).

Professional development and teacher efficacy. Professional development activities including those that match mastery experiences with instructional coaching had strong effects on teacher efficacy (Tschannen-Moran & McMaster, 2009). Dixon, Yssel, Mcconnell, & Hardin (2014) noted that professional development hours dedicated to differentiation of instruction contribute to teacher efficacy. Ross and Bruce (2007) conducted a study in which they provided professional development activities with Bandura's (1997) sources of self-efficacy as the focus. Participants in the study saw increases in their efficacy levels, specifically in the area of classroom management.

Teacher parent relationships and teacher efficacy. Teacher relationships have been identified in research as having an effect on teacher efficacy. The relationship between students and the teacher has been found to predict teacher efficacy, especially teachers working with low-achieving students (Yeo et al., 2008). In addition positive relationships with parents predict teacher self-efficacy beliefs (Skaalvik & Skaalvik, 2010).

Collective teacher efficacy. Collective teacher efficacy impacts teacher self-efficacy (Goddard & Goddard, 2001). Bandura (1997) described the idea of collective

teacher efficacy. Collective teacher efficacy relates to the beliefs the faculty as a whole has in the ability to impact student learning. Teacher self-efficacy strongly relates to collective teacher efficacy (Skaalvik & Skaalvik, 2007). Furthermore, similar to self-efficacy, collective teacher efficacy has been linked to student achievement (Goddard, Hoy, & Hoy, 2000; Hattie, 2017; Tschannen-Moran & Barr, 2004). Hattie (2017) cited collective teacher efficacy as the top-influencing factor on student achievement in his meta-analysis of 252 factors that influence student achievement. Skaalvik and Skaalvik (2010) noted the correlation between self-efficacy and collective teacher efficacy, while explaining a key difference in what determines each construct. In their study self-efficacy was most influenced by parent support, while collective efficacy was more influenced by school leadership. Ware and Kitsantas (2007) noted that collective efficacy has an impact on teacher retention.

Outcomes of teacher efficacy

Numerous studies have supported the benefits of teacher efficacy. Research suggests teacher efficacy improves student achievement (Caprara et al., 2006; Ross, 1992; Tschannen-Moran & k Hoy, 2007; Kim & Seo, 2018). In addition teacher efficacy has been shown to relate to teacher job satisfaction (Caprara et al., 2006; Klassen & Chiu, 2010). In contrast, a lack of teacher efficacy has been linked to teacher burnout (Brouwers & Tomic, 2000; Skaalvik & Skaalvik, 2007). Personal teaching efficacy has been positively correlated with a teacher's attitude towards implementing new instructional strategies (Ghaith & Yaghi, 1997). Furthermore, self- efficacy can help teachers develop social networks (Caprara et al., 2006). Finally Ross and Gray (2006) cited that teacher efficacy predicts teacher commitment to community partnerships.

Rural Context

Context matters in what attributes make a quality teacher (Korthagen, 2004) as well as a teacher's self-efficacy beliefs (Bandura, 1997; Klassen & Chiu, 2010; Raudenbush et al., 1992). Context must be considered when a teacher analyzes their ability to accomplish a teaching task (Tschannen-Moran et al., 1998). Therefore, understanding the context of rural schools can add to the understanding of the efficacy beliefs of rural schoolteachers. While rural schools may share some common characteristics there are also unique differences between rural schools and rural communities (Harmon, 2001) that must be taken into account when considering context.

Showalter et al. (2017) published a report on the status of rural education. Approximately one third of all school districts in the United States are labeled as rural, and about one half of these districts are considered small rural districts with less than 485 students. Diversity within rural districts continues to grow at a rapid rate. The report reveals that minorities make up 25.2% of the rural student population. Rural mobility is also growing with 10.6% of the rural student population moving at least once within a year. The report reveals that 48.2% of rural students are eligible for subsidized meals.

Specific to the state of Missouri, the Showalter et al. (2017) report revealed that 42.7% of the state's school districts were rural and that 62.7% of these districts were considered small rural districts. At the time of this report, Missouri ranked as the 11th lowest state in rural school expenditure per pupil and ranked as the 2nd lowest state in rural salary expenditure per instructional FTE. Missouri had lower amounts of rural minority and ELL students than most states. The state ranked 11th highest in the nation with 12.5% of the rural student population moving at least once within a year. The

number of rural students eligible for free or reduced lunch in Missouri ranked above the national average at 54.8%. In college and career readiness statistics rural Missouri students ranked high in graduation rate, 92.2%, but ranked low in AP course participation as the 8th lowest state in the nation.

Some specific characteristics of rural school districts include that they tend to be geographically isolated (Harmon, 2001; Jimerson, 2006; Reeves, 2003). In addition rural schools are usually smaller than suburban or urban schools (Reeves, 2003; Harmon 2001). Rural communities have a strong sense of place resulting in less mobility (Bauch, 2000). Rural schools often serve as the hub of the local community (Jimerson, 2006; Hadre, 2009; Theobald & Nachtigal, 1995). Many rural districts have strong ties to their local churches and businesses (Bauch, 2000). Rural schools tend to have large percentages of poor students (Jimerson, 2005; Showalter et al., 2017). Rural schools are also becoming more and more diverse in their student populations (Hadre, 2009; Jimerson, 2005; Showalter et al., 2017). Most rural teachers work in schools close to where they grew up (Collins, 1999).

Attributes of small and rural schools. While small rural schools are faced with specific challenges due to their characteristics they also are presented with some positive advantages over larger urban districts. Research provides evidence that socioeconomic status (SES) has less impact on rural student achievement than urban and suburban schools (Bickel & Howley, 2000; Reeves, 2003). Low-income students in rural schools perform better in small schools (Harmon, 2001). Jimerson (2006) noted that when SES is controlled for small school students, they have higher graduation rates, take more

advanced courses, and have higher participation rates in extracurricular activities than students from other types of schools.

Several specific attributes of small and rural schools may contribute to these outcomes. Rural schools share a strong sense of connectedness with the community (Bauch, 2000; McNeeley, Nonnemaker, & Blum, 2002). This connectedness results in greater parental involvement in rural schools (Bauch, 2000). In addition it can foster close interpersonal relationships within small rural schools (Barley & Beesley, 2007; Jimerson, 2006). Rural school curriculum is enhanced by tying course content to local community issues (Hadre, 2009; Hadre & Sullivan, 2008; Theobald & Nachtigal, 1995). The fact that many of the teachers in rural schools are from the community enhances the link between the learning objectives and the relevance of the content to the students (Hadre, 2009). Small schools are safer than larger schools (Harmon, 2001; Jimerson, 2006; Reeves, 2003). Jimerson (2006) indicated these schools are safer and experience less student discipline issues due to the close relationships students have with adults and other students at school as well as a greater overall sense of community.

Teachers feel better about their work and take more responsibility for the outcome of their work in small rural schools (Jimerson, 2006; Reeves, 2003). Jimerson (2006) noted that students benefit from approaches such as multi-age classrooms and heterogeneous grouping often necessary as a result of small class sizes in small rural schools. In addition it is easier for teachers to implement good teaching practices due to smaller class sizes and decreased bureaucracy often found in small schools.

Challenges of rural schools. The characteristics of rural schools present specific challenges for educators. Student poverty is a challenge for many rural schools in

America (Bouck, 2004; Harmon, 2001; Jimerson, 2005; Reeves, 2003; Showalter et al., 2017). Showalter et al. (2017) reported that nearly half of all students in schools classified as rural live near the poverty line, and this poverty puts rural students and at a high risk for concerns such as child maltreatment, health issues, and food insecurity. Other issues that tend to be associated with high poverty are prevalent in rural communities such as high rates of opioid addictions (Showalter et al., 2017).

The diverse population is growing in rural communities at a high rate that creates special challenges for rural educators (Harmon, 2001; Jimerson, 2005; Reeves, 2003). Showalter et al. (2017) noted the need for qualified English Language Learners (ELL) teachers is high in rural districts, but the supply is low. In addition language and cultural barriers create unique academic challenges for minority students moving into rural communities. Schools are also struggling with obtaining documentation necessary to enroll students, creating an enrollment lag for these families. Bauch (2000) explained that minority students might not have as much sense of belonging or social capital in rural communities as other students.

School funding is a continual issue for rural schools (Bouck, 2004; Jimerson, 2005). Many rural schools are financially stressed (Jimerson, 2005). Rural schools struggle to supplement state funding with local funding resources (Harmon, 2001). The lack of funding causes several challenges for rural school districts. Rural districts often have outdated or inadequate facilities (Harmon, 2001). In addition these schools struggle to maintain technology networks (Bouck, 2004; Hadre, 2009). Financial restraints limit teacher pay in comparison to larger urban districts (Hadre, 2009). Rural schools also

struggle with competing for education grant money due to the lack of personnel to write grants (Hadre, 2009).

Rural educators are faced with dealing with federal and state government mandates (Hadre, 2009; Jimerson, 2006; Reeves, 2003). Bauch (2000) noted that many reform efforts are put in place for urban schools including mandates that may not apply to the rural context. Jimerson (2006) noted that lack of local control is a problem for rural school districts because federal mandates infringe on the local values of rural school districts. Many of these mandates specifically hurt rural schools' ability to recruit teachers because of the certification requirements associated with them (Beesley et al., 2010; Monk, 2007; Reeves, 2003).

Rural communities are often faced with negative perceptions from those living outside of these places, and these perceptions may limit rural schools both politically and economically (Theobald & Nachtigal, 1995). One such perception is that rural students lack educational aspirations beyond secondary education (Howley, 2006; Harmon, 2001). Howley (2006) pointed out the strong place connection that rural students possess should not be mistaken for low aspirations. Harmon (2001) found the dilemma rural educators have in dealing with competing expectations of those who feel students are only successful if they move out of the local community and those who resist learning opportunities outside of the local community because of their strong place connection.

Teacher Shortages in Rural Schools

One of the greatest challenges facing rural schools is recruiting and retaining teachers (Bouck, 2004; Collins, 1999; Harmon, 2001). While noting the importance of teacher quality, rural schools must consider teacher shortages. Teacher shortages in rural

education revolve around isolation, lower salaries, difficult working conditions, and certification requirements of No Child Left Behind federal legislation (McClure & Reeves, 2004; Reeves, 2003). Ingersoll (2001) argued that teacher shortages are caused by turnover, not by lack of supply. Teachers leave the profession or go to other schools due to dissatisfaction. Collins (1999) cited that low teacher retention in rural schools is due to geographical and professional isolation.

Teacher retention in rural schools can be negatively affected by the fact that many teachers are forced to teach multiple subject areas (Monk, 2007; Reeves 2003). Teaching multiple subject areas creates the need for more expertise and requires more preparation time, thus making teaching jobs in districts that require a teacher to teach fewer courses more attractive (Reeves, 2003). Many added pressures are put on rural teachers. Lemke (1994) cited that the ideal rural teaching candidate could teach multiple subjects and grade levels, teach a wide variety of students, be able to adjust to the community, and sponsor extracurricular activities. The additional pressures and duties could affect teacher efficacy. A lack of teacher self-efficacy has been cited as a cause for teacher burnout (Brouwers & Tomic, 2000; Skaalvik & Skaalvik, 2010).

Teacher recruitment. Teacher shortages lead to questions around teacher recruitment and retention. Teacher recruitment and retention efforts need to be strategic, specific, and sustained (McClure & Reeves, 2004). Rural schools may use several recruitment tools including financial incentives. Using financial incentives to recruit teachers in rural schools has had mixed results (McClure & Reeves, 2004). Among the difficulties with using financial incentives are the limits to these resources. Maranto and Shuls (2013) pointed to the inability in rural Arkansas schools to provide enough

financial incentive to attract teachers from the larger more suburban districts. Several studies have revealed that strategies that involve seeking candidates that are familiar with rural conditions aid in recruiting and retaining teachers in rural schools (Boyd et al., 2005; McClure & Reeves, 2004). Boyd et al. (2005) added that suburban and rural teachers in particular are more likely to seek jobs in their hometown over urban teachers.

Lemke (1994) emphasized the need to sell the benefits of teaching in rural districts. The benefits identified include small class sizes, personal relationships with students, individualized instruction, student and parent participation, and greater impact on decision-making. Maranto and Shuls (2013) proposed that rural school districts need to use district Web sites to aid in recruitment. Their study in Arkansas revealed that most rural districts list salary and benefits on their Web posting, but do not emphasize the benefits of teaching in rural districts.

