Influences on the Sources of Teacher Self-Efficacy in a Lutheran School

Kimberly Lavado
Concordia University - Portland, kim_lavado@yahoo.com

Recommended Citation

Concordia University - Portland
CU Commons

Spring 4-11-2018

Influences on the Sources of Teacher Self-Efficacy in a Lutheran School

Kimberly Lavado
Concordia University - Portland

Follow this and additional works at: https://commons.cu-portland.edu/edudissertations

 Part of the Educational Leadership Commons

Concordia University–Portland

College of Education

Doctorate of Education Program

WE, THE UNDERSIGNED MEMBERS OF THE DISSERTATION COMMITTEE

CERTIFY THAT WE HAVE READ AND APPROVE THE DISSERTATION OF

Kimberly Lavado

CANDIDATE FOR THE DEGREE OF DOCTOR OF EDUCATION

Jillian Skelton, Ed.D., Faculty Chair Dissertation Committee

Donna Graham, Ph.D., Content Specialist

Nicholas J. Markette, Ed.D., Content Reader

ACCEPTED BY

Joe Mannion, Ed.D.
Provost, Concordia University–Portland

Sheryl Reinisch, Ed.D.
Dean, College of Education, Concordia University–Portland

Marty A. Bullis, Ph.D.
Director of Doctoral Studies, Concordia University–Portland

Influences On Teacher Self-efficacy in a Lutheran School

Concordia University - Portland

Kimberly Lavado

Concordia University – Portland

College of Education

Dissertation submitted to the Faculty of the College of Education

in partial fulfillment of the requirements for the degree of

Doctor of Education in SEP

Teacher Leadership

Jillian Skelton, Ed.D., Faculty Chair Dissertation Committee

Donna Graham, Ph.D., Content Specialist

Nicholas J. Markette, Ed.D., Content Reader

Concordia University Portland

2018

Abstract

Teacher self-efficacy influences teacher effectiveness and, in turn, affects student academic achievement. Improving teacher effectiveness can improve student achievement. The National Assessment of Educational Progress (NAEP) measures student growth across the United States, and Lutheran schools consistently record strong achievement scores on NAEP. Exploring the influences on the sources of teacher self-efficacy in a Lutheran school can help deepen understanding of the influences on teacher effectiveness. Guided by Bandura's social cognitive theory (1977), which asserts that an individual's belief in his ability to affect and control a desired outcome is impacted by mastery experience, vicarious experience, verbal persuasion, and physiological and emotional experience, this case study explored influences on the sources of teachers' self-efficacy in a nationally recognized Lutheran school. This case study explored the phenomenon in an understudied population in order to gain a deeper understanding of the influences on teacher self-efficacy. The Teacher Self-Efficacy Survey (TSES) confirmed the self-efficacy of the participants. Interviews, field observations, and unobtrusive measures observations were the methods by which data was gathered and triangulated. Inductive analysis was used to interpret the data. The data revealed that professional development was of great importance in helping teachers to improve their effectiveness. Additionally, positive relationships among the different members of the school community and a sense of vocation, or the belief in a divine calling to teach, had deep meaning for the participants.

Keywords: teacher self-efficacy, TSES, teacher effectiveness, student achievement, NAEP, qualitative case study, Lutheran schools, relationship, vocation

Dedication

I humbly dedicate to God the very work that God has inspired and enabled me to do. If I fail to publicly thank the Author and Perfecter of my faith, I would be remiss, for it is in Christ and through Christ that I am able to do all things.

Those closest to us bear the brunt of the good, the bad, and the ugly of our journey regardless of the direction that journey may take. While my journey has taken us across state lines as well as international borders, my family has encouraged and supported the twists and turns of the travels and experiences that my calling has taken us on. It is to my husband, Angel, a tireless supporter of my work and vocation, that I dedicate this dissertation. His love, concern, support, and prayers have value beyond measure. It is to my daughters Ana Maria and Vanesa Grace, who have endured countless hours over breakfast, dinner, and walks around the neighborhood listening to me think aloud about what I was learning, that I also dedicate this dissertation. Their willingness to let me talk it out and their encouragement are treasures I will long guard in my heart. Finally, to my loving mother and friend, who listened and encouraged me, as she always has, through this process and to my father, in whose footsteps I have been blessed to follow, I dedicate this dissertation.

Acknowledgements

Although the work within this dissertation is the result of my effort, the effort itself was not a singular one. My experience and curiosity, coupled with a personal faith that trusts in God for direction and guidance brought me to the beginning of the journey, but the loving support and encouragement of my husband Angel and my daughters Ana Maria and Vanesa helped me through the process. The support and encouragement of my dear friends Amy and Pam, who patiently waited for me to finish so that I could come out and play, I value greatly. Thanks to my dissertation committee for feedback that encouraged a clearer expression of what I have learned in the study. I offer a final thank-you to Dr. Skelton for her direction and encouragement throughout the process.

Table of Contents

List of Tables

Chapter 1: Introduction

Introduction to the Problem

The goal of American education is positive student academic achievement. Although students' failure to achieve academically has diverse causes, teachers bear the burden of responsibility when students fail to achieve adequate progress. Teacher effectiveness is an important factor in student achievement. Effective teachers impact student academic outcomes. While factors such as administrative leadership, teacher and student motivation, school environment, and school reform impact the effect a teacher has on student learning, a teacher's belief in their capacity to affect academic growth by managing the classroom, engaging the students, and delivering the academic content necessary for student success determines how effective a teacher can be (Dibapile, 2012; Klassen & Tze, 2014). Bandura (1977) identified perception, or belief, as teacher self-efficacy.

Researchers in education have studied teacher self-efficacy over the past 40 years in an attempt to understand the sources of self-efficacy and factors that influence those sources. The majority of the studies in the field are quantitative in nature (Wyatt, 2014). Glackin and Hohenstein (2017) posited the reason for the numerous quantitative studies in the field was due to Bandura's (1977) two-dimensional construct of personal factors and environment that influence individual self-efficacy. Researchers attempted to quantify the personal factors and the environmental factors in order to understand the construct better.

The self-efficacy construct does not permit holistic measuring by the current quantitative designs of research (Glackin & Hohenstein, 2017). It is a complex construct that is more than the sum of its parts. The psychological underpinning of the phenomenon requires an exploration of how the sources of self-efficacy are influenced, and the discovery of how something occurs

1

requires methods beyond those that are quantitative in scope alone (Wyatt, 2014). The

perceptions and beliefs of an individual develop from meanings that the individual constructs

through experiences. Wheatley (2005) asserted that to truly gain an understanding of the self-

efficacy beliefs of teachers, along with what influences those beliefs, necessitates understanding

what meaning teachers derive from interpreting their experiences. Qualitative research can

contribute "insights from existing or new concepts that may help to explain social behavior and

thinking" (Yin, 2016, p. 9). Qualitative research in the field of self-efficacy can deepen

understanding of this construct.

Although there is extensive research in the field of self-efficacy, there remains the need

for a better understanding of the construct and its influencers; especially given self-efficacy's

influence on teacher effectiveness and student achievement (Morris, Usher, & Chen, 2016;

Stipek, 2012; Wang, Tan, Li, Tan, & Lim, 2016). Concerns about American students'

achievement and the ability of students to compete in a global marketplace drive conversations

about how to improve teacher effectiveness and student achievement (Hargreaves & Shirley,

2012; Stewart, 2012). Moreover, governmental policies in the United States over the past two

decades have placed heavy focus on student achievement, as measured by standardized tests, and

the responsibility of teachers to produce academically successful students (Darling-Hammond,

Amrein-Beardsley, Haertel, & Rothstein, 2012). The pressure on schools from the public and

private sectors to meet international levels of achievement, and the responsibility placed on

teachers to facilitate student achievement, are real (Hargreaves & Shirley, 2012; Stewart, 2012).