Identifying quality teachers. With research pointing to the impact of teacher quality, literature needs to be reviewed on how to identify quality teachers. Hynes, Sullivan, and Yeager (2011) conducted a mixed design study in Southwest Texas on the attributes school administrators seek when they hire first-year teachers. This study revealed that teamwork, passion for teaching, positive attitude, a strong first impression, and a focus on student-centered teaching were the most important attributes sought. Those surveyed in the study cited they would rather hire a quality teacher for 2 years than a mediocre teacher for 10 years.

Little and Miller (2007) analyzed the hiring practices of rural schools. They stressed the importance of the selection process for hiring teachers, emphasizing the priorities of a school should be to hire quality teachers. In their study, Little and Miller

revealed that rural school leaders search for teachers that share rural values regardless of other objective qualifications. They raised the question of whether this practice may be subverting improvements in rural schools.

Darling-Hammond's (1997) study revealed that teacher preparation and qualifications have a strong impact on student achievement, thus encouraging school decision makers to consider this in the hiring process. In somewhat of a contrast, Shuls and Trivitt (2015) conducted a study on the effects of teacher qualifications and student productivity in schools in Arkansas. The study revealed that a teacher's certification route did not have a significant impact on student achievement. However, there was a connection established between a teacher's performance on content tests and student productivity. Both studies agreed that teacher quality impacts student achievement. By removing the lowest performing teachers and replacing them with just average teachers there would be a significant increase in teacher quality (Shuls & Trivitt, 2015).

Teacher retention. In addition to understanding how to attract quality teachers, schools must also consider how to keep them. Ingersoll (2001) argued that teacher turnover is the root cause of teacher shortages, thus increasing teacher supply will not solve the teacher shortage issue. Schools must address the issue of low teacher retention in order to solve teacher shortage issues. Ingersoll pointed to the link between performance and teacher turnover.

Rice (2014) conducted a study on factors that keep less effective and more effective teachers in a school. The study revealed that more effective teachers cite leadership from principals, professional development opportunities, greater power, and curriculum resources as key factors they desire to stay in their current district. Less

effective teachers are concerned with “better” students. Ingersoll (2001) cited data that reveals that student discipline problems, lack of input from teachers, and non-supportive administration are reasons for high teacher turnover. He noted that teacher salaries have a limited impact on teacher retention.

Reeves (2003) cited the importance of rural schools in developing local teaching candidates as a retention strategy. One of the primary goals in hiring homegrown teachers is to improve retention. A sense of belonging in the community aids in the retention of teachers (Mahan, 2010). Brown (2016) concluded that 60% of teachers return to work in districts within 20 miles of their hometown.

Grow Your Own Teacher Initiatives

Monk (2007) pointed out the need for grow your own strategies that are specific to rural schools. These strategies include colleges and universities placing teaching candidates in rural school for their practicum work. This allows for these students to gain perspective of rural districts. Another strategy cited was rural districts helping existing paraprofessionals gain certification in order to attract them as teachers in the district.

Clewell and Villegas (2001) highlighted the positive results of providing support for paraprofessionals within a school to become certified teachers. The study revealed that paraprofessionals who become teachers in a district are more likely to stay in the district more than three years. The study also alluded that hiring paraprofessionals can add to more diversity in urban schools. Lemke (1994) proposed that rural schools should promote the club (FTA) in high schools to aid in local teacher development.

Questions on Hiring Homegrown Teachers

Grow your own strategies are viewed favorably by those involved in them, yet more information is needed to know what programs work best to aid recruitment and retention and produce the most effective teachers (McClure & Reeves, 2004). Huysman (2007) analyzed teacher satisfaction in rural schools. In his research he looked at the differences in teacher satisfaction between transplanted teachers and homegrown teachers in rural school districts. The study revealed that it is more likely for transplanted teachers to leave a district due to lack of job satisfaction than for a homegrown teacher. The study also revealed that transplanted teachers perceive that homegrown teachers yield more power in the district with no consideration for quality of work, experience, or educational level. Both homegrown teachers and transplanted teachers in the study revealed concerns with role confusion caused by pressures of expectations within the school and from the community. The study pointed out that homegrown teachers are less likely to leave the district either voluntarily or through termination than transplanted teachers. Monk (2007) speculated that local teachers who spend their whole career in one district could be either a positive or negative, depending on why they are staying in the district. Ingersoll (2001) cited that too little turnover might promote stagnancy within the school.

Strauss's (1999) study in Pennsylvania schools noted that schools with a higher percentage of homegrown teachers actually had lower test scores and lower numbers of seniors that had postsecondary plans. He argued that many times local candidates receive their position due to local community ties rather than merit, thus negatively impacting school quality.

Rural Teachers and Place Connection

Most teachers look for a job close to their hometowns or places similar to where they grew up (Boyd et al, 2005; Lemke, 1994). This may be due to the teacher's connection to place. A teacher's previous connection to a school may also have an impact on their beliefs, job satisfaction, and performance. Huysman (2007) defined a homegrown teacher as one that teaches in a school in which he or she received their secondary education. Homegrown teachers have a deeper understanding of the values and assets of the community in which they teach, and they may be able to better leverage these assets in their teaching practices (Hadre, 2009). In addition a homegrown teacher's understanding of the local environment including the local culture helps a teacher relate content to the student's background (Clewel & Villegas, 2001; Hadre, 2009).

Homegrown teachers also have advantages in developing links between the school and parents and the community (Hadre, 2009). Many of these same advantages may also extend to teachers who grew up near the school in which they teach in or a place similar to where they grew up. Hadre (2009) stated, "Teachers in Anywhere, America need not be from Anywhere, but it helps if they are from a place like it" (p. 4).

While advantages exist for homegrown teachers, they also are faced with some added pressure. Huysman (2007) noted that homegrown teachers must struggle with role confusion in separating social relationships with professional relationships. His study also suggested that homegrown teachers might also feel that they receive more duties based on their status than transplanted teachers.

Transplanted teachers are teachers who grew up outside of the local community in which they teach (Huysman, 2007). Some administrators view that these teachers'

outside experiences may add to their student's education (Hadre, 2009), but these teachers must deal with issues unique to their perspective. Hadre (2009) described some of these struggles. Transplanted teachers typically do not have the same understanding of the local culture, including expectations for teachers and knowledge of the unwritten community rules. Even if they do have such understanding, they may struggle with accepting these cultural expectations due to their own set of values and beliefs. These teachers must also be able to find work for their spouses and adequate academic and social programs for their children, which may be difficult in rural communities. Because of these issues, transplanted teachers may choose to live outside the district. Living outside the local community may affect the longevity of these teachers tenure within the district. Mahan's (2010) research reveals a relationship between a teacher feeling membership in rural communities and a teacher's plan to remain in a school district. Huysman (2007) noted that transplanted teachers also face feelings that they do not have the same level of respect within the school as homegrown teachers and do not have the same level of advancement opportunities.

Summary

Chapter Two reviewed the relevant literature surrounding the teacher quality, teacher efficacy, and the context of small rural school districts. The review revealed that hiring quality teachers had an impact on student achievement (Marzano, 2003; Mincu, 2015; Rice, 2014). Teacher self-efficacy is a specific teacher characteristic that can impact student achievement (Caprara et al., 2006; Kim & Seo, 2018; Ross, 1992; Tschannen-Moran & Hoy, 2007). Furthermore, teacher self- efficacy has been linked to teacher job satisfaction (Brouwers & Tomic, 2000; Caprara et al., 2006; Klassen & Chui,

2010; Karabiyik & Korumaz, 2014), teacher commitment (Coladarci, 1992), teachers' attitudes towards implementing new instructional practices (Ghaith & Yaghi, 1997), and it predicts teachers' commitment to community partnerships (Ross & Gray, 2006).

Analyzing the context of a teaching task is a step teachers take when developing teacher self-efficacy (Tschannen-Moran et al., 1998). Rural schools have contextual challenges and advantages compared to larger urban and suburban districts. Specifically, rural schools struggle with the task of recruiting and retaining teachers (Collins, 1999; McClure & Reeves, 2004; Reeves, 2003;). In an attempt to attract local teaching candidates, rural schools are developing strategies to recruit homegrown teachers (Clewell & Villegas, 2001; Lemke, 1994; Monk, 2007; Reeves, 2003). While hiring homegrown teachers may help with teacher retention, questions still remain on other effects of hiring these teachers. Some researchers question whether too little teacher turnover has led to problems with teacher complacency or low satisfaction within the district (Huysman, 2007; Ingersoll, 2001; Monk, 2007). Some literature even suggested a negative correlation between homegrown teachers and school quality (Strauss, 1999).

While these questions concerning the practice of hiring homegrown teachers exist, researchers also cite potential benefits of hiring homegrown teachers. Homegrown teachers have an advantage over transplanted teachers through their greater understanding of the local culture and community (Hadre, 2009). This contextual understanding also assists local teachers with the task of providing relevance to the subject matter being taught.

Chapter Three will describe the methodology that was used to conduct a quantitative study on teacher efficacy as it relates to small rural schoolteachers and where

they grew up. Chapter Four presents the findings. Finally, Chapter Five summarizes the findings and looks at future implications.

CHAPTER THREE

RESEARCH DESIGN AND METHOD

Introduction

Rural schools face staffing challenges due to factors such as isolation and low salaries. As a result, many rural schools look to hire homegrown teachers, yet there is very little research on specific teaching characteristics of these teachers. One specific teacher characteristic that has been linked to student achievement is the area of teacher efficacy (Blevins, 2017; Caprara et al., 2006; Gulistan et al., 2017; Kim & Seo, 2018; Ross, 1992; Tschannen-Moran & Hoy, 2001; Tschannen-Moran & Hoy, 2007). Bandura (1997) described self-efficacy beliefs as “one’s capabilities to organize and execute the courses of action required to produce given attainments” (p. 3). Teacher efficacy is context specific (Bandura, 1997; Tschannen-Moran et al., 1998), yet there is little research on teacher efficacy from the context of rural schools (Shoulders & Krei, 2005).

Analysis of the teaching task is a key factor in determining teacher efficacy (Tschannen-Moran et al., 1998). Brown (2016) found that 60% of teachers return to work in a school district within 20 miles of their hometown. Given this fact and considering the importance of this analysis of the teaching task, there is a need to understand if a teacher’s growing up in the school district in which they work enhances teacher efficacy due to their greater insight on the specific context of the particular teaching task.

Furthermore, to this current date the researcher has not identified any studies that analyze a teacher’s origin as it relates to the district in which they serve and its effect on teacher efficacy.

The purpose of this study was to discover if the place from which a teacher graduated high school has an impact on their teacher efficacy in rural schools. If such a link exists, it can help educators develop more understanding on what specific factors contribute to teacher efficacy. This understanding can help rural school leaders provide better support for their staff no matter their place of origin.

The relevant research questions for this study were as follows:

1. What are the differences between homegrown, nearly homegrown, and transplanted teachers in small rural schools in Missouri regarding teacher self-efficacy including the areas of classroom management, instructional strategies, and student engagement?
2. What is the relationship between teachers' years of experience in their current small rural school district and overall teacher efficacy?
 - A. What is the relationship between homegrown teachers' years of experience in their current small rural school district and overall teacher efficacy?
 - B. What is the relationship between nearly homegrown teachers' years of experience in their current small rural school district and overall teacher efficacy?
 - C. What is the relationship between transplanted teachers' years of experience in their current small rural school district and overall teacher efficacy?

Hypotheses

The following null hypotheses were investigated:

H₀1-There is no significant difference in the teacher self-efficacy of teachers classified as homegrown, nearly homegrown, and transplanted in small rural schools in Missouri.

H₀2 A-Homegrown teachers' years of experience in their school district do not significantly predict their self-efficacy.

H₀2 B-Nearly homegrown teachers' years of experience in their school district do not significantly predict their self-efficacy.

H₀2 C-Transplanted teachers' years of experience in their school district do not significantly predict their self-efficacy.

Research Design

This study was a quantitative design that compared teacher efficacy beliefs based on a teacher's status as a homegrown, nearly homegrown, or transplanted teacher. The independent variables in the study included the classification of the teacher as homegrown, nearly homegrown, or transplanted. The dependent variables included the teacher efficacy of the respondent, including each the three subscales classified as classroom management, instructional strategies, and student engagement. The study also examined whether a relationship existed between teacher efficacy and years of experience in the school district for each of the status groups. The independent variable in this portion of the study was the number of years a teacher has been working in their current district. The dependent variable was the teacher self-efficacy score.