A case study exploring how teacher self-efficacy is influenced would answer calls from previous

research in the field to consider either mixed-methods or qualitative designs to better understand

the phenomenon (Wheatley, 2005; Wyatt, 2014). Exploration of the influences on teacher self-

efficacy in a previously unstudied sector of American education could lead to a deeper and richer understanding of the phenomenon that has been lacking in quantitative research.

Background

Self-efficacy, a construct derived from Bandura's Social Cognitive Theory (1977), is best understood as the belief that a person has in his capacity to affect outcomes that he desires. According to Bandura (1977), people learn and develop this belief through mastery experience, vicarious experience, verbal persuasion, and physiological and emotional experience. People assimilate new information in the process of doing, observing, and receiving verbal and emotional support as they progress through mental processes that record the emotional and sensory responses to learning, and self-efficacy evolves by virtue of these four antecedents (Mohamadi & Asadzadeh, 2011). An individual's self-efficacy can predict success in goal and task achievement.

The conceptual framework of self-efficacy has specific application in the teaching profession. Teacher self-efficacy is the perception that the teacher has of his or her ability to convey knowledge and understanding as well as to influence student behavior regardless of student motivation (Bandura, 1993; Tschannen-Moran & McMaster, 2009). Teachers with strong self-efficacy are responsive to new ideas in education, demonstrate strong classroom management, show a willingness to innovate their instructional practice, and demonstrate openness to innovation in education because they perceive in themselves the ability to succeed in achieving the objectives and the targets that they establish for themselves and for their students (Dibapile, 2012). Highly self-efficacious teachers exhibit numerous qualities that support students' critical thinking skills and optimize classroom management processes (Tschannen-

Moran & McMaster, 2009; Zee & Koomen, 2016). The construct of self-efficacy impacts teacher effectiveness and influences student academic achievement.

The teaching profession is multi-faceted, necessitating that teachers be flexible and adaptive. Teacher responsibilities include: understanding and implementing the core learning standards in instruction, planning and implementing curriculum to address the learning standards, preparing students for assessment, assessing student progress on learning standards, managing the classroom environment, and continually updating their professional knowledge. Teachers must be capable of adapting to the changes that occur in education due to governmental policies, new research in education, and changing administrative leadership expectations. Teachers that have high self-efficacy beliefs successfully navigate through and with the educational changes and challenges, and conversely, teachers with low self-efficacy beliefs are not as effective in adapting to and managing the changes endemic to education (Klassen & Tze, 2014; Mehta & Mehta, 2015; Pajares, 1996; Pedota, 2015). Given the diversity of demands on teachers, understanding how self-efficacy is influenced could facilitate the support and strengthening of teacher effectiveness in the profession.

Varying influences and factors affect the four sources of teacher self-efficacy. Factors that positively affect teacher self-efficacy are: previous experience, understanding the importance of establishing a positive rapport with students, training, improving content knowledge, professional development, and coaching (Carney, Brendefur, Thiede, Hughes & Sutton, 2016; Huber, Fruth, Avila-John & Rodriquez, 2016; Tschannen-Moran & Barr, 2004; Wang, Tan, Li, Tan, & Lim, 2016). Possible negative influences on teacher self-efficacy include school reform, lack of trust in the leadership of the organization, and school leadership changes (Easley, 2016; Straková & Simonová, 2015). Additionally, other studies have reported that

teacher self-efficacy can be altered over time (Klassen & Tze, 2014; Reynolds et al., 2016). The phenomenon of self-efficacy is malleable and can be influenced positively or negatively depending on experience or environment.

Previous research notwithstanding, there are still unanswered questions about self-efficacy and its sources. Additionally, researchers have recognized the need to understand how teachers' self-efficacy is influenced and what that self-efficacy means to them (Wheatley, 2005; Wyatt, 2014). The impact of self-efficacy on teacher effectiveness and the interconnectedness of the construct with student achievement outcomes indicate the need for a better understanding of the construct (Moyer, 2015; Stipek, 2012; Swanson, 2014; Usher & Pajares, 2008; Wyatt, 2013). Deriving a deeper understanding of the construct would allow for the opportunity to positively impact teacher effectiveness and to improve student achievement.

Purpose of the Study

The purpose of this case study was to explore the influences on teacher self-efficacy in a Lutheran school. Lutheran schools represent an understudied population in self-efficacy research. Nonetheless, Lutheran schools have a long history of education in the United States, and since the inception of the National Assessment of Educational Progress (NAEP) as a standardized measure of student academic growth, Lutheran schools have generally performed well compared to other school systems (Fenzel, 2013; National Center for Education Statistics [NCES], n.d.). NAEP test results report student achievement results, and student achievement is influenced by teacher effectiveness (Finn et al., 2014; Hill, Blazar, & Lynch, 2015). Exploring influences on teacher self-efficacy in a Lutheran school could provide an opportunity to more deeply understand this complex phenomenon in a population of effective teachers.

Research Question and Sub-Questions

One research question and four sub-questions guide the case study.

RQ: How is teacher self-efficacy influenced in a Lutheran school?

Sub-Questions:

a. How do teachers describe their growth as effective teachers?

b. What experiences do teachers identify as influential to their self-efficacy?

c. Which of the four sources of self-efficacy have more influence on teacher effectiveness in a Lutheran school?

d. How does a sense of vocation influence teacher self-efficacy?

Rationale, Relevance, and Significance of the Study

Student achievement, whether negative or positive, has implications for the future of the nation (Hargreaves & Shirley, 2012). While a number of components may affect student academic growth, classroom teachers most directly influence student achievement (Guo, Connor, Yang, Roehrig, & Morrison, 2012; Libman, 2012; Stipek, 2012). Teachers that design effective instruction can help students to improve reasoning and critical thinking skills (Muijs et al., 2014). Students must be successful at critical thinking and reasoning as well as have a firm understanding of core knowledge in order to compete in a global marketplace, and students that are prepared to enter a competitive global marketplace will have the necessary skills and resources to achieve success in their jobs as well as to positively contribute to their communities (Stewart, 2012). Globally competent citizens benefit themselves, their communities, and the nation overall.

Academic achievement is an outcome of education; readiness for professional and private life as an adult is an outcome of education as well. The objective of education is to prepare

students for responsible citizenship and economic success (Stewart, 2012). Succeeding

academically is a part of that preparation. Teachers with high self-efficacy focus more

comprehensively and effectively on academics, and they provide the necessary feedback and

monitoring of student learning that improves students' academic achievement (Reynolds et al.,

2016). Additionally, these highly self-efficacious teachers demonstrate more persistence with

and acceptance of students who perform at lower levels and have more learning difficulties

(Reynolds et al., 2016). Teacher self-efficacy beliefs underlie teacher effectiveness, which is a

significant contributor to student achievement (Klassen & Tze, 2014). Positive academic

achievement is the goal of educational systems.

School systems, districts, states, and the United States government assess student

achievement and progress via standardized tests. The National Assessment of Educational

Progress (NAEP), the only assessment program that the United States government oversees,

serves as the nation's measure of student academic progress (NCES, n.d.). The NAEP is often

referred to as "The Nation's Report Card", and it has been used to monitor and report student

academic achievement in elementary, middle, and high school grades across disciplines since

1969 (Zenisky, Hambleton, & Sireci, 2009). The longitudinal nature of NAEP allows for

monitoring of student achievement and growth over time as well as facilitating comparison of

school systems.

NAEP assessments include both public and nonpublic schools. Results indicate that on

average, students in nonpublic schools score higher than public school students across subject

areas (NCES, n.d.). Catholic and Lutheran schools fall into the nonpublic category, and both

systems report consistently strong achievement on NAEP. The consistently strong performance

by Lutheran school students, above that of public and non-public school students, has been

documented (Dynarski, 2014; Fenzel, 2013; Wolf, 2014). These consistent results point to effective teaching in Lutheran schools.