Participants

The participants in this study were teachers in small rural schools in Missouri.

The survey pool was derived from school districts that qualified for the Small Rural School Achievement (SRSA) Grant in Missouri in 2017. A total of 266 school districts in Missouri met the qualification requirements. To be eligible for the SRSA Grant a school district must have had fewer than 600 students or a population density of 10 or fewer people per square mile in the county or counties in which the school district was located within. In addition, either the Secretary of Education or the state in which the district was located must have classified the school district as rural. A list of these qualifying school districts was obtained on the DESE Web site.

Survey participants were asked to identify themselves into one of the following categories based on their place of origin: homegrown teacher, nearly homegrown teacher, or transplanted teacher. For the purpose of this study a teacher was considered homegrown if they graduated from the school district in which they currently taught. A teacher who grew up within 20 miles from the district in which they currently taught, but did not graduate from this district, was considered nearly homegrown. A teacher who grew up outside of a 20-mile radius from the district in which they currently taught was considered a transplanted teacher. Definitions of each category were included in the survey instructions. Teachers were also asked to identify their years of experience in their current district.

Survey Instrument

This study used the TSES. The 12-item TSES scale was developed by Tschannen-Moran and Hoy (2001) to evaluate a teacher's sense of self-efficacy as a

whole as well as in three broad areas of teaching tasks. These areas included instructional strategies, classroom management, and student engagement. The survey asked teachers to respond to questions concerning their beliefs about how much they could do as teachers to accomplish a task using a 9-point Likert scale, ranging from “*nothing*” to “*a great deal*”.

Permission from the survey developers was granted to the researcher to use this survey tool in this current study. The developers also provided the researcher with a scoring guide with instructions on how to use the survey instrument. In addition these developers provided reliability statistics for the survey.

The surveys were disseminated to teachers through a link attached to the permission e-mail sent to superintendents that represented school districts that qualified for the study. If a superintendent granted permission for the district to participate in the study the researcher requested that the superintendent electronically distribute the survey link and directions to their district’s teachers. Survey directions and the estimated time needed to complete the survey of approximately 10 minutes were included in the e-mail sent to teachers.

Survey Validity and Reliability

Tschannen-Moran and Hoy (2001) described their construct validity process in designing the TSES. This process included a focus group of practicing teachers who identified the most important teaching traits. These traits were categorized in the three subscale categories of instructional strategies, classroom management, and student engagement. The following is an example of a question used to gauge efficacy in the area of student engagement: “How much can you do to motivate students who show low

interest in school work?” An example of a question used to determine efficacy in instructional strategies included this, “To what extent can you provide an alternative explanation or example when students are confused?” Finally, an example question in the area of efficacy towards classroom management was as follows: “How much can you do to control disruptive behavior in the classroom?” Tschannen-Moran and Hoy reported reliabilities for the TSES short form. The TSES was found to be highly reliable (12 items, $\alpha=.90$). Cronbach’s alphas for the four student engagement items, the four instructional strategy items, and the four classroom management items were .90, .81, and .86 respectively.

Data Collection

Once the researcher was granted permission to conduct the study by the Research Review Board (RRB) at Southwest Baptist University, the researcher sent e-mails to superintendents who served school districts that qualified for the SRSA grant in Missouri. A list of schools qualifying for this grant was found on the DESE Web site. The e-mail asked for permission to distribute surveys to teachers in the district. After the original e-mail was sent out to superintendents, a follow-up e-mail was sent out a week later in attempt to increase participation. If permission was granted from the superintendent, the researcher requested that the survey link and instructions be distributed to the teachers in the district. Instructions included a brief statement explaining the purpose of the study and a statement of confidentiality. Survey responses were collected electronically using QuestionPro software.

Data Analysis

This study analyzed the dependent variable that included the survey data results on the TSES looking for differences in mean responses between the independent variables of homegrown, nearly homegrown, and transplanted teachers using a MANOVA test. Survey data were collected and entered into the Statistical Package for Social Science Software (SPSS) for analysis. The researcher looked for significant variances from the mean in teacher efficacy levels as a whole as well as each subscale (Classroom Management, Student Engagement, and Instructional Strategies) between each of the groups. The researcher used the MANOVA test due to its ability to analyze variance between multiple independent variables and multiple dependent variables (Warne, 2014). Statistical assumptions when using a MANOVA include normal distribution, linearity, and homogeneity of variances and covariances (French, Macedo, Poulsen, Waterson, & Yu, 2008). If a significant variance was identified the researcher conducted a post hoc test to determine between which independent variables this specific variance occurred. A level of significance of $(p) < .05$ was necessary to meet the threshold of a significant variance.

A linear regression test was conducted on the data in order to determine if there was a relationship between the overall teacher efficacy responses and years of experience in the district for each of the teacher identified groups of homegrown, nearly homegrown, and transplanted teachers. A linear regression test is used to study relationship between two continuous variables. Assumptions for a linear regression test include the variables are continuous, linearity exists between the variables, and the independence of each outcome. In the current study the predictor variable or independent variable was the

years that a teacher had worked in their current school district and the dependent variable was the teacher efficacy survey score of the teacher. A significant relationship between the variables was determined if the level of significance of $(p) < .05$ was met.

Human Participants and Ethics Precautions

Due to the fact that this research involved human participants, certain precautions were necessary. In accordance with the guidelines of Southwest Baptist University regarding the protection of human participants, a request for review was submitted to the RRB for approval to survey participants in for this study. Data collection did not occur until approval from the RRB was granted.

One potential bias that had the potential to impact the research was the fact that the researcher was a superintendent at a school that met the qualification for the current study. In an effort to avoid such bias the school district at which the researcher worked was not included in the research.

Summary

The purpose of this quantitative study was to determine if homegrown teachers have a greater sense of teacher self-efficacy due to their greater understanding of the context in which they teach. The researcher distributed the TSES developed by Tschannen-Moran and Hoy (2001) to teachers in small rural schools in Missouri. Survey data were collected and analyzed from teachers who identified themselves as either homegrown, nearly homegrown, or transplanted. The data were analyzed looking for any significant variance from the mean responses on the TSES between each of the identified groups using a MANOVA test. The data were also analyzed in an attempt to identify if there was a relationship between years of experience in a district and teacher

efficacy for each group of teachers including homegrown, nearly homegrown, and transplanted using a linear regression test. The data collected were analyzed through using SPSS software and results are reported in Chapter Four. Discussion about the implications of these results is included in Chapter Five.

CHAPTER FOUR

ANALYSIS OF THE DATA

Introduction

Teacher self-efficacy has been linked to student achievement (Blevins, 2017; Caprara et al., 2006; Gulistan et al., 2017; Kim & Seo, 2018; Ross, 1992; Tschannen-Moran & Hoy, 2001, 2007). A teacher's self-efficacy is influenced by the teacher's analysis of the context of the teaching task (Tschannen-Moran et al., 1998). Small rural schools present a unique teaching context. Homegrown teachers in small rural districts may have a greater understanding of the context of the teaching task at hand due to prior knowledge of the particular school community. This may have an effect on their teacher self-efficacy. The purpose of this quantitative research study was to compare homegrown teachers' self-efficacy to other teachers in small rural districts.

The study used the 12-item version of the TSES developed by Tschannen-Moran and Hoy (2001) to measure the teacher self-efficacy of those participating in the study. This survey provided data on teacher self-efficacy including the overall efficacy measure of the respondent as well as subscale scores in the areas of classroom management, teaching strategies, and student engagement. Survey respondents were asked to identify if they were a homegrown teacher, nearly homegrown teacher, or transplanted teacher. Other demographic information was collected on respondents including gender, grade level taught, and years of experience in their current school district. The data were collected using QuestionPro software and then entered into SPSS software to be statistically analyzed.

Statistical analysis was conducted to answer the first research question, “What are the differences between homegrown, nearly homegrown, and transplanted teachers in small rural schools in Missouri regarding teacher self-efficacy including the areas of classroom management, instructional strategies, and student engagement?” The researcher’s null hypothesis was that there would be no significant difference in the teacher self-efficacy of teachers classified as homegrown, nearly homegrown, and transplanted in small rural schools in Missouri. A MANOVA test was conducted to analyze the variance from the mean teacher self-efficacy scores as measured by the TSES for each of the teacher subgroups including homegrown, nearly homegrown, and transplanted teachers. Variances were compared for each of the subscales on the TSES including classroom management, teaching strategies, and student engagement scores.

The second research question in the study asked, “What is the relationship between teachers’ years of experience in their current small rural school district and overall teacher efficacy?” This question was broken down into three subquestions. Subquestion 2A asked, “What is the relationship between homegrown teachers’ years of experience in their current small rural school district and overall teacher efficacy?” Question 2B asked, “What is the relationship between nearly homegrown teachers’ years of experience in their current small rural school district and overall teacher efficacy?” Subquestion 2C asked, “What is the relationship between transplanted teachers’ years of experience in their current small rural school district and overall teacher efficacy?” The null hypothesis to Subquestion 2A was homegrown teachers’ years of experience in their school district do not significantly predict their teacher self-efficacy. The null hypothesis to Subquestion 2B was nearly homegrown teachers’ years of experience in their school

district do not significantly predict their teacher self-efficacy. The null hypothesis to Subquestion 2C was transplanted teachers' years of experience in their school district do not significantly predict their teacher self-efficacy. A linear regression statistical test was conducted analyzing if a teacher's years of experience in his or her given school district predicted the overall teacher self-efficacy score on the TSES for each of the groups of teachers including homegrown, nearly homegrown, and transplanted teachers.

The following section includes the data analysis and statistical findings. The sample pool is described including the demographic data of those who participated in the surveys. The present findings for each of the null hypothesis are presented including the descriptive statistics and associated tables.

Participants

A total of 467 surveys were completed by teachers from small rural districts in Missouri that qualified for the SRSA grant in 2017. A total of 97 (20.77%) of these surveys were completed by teachers who identified as homegrown teachers, 111 (23.7%) of the teachers identified as nearly homegrown teachers, and 259 (55.6%) identified as transplanted teachers. Females constituted 80.45% of the survey respondents while males made up the additional 19.5%. A total of 40.75% of the teachers surveyed identified as elementary teachers, 30.13% as middle school or junior high teachers, and 29.12% as high school teachers. The average years of experience in the school district in which a respondent was currently employed was 10.49 years. This data included 13.23 years for homegrown teachers, 10.33 years for nearly homegrown teachers, and 9.53 years for transplanted teachers.

Supporting Research Question 1

Teacher responses to questions on the TSES were used to answer Research Question 1: What are the differences between homegrown, nearly homegrown, and transplanted teachers in small rural schools in Missouri regarding teacher self- efficacy including the areas of classroom management, instructional strategies, and student engagement? H₀1: There are no significant differences in the teacher self-efficacy of teachers classified as homegrown, nearly homegrown, and transplanted in small rural schools in Missouri.

Descriptive statistics. Table 1 presents the descriptive statistical data from the survey respondents. Survey responses were collected from 467 teachers from small rural schools in Missouri. A total of 97 of these teachers identified themselves as homegrown teachers. A total of 111 teachers identified themselves as nearly homegrown teachers. A total of 259 teachers identified themselves as transplanted teachers.

Homegrown teachers, nearly homegrown teachers, and transplanted teachers had the highest teacher efficacy scores in the subscale area of teacher instructional strategies ($M = 7.7835$, $SD = 1.09010$; $M = 7.8536$, $SD = 1.14588$; and $M = 7.6187$, $SD = 1.15224$, respectively), followed by classroom management subscale scores ($M = 7.6598$, $SD = 1.29361$; $M = 7.5811$, $SD = 1.20753$; and $M = 7.3948$, $SD = 1.32664$, respectively), and finally, student engagement subscale scores ($M = 6.9536$, $SD = 1.39956$; $M = 6.6464$, $SD = 1.41561$; and $M = 6.4575$, $SD = 1.47529$, respectively).

Table 1

Descriptive Statistics

Efficacy Subscale	Group	Mean Score on TSES	SD	N
SE	Homegrown	6.9536	1.39956	97
	Nearly HG	6.6464	1.41561	111
	Transplanted	6.4575	1.47529	259
	OTE	6.6055	1.45580	467
IS	Homegrown	7.7835	1.09010	97
	Nearly HG	7.8536	1.14588	111
	Transplanted	7.6187	1.15224	259
	OTE	7.7088	1.14038	467
CM	Homegrown	7.6598	1.29361	97
	Nearly HG	7.5811	1.20753	111
	Transplanted	7.3948	1.32664	259
	OTE	7.4941	1.29473	467

Note. SE = student engagement; IS = instructional strategies; CM = classroom management; nearly HG = nearly homegrown; OTE = overall teacher self-efficacy; SD = standard deviation; N = number.

Assumptions. Assumption testing for normal distribution of data, linearity, and homogeneity of variance-covariances was conducted. There were some univariate outliers in the data, as assessed by inspection of a box plot. Outliers were included in the analysis anyway because the researcher did not believe the outliers were significant enough to materially affect the result. Table 2 reveals that teacher self-efficacy scores were not normally distributed for each group, as assessed by a Shapiro-Wilk test ($p < .05$). However, the inspection of the Q Q plots revealed normal distribution of scores for each group. There was homogeneity of variance-covariance's matrices, as assessed by Box's test of equality of covariance matrices ($p = .282$). There was homogeneity of variances, as assessed by Levene's Test of Homogeneity of Variance ($p > .05$).

Table 2

Tests of Normality

Efficacy Subscale	Group	Shapiro-Wilk		Sig.
		Statistic	<i>df</i>	
SE	HG	0.946	970	.001
	NHG	0.968	1110	.008
	Tran	0.961	2590	.000
CM	HG	0.850	970	.000
	NHG	0.895	1110	.000
	Tran	0.898	2590	.000
IS	HG	0.886	970	.000
	NHG	0.850	1110	.000
	Tran	0.920	2590	.000

Note. SE = student engagement; CM = classroom management; IS = instructional strategy; HG=homegrown; NHG=nearly homegrown; Tran = transplanted

Findings. Survey responses from each group of teachers were analyzed to determine if significant statistical differences existed between the groups. Table 3 represents a MANOVA statistical test that was conducted to determine statistical significance. Table 4 represents Tukey's Honestly Significant Difference (HSD) that was used post hoc to determine where statistical significant differences might be found within the groups.

Table 3

Multivariate Test

Effect		Value	<i>F</i>	Hypothesis <i>df</i>	Error <i>df</i>	Sig.	Partial Eta Squared
Intercept	Pillar's Trace	.0979	7012.439	3.000	462.00	0.00	0.979
Group	Pillar's Trace	.024	1.885	6.000	926.00	0.08	0.012

There was not a statistically significant difference between the groups on the combined dependent variables, $F(6, 926) = 1.885, p < .080$; Pillars Trace = .024; partial $\eta^2 = .012$. While the MANOVA test did not indicate a significant statistical difference

between the groups on the combined dependent variables with $p < .080$, the researcher determined the value was close enough to the threshold of significance of $p < .05$ to conduct a post hoc analysis test on the data to determine where specific differences occurred between the groups. Table 4 presents the result of the post hoc analysis.

Table 4

Tukey's HSD

			95 % Confidence Interval				
Dependent Variable			Mean Difference	Std. Error	Significance	Upper Bound	Lower Bound
SE	HG	NH	0.3072	0.20096	0.278	-0.1653	-0.7797
		Tran	.4961	0.17211	0.011*	0.0914	0.9008
	NH	HG	-0.3072	0.20096	0.278	-0.7797	0.1653
		Tran	0.1889	0.16403	0.483	-0.1968	0.5745
	Tran	HG	-.4961	0.17211	0.011*	-0.9008	-0.0914
		NH	-0.1889	0.16403	0.483	-0.5745	0.1968
IS	HG	NH	-0.0701	0.15819	0.897	-0.4420	0.3018
		Tran	0.1648	0.13548	0.444	-0.1538	0.4833
	NH	HG	0.0701	0.15819	0.897	-0.3018	0.4420
		Tran	0.2349	0.12912	0.164	-0.0687	0.5385
	Tran	HG	-0.1648	0.13548	0.444	-0.4833	0.1538
		NH	-0.2349	0.12912	0.164	-0.5385	0.0687
CM	HG	NH	0.0787	0.17964	0.900	-0.3437	0.5011
		Tran	0.2650	0.15386	0.198	-0.0967	0.6268
	NH	HG	-0.0787	0.17964	0.900	-0.5011	0.3437
		Tran	0.1863	0.14663	0.413	-0.4585	0.5311
	Tran	HG	-0.2650	0.15386	0.198	-0.6268	0.0967
		NH	-0.1863	0.14663	0.413	-0.5311	0.1585

Note. SE = student engagement; IS = instructional strategies; CM = classroom management; HG = homegrown; NH = Nearly Homegrown; Tran = Transplanted; * $p < .05$

Tukey's HSD post hoc test data revealed that homegrown teacher self-efficacy scores in the subscale area of student engagement were statistically significantly higher than transplanted teachers ($p = .011$). There was no such variance between the scores of homegrown and nearly homegrown teachers ($p = .278$). Tukey's HSD did not reveal any

significant statistical differences between the three groups in the subscale areas of instructional strategies or classroom management. Since there was a statistically significant difference in the teacher efficacy subscale area of student engagement between homegrown teachers and transplanted teachers the null hypothesis was rejected.

Supporting Research Subquestion 2A

Homegrown teacher responses on the TSES were used to answer research Subquestion 2A: What is the relationship between homegrown teachers’ years of experience in their current small rural school district and overall teacher efficacy? H₀₂ A: Homegrown teachers’ years of experience in their school district do not significantly predict their self-efficacy.

Descriptive statistics. Table 5 presents the descriptive data collected from homegrown teachers. Surveys were collected from 97 teachers who identified themselves as homegrown. The average years of experience in the school district was 13.23 years. The overall mean efficacy score on the TSES was 7.4657.

Table 5

Homegrown Teacher Descriptive Statistics

	<i>N</i>	Minimum	Maximum	Mean	<i>SD</i>	Variance
OTE	97	3.33	9.00	7.4657	1.04078	1.083
TYE	97	1.00	45.00	13.2268	9.51261	90.490

Note. OTE = overall teacher efficacy score on TSES; TE = teacher years of experience in district; N = number; SD = standard deviation.

Assumptions. A linear regression test was completed on the homegrown teacher survey data. Assumption testing for linearity, independence of residuals, homoscedasticity, and normal distribution of residuals was conducted. Linearity was established by visual inspection of a scatter plot. There was independence of residuals, as

assessed by a Durbin-Watson statistic of 1.922, as represented in Table 6. There was homoscedasticity, as assessed by visual inspection of a plot of standardized residuals versus standardized predicted values. Residuals were normally distributed as assessed by visual inspection of a normal probability plot.

Table 6

Homegrown Regression Model Summary

Model	R	R Squared	Adjusted R Squared	Std. Error of the Estimate	Durbin-Watson
1	.042	0.002	-0.009	1.04531	1.922

Note. Predictor's constant years.

Findings. A linear regression statistical test was conducted to see if years of experience significantly predicted homegrown teachers' self-efficacy. The statistical findings are displayed in Table 6 and 7. Years of experience in homegrown teachers' current school district accounted for 2% of the variation in teacher efficacy scores with adjusted $R^2 = -.9\%$. Statistically, years of experience in the homegrown teachers' current school district did not significantly predict teacher efficacy, $F(1, 95) = .168, p = .683$. The null hypothesis was accepted since $p > .05$.

Table 7

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.0184	1	0.184	0.168	.683
	Residual	103.805	95	1.093		
	Total	103.989	96			

Supporting Research Subquestion 2B

Nearly homegrown teacher responses on the TSES were used to answer Research Subquestion 2B: What is the relationship between nearly homegrown teachers' years of experience in their current small rural school district and overall teacher efficacy?

H₀2B: Nearly homegrown teachers' years of experience in their school district do not significantly predict their self-efficacy.

Descriptive statistics. Table 8 displays descriptive statistics from survey data of nearly homegrown teacher respondents. Surveys were collected from 111 teachers who identified themselves as nearly homegrown. The average years of experience in the school district was 10.33 years. The overall mean efficacy score on the TSES was 7.3604.

Table 8

Nearly Homegrown Teacher Descriptive Statistics

	<i>N</i>	Minimum	Maximum	Mean	<i>SD</i>	Variance
OTE	111	4.58	9.00	7.3604	1.01544	1.031
TYE	111	0.00	47.00	10.3333	9.83716	96.770

Note. OTE = overall teacher efficacy score on TSES; TE = teacher years of experience in District; N = number; SD = standard deviation.

Assumptions. A linear regression test was conducted on the nearly homegrown teacher survey responses. Assumption testing for linearity, independence of residuals, homoscedasticity, and normal distribution of residuals was conducted. Linearity was established by visual inspection of a scatter plot. There was independence of residuals, as assessed by a Durbin-Watson statistic of 1.877, as represented in Table 9. There was homoscedasticity, as assessed by visual inspection of a plot of standardized residuals

versus standardized predicted values. Residuals were normally distributed as assessed by visual inspection of a normal probability plot.

Table 9

Nearly Homegrown Regression Model Summary

Model	R	R Squared	Adjusted R Squared	Std. Error of the Estimate	Durbin-Watson
1	.034	0.001	-0.008	1.01949	1.887

Note. Predictors constant years.

Findings. A linear regression statistical test was conducted to see if years of experience significantly predicted nearly homegrown teachers’ self-efficacy as measured by the TSES. Table 9 and 10 display the statistical results. Years of experience in a nearly homegrown teachers’ current school district accounted for 1% of the variation in teacher efficacy scores with adjusted $R^2 = -.8\%$. Statistically, Years of experience in the homegrown teachers’ current school district did not significantly predict teacher efficacy, $F(1, 109) = .128, p = .721$. The null hypothesis was accepted since $p > .05$.

Table 10

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.133	1	0.133	0.128	.721
	Residual	113.290	109	1.039		
	Total	113.423	110			

Supporting Research Subquestion 2C

Transplanted teacher responses on the TSES were used to answer research Subquestion 2C: What is the relationship between transplanted teachers’ years of experience in their current small rural school district and overall teacher efficacy? H_0 2 C:

Transplanted teachers' years of experience in their school district do not significantly predict their self-efficacy.

Descriptive statistics. Surveys were collected from 259 teachers who identified themselves as transplanted. Table 11 presents the descriptive statistics for transplanted survey respondents. The average years of experience in the school district was 9.53 years. The overall mean efficacy score on the TSES was 7.1569.

Table 11

Transplanted Teacher Descriptive Statistics

	<i>N</i>	Minimum	Maximum	Mean	<i>SD</i>	Variance
OTE	259	2.25	9.00	7.1569	1.11115	1.235
TYE	259	0.00	44.00	9.5328	8.90616	79.320

Note. OTE = overall teacher efficacy score on TSES; TYE = teacher years of experience in district; *N* = number; *SD* = standard deviation.

Assumptions. A linear regression test was performed on the survey data of transplanted teachers. Assumption testing for linearity, independence of residuals, homoscedasticity, and normal distribution of residuals was conducted. Linearity was established by visual inspection of a scatter plot. There was independence of residuals, as assessed by a Durbin-Watson statistic of 1.994, as represented in Table 12. There was homoscedasticity, as assessed by visual inspection of a plot of standardized residuals versus standardized predicted values. Residuals were normally distributed as assessed by visual inspection of a normal probability plot.

Table 12

Transplanted Model Summary

Model	<i>R</i>	<i>R</i> Squared	Adjusted <i>R</i> Squared	Std. Error of the Estimate	Durbin-Watson
1	.195	0.038	0.034	1.09188	1.994

Note. Predictor's constant years.

Findings. A linear regression statistical test was conducted to see if years of experience significantly predicted transplanted teachers' self-efficacy as measured by the TSES. Findings are represented in Table 12 and 13. Years of experience in transplanted teachers' current school district accounted for 3.8% of the variation in teacher efficacy scores with adjusted $R^2 = -3.4\%$. Statistically, years of experience in the transplanted teachers' current school district significantly predicted teacher efficacy, $F(1, 257) = 10.184, p < .05$. The null hypothesis was rejected since $p < .05$.