The rationale for this study was based upon the understanding that self-efficacy influences teacher effectiveness. Of the many factors that influence teacher effectiveness, self-efficacy's impact is substantial (Klassen & Tze, 2014). Self-efficacy is the belief a person has in their individual agency over situations, circumstances, events, and outcomes (Bandura, 2012). Research has demonstrated that teacher self-efficacy is a transformable construct, and it can be developed through mastery experiences as well as vicarious, verbal-persuasive, physiological and emotional experiences (Cicotto, De Simone, Giustiniano, & Pinna, 2014; Senler, 2016). As teacher self-efficacy develops, it positively affects teacher effectiveness.

Research also pointed to the understudied impact of both religious belief and vocation on teacher self-efficacy. Bullough and Hall-Kenyon (2012) addressed the concept of hope, a sense of calling, and vocation as they influence teacher commitment and asserted, "How common a sense of calling is among teachers is unclear, but it appears to be more common than generally recognized in the research literature" (p. 8). The teachers that Bullough and Hall-Kenyon interviewed in their study demonstrated a strong sense of agency and belief in their ability to address the problems that arise when teaching. The qualities of agency and belief in one's ability to effectively problem-solve have been identified as qualities of self-efficacious teachers (Bandura, 2012). Additionally, the concept of vocation, or a sense of calling, while often associated with religious belief, is not a unique characteristic of Christian teachers in Christian schools. Hartwick's (2015) study of public school teachers in Wisconsin revealed a link between religious belief and efficacy. It was the paucity of research on self-efficacy in private and

nonpublic schools that presented an opportunity for more study. Wright (2010) observed, "There is little research exploring the efficacy of private or independent school teachers" (p. 56).

Lutheran schools presented an opportunity for exploring the subject of teacher efficacy and vocation. According to Hartwick (2015), "The relationship between *metaphysical beliefs*...and *educational variables*...merits further research" (italics in original, p. 142). Given the importance of self-efficacy to teacher effectiveness, exploring influences on the sources of teacher self-efficacy in a Lutheran school offered insight into understanding the relationship between faith, vocation, and teacher effectiveness. Although teachers employed in Lutheran schools must profess a Christian faith and worldview that supports the doctrine of the Lutheran church, other conservative Christian schools have been the focus of studies on teacher efficacy.

In a study of teacher efficacy in conservative Christian schools in Texas, Egger (2006) proposed "studying conservative Christian school teachers' perceptions of efficacy...to include conservative Christian values and beliefs as a variable in research to explore connections between faith and efficacy" (p. 77). Additionally, Wright (2010) addressed the need to gain a better understanding of religiosity as it impacted teacher efficacy and recommends, "Further research is needed to determine the presence of missing variables" (p. 69). A search for studies conducted in the Lutheran schools sector of American education yielded no results in the field of self-efficacy. The population was understudied and provided an opportunity to address the need for more research in the field of teacher self-efficacy and vocation.

Teachers responding to a self-efficacy survey in a study may interpret the statements, questions, or terms differently depending on personal experience, training, and culture. For example, a question involving an individual's doubt as to the effectiveness of a teaching strategy might be interpreted either as their own doubt in their ability to carry out the strategy, or doubt in

the strategy's effectiveness (Wheatley, 2005). An additional limitation to self-reported data used in quantitative research is the inability to determine if the self-reported data is actually reflective of teachers who are effectively teaching and helping students to achieve, or if it reflects the unsubstantiated opinion of teachers who may not be truly effective (Wheatley, 2005; Wyatt, 2014). Researchers, recognizing the limitations in quantitative studies, have identified the need for mixed-methods and qualitative studies to better understand the phenomenon of self-efficacy (Shoulders & Krei, 2015; Stipek, 2012; Swanson, 2014; Wyatt, 2013).

Qualitative case study in the field of teacher self-efficacy provided the researcher with the opportunity to work in a real-world setting to explore the nuances of teacher belief and practice in ways that a quantitative study cannot. An instrumental case study, which attempted to contribute further insight into the construct of teacher self-efficacy, allowed for the opportunity to interview effective teachers and explore what influences their beliefs, as well as what the meanings of the beliefs and experiences are in terms of teacher practice. It is important to understand how effective teachers became, and continue to be, effective at helping students achieve. This involves exploring the influences on the sources of the belief and what might alter or increase the belief and improve effective teaching (Wheatley, 2005; Wyatt, 2014). This case study was significant because it purposed to explore and understand what influences the sources of self-efficacy in effective teachers.

Self-efficacy is a psychological construct that emerged from Bandura's (1977) Social Cognitive Theory. Case studies provide a unique perspective on the intricacies in psychological phenomena. Understanding these phenomena may lead to the development or advancement of theoretical frameworks that could impact the future of teaching.

Teacher self-efficacy is an important component in education, as it is a major factor impacting teacher effectiveness. There are numerous studies that researchers have conducted in this field in an attempt to better understand it and improve teaching with it (Dibapile, 2012; Klassen & Tze, 2014; Zee & Koomen, 2016). Nonetheless, more questions remain about the construct, its sources, and what can be learned about it in regard to the facilitation of instructional practice in order to improve student achievement. Teacher self-efficacy is a construct based in the beliefs of the individual, and thus it is by nature complex. Gaining insight into the complexity of teacher beliefs can help educators to understand and design ways to improve those beliefs in order to positively influence both teacher and student behaviors (Morris, Usher, & Chen, 2016). Case study research offers the opportunity to explore and discover more about this phenomenon in a deeper and richer way.

Definition of Terms

Teacher self-efficacy. The perception that the teacher has of his or her ability to convey knowledge and understanding as well as to influence student behavior regardless of student motivation (Tschannen-Moran & McMaster, 2009).

Teacher effectiveness. The impact that a teacher has on students' academic growth, and that serves as an indicator of teacher self-efficacy (Dibapile, 2012).

NAEP. The acronym for the government-sponsored standardized test known as The National Assessment of Educational Progress, which informs the Nation's Report Card (NCES, n.d.).

LCMS. The acronym for the Lutheran Church Missouri Synod, which is the national Lutheran church body that supports the largest number of Lutheran schools in the United States

Classroom management. This involves systems that teachers have in place to create optimal learning environments. Classroom management includes clear behavioral expectations, which enhance and facilitate learning (Dibapile, 2012; Zee & Koomen, 2016).

Adaptive and innovative instruction. Instructional practices that teachers use in order to differentiate for diverse student need, and that are innovative in order to more effectively engage students (Holzberger, Phillip, & Kunte**r,** 2013**;** Moseley, Bilica, Wandless, & Gdovin, 2014; Stipek, 2012).

Student engagement. The capacity that a teacher has to personally involve the students in their learning through the teacher's understanding of the cultural and socioeconomic backgrounds of the students, their interests, and the challenges to learning and achieving that the students may present (Huber, Fruth, Avila-John, & Rodriquez, 2016; Mojavezi & Tamiz, 2012; Thoonen, Sleegers, Peetsma, & Oort, 2011; Wang, Tan, Li, Tan, & Lim, 2016).

Vocation. The term used to reference a sense of calling that is aligned with an individual's sense of higher purpose, responsibility, or belief in God (Bullough & Hall-Kenyon, 2012; Hartwick, 2015).

Assumptions, Limitations and Delimitations

One assumption that existed in this study is that personal faith, which results in an individual's sense of vocation, was an important influence on the self-efficacy of teachers working in a Lutheran school. It was also assumed that administrative leadership and collective efficacy influenced teacher self-efficacy as well. It was anticipated that open-ended questions would reveal reflective responses that pointed to personal faith and efforts supported by the whole of the organization as influences on teacher self-efficacy. In addition, it was also expected

that the teachers would reveal the importance of well-known influences on their self-efficacy such as university teacher training and professional development.

The limitations of the study were not dissimilar to that of most case studies. It is difficult to replicate the situations of any particular case. The behaviors represented in this one case may not be generalizable. The case study was of short duration, and time constraints posed a limitation as well. In general, case studies are limited in that they are not favorable for making causal interpretations from the data.

The delimitations for this study included site and participant selection. In consideration of the subject of self-efficacy as a study topic, the researcher chose an exemplary Lutheran school to explore influences on self-efficacy sources of the teachers in this subsection of the American educational system. A search of scholarly research on this population revealed that this is an understudied group, which provided a new area for research in an established field. Additionally, Lutheran schools have demonstrated strong student academic achievement based on standardized achievement tests scores, in particular the NAEP tests (NCES, n.d.; Fenzel, 2013; Jeynes, 2012).

Summary

This chapter provided an introduction to the research problem. Beginning with a brief introduction to the topic, the chapter summarized the history of teacher self-efficacy research. Additionally, the chapter addressed the paucity of research in teacher self-efficacy in Christian schools along with a lack of research that considers the importance of faith as an influencer in teacher effectiveness. Bandura's Social Cognitive Theory provided the theoretical framework and background for the study.

The purpose of the study was to explore the influences on teacher self-efficacy in a specific population in order to gain further insight into the construct of teacher self-efficacy. The population in this study was teachers that work in a Lutheran school. While quantitative studies have attempted to analyze the construct, there is little research on how the sources of teacher self-efficacy develop. Given the calls in the field for qualitative research, the rationale for this study was straightforward. Studying the influences on self-efficacy in a group of teachers in an exemplary Lutheran school could add to understanding how self-efficacy develops.

A qualitative research design was the method chosen for this study. A case study of teachers in a Lutheran school was the specific qualitative approach for this research. The literature review considers the theoretical framework of the study as well as what recent studies have to say about what has been learned in the field of teacher self-efficacy research. The third chapter addresses research methodology and delineated the design of the study with a discussion of data collection and analysis. The fourth chapter delves into the study and the data that was collected in the process of the study as well as the results of the data analysis process. The fifth and final chapter presents the findings of the study and offers a rich description of the findings as applicable to the field of teacher self-efficacy. The fifth chapter also offers suggestions for further research to advance understanding in the field.

Chapter 2: Literature Review

Introduction

International assessments given by the Organization for Economic Cooperation and Development (OECD, n.d.) reveal that students in various nations around the globe are surpassing American students academically. While this paper's focus does not address the reliability quotient of the OECD's measurements, it is worth noting that publication of these outcomes shines a light on the value placed on academic achievement and the different factors that influence it in the United States. Although there are numerous factors that have bearing on student achievement, teacher effectiveness has a significant impact on how well students learn and achieve (Garrett & Steinberg, 2014). Teacher self-efficacy directly influences teacher effectiveness. In order to better understand the importance of self-efficacy on teacher effectiveness as it relates to student academic outcomes, a review of literature on the subject of teacher self-efficacy is necessary.

The factors impacting teacher effectiveness include teacher self-efficacy as a significant component. Self-efficacy is a psychological construct that develops as a result of mastery experiences, vicarious experiences, verbal persuasion, and physiological and emotional experiences, according to Bandura (1977). Teacher self-efficacy refers to the professional impacts, influences, and outcomes of this psychological phenomenon. Teacher self-efficacy develops from the depth of subject content knowledge that a teacher has as well as the confidence a teacher has in their ability to influence and achieve positive outcomes in student behavior, student engagement, and in classroom management (Carney, Brendefur, Thiede, Hughes, & Sutton, 2016; Senler, 2016; Tschannen-Moran & Hoy, 2001). Teacher self-efficacy, as it affects teacher effectiveness, has an impact on student achievement, and while there are

many ways to assess student academic understanding, standardized tests allow for measurement of student growth over time as well as for comparison of schools and school systems achievement.

Standardized tests are the measure of student academic achievement that educators and policy makers rely on to monitor student growth and achievement. In the United States the National Assessment of Educational Progress (NAEP) is the only national measurement that can be used to compare school systems and student achievement (NCES, n.d.). As both public and nonpublic systems participate in the NAEP assessment, it is possible to evaluate and compare the effectiveness of differing systems in all 50 states in the U.S. The results of NAEP assessments show that students in the nonpublic systems of the Catholic and Lutheran churches score above the national average across demographics (Jeynes, 2012).

The Lutheran school system has a long history of educating students, beginning in the period of the Reformation in Europe. Martin Luther, the founder of the Reformation, advocated the establishment of schools to instruct students in the liberal arts (Dovre, 2015). Lutheran immigrants to the United States established schools, and later colleges and universities, as they settled across the Northern and Midwestern states and established themselves (Rietschel, 2001). These colleges and universities initially trained Lutherans to teach in Lutheran schools. Today, while not all teachers in Lutheran schools are Lutheran, nor trained in Lutheran universities, the NAEP results indicate that teachers in Lutheran schools are effective at supporting high student academic outcomes (Fenzel, 2013). Exploring influences on teacher self-efficacy in these schools could add to overall understanding of effective teaching.

Teacher self-efficacy underlies and affects teaching effectiveness. Self-efficacy is not the only source of teacher effectiveness; it is, however, a determining factor of it. A study that seeks

to explore how teacher self-efficacy sources are influenced in a Lutheran school can facilitate better understanding of the phenomenon underlying the construct itself. The discovery of influences on teacher self-efficacy in an effective school can provide insight and deeper understanding of the construct as well as possibly pointing to new areas of study in the field.

Background

Research confirms that teacher effectiveness is a major component of student achievement (Garrett & Steinberg, 2014). Since 1977, researchers have studied and verified the effect of perceived self-efficacy on teacher effectiveness with reference to helping students' academic progress (Klassen & Tze, 2014). Teacher self-efficacy has its foundation in Social Cognitive Theory.

Bandura (1977) identified self-efficacy as an understanding that developed from his Social Cognitive Theory. Self-efficacy is best understood as the belief that a person has in his capacity to affect the outcomes desired by the individual. Teacher self-efficacy is the perception that the teacher has of his or her ability to convey knowledge and understanding as well as to influence student behavior regardless of student motivation (Tschannen-Moran & McMaster, 2009). According to Bandura (1977), self-efficacy results from the following four sources: mastery experience, vicarious experience, verbal persuasion, and emotional and physiological response. These four sources are influenced by experiences, and they, in turn, impact an individual's belief in his or her capacity to exercise agency in a given situation.

Teacher self-efficacy informs teacher effectiveness. Teacher effectiveness has an impact on student achievement (Klassen & Tze, 2014). There are many informal and formal ways to assess student learning; however, student achievement and growth are measured via standardized assessments. While there are numerous standardized assessment programs in the United States,

17

there is only one national assessment program developed for implementation on a national scale. The National Assessment of Educational Progress (NAEP), the only standardized assessment program that the government oversees, serves as the nation's measure of student academic progress (NCES, n.d.). The NAEP has been monitoring and reporting student academic achievement in elementary, middle, and high school grades across disciplines since 1969, and it is often referred to as "The Nation's Report Card" (Zenisky, Hambleton, & Sireci, 2009). The NAEP assessments test students in both public and nonpublic schools.