Table 13

<i>ANOVA</i>						
Model		Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	Sig.
1	Regression	12.142	1	12.142	10.184	.002*
	Residual	306.399	257	1.192		
Total		318.540	258			

* $p < .05$

Summary

This chapter presented the data analysis associated with the research questions. Mean scores on the TSES were collected to determine teacher self-efficacy scores for homegrown, nearly homegrown, and transplanted teachers in small rural schools in Missouri. Subscale scores on the TSES were analyzed for each group to determine if there were significant differences between the groups. A significant statistical difference existed between homegrown and transplanted on teacher self-efficacy scores in the subscale area of student engagement. No statistically significant variances existed between the three groups in the subscale areas of instructional strategies and classroom management. Data were also collected to analyze if years of experience in a school

district predicted the overall teacher efficacy score on the TSES for each group of teachers. A statistically significant result existed for transplanted teachers, while no such result existed for homegrown or nearly homegrown teachers. Chapter Five presents the overall summary of the study, including the implications of the findings and recommendations for future research.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

Introduction

Small rural schools face many challenges based on their unique context. When making staffing decisions, these school administrators must not only consider if a particular candidate will make a quality teacher, but also consider how long the teacher will stay in the district. Many of these schools are targeting homegrown candidates due to their propensity to want to return to their home district. While this may be a benefit in recruiting and retaining teachers, there is a lack of research on what other benefits or consequences may arise from employing homegrown teachers.

All schools are faced with pressures associated with student achievement, and school leaders must consider what factors can most impact this achievement in a positive manner. One factor that has been positively linked to student achievement is teacher self-efficacy (Blevins, 2017; Caprara et al., 2006; Gulistan et al., 2017; Kim & Seo, 2018; Ross, 1992; Tschannen-Moran & Hoy, 2001, 2007). Tschannen-Moran et al. (1998) noted that a key step in the development of teacher self-efficacy is the teacher's ability to analyze the given teaching task. A teacher may have a good sense of self-efficacy to complete a task in a given context, but he or she may not have that same level of self-efficacy when performing the same exact task in a different context. The purpose of this study was to determine if homegrown teachers have a greater sense of self-efficacy than other teachers in small rural schools due to their greater understanding of the context in which they teach.

This study was guided by the following research questions:

1. What are the differences between homegrown, nearly homegrown, and transplanted teachers in small rural schools in Missouri regarding teacher self-efficacy including the areas of classroom management, instructional strategies, and student engagement?
2. What is the relationship between teachers' years of experience in their current small rural school district and overall teacher efficacy?
 - A. What is the relationship between homegrown teachers' years of experience in their current small rural school district and overall teacher efficacy?
 - B. What is the relationship between nearly homegrown teachers' years of experience in their current small rural school district and overall teacher efficacy?
 - C. What is the relationship between transplanted teachers' years of experience in their current small rural school district and overall teacher efficacy?

This chapter will present a summary of findings on the research questions, present conclusions and implications that may be noted from the results, and propose future research recommendations.

Survey Methods

In order to attempt to find answers to the research questions, the researcher distributed Tschannen-Moran and Hoy's (2001) TSES survey to teachers in small rural schools in Missouri. The survey consisted of 12 items used to gauge teacher self-efficacy

in three subscale areas including student engagement, instructional strategies, and classroom management. Teachers were asked to identify themselves as being in one of three of the following categories: homegrown, nearly homegrown, and transplanted. For the purpose of this study, homegrown teachers were teachers who graduated from the district in which they were currently employed. Nearly homegrown teachers were teachers who graduated high school in a district within a 20-mile radius from the district in which they were currently are employed. Transplanted teachers were teachers who graduated high school from a district outside a 20-mile radius from the district in which they were currently employed. An overall teacher efficacy score and individual subscale scores were calculated for each survey respondent.

A MANOVA statistical analysis was conducted on the data to determine if statistical significant variances were present between the three groups of teachers in each of the subscale areas. Post hoc analysis occurred to determine between which groups variances occurred. A variance was deemed significant if $p < .05$.

A linear regression analysis was conducted to determine if years of experience in a teacher's given school district predicted overall teacher self-efficacy scores on the TSES. Individual tests were conducted on each group of teachers. A prediction was deemed significant if $p < .05$.

Summary of Findings

Research Question 1 asked, "What are the differences between homegrown, nearly homegrown, and transplanted teachers in small rural schools in Missouri regarding teacher self-efficacy including the areas of classroom management, instructional strategies, and student engagement?" There were 467 survey respondents including 97

homegrown teachers, 111 nearly homegrown teachers, and 257 transplanted teachers. When comparing variances between the groups of teachers on the TSES, the MANOVA statistic was $p = .80$, which did not meet the significance threshold of $p < .05$. The researcher elected to run a post hoc analysis even though the MANOVA significance threshold was not met because of the narrow margin between the two numbers. Tukey's HSD post hoc analysis revealed a statistically significant variance between homegrown teachers and transplanted teachers in teacher self-efficacy scores in the student engagement subscale area with $p < .05$. The null hypothesis was rejected since a statistically significant variance in teacher self-efficacy existed between homegrown teachers and transplanted teachers in the subscale area of student engagement.

Research Subquestion 2A asked, "What is the relationship between homegrown teachers' years of experience in their current small rural school district and overall teacher efficacy?" A total of 97 homegrown teachers responded to the survey with an average of 13.23 years of experience in their current school district. The linear regression test conducted on the data did not provide a statistically significant result with $p = .683$, which was above the threshold of $p < .05$. It was determined that years of experience in the current school district did not predict overall teacher self-efficacy for homegrown teachers. The null hypothesis was accepted.

Research Subquestion 2B asked, "What is the relationship between nearly homegrown teachers' years of experience in their current small rural school district and overall teacher efficacy?" A total of 111 homegrown teachers responded to the survey with an average of 10.33 years of experience in their current school district. The linear regression test conducted on the data did not provide a statistically significant result with

$p = .721$, which was above the threshold of $p < .05$. It was determined that years of experience in the current school district did not predict overall teacher self-efficacy for homegrown teachers. The null hypothesis was accepted.

Research Subquestion 2C asked, “What is the relationship between transplanted teachers’ years of experience in their current small rural school district and overall teacher efficacy?” A total of 256 transplanted teachers responded to the survey with an average of 9.53 years of experience in their current school district. The linear regression test conducted on the data did provide a statistically significant result with $p < .05$. It was determined that years of experience in the current school district predicted overall teacher self-efficacy for homegrown teachers for the current sample. The null hypothesis was rejected.

Conclusions From Results

Table 14 lists the survey questions that provided data on teacher self-efficacy for teachers in the area of student engagement. The research data in this study indicated that homegrown teachers have a higher sense of self-efficacy in the area of student engagement than transplanted teachers. Based on the TSES question items homegrown teachers may have a greater sense of self-efficacy in their ability to motivate low interest students, contribute to positive student beliefs, and assist families in supporting their children in school. This increased efficacy may come from a greater understanding of the school context. Tschannen-Moran et al. (1998) indicated that analysis of the teaching task is a critical step in teacher self-efficacy development. Understanding the context of the teaching environment can help aid in this analysis. Homegrown teachers have a unique understanding of the students and families that make up their given school

community. This understanding may be a reason for the greater sense of self-efficacy especially in the area of student engagement. Homegrown teachers may view the prior relationships that they have with students and families as giving them an advantage in motivating students and providing assistance to these families.

Table 14

TSES Short Form Student Engagement Subscale Questions

	Question Item
Survey Question 2	How much can you do to motivate students who show low interest in schoolwork?
Survey Question 3	How much can you do to get students to believe they can do well in school?
Survey Question 4	How much can you do to help your students value learning?
Survey Question 11	How much can you assist families in helping their children do well in school?

Note. Adapted from “Teacher Efficacy: Capturing an Elusive Construct,” by M. Tschannen-Moran and A.W. Hoy, 2001, *Teaching and Teacher Education*, 17(7), p.783-805.

This finding may also relate to Skaalvik and Skaalvik’s (2010) research, which noted a positive relationship with parents predicted teacher self-efficacy beliefs. Homegrown teachers’ existing relationships with patrons of the school may give them an advantage in dealing with both students and parents. This may be evident in the student engagement finding from this current research. The questions on the TSES in the area of student engagement focused on relationships with both students and families. This may indicate that prior positive connections with school patrons help provide a greater sense of self-efficacy for homegrown teachers.

Another conclusion that may be drawn from the research data is that teacher self-efficacy in the tasks associated with teacher instruction and classroom management may not be as dependent upon contextual understanding of the given school district as self-efficacy in the area of student engagement. Table 15 and Table 16 include the questions on the TSES associated with the tasks surrounding instructional strategies and classroom management. The current research data did not identify a statistical difference in the efficacy levels between homegrown, nearly homegrown, and transplanted teachers in either subscale area. Rural schoolteachers may see tasks associated with these areas as the same no matter where they are employed.

Table 15

TSES Short Form Instructional Strategies Subscale Questions

Question Item	
Survey Question 5	To what extent can you craft good questions for your students?
Survey Question 9	How much can you use a variety of assessment strategies?
Survey Question 10	To what extent can you provide an alternative explanation or example when students are confused?
Survey Question 12	How well can you implement alternative strategies in your classroom?

Note. Adapted from “Teacher Efficacy: Capturing an Elusive Construct,” by M. Tschannen-Moran and A.W. Hoy, 2001, *Teaching and Teacher Education*, 17(7), p.783-805.

Table 16

TSES Short Form Classroom Management Subscale Questions

	Question Item
Survey Question 1	How much can you do to control disruptive behavior in the classroom?
Survey Question 6	How much can you do to get children to follow classroom rules?
Survey Question 7	How much can you do to calm a student who is disruptive or noisy?
Survey Question 8	How well can you establish a classroom management system with each group of students?

Note. Adapted from “Teacher Efficacy: Capturing an Elusive Construct,” by M. Tschannen-Moran and A.W. Hoy, 2001, *Teaching and Teacher Education*, 17(7), p. 783-805.

A conclusion may also be drawn from the fact that the only group in which experience in a district predicted overall teacher efficacy was teachers who were classified as transplanted. The self-efficacy of these teachers may grow as their contextual knowledge of the district grows over time. Hadre (2009) noted homegrown teachers as well as teachers who grew up close to the district in which they worked came into their teaching surroundings with an understanding of the culture and expectations associated with the school district. Transplanted teachers must develop the understanding over time in the district, which may be the reason for the statistically significant result.

Professional Implications

Due to the fact that teacher efficacy has been linked to student achievement (Blevins, 2017; Caprara et al., 2006; Gulistan et al., 2017; Kim & Seo, 2018; Ross, 1992; Tschannen-Moran & Hoy, 2001, 2007), there have been several studies on what factors

actually contribute to teacher self-efficacy. The intent of the current study was to determine if a teacher's status as homegrown potentially could be added to the research on factors that make such a contribution. The data suggest that in a small manner a teacher's homegrown status may contribute to teacher self-efficacy in student engagement. This finding can be added to the existing research concerning contributing factors for teacher self-efficacy.

Another research finding from this study provides data that transplanted teachers' years of experience in the same small rural district predict their teacher self-efficacy. This finding can be added to the existing knowledge base about teacher self-efficacy. It is noteworthy that the data for homegrown and nearly homegrown did not provide a statistical significance. This data may suggest that teacher self-efficacy grows with understanding of school context. Since homegrown and nearly homegrown teachers have prior understanding of school context, experience may not make much of an impact on teacher efficacy for these groups of teachers.

Beyond research implications some practical implications for school administrators may exist. The research findings suggest that homegrown teachers have a higher sense of self-efficacy in the area of student engagement. This may provide small rural school administrators with additional information on potential benefits of hiring homegrown teaching candidates beyond teacher retention. This finding may also provide even more validity to developing grow your own strategies in small rural districts. This information gains further importance when considering teacher self-efficacy has been linked to student achievement (Blevins, 2017; Caprara et al., 2006; Gulistan et al., 2017; Kim & Seo, 2018; Ross, 1992; Tschannen-Moran & Hoy, 2001, 2007). The data suggest

that rural homegrown teachers may have an advantage over transplanted teachers in these districts due to their greater confidence in their ability to connect with students and families.

Administrators may also gain relevant information from the data on transplanted teachers and years of experience in the district. The data provide a statistically significant finding that years of experience predict teacher self-efficacy for transplanted teachers. In most cases these transplanted teachers would be less informed about the school district in which they were hired when compared to homegrown and transplanted teachers. Administrators can use this information to better help develop these teachers upon hire. For instance, a strong mentorship program could be an avenue to help provide information to these to help them gain understanding about the school district. This program should go beyond school routines, but should also provide information on school culture and community expectations in order to better gauge the context of the teaching task. Administrators should ensure the right match is made between mentor and mentee teachers to appropriately accelerate the transplanted teacher's ability to analyze the teaching task. The mentor teacher should have a good sense of the key essentials to be successful in the teaching tasks specific to the context of the specific school. This can add to the teacher's sense of self-efficacy.