The first NAEP assessments began in 1969. They were not designed for use as a comparison measure between school systems and states at the outset. The idea for a national assessment grew out of concerns in the late 1950's that American schools might not be producing enough scientists necessary to maintain a globally competitive edge (NCES, n.d.). In the early 1960's, President Kennedy assigned Francis Keppel to direct the Office of Education, and in 1963, Keppel communicated the importance of developing a reliable measurement of school quality to Ralph Tyler who was serving as the Director of the Institute for Advanced Studies in the Behavioral Sciences (NCES, n.d.). Keppel sought Tyler's suggestions, and this conversation ultimately lead to the design for NAEP (NCES, n.d.). NAEP's first administration in 1969 was a trial administration, and through the years up to 1990 the assessments underwent several transformations in development (NCES, n.d.). The results of these developments were assessments that provided data allowing for the monitoring of student academic growth as well as for comparisons of student achievement to be made across school systems, states, and demographics.

The NAEP assessment employs random sampling across the grade levels for evaluation. Sample groups representative of students in the fourth, eighth, and twelfth grades participate in

the assessments that are conducted at yearly intervals (NCES, n.d.). For state assessments the schools are selected using stratified random sampling, and for the national assessments the selection process involves probability samples used to represent the diversity in the population of the country, as reported by the National Center for Education Statistics (n.d.). Today the NAEP is considered a valid and reliable measurement of academic achievement that informs national policy.

Educational systems across the globe also use standardized testing to assess student learning. International standardized assessments that have garnered attention around the world include the Programme for International Student Assessment (PISA) overseen by the Organisation for Economic Cooperation and Development (OECD), and the Trends in International Math and Science Study (TIMSS) assessments overseen by the International Association for the Evaluation of Educational Achievement (IEA). While the PISA assessment focuses on knowledge application, the TIMSS is curriculum based. According to the NCES (2016), a great deal of the NAEP technology was the source material used to formulate the TIMSS. NAEP assessment preceded the development of these and other international assessments and is intended only to offer national comparison.

The educational systems of countries around the world are diverse, and they present challenges to the comparison of student achievement among countries. Both the TIMSS and PISA assessments are sources of cross-country comparisons. They serve more as assessments of educational systems, however, and there has been criticism leveled at the use of these tests and the limited subject matter that they measure (Schuelka, 2013). There is evidence that the OECD neglected to report significant negative findings on portions of the PISA pertaining to the

utilization of student achievement data as a source of teacher evaluation and the relationship of that to student performance (Murphy, 2014).

Despite the attention the two assessments are given, neither the PISA nor the TIMSS measures academic achievement and growth over time in the United States. They are not designed for that purpose. Nonetheless, this is set to change. The OECD is currently working with McGraw-Hill Education, in the United States, to implement PISA assessments at the school level in order to compare proficiency of students that are 15-years-old in reading, math and science (Rutkowski, Rutkowski, & Plucker, 2015).

Regardless of the OECD's current activity, the NAEP is the only valid national measure of student achievement in America. It is also one of the most innovative and comprehensive assessments of its type in the world (Rutkowski, Rutkowski, & Plucker, 2015). Given the acceptance of NAEP as a reliable and valid measure of student achievement and growth, positive NAEP assessment results for Catholic and Lutheran schools point to the importance of studies that explore what influences the sources of teacher self-efficacy in school systems that are producing positive student achievement outcomes.

Standardized assessments are summative sources of information on student progress. Lutheran schools regularly participate in these assessments, and the results indicate that Lutheran school students score higher on average than public school students (NCES, n.d.). It is possible that there are other variables besides effective teaching that impact public, non-public, and private, faith-based schools' performance on the NAEP. Nevertheless, research has affirmed that effective teachers overwhelmingly influence student achievement, thus NAEP results point to effective teaching in Lutheran schools. Effective teaching is an outcome of high teacher self-efficacy; however, a review of research literature revealed no studies conducted on teacher

effectiveness in Lutheran school systems. Researchers have studied religiosity and belief in public and other nonpublic teachers in terms of its effect on efficacy, but there is a dearth of research in the Lutheran sector. Egger's (2006) study of conservative Christian teachers in Texas called for studies to "include conservative Christian values and beliefs as a variable in research to explore connections between faith and efficacy" (p. 77). Hartwick (2015) also contended, "The relationship between *metaphysical beliefs*...and *educational variables*...merits further research.... Both quantitative and qualitative studies designed to map the terrain and to understand how personal beliefs interact with educational practices are merited" (p. 142). Additionally, Wright (2010) asserted, "The link between teacher efficacy and religious orientation is more complicated than first hypothesized. Further research is needed to determine the presence of missing variables" (p. 69). Bullough & Hall-Kenyon (2012) observed, "the sense of a teacher's "calling" or "vocation" has received remarkably little research attention, and been the object of but very few empirical studies" (p. 7). Given the calls for more research to explore the role of metaphysical belief in teachers as related to self-efficacy, Lutheran schools provide an opportunity to research an understudied population in the field.

The history of Lutheran education is relevant to understanding the context of this case study. Lutheran advocacy for education - as an inclusive endeavor, with benefits for the whole of a society, and not solely for the benefit of the children of the elite class - originated in the late medieval period (Adrone, 2014; Torvend, 2015). Martin Luther, university professor and theologian credited with starting the Reformation in 1517, strongly advocated for the establishment of schools for the civic benefit of all. Luther also emphasized the importance of parental support and instruction of Christian teachings in the home. Luther 's work emphasized the necessity of teaching both secular and Christian subjects by promoting a liberal arts

education that began in childhood and continued through the university level in order to benefit the whole of society by preparing educated and critically thinking citizens (Dovre, 2015).

The establishment of Lutheran schools was not confined to the countries of northern Europe alone. Two centuries after the Reformation, German immigrants to the American colonies began establishing Lutheran schools in New York, Pennsylvania, and other areas of German settlement (Pardoe, 2001). As the history of the nation moved forward, immigrants of Lutheran heritage settled mostly across the Northern and Midwestern states. The establishment of churches and schools along that trajectory, many of which continue to operate today, is a testament to the Lutheran immigrants' commitment to education for both society and church (Torvend, 2015). The commitment to Lutheran education by the Lutheran Church Missouri Synod (LCMS) is ongoing, as evidenced in the continuing support of these earlier-established schools in the United States and in the more recent establishment of international schools in several Asian countries supported by the LCMS in the United States (LCMS, 2016).

The term "Lutheran" refers to the church formed in the Reformation by Martin Luther. The Lutheran church as an all-encompassing organization does not exist. There are different Lutheran church bodies. The Lutheran Church in the United States is divided into synods, or different organizational bodies, that represent a differing in understanding of biblical and doctrinal teachings. The three largest synods in the United States are the Lutheran Church-Missouri Synod, (LCMS), the Evangelical Lutheran Church in America (ELCA), and the Wisconsin Evangelical Lutheran Synod (WELS). Even though significant doctrinal divisions between the synods exist, there remains a commitment to supporting Lutheran education among them.

Each of the Lutheran synods in the United States supports and maintains Lutheran schools, colleges and universities; however, the ELCA and the LCMS operate the largest school systems. The ELCA maintains more than 1500 early childhood, elementary, and secondary school programs, along with 25 colleges and universities, according to the Evangelical Lutheran Church in America (2016). The LCMS is the synod with the largest Lutheran school system, claiming 2,255 early childhood centers, elementary schools, and high schools. The LCMS additionally supports 10 universities and two seminaries in the United States, other elementary and secondary schools established in Hong Kong, Shanghai, and Vietnam, and partnerships with nearly 200 schools operated by international partners across the globe, according to the Lutheran Church Missouri Synod (2016). The commitment to education in the Lutheran tradition has deep historical roots and is ongoing.