The data on teacher efficacy and years of experience in the same rural district for transplanted teachers also suggest the importance of teacher retention for these teachers. The data suggest the longer a transplanted teacher is in the district the greater his or her teacher self-efficacy. Considering the link between teacher self-efficacy and student

achievement, keeping transplanted teachers in the district longer could be a way to increase student achievement.

Recommendation for Future Research Topics

While this study focused on teacher efficacy and homegrown teachers in small rural schools, future studies on the same topic may provide more insight on homegrown teachers in other types of school settings including urban and suburban districts. Grow your own initiatives are being developed for all types of schools as a way to recruit local teachers. Further understanding on the teacher self-efficacy of these homegrown teachers could prove beneficial to school leaders.

A strong link between collective teacher efficacy and student achievement has been established (Goodard & Goodard, 2001). There may be benefits to understanding if having greater numbers of homegrown teachers in a district adds to the collective teacher efficacy of the staff. If such a link exists it could provide even greater purpose for targeting homegrown teaching candidates.

Future research on specific factors that increase teacher self-efficacy for transplanted teachers in small rural schools could also add to the existing research concerning teacher self-efficacy. Findings from this study suggest that years of experience in a transplanted teacher's current small rural district predict teacher self-efficacy. Research knowledge could be gained from researching what specific factors lead to this finding.

Finally, as more school districts look to develop grow your own strategies as a way to develop more homegrown teachers, additional research is needed to determine the potential outcomes of such practices. This study provided information on a potential

beneficial characteristic that small rural homegrown teachers may share such as a greater sense of teacher self-efficacy. Further studies should look for other potential benefits that these teachers may share.

Summary

Teacher efficacy has been linked to student achievement. This study looked to find out if there were differences in teacher self-efficacy between homegrown teachers and other groups of teachers in small rural schools in Missouri. The research data revealed that statistically, homegrown teachers had significantly more teacher self-efficacy in the area of student engagement than transplanted teachers. Transplanted teachers were the only group surveyed in which years of experience in the school district predicted teacher self-efficacy. The intent of this study was to add to the research base on teacher self-efficacy and explore potential benefits to employing homegrown teachers in small rural districts.

This chapter provided a summary of the methods and data analysis from the current study. It included conclusions and implications that may be drawn from the data findings. Finally, it provided recommendations for future research associated with teacher self-efficacy in small rural districts.

References

- Armor, D. (1976). *Analysis of the school preferred reading program in selected Los Angeles minority schools*. Retrieved from <https://files.eric.ed.gov/fulltext/ED130243.pdf>
- Azano, A. P., & Stewart, T. T. (2015). Exploring place and practicing justice: Preparing pre-service teachers for success in rural schools. *Journal of Research in Rural Education, 30*(9), 1-12.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84*(2), 191-215. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.315.4567&rep=rep1&type=pdf>
- Bandura, A. (1986). The explanatory and predictive scope of self-efficacy theory. *Journal of Social and Clinical Psychology, 4*(3), 359-373. Retrieved from <https://guilfordjournals.com/doi/abs/10.1521/jscp.1986.4.3.359>
- Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist, 28*(2), 117-148. Retrieved from <https://www.uky.edu/~eushe2/Bandura/Bandura1993EP.pdf>
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York, NY: W.H. Freeman.

- Bandura, A. (2006). Guide for creating self-efficacy scales. In F. Pajares & T.C. Urdan (Eds.). *Self-efficacy beliefs of adolescents*, (pp. 307-337). Greenwich, CT: Information Age. Retrieved from https://books.google.com/books?hl=en&lr=&id=P_onDwAAQBAJ&oi=fnd&pg=PA307&dq=bandura+2006&ots=riLHp5DiuU&sig=YwT3SBxm_JB3vOwXYvtkYHhWJdc#v=onepage&q=bandura%202006&f=false
- Barley, Z. A., & Beesley, A. D. (2007). Rural school success: What can we learn? *Journal of Research in Rural Education*, 22(1), 1-16.
- Bauch, P. A. (2000, April). *School-community partnerships in rural schools: Leadership, renewal and a sense of place*. Revised version of a paper presented at the Annual Meeting of the American Educational Research Association, New Orleans, LA. Retrieved from <https://files.eric.ed.gov/fulltext/ED470509.pdf>
- Beesley, A. D., Atwill, K., Blair, P., & Barley, Z. A. (2008). Strategies for recruitment and retention of secondary teachers in central U.S. rural schools. *The Rural Educator*, 57 (2), 1-9. Retrieved from <http://files.eric.ed.gov/fulltext/ED544668.pdf>
- Bickel, R., & Howley, C. (2000). The influence of scale on school performance. *Education Policy Analysis Archives*, 8, 22, 1-8.

- Bland, P., Church, E., & Luo, M. (2014). Strategies for attracting and retaining teachers. *Administrative Issues Journal: Education, Practice, and Research*, 4(1). Retrieved from <https://files.eric.ed.gov/fulltext/EJ1058481.pdf>
- Blevins, J. A. (2017). *The exploration of teacher efficacy and influences of context at two rural Appalachian high schools* (Doctoral dissertation). Retrieved from https://uknowledge.uky.edu/cgi/viewcontent.cgi?article=1060&context=epe_etds
- Bouck, E. C. (2004). How size and setting impact education in rural schools. *Rural Educator*, 25(3), 38-42. Retrieved from <https://files.eric.ed.gov/fulltext/EJ783816.pdf>
- Boyd, D., Lankford, H., Loeb, S., & Wyckoff, J. (2005). The draw of home: How teachers' preferences for proximity disadvantage urban schools. *Journal of Policy Analysis and Management*, 24(1), 113-132. Retrieved from https://www.researchgate.net/profile/Donald_Boyd/publication/227344843_The_Draw_of_Home_How_Teachers%27_Preferences_for_Proximity_Disadvantage_Urban_Schools/links/0c96051f7b1425f53a000000
- Brouwers, A., & Tomic, W. (2000). A longitudinal study of teacher burnout and perceived self-efficacy in classroom management. *Teaching and Teacher Education*, 16(2), 239-253. Retrieved from <http://dspace.ou.nl/bitstream/1820/1218/1/A%20LONGITUDINAL%20STUDY%20OF%20TEACHER%20BURNOUT%20AND%20PERCEIVED%20SELF-EFFICACY%20IN%20CLASSROOM%20MANAGEMENT.pdf>

- Brown, D. (2016). The grow-your-own imperative.. Retrieved from http://www.ascd.org/publications/educational_leadership/jun16/vol73/num09/The_Grow-Your-Own_Imperative.aspx
- Caprara, G. V., Barbaranelli, C., Steca, P., & Malone, P. S. (2006). Teachers' self-efficacy beliefs as determinants of job satisfaction and students' academic achievement: A study at the school level. *Journal of School Psychology, 44*(6), 473-490. Retrieved from <https://www.sciencedirect.com/science/article/pii/S0022440506000847>
- Clewell, B. C., & Villegas, A. M. (2001). Absence unexcused: Ending teacher shortages in high-need areas. Evaluating the pathways to teaching careers program. Retrieved from <http://files.eric.ed.gov/fulltext/ED460235.pdf>
- Coladarci, T. (1992). Teachers' sense of efficacy and commitment to teaching. *The Journal of Experimental Education, 60*(4), 323-337. Retrieved from https://www.researchgate.net/profile/Theodore_Coladarci/publication/254346488_Teachers%27_Sense_of_Efficacy_and_Commitment_to_Teaching/links/54b658110cf2e68eb27e7c16/Teachers-Sense-of-Efficacy-and-Commitment-to-Teaching.pdf
- Collins, T. (1999). Attracting and retaining teachers in rural areas. *ERIC Digest*. Retrieved from <http://www.ericdigests.org/2000-4/rural.htm>.
- Darling-Hammond, L. (1997). *The right to learn: A blueprint for creating schools that work*. San Francisco, CA: Josey-Bass

- Dicke, T., Parker, P. D., Holzberger, D., Kunina-Habenicht, O., Kunter, M., & Leutner, D. (2014). Beginning teachers' efficacy and emotional exhaustion: Latent changes, reciprocity, and the influence of professional knowledge. *Contemporary Educational Psychology, 41*, 62-72. Retrieved from https://www.researchgate.net/profile/Theresa_Dicke/publication/268690687_Beginning_teachers%27_efficacy_and_emotional_exhaustion_Latent_changes_reciprocity_and_the_influence_of_professional_knowledge/links/5a2dfe9f45851552ae7ef2a7/Beginning-teachers-efficacy-and-emotional-exhaustion-Latent-changes-reciprocity-and-the-influence-of-professional-knowledge.pdf
- Dixon, F. A., Yssel, N., McConnell, J. M., & Hardin, T. (2014). Differentiated instruction, professional development, and teacher efficacy. *Journal for the Education of the Gifted, 37*(2), 111-127. Retrieved from <http://journals.sagepub.com/doi/abs/10.1177/0162353214529042>
- Enderlin-Lampe, S. (2002). Empowerment: Teacher perceptions, aspirations and efficacy. *Journal of Instructional Psychology, 29*(3), 139-146.
- Fives, H., & Buehl, M. M. (2010). Examining the factor structure of the Teachers' Sense of Efficacy Scale. *The Journal of Experimental Education, 78* (1), 118-134.
- French, A., Macedo, M., Poulsen, J., Waterson, T., & Yu, A. (2008). *Multivariate analysis of variance (MANOVA)*. San Francisco, CA: San Francisco State University. Retrieved from <http://userwww.sfsu.edu/efc/classes/biol710/manova/MANOVAnewest.pdf>

- Fritz, J. J., Miller-Heyl, J., Kreutzer, J. C., & MacPhee, D. (1995). Fostering personal teaching efficacy through staff development and classroom activities. *The Journal of Educational Research*, 88(4), 200-208. Retrieved from <https://bobcat.militaryfamilies.psu.edu/sites/default/files/placed-programs/Fritz%20et%20al%201995%20-%20teacher%20program.pdf>
- Ghaith, G., & Yaghi, H. (1997). Relationships among experience, teacher efficacy, and attitudes toward the implementation of instructional innovation. *Teaching and Teacher Education*, 13(4), 451-458. Retrieved from https://www.researchgate.net/profile/Ghazi_Ghaith/publication/222600472_Relationships_among_experience_teacher_efficacy_and_attitudes_toward_the_implementation_of_instructional_innovation/links/59e25de20f7e9b97f7667e/Relationships-among-experience-teacher-efficacy-and-attitudes-toward-the-implementation-of-instructional-innovation.pdf
- Gibson, S., & Dembo, M. H. (1984). Teacher efficacy: A construct validation. *Journal of Educational Psychology*, 76(4), 569-582.
- Gist, C. D., Bianco, M., & Lynn, M. (2018, August). Examining grow your own programs across the teacher development continuum: Mining research on teachers of color and nontraditional educator pipelines. *Journal of Teacher Education*, 10022487118787504, 1-13. Retrieved from <https://sehd.ucdenver.edu/impact/files/JTE-GYO-article.pdf>

- Goddard, R. D., & Goddard, Y. L. (2001). A multilevel analysis of the relationship between teacher and collective efficacy in urban schools. *Teaching and Teacher Education, 17*(7), 807-818. Retrieved from <https://www.sciencedirect.com/science/article/pii/S0742051X01000324>
- Goddard, R. D., Hoy, W. K., & Hoy, A. W. (2000). Collective teacher efficacy: Its meaning, measure, and impact on student achievement. *American Educational Research Journal, 37*(2), 479-507. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.123.9261&rep=rep1&type=pdf>
- Goldhaber, D. (2002). Mystery of good teaching: The evidence shows that good teachers make a clear difference in student achievement. *Education Next. Hoover Institution Press, 2*(1), 50-55.
- Gulistan, M., Hussain, M. A., & Mushtaq, M. (2017). Relationship between mathematics teachers self efficacy and students academic achievement at secondary level. *Bulletin of Education and Research, 39*(3), 171-182. Retrieved from http://pu.edu.pk/images/journal/ier/PDF-FILES/11_39_3_17.pdf
- Hardré, P. L. (2009). Nurturing the rural teacher experience: lessons from the United States. *Improving Equity in Rural Education, 1*. Retrieved from https://s3.amazonaws.com/academia.edu.documents/3237847/THE_HOT_TOPIC_COMMUNITY_VIDEOCONFERENCING_TO_REDUCE_THE_PROFESSIONAL_ISOLATION_OF_TEACHERS_IN_RURAL_WESTERN_AUSTRALIA.pdf?AWSAccessKeyId=AKIAIWOWYYGZ2Y53UL3A&Expires=1544037669&Signature=mUnlTtLrW92OIJvVoaPwZ8iliro%3D&response-content-

disposition=inline%3B%20filename%3DTHE_HOT_TOPIC_COMMUNITY_VI
DEOCONFERENCEIN.pdf#page=8

Hardre, P.L. & Sullivan, D.W. (2008). Teacher perceptions and individual differences:
How they influence rural teachers motivation strategies. *Journal of Teacher
Education*, 4 (7), 1 -7.