The Lutheran Church is not alone in supporting faith-based education across the grade levels in the United States. The Catholic Church has established the largest faith-based school system in the country. The Catholic Church's unique status as the largest, nonpublic education system has resulted in its separation into its own category in the results of nonpublic schools in the NAEP reports. While there are other church bodies that operate schools on a smaller scale across the country, the significant size difference of both the Catholic and Lutheran education systems accounts for their separately reported numbers on NAEP results. These separately reported numbers permit comparison between the distinct educational systems, and they prompt questions about what factors influence the divergence in achievement scores in these systems as compared to others.

Context

Teachers design instruction, and educational administrators and policymakers exert

influence over educational progress. Administrators and policymakers alike influence

educational programming, curriculum, standards, testing, and other facets of the educational

field. Teachers, nonetheless, assume the greater responsibility for the educational process. As a

result, they also bear the brunt of the criticism for student failure, or enjoy the accolades that

result from student academic success.

The duties of a teacher are varied, numerous, and challenging. Teachers are responsible

for planning and implementing curriculum, preparing students for assessment, assessing student

progress on learning standards, managing the classroom environment, and continually updating

their professional knowledge. Changes in education policy and practice compel teachers to be

adaptable and amenable to learning new methods and practical applications of theories and

educational policy changes. Teachers with high self-efficacy beliefs are capable of navigating

the educational challenges and effectively teach students. Teachers that have low self-efficacy

beliefs, however, are not as effective and ultimately may suffer job stress that can lead to burnout

(Klassen & Tze, 2014; Mehta & Mehta, 2015; Pajares, 1996; Pedota, 2015). Teacher self-

efficacy is an important aspect of an educator's professional capability to meet the challenges

present in education today.

The four sources that influence teacher self-efficacy - mastery experience, vicarious

experience, verbal persuasion, and physiological and emotional experience - develop in different

ways and are influenced by varying factors. Some of the factors that positively affect self-

efficacy are: previous experience, understanding the importance of establishing a positive rapport

with students, training, improving content knowledge, professional development, and coaching

(Carney, Brendefur, Thiede, Hughes, & Sutton, 2016; Huber, Fruth, Avila-John, & Rodriquez,

2016; Tschannen-Moran & Barr, 2004; Wang, Tan, Li, Tan, & Lim, 2016). There are influences

that can damage or lessen the perception of self-efficacy as well. Events such as school reform, for example, can negatively affect teacher self-efficacy (Easley, 2016). Trust is an important factor in self-efficacy and research has identified the lack of trust can be a factor in low teacher self-efficacy (Straková & Simonová, 2015). Research demonstrates that, while it is somewhat resistant to alteration, teacher self-efficacy can be changed over time (Klassen & Tze, 2014; Reynolds et al., 2016). The malleability of self-efficacy is a positive feature of the construct given that the opportunity to improve teacher self-efficacy can result in improving teacher effectiveness and student achievement.

Researchers have not yet been able to completely understand how self-efficacy sources are influenced, nor are they able to fully explain or delineate all factors that impact teacher self-efficacy. As self-efficacy and its impact on teacher effectiveness have been studied, researchers have realized the need for better understanding of it and have issued calls for more study (Wheatley, 2005; Wyatt, 2013; Zee & Koomen, 2016). Previous quantitative studies in the field of self-efficacy have provided measurement tools along with a growing knowledge base of facets of the construct. Nonetheless, several studies call for more research to explore and discover what influences the four sources of self-efficacy (Moyer, 2015; Stipek, 2012; Swanson, 2014; Usher & Pajares, 2008; Wyatt, 2013). Researchers also question whether there may be other sources of self-efficacy beyond the four that emerged from Bandura's (1977) Social Cognitive Theory (Morris, Usher, & Chen, 2016; Wang, Tan, Li, Tan, & Lim, 2016; Wyatt, 2014, 2016). Because of the construct's impact on teaching effectiveness and student achievement, there is a need for further study in the field of self-efficacy.

Significance

Student achievement impacts the future of the nation. In general, successful students

become successful citizens. While a number of components may have an impact on how students learn, classroom teachers most directly impact student achievement (Guo, Connor, Yang, Roehrig, & Morrison, 2012; Libman, 2012; Stipek, 2012). Teachers that instruct effectively help students to improve reasoning and critical thinking skills. Students must be successful at critical thinking and reasoning as well as have a firm understanding of core knowledge in order to compete in a global marketplace (Hargreaves & Shirley, 2012; Stewart, 2012). Teachers that demonstrate high self-efficacy focus more comprehensively and effectively on academics while providing the necessary feedback and monitoring of student learning that improves students' academic achievement.

Student achievement involves the acquisition of critical thinking skills, and teacher feedback is important to helping students learn to analyze, synthesize, and apply subject material. Additionally, highly self-efficacious teachers demonstrate more persistence with, and acceptance of, students who perform at lower levels and have more difficulty when it comes to learning (Reynolds et al., 2016; Stipek, 2012). The student population that has more difficulty learning and needs more learning support has need of effective teachers to help narrow the achievement gap (Darling-Hammond, Amrein-Beardsley, Haertel, & Rothstein, 2012). Understanding what influences teacher self-efficacy, as it impacts teacher effectiveness in student achievement, is important. Student achievement is, ultimately, foundational to the economic and social success of future generations.

Teacher effectiveness is an emphasis of teacher evaluation. Teacher effectiveness is a focus of the Race To The Top (RTTT) and No Child Left Behind (NCLB) educational policy efforts - both revisions of the Elementary and Secondary Education Act (ESEA) of 1965 - that place great concentration and emphasis on teacher evaluation as a means of identifying and

26

rewarding or punishing school systems and teachers for student achievement (Garrett & Steinberg, 2014; Tanner, 2013). Teacher effectiveness is an element that requires better understanding. Evaluating teacher effectiveness by looking at student test scores is too simplistic, and it disallows other factors that impact student achievement.

Responsible citizenship is an outgrowth of a successful education. Apart from educational policy there is a critical need to help students be successful academically, as well as to be prepared for adulthood as productive global citizens (Hargreaves & Shirley, 2012; Stewart, 2012). Education is the system in which students are prepared for responsible citizenship and employment. Effective teachers exercise a significant influence on the academic outcome for students (Stipek, 2012). Identifying successful, effective school systems and their practices can afford the opportunity to study the factors that impact the sources of teachers' self-efficacy in those systems and learn from them in order to positively affect student academic achievement. The objective of the educational process is to help students grow into responsible citizens that enjoy meaningful employment and participate in the betterment of their communities. Growing students into responsible citizens helps to ensure the future of the nation.

Problem Statement

Private school systems in the United States have demonstrated their effectiveness above that of public systems on standardized assessments. Catholic and Lutheran school students routinely score above students in public schools across every demographic and socioeconomic level on the NAEP tests (NCES, n. d.). Given the positive student achievement scores on the NAEP tests in Lutheran schools, what influences teacher self-efficacy in a Lutheran school?

Standardized assessments are the tools that education and policy makers use to evaluate student achievement. NAEP is the only assessment that is representative, on a national scale, of

27

student academic achievement. It is also currently the only reliable national measure by which to compare states and school systems. The NCES issues a disclaimer against using assessment results to make simple inferences as to the effectiveness of school systems (NCES, n.d.). Researchers and policy makers must always take care when simplifying assessment results (Innes, 2012). While wisdom and prudence require caution when interpreting standardized test scores, the reality that remains is that the achievement gap indicated by NAEP scores is significant between private, faith-based schools and public schools (Jeynes, 2012; Wolf, 2014). Of the public and nonpublic schools that participate in the NAEP assessments, Lutheran school students, along with Catholic school students, demonstrate strong academic achievement.