Hammer, P. C., Hughes, G., McClure, C., Reeves, C., & Salgado, D. (2005).
*Rural teacher recruitment and retention practices: A review of the research
literature, national survey of rural superintendents, and case studies of programs
in Virginia*. Retrieved from
<http://files.eric.ed.gov/fulltext/ED489143.pdf>

Harmon, H. L. (2001). Education Issues in rural schools of America. Retrieved from
<https://files.eric.ed.gov/fulltext/ED455987.pdf>

Hattie, J. (2003). Teachers make a difference, What is the research evidence?
Retrieved from
[https://research.acer.edu.au/cgi/viewcontent.cgi?article=1003&context=research_
conference_2003](https://research.acer.edu.au/cgi/viewcontent.cgi?article=1003&context=research_conference_2003)

Hattie, J. (2017). *Hattie's 2018 updated list of factors related to student
achievement: 252 influences and effect sizes*. Retrieved from
<https://www.visiblelearningplus.com/content/250-influences-student-achievement>

Holzberger, D., Philipp, A., & Kunter, M. (2013). How teachers' self-efficacy is related
to instructional quality: A longitudinal analysis. *Journal of Educational
Psychology*, 105(3), 774-786.

- Howley, C. W. (2006). Remote possibilities: Rural children's educational aspirations. *Peabody Journal of Education*, 81(2), 62-80.
- Hoy, W. K., Tarter, C.J., & Hoy, A.W.(2006). Academic optimism of schools: A force for student achievement. *American Educational Research Journal*, 43(3), 425-446. Retrieved from https://www.researchgate.net/profile/Anita_Hoy/publication/254201759_Academic_Optimism_of_Schools_A_Force_for_Student_Achievement/links/0c960538792b74963f000000/Academic-Optimism-of-Schools-A-Force-for-Student-Achievement.pdf
- Hudson, P., & Hudson, S. (2008). Changing preservice teachers' attitudes for teaching in rural schools. *Australian Journal of Teacher Education*, 33(4), 67-77. Retrieved from <https://files.eric.ed.gov/fulltext/EJ1069613.pdf>
- Huysman, J. T. (2007). *Rural teacher satisfaction: An analysis of beliefs and attitudes of rural teachers' job satisfaction* (Doctoral dissertation, University of Central Florida). Retrieved from http://etd.fcla.edu/CF/CFE0001656/Huysman_John_T_200705_EdD.pdf
- Hynes, J. W., Sullivan, S. L., & Yeager, H. L. (2011). What characteristics are important to principals when hiring new teachers? *National Forum of Educational Administration & Supervision Journal*, 28(3) 49-67.

- Ingersoll, R. M. (2001). Teacher turnover and teacher shortages: An organizational analysis. *American Educational Research Journal*, 38(3), 499-534. Retrieved from http://m.learning-connections.org/sites/default/files/researchreport/824_turnover-ing-01-2001.pdf
- Jimerson, L. (2005). Special challenges of the "No Child Left Behind" Act for rural schools and districts. *Rural Educator*, 26(3), 1-4. Retrieved from <https://files.eric.ed.gov/fulltext/EJ783827.pdf>
- Jimerson, L. (2006). *The hobbit effect: Why small works in public schools*. Arlington, VA: Rural School and Community Trust. Retrieved from <https://files.eric.ed.gov/fulltext/ED497985.pdf>
- Karabiyik, B., & Korumaz, M. (2014). Relationship between teacher's self-efficacy perceptions and job satisfaction level. *Procedia-Social and Behavioral Sciences*, 116, 826-830.
- Killian, S. (2017). Hattie's 2017 Updated list of factors influencing student achievement. Retrieved from https://www.jimgerhardlearning.com/uploads/2/6/4/7/26470971/hatties_2017_factors_influencing_achievement.pdf
- Kim, K.R. & Seo, E.H. (2018). The relationship between teacher efficacy and students' academic achievement: A meta-analysis. *Social Behavior and Personality*, 46 (4),529-540. Retrieved from <https://doi.org/10.2224/sbp.6554>

- Klassen, R. M., & Chiu, M. M. (2010). Effects on teachers' self-efficacy and job satisfaction: Teacher gender, years of experience, and job stress. *Journal of Educational Psychology, 102*(3), 741-756. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.893.3574&rep=rep1&type=pdf>
- Korthagen, F. A. (2004). In search of the essence of a good teacher: Towards a more holistic approach in teacher education. *Teaching and Teacher Education, 20*(1), 77-97. Retrieved from <https://www.sciencedirect.com/science/article/pii/S0742051X03001185>
- Kreuz, T.K. (2005). *The status of teacher quality in rural high schools: A descriptive analysis* (Doctoral dissertation, The University of Texas at Austin). Retrieved from <https://repositories.lib.utexas.edu/bitstream/handle/2152/1969/kreuzt32770.pdf?sequence=2>
- Lemke, J. (1994). *Teacher induction in rural and small school districts*. Retrieved from <https://files.eric.ed.gov/fulltext/ED369589.pdf>
- Little, P. S., & Miller, S. K. (2007). Hiring the best teachers? Rural values and person-organization fit theory. *Journal of School Leadership, 17*(2), 118-158.
- Lowe, J. M. (2006). Rural Education: Attracting and retaining teachers in small schools. *Rural Educator, 27*(2), 28-32.

- Mahan, C. (2010). *Home-grown teachers: Will their rural roots keep them in Virginia's rural schools* (Doctoral dissertation, Virginia Commonwealth University). Retrieved from <http://scholarscompass.vcu.edu/cgi/viewcontent.cgi?article=3081&context=etd>
- Maranto, R., & Shuls, J. (2012). How do we get them on the farm? Efforts to improve rural teacher recruitment and retention in Arkansas. *The Rural Educator*, 34(1), 1-9. Retrieved from <https://files.eric.ed.gov/fulltext/EJ1000101.pdf>
- Marzano, R.J. (2003). *What works in schools: Translating research into action*. Alexandria, VA: Association. For Supervision and Curriculum Development.
- McClure, C., & Reeves, C. (2004). Rural teacher recruitment and retention review of the research and practice literature. Retrieved from <http://files.eric.ed.gov/fulltext/ED484967.pdf>
- McGuigan, L., & Hoy, W. K. (2006). Principal leadership: Creating a culture of academic optimism to improve achievement for all students. *Leadership and Policy in Schools*, 5(3), 203-229.
- McNeely, C. A., Nonnemaker, J. M., & Blum, R. W. (2002). Promoting school connectedness: Evidence from the national longitudinal study of adolescent health. *Journal of School Health*, 72(4), 138-146. Retrieved from <http://www2.gsu.edu/~wwwche/Promoting%20School%20Connectedness%20Evidence%20from%20the%20Nat%20Longitudinal%20Study%20of%20Adolescent%20Health.pdf>

- Milner, H. R., & Hoy, A. W. (2003). A case study of an African American teacher's self-efficacy, stereotype threat, and persistence. *Teaching and Teacher Education, 19*(2), 263-276. Retrieved from <https://pdfs.semanticscholar.org/a70d/1a5e9fafc1e45beb03655a69f01a9cc69c16.pdf>
- Mincu, M. (2015). Teacher quality and school improvement: What is the role of Research? Retrieved from <http://www.tandfonline.com/doi/abs/10.1080/03054985.2015.1023013>
- Monk, D.H. (2007). Recruiting and Retaining high-quality teachers in rural areas. *The Future of Children, 17*,(1), 155-174. Retrieved from <http://files.eric.ed.gov/fulltext/EJ795884.pdf>
- Missouri Department of Elementary and Secondary Education (2016). A resource guide to creating your own teacher pipeline. Retrieved from <https://dese.mo.gov/sites/default/files/Grow-Your-Own-Resource-Guide.pdf>
- Oakes, W. P., Lane, K. L., Jenkins, A., & Booker, B. B. (2013). Three-tiered models of prevention: Teacher efficacy and burnout. *Education and Treatment of Children, 36*(4), 95-126.
- Pajares, F., & Schunk, D. H. (2001). Self-beliefs and school success: Self-efficacy, self-concept, and school achievement. In R. Riding & S. Rayner (Eds.), *Perception* (pp. 239-266). London, England: Ablex. <https://www.uky.edu/~eushe2/Pajares/PajaresSchunk2001.html>

- Raudenbush, S. W., Rowan, B., & Cheong, Y. F. (1992). Contextual effects on the self-perceived efficacy of high school teachers. Retrieved from <https://files.eric.ed.gov/fulltext/ED338590.pdf>
- Reeves, C. (2003). Implementing the No Child Left Behind Act: Implications for rural schools and districts. Naperville, IN: North Central Regional Educational Laboratory. Retrieved from http://www.sc3ta.org/kb_files/NCLB_RuralPolicyBrief.pdf
- Rice, S. (2014). Working to maximise the effectiveness of a staffing mix: What holds more or less effective teachers in a school, and what drives them away? Retrieved from <http://www.tandfonline.com/doi/abs/10.1080/00131911.2013.776007>
- Ross, J. A. (1992). Teacher efficacy and the effects of coaching on student achievement. *Canadian Journal of Education*, 17 (1), 51-65. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.840.4648&rep=rep1&type=pdf>
- Ross, J. A. (1994, June). *Beliefs that make a difference: The origins and impacts of teacher efficacy*. Paper presented at the annual meeting of The Canadian Association of Curriculum Studies, Calgary, Alberta, Canada. Retrieved from <https://files.eric.ed.gov/fulltext/ED379216.pdf>
- Ross, J., & Bruce, C. (2007). Professional development effects on teacher efficacy: Results of randomized field trial. *The Journal of Educational Research*, 101(1), 50-60. Retrieved from <https://www.tandfonline.com/doi/abs/10.3200/JOER.101.1.50-60>

Ross, J. A., & Gray, P. (2006). Transformational leadership and teacher commitment to organizational values: The mediating effects of collective teacher efficacy. *School Effectiveness and School Improvement, 17*(2), 179-199.

Retrieved from

<https://www.tandfonline.com/doi/abs/10.1080/09243450600565795>

Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs: General and Applied, 80*(1), 1-28.

Retrieved from

<https://pdfs.semanticscholar.org/161c/b7ac92d7571042bb11ebdaaa1175be8079f8.pdf>

Rubie-Davies, C. M., Flint, A., & McDonald, L. G. (2012). Teacher beliefs, teacher characteristics, and school contextual factors: What are the relationships? *British Journal of Educational Psychology, 82*(2), 270-288.

Shaukat, S., & Iqbal, H. M. (2012). Teacher self-efficacy as a function of student engagement, instructional strategies and classroom management. *Pakistan Journal of Social and Clinical Psychology, 9*(3), 82-85.

Shohani, S., Azizifar, A., Gowhary, H., & Jamalinesari, A. (2015). The relationship between novice and experienced teachers' self-efficacy for personal teaching and external influences. *Procedia-Social and Behavioral Sciences, 185*, 446-452.