While the National Center for Education Statistics issues disclaimers cautioning against making comparisons of school systems, careful analysis of the results reveals compelling data in the nonpublic category. Lutheran schools' results, on average, are strongly positive in the private school category of NAEP assessments, and at times they surpass those of the Catholic school system (Fenzel, 2013; Lubienski & Lubienski, 2006, 2013). According to Fenzel, "average difference in adjusted mean mathematics scores was significantly higher for Lutheran schools ...when compared to all public schools" (p. 128). Students in Lutheran schools are achieving at a higher level, due, in large part, to the efforts of teachers who are effective. It is important that research explores what influences teacher self-efficacy in Lutheran schools in order to positively add to understanding in the field of teacher self-efficacy and teacher effectiveness overall. Given the qualitative approach of this study, a deeper and richer understanding of the phenomenon may be the result that adds to overall understanding in the field.

Literature Review

The Literature Review begins with an explanation of Bandura's (1977) Social Cognitive Theory and of the Theory of self-efficacy, which emerged from his Social Cognitive Theory. An explanation of teacher self-efficacy follows, with a clarification of classroom and student achievement outcomes that result from teacher self-efficacy. The subsequent section addresses student achievement as it is measured by standardized assessment, its purpose and uses. The subject of the next section of the review is Lutheran schools' student performance on the NAEP test. The following portion of the chapter addresses alternative assessment as an option to reliance on standardized test measures to assess student achievement. Next, the literature review addresses standardized testing and concerns about sole dependence on standardized assessment as the measurement of academic achievement. There is a discussion of studies included in this section that demonstrate the important and valid place that these assessments have at the local, state, and national levels. The latter segments of the literature review address sources of teacher effectiveness beyond self-efficacy and, ultimately, an assertion positing that self-efficacy is a psychological paradigm underlying and influencing the various sources of teacher effectiveness.

In order to answer the question of what influences and impacts teacher self-efficacy in a Lutheran school, it is first necessary to understand what the research conducted in the field has contributed to what is known about self-efficacy, the sources of it, and what influences those sources. Self-efficacy, a construct that emerged out of Bandura's (1977) Social Cognitive Theory, is the belief or perception that an individual has about their ability to influence and achieve desired outcomes of any given situation. An individual with low self-efficacy will not likely expend effort in order to accomplish a task because he believes that his effort will be in vain. An individual with high self-efficacy will persist in accomplishing a task because he

believes he has the ability to succeed at the task. Teacher self-efficacy is the focus of the studies in the review.

Conceptual Framework

Bandura's (1977) Social Cognitive Theory is the theoretical framework that undergirds this study. Social Cognitive Theory posits that people are more than passive receptors of environmental influences and circumstance. Individuals exercise agency to investigate and understand information. Social Cognitive Theory contends that people interpret information and "function as contributors to their own motivation, behavior, and development within a network of reciprocally interacting influences" (Bandura, 1999, p. 169). Self-efficacy is a construct that has emerged from Social Cognitive Theory.

Bandura (1977) asserts that people can learn through mastery experience, vicarious experience, verbal persuasion, and physiological and emotional experience. People learn by doing, observing, hearing encouraging and supportive words, and through mental processes that record the emotional and sensory responses to learning. Self-efficacy develops through these four sources, and one's self-efficacy can predict success in goal and task achievement. A teacher's self-efficacy may develop through a teacher-training program that includes student teaching, observing other teachers, receiving feedback from an evaluator, or successfully accomplishing a teaching task, which produces a pleasant emotional arousal that can be recalled as a positive reinforcement of the successful behavior. Each of these experiences is an example of the four sources of self-efficacy for a teacher.

Teacher self-efficacy is the perception a teacher has in his capacity to communicate knowledge effectively and to address student behavior regardless of the level of student motivation (Bandura, 1993; Tschannen-Moran & Hoy, 2001). Self-efficacious teachers perceive

they can achieve the outcomes they desire with their students. Teachers with great self-efficacy are open and willing to innovate in instructional practice, and they demonstrate strong classroom management because they perceive they have the ability to be successful in achieving the objectives and the targets that they establish for themselves and for their students (Dibapile, 2012). Teachers with high self-efficacy persist through instructional and professional challenges, help students to persist through adversity to succeed, manage classroom processes to optimize learning, develop relationships with students that foster trust, implement instruction that fosters critical thinking, exhibit emotional stability, and exhibit a commitment to education (Tschannen-Moran & McMaster, 2009; Zee & Koomen, 2016). Researchers have demonstrated that, in general, teachers that have high self-efficacy beliefs feel they are effective and able to do the necessary tasks and work to successfully motivate their students (Reynolds et al., 2016). The belief a teacher has in his ability to control outcomes develops through the four sources of self-efficacy.

Self-efficacious Teachers are Effective

Effective teaching is an outcome of teacher self-efficacy. The behaviors that self-efficacious teachers exhibit have a demonstrated effect on student achievement (Althauser, 2015; Shoulders & Krei, 2015; Tschannen-Moran & Barr, 2004). Effective teachers implement instructional methodologies, manage classroom processes, maintain a willingness to innovate in instructional practice, and communicate their belief in their students' abilities, among other behaviors which positively affect student achievement (Dibapile, 2012; Muijs et al., 2014; Routman, 2012; Swanson, 2014). Educators assess student achievement in a multitude of ways. Teachers may design formative and summative assessments using essays, projects, presentations, quizzes, unit tests, and more (Abbott, 2012; Berger, Rugen, & Woodfin, 2014). Teachers with

31

high self-efficacy exercise agency in aspects of education with which they have had successful experiences. In each of the aforementioned situations, the highly efficacious teachers have had one or more of the self-efficacy source experiences with ample intensity or repetition to develop a belief in his or her ability to successfully control for the desired outcomes.

Lutheran School Students and NAEP

Standardized academic assessments measure student achievement in order to determine core academic knowledge and to evaluate academic growth. This type of assessment allows for comparisons between students, schools, states, and nations. Additionally, student achievement on standardized tests has demonstrated that positive student outcomes have the reciprocal effect of influencing teacher self-efficacy (Holzberger, Philipp & Kunter, 2013). Standardized assessments are the local, state, national, and internationally accepted tools for measurement of academic achievement.

The National Assessment for Educational Progress (NAEP) is a standardized test that has assessed the progress of students across the country in public, private and independent schools since 1969 (NCES, n.d.). The results, considered reliable and valid, inform the Nation's Report Card. The results also reveal that, on average, students in Lutheran schools consistently score above students in public, non-denominational, and private schools across demographics on the NAEP test (NCES, n.d.). Research has documented this consistently strong performance by Lutheran school students, above that of public and other non-public school students (Dynarski, 2014; Fenzel, 2013; Wolf, 2014). It is this record of performance on the NAEP that prompts consideration of the influences on teacher self-efficacy in Lutheran schools.

Some researchers argue that the NAEP results are not what they seem. Lubienski and Lubienski (2006, 2013) contend that while the raw data that NAEP reports show a disparity

between public and nonpublic school performance, when NAEP data is analyzed and differences in student population and background are taken into consideration, and populations included or omitted depending on the purpose of the analysis, the results point to public school students performing at least as well as nonpublic schools. Wolf (2014) contends that Lubienski and Lubienski (2006, 2013) only analyzed mathematics data in their studies, which is biased toward students in public schools, and which breaks from a longstanding research practice of looking at both reading and mathematics standardized scores. The omission of reading scores in analyzing NAEP results for comparison purposes in research can bias the results.

Other researchers contend that nonpublic schools offer educational opportunities for more marginalized populations. Jeynes (2012) asserted that nonpublic faith-based schools offer the opportunity to bridge the achievement gap, especially in regard to African-American and Latino populations, as there are noticeable differences in NAEP scores across demographics and socioeconomic status. According to Jeynes, " the achievement gap between African American students and Latinos on the one hand and White students on the other does tend to be on average about 25% narrower in faith-based schools than it is in public schools" (p. 166). Of particular interest in the research done by Lubienski and Lubienski (2006) that while attempting to negate the disparity between public and nonpublic school performance as measured by the NAEP, they acknowledge the positive performance of Lutheran schools over and above all other schools in the nonpublic category. The academic achievement of students in Lutheran schools on the NAEP is possible, in large part, due to the effective teachers that engage and instruct these students.

Standardized Tests

There has been concern about the repercussion of standardized assessments, high-stakes

testing, and achievement in the United States on students and on teachers (Haertel, 2013; Nichols, Glass, & Berliner, 2012; Walcott, Mohr, & Kloosterman, 2012). Concerns address the emphasis on one type of measure alone to assess achievement when learning is expressed in many ways that are not standardized. Another concern is that students' scores on standardized assessments will factor in teacher evaluation measures. The concern lies, in part, with the many variables that affect student outcomes and that are outside of the control of teachers. Among the challenges that present themselves in discussions of standardized assessment are the concerns that effective teachers may be less effective when class size is larger than it should be, when student population is taken into consideration, and when curriculum does not match up with what is being tested (Darling-Hammond, Amrein-Beardsley, Haertel, & Rothstein, 2012). Assessments that offer alternatives to tests can offer students the opportunities to demonstrate what they know in a more personalized and realistic way (Abbott, 2012; Berger, Rugen, & Woodfin, 2014). Standardized tests are, quite simply, not the only way to measure student achievement.

Formative and Summative Measures

Effective teachers use alternative and differentiated methods of instruction and assessment to evaluate student achievement. Teachers that demonstrate high levels self-efficacy are innovative and amenable to learning about and implementing new ways of teaching and assessing students. Game-based learning is one example of an alternative approach to instruction and assessment, which requires a willingness by the teacher to innovate in both the domains of instructional practice and assessment (Phillips & Popović, 2012). Another example of an alternative instructional approach is the use of project-based learning. Project-based learning is a student-centered approach, as contrasted with the traditional teacher-directed approach, in which

the student engages with the material and subject through problem-solving and critical thinking (Hung, Hwang, & Huang, 2012). Innovative approaches to instruction and assessment influence student motivation and self-efficacy, which results in student achievement that is demonstrated in a variety of ways, showing evidence of critical thinking. Across the globe, effective teachers are impacting student learning in positive ways, and they are not solely using standardized tests to assess student academic understanding (Stewart, 2012).

Globally Recognized Measures

Although there are many effective ways to alternatively assess students, standardized testing remains the measurement tool of choice for local, state, national, and international school systems. Standardized assessments allow for valid inferences to be made about individual and group mastery knowledge. Standardized testing can also serve as an evaluation of student academic growth over time. On a national scale, standardized tests allow for comparisons of student achievement among state as well as international educational systems (Finn et al., 2014; Popham, 2011; Woessmann, 2016). Also, as noted above, there is a need to be cautious when using standardized assessments to analyze and evaluate systems as well as academic growth across systems so that the information that is gleaned is reliable, accurate and relevant (Innes, 2012). Given that no other tool or method is currently in use to evaluate academic achievement on a national and international scale, standardized assessments remain the measure that evaluates both school systems and academic achievement.

Self-efficacy: Not the Sole Determinant

The determinants of teacher effectiveness are varied. Teacher effectiveness that leads to positive student engagement and achievement on standardized tests is a result of teacher self-efficacy (Harbour, Evanovich, Sweigart, & Hughes, 2014; Zee & Koomen, 2016). There are,

however, other factors that have an impact on teacher effectiveness as well. Research focused on New York City charter schools determined that frequent teacher feedback, instruction that is guided by data, a high focus on intense tutoring, the increase of instructional time, and teachers' high expectations explains almost 50% of the variation in schools' effectiveness (Dobbie & Fryer, 2013). Research on teacher effectiveness by Stronge, Ward, and Grant (2011) found that effective classroom management, fairness, respect and having positive relationships with students were all characteristics that highly effective teachers shared and which had an impact on student achievement. Student goal-setting in tandem with action plans and reflective practice are also approaches that are effective in influencing student achievement, according to findings by Moeller, Theiler, and Wu (2012). Practical, applied teaching strategies that focus on student outcomes can positively affect student achievement.

Factors: External, Internal, and Other

There are external factors that affect teacher effectiveness and impact student achievement that range from building quality to classroom size, to student socioeconomic status. Variables including class size, curriculum, instructional time, specialists available for academic support, tutoring, family influences, and parental support have the potential to negatively or positively affect student achievement and teacher effectiveness (Darling-Hammond, Amrein-Beardsley, Haertel, & Rothstein, 2012; Darmody, & Smyth, 2012; Egalite & Kisida, 2016; Wilder, 2014). Students' perceptions of the quality of their surroundings, especially as it relates to safety, along with perceptions of student behavior have also been found to have an impact on achievement (Maxwell & Schechtman, 2012).

In addition to the external factors that influence teacher effectiveness and student achievement, there are environmental and psychological factors that serve as sources of teacher

effectiveness and student achievement. An educator's emotional intelligence plays a role in supporting students in their beliefs about their abilities, and this in turn has an impact on student achievement (Curci, Lanciano, & Soleti, 2014). School professional environments impact teacher effectiveness when principals employ transformational leadership approaches and when there is a collaborative environment (Duyar, Gumus, & Bellibas, 2013; Gkolia, Koustelios, & Belias, 2015; Lilla, 2013). While studies demonstrate a plethora of factors that impact student achievement, other studies also demonstrate that student achievement is most greatly impacted by teacher effectiveness. Of the many factors impacting teacher effectiveness and student outcomes, self-efficacy is the source of the beliefs and perceptions in a teacher in his capacity to successfully accomplish myriad teaching-related tasks and support student achievement.

Underlying Construct: Self-efficacy

Although the instances of research in teacher effectiveness discussed above are valid illustrations of the varied factors that have an influence on teacher effectiveness, self-efficacy relates to all of them, given that it is the individual's notion of his capacity to affect the outcomes desired. Teacher self-efficacy is positively affected as a result of mastery experiences, vicarious experiences, verbal persuasion, and physiological and emotional experiences (Bandura, 1977, 1993). As the largest contributing component of teacher effectiveness, self-efficacy impacts everything from job satisfaction, to interaction with students and colleagues and student engagement and achievement (Huber, Fruth, Avila-John, & Rodriquez, 2016; Mehta & Mehta, 2015; Moseley, Bilica, Wandless, & Gdovin, 2014). Self-efficacy affects teacher motivation, which itself is intertwined with other factors like a sense of calling or vocation and commitment (Bullough & Hall-Kenyon, 2012; Cicotto, De Simone, Giustiniano, & Pinna, 2014). Teacher

self-efficacy is a changeable and critical factor in teacher effectiveness that derives from an individual's internal psychological processing (Klassen & Tze, 2014).

Self-efficacy is, first and foremost, a psychological construct (Bandura, 1977, 1993, 2012). The perception of one's ability to affect a desired outcome in any given situation or circumstance underlies many of the alternative influences of teacher effectiveness and student achievement. This perception results from psychological processes affected by experiences. Psychological processes impact and determine the responses to many of the factors that influence teacher effectiveness (Madni, Baker, Chow, Delacruz, & Griffin, 2015; Wang, Tan, Li, Tan, & Lim, 2016). Self-efficacy is a major underlying source of teacher effectiveness.

Summary of the Literature Review

The NAEP tests have been a credible and valid student achievement measure since 1969 (NCES, n.d.). On average, students in Lutheran schools achieve consistently high results on the NAEP. Therefore, teachers in Lutheran schools are effective teachers, which is an outcome of high self-efficacy.

Self-efficacious teachers teach effectively, and they engage students in learning that leads to stronger academic outcomes. Effective teaching results in high student achievement