Retrieved from

https://ac.els-cdn.com/S1877042815021503/1-s2.0-S1877042815021503-main.pdf?_tid=80f10021-fc9c-4cc2-a676-7541f3a85fe6&acdnat=1533651064_4d9e620311ed61143e095f453c1b0e0b

- Shoulders, T. L., & Krei, M. S. (2015). Rural high school teachers' self-efficacy in student engagement, instructional strategies, and classroom management. *American Secondary Education, 44*(1), 50-61.
- Showalter, D., Johnson, J., Klein, R., & Hartman, S. L. (2017). *Why rural matters 2015-2016: Understanding the changing landscape*. Washington, DC:Rural School and Community Trust. Retrieved from http://www.ruraledu.org/user_uploads/file/WRM-2015-16.pdf
- Shuls, J.V.. & Trivitt, J. R.. (2015). Teacher qualifications and productivity in secondary schools. Retrieved from https://www.researchgate.net/publication/274265720_Teacher_Qualifications_and_Productivity_in_Secondary_Schools
- Skaalvik, E. M., & Skaalvik, S. (2007). Dimensions of teacher self-efficacy and relations with strain factors, perceived collective teacher efficacy, and teacher burnout. *Journal of Educational Psychology, 99*(3), 611-625. Retrieved from https://www.researchgate.net/profile/Einar_Skaalvik/publication/232591575_Dimensions_of_Teacher_Self-Efficacy_and_Relations_With_Strain_Factors_Perceived_Collective_Teacher_Efficacy_and_Teacher_Burnout/links/00463522de15c42f53000000.pdf
- Skaalvik, E. M., & Skaalvik, S. (2010). Teacher self-efficacy and teacher burnout: A study of relations. *Teaching and Teacher Education, 26*(4), 1059-1069. Retrieved from <https://www.sciencedirect.com/science/article/pii/S0742051X09002479>

- Steele, N. A. (2010). Three characteristics of effective teachers. *Update: Applications of Research in Music Education*, 28(2), 71-78. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.835.2267&rep=rep1&type=pdf>
- Strauss, R. P. (1999). *Who gets hired to teach? The case of Pennsylvania*. Retrieved from <http://www.andrew.cmu.edu/user/rs9f/fordham.pdf>
- Stronge, J. H. (2018). *Qualities of effective teachers*. Alexandria, VA:ASCD.. Retrieved from <https://books.google.com/books?hl=en&lr=&id=-bRUDwAAQBAJ&oi=fnd&pg=PP1&dq=Stronge+2018&ots=y-VcJLzgV&sig=Ordk5r6VmshfLGJDWN4sbKaChT4#v=onepage&q=Stronge%202018&f=false>
- Stronge, J. H., Ward, T. J., & Grant, L. W. (2011). What makes good teachers good? A cross-case analysis of the connection between teacher effectiveness and student achievement. *Journal of Teacher Education*, 62(4), 339-355. Retrieved from <http://journals.sagepub.com/doi/abs/10.1177/0022487111404241>
- Sutcher, L., Darling-Hammond, L., & Carver-Thomas, D. (2016). *A coming crisis in teaching? Teacher supply, demand, and shortages in the US*. Retrieved from http://learningpolicyinstitute.org/sites/default/files/product-files/A_Coming_Crisis_in_Teaching_REPORT.pdf

Swanson, P. B. (2011). Georgia's grow-your-own teacher programs attract the right stuff.

The High School Journal, 94(3), 119-133. Retrieved from

https://scholarworks.gsu.edu/cgi/viewcontent.cgi?article=1027&context=mcl_facpub

Taylor, L. U. (2012). Recruiting and retaining teachers in a rural school district: A

phenomenological study of rural teachers (Order No. 3528622). Available from

ProQuest Dissertations & Theses Global. (1048238853). Retrieved from

<http://eagle.sbuniv.edu:2048/login?url=https://search.proquest.com/docview/1048238853?accountid=14196>

Theobald, P., & Nachtigal, P. (1995).. Culture, Community, and the Promise of Rural

Education. Retrieved from

<https://files.eric.ed.gov/fulltext/ED388464.pdf>

Tschannen-Moran, M., & Barr, M. (2004). Fostering student learning: The relationship of

collective teacher efficacy and student achievement. *Leadership and Policy in*

Schools, 3(3), 189-209. Retrieved from

[https://www.researchgate.net/profile/Megan_Tschannen-](https://www.researchgate.net/profile/Megan_Tschannen-Moran/publication/248906781_Fostering_Student_Learning_The_Relationship_of_Collective_Teacher_Efficacy_and_Student_Achievement/links/567853f108ae125516ee7e34.pdf)

[Moran/publication/248906781_Fostering_Student_Learning_The_Relationship_o](https://www.researchgate.net/profile/Megan_Tschannen-Moran/publication/248906781_Fostering_Student_Learning_The_Relationship_of_Collective_Teacher_Efficacy_and_Student_Achievement/links/567853f108ae125516ee7e34.pdf)

[f_Collective_Teacher_Efficacy_and_Student_Achievement/links/567853f108ae1](https://www.researchgate.net/profile/Megan_Tschannen-Moran/publication/248906781_Fostering_Student_Learning_The_Relationship_of_Collective_Teacher_Efficacy_and_Student_Achievement/links/567853f108ae125516ee7e34.pdf)

[25516ee7e34.pdf](https://www.researchgate.net/profile/Megan_Tschannen-Moran/publication/248906781_Fostering_Student_Learning_The_Relationship_of_Collective_Teacher_Efficacy_and_Student_Achievement/links/567853f108ae125516ee7e34.pdf)

Tschannen-Moran, M., & Hoy, A. W. (2001). Teacher efficacy: Capturing an elusive

construct. *Teaching and Teacher Education*, 17(7), 783-805. Retrieved from

http://wps.ablongman.com/wps/media/objects/2347/2404137/Megan_Anita.pdf

- Tschannen-Moran, M., & Hoy, A. W. (2007). The differential antecedents of self-efficacy beliefs of novice and experienced teachers. *Teaching and Teacher Education, 23*(6), 944-956
- Tschannen-Moran, M., Hoy, A. W., & Hoy, W. K. (1998). Teacher efficacy: Its meaning and measure. *Review of Educational Research, 68*(2), 202-248. Retrieved from https://www.researchgate.net/profile/Anita_Hoy/publication/249797734_Teacher_Efficacy_Its_Meaning_and_Measure/links/0c960538792b902b26000000.pdf
- Tschannen-Moran, M., & McMaster, P. (2009). Sources of self-efficacy: Four professional development formats and their relationship to self-efficacy and implementation of a new teaching strategy. *The Elementary School Journal, 110*(2), 228-245. Retrieved from <https://www.journals.uchicago.edu/doi/abs/10.1086/605771>
- Ware, H., & Kitsantas, A. (2007). Teacher and collective efficacy beliefs as predictors of professional commitment. *The Journal of Educational Research, 100*(5), 303-310. Retrieved from <https://www.tandfonline.com/doi/abs/10.3200/JOER.100.5.303-310>
- Warne, R. T. (2014). A primer on multivariate analysis of variance (MANOVA) for behavioral scientists. *Practical Assessment, Research & Evaluation, 19*(7), 1-10. Retrieved from <https://www.pareonline.net/getvn.asp?v=19&n=17>

- Wolters, C. A., & Daugherty, S. G. (2007). Goal structures and teachers' sense of efficacy: Their relation and association to teaching experience and academic level. *Journal of Educational Psychology*, 99(1), 181-193. Retrieved from http://people.uncw.edu/caropresoe/EDN523/523_Spr_07/Goals_Teacher_SelfEfficacy.pdf
- Yeo, L. S., Ang, R. P., Chong, W. H., Huan, V. S., & Quek, C. L. (2008). Teacher efficacy in the context of teaching low achieving students. *Current Psychology*, 27(3), 192-204. Retrieved from https://www.researchgate.net/profile/Lay_See_Yeo/publication/225480727_Teacher_Efficacy_In_the_Context_of_Teaching_Low_Achieving_Students/links/54446cdd0cf2e6f0c0fba290.pdf
- Yettick, H., Baker, R., Wickersham, M., & Hupfeld, K. (2014). Rural districts left behind? Rural districts and the challenges of administering the Elementary and Secondary Education Act. *Journal of Research in Rural Education* 29(13), 1-15. Retrieved from <http://jrre.psu.edu/wp-content/uploads/2015/01/29-13.pdf>

APPENDIX A: EXAMPLE OF SURVEY CONSENT LETTER

Dear Colleagues,

My name is Matt Bushey and I am a Southwest Baptist University Doctoral Student. I am doing a research study on teacher efficacy for teachers in small rural districts in Missouri. This study will compare teacher efficacy survey results of homegrown teachers to other teachers in the study.

I am requesting for permission for your teachers to participate in this study. If you agree to be part of the research study, your teachers will be asked to complete a brief survey concerning their own teacher efficacy beliefs. **The survey has only 12 questions and should take about 5 minutes to complete.**

I would ask that you forward this email to your the teachers in your district for completion. By forwarding this email to your teachers for completion you are agreeing to be part of the study.

Teachers, if you agree to participate please click on this link to complete the survey:
(Link will be inserted here)

The survey is anonymous and no identifying information is collected. The completed survey serves as your implied consent to be surveyed. Your participation is voluntary. Your survey responses will be strictly confidential. The data from this research will be reported in aggregate form. There are no foreseeable risks associated with participation in this study.

The Southwest Baptist University Research Review Board for research and research-related activities involving human subjects has reviewed this project. I have contracted with QuestionPro, an independent research firm, to field your confidential survey responses. I would be glad to share the results of my research upon your request.

Thank you,

Matt Bushey

APPENDIX B: PERMISSION TO USE SURVEY INSTRUMENT



ANITA WOOLFOLK HOY, PH.D.

PROFESSOR
PSYCHOLOGICAL STUDIES IN EDUCATION

Dear

You have my permission to use the *Teachers' Sense of Efficacy Scale* in your research. A copy the scoring instructions can be found at:

<http://u.osu.edu/hoy.17/research/instruments/>

Best wishes in your work,

A handwritten signature in cursive script that reads "Anita Woolfolk Hoy".

Anita Woolfolk Hoy, Ph.D.
Professor Emeritus



William & Mary
School of Education

MEGAN TSCHANNEN-MORAN, PHD
PROFESSOR OF EDUCATIONAL LEADERSHIP

March 20, 2018

Matt,

You have my permission to use the Teacher Sense of Efficacy Scale (formerly called the Ohio State Teacher Sense of Efficacy Scale), which I developed with Anita Woolfolk Hoy, in your research. You can find a copy of the measure and scoring directions on my web site at <http://wmpeople.wm.edu/site/page/mxtsch> . Please use the following as the proper citation:

Tschannen-Moran, M & Hoy, A. W. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education*, 17, 783-805.

I will also attach directions you can follow to access my password protected web site, where you can find the supporting references for this measure as well as other articles I have written on this and related topics.

I would love to receive a brief summary of your results.

All the best,

Megan Tschannen-Moran
The College of William and Mary
School of Education

APPENDIX C: SURVEY INSTRUMENT

Teachers' Sense of Efficacy Scale short-form questions

1. How much can you do to control disruptive behavior in the classroom?
Nothing very little some influence quite a bit a good deal
(1) (2) (3) (4) (5) (6) (7) (8) (9)
2. How much can you do to motivate students who show low interest in school work?
Nothing very little some influence quite a bit a good deal
(1) (2) (3) (4) (5) (6) (7) (8) (9)
3. How much can you do to get students to believe they can do well in school work?
Nothing very little some influence quite a bit a good deal
(1) (2) (3) (4) (5) (6) (7) (8) (9)
4. How much can you do to help your students value learning?
Nothing very little some influence quite a bit a good deal
(1) (2) (3) (4) (5) (6) (7) (8) (9)
5. To what extent can you craft good questions for your students?
Nothing very little some influence quite a bit a good deal
(1) (2) (3) (4) (5) (6) (7) (8) (9)
6. How much can you do to get children to follow classroom rules?
Nothing very little some influence quite a bit a good deal
(1) (2) (3) (4) (5) (6) (7) (8) (9)
7. How much can you do to calm a student who is disruptive or noisy?
Nothing very little some influence quite a bit a good deal
(1) (2) (3) (4) (5) (6) (7) (8) (9)

8. How well can you establish a classroom management system with each group of students?

Nothing very little some influence quite a bit a good deal
(1) (2) (3) (4) (5) (6) (7) (8) (9)

9. How much can you use a variety of assessment strategies?

Nothing very little some influence quite a bit a good deal
(1) (2) (3) (4) (5) (6) (7) (8) (9)

10. To what extent can you provide an alternative explanation or example when students are confused?

Nothing very little some influence quite a bit a good deal
(1) (2) (3) (4) (5) (6) (7) (8) (9)

11. How much can you assist families in helping their children do well in school?

Nothing very little some influence quite a bit a good deal
(1) (2) (3) (4) (5) (6) (7) (8) (9)

12. How well can you implement alternative strategies in your classroom?

Nothing very little some influence quite a bit a good deal
(1) (2) (3) (4) (5) (6) (7) (8) (9)

Source: Tschannen-Moran and Hoy (2001)

Demographics

What is your gender?

Which category of teacher do you fit in based on the survey instructions?

Homegrown/Nearly Homegrown/Transplanted

How many years have you taught in your current school district?

What grade level do you teach? Choose all that apply

Elementary (K-5); Middle School (6-8); High School (9-12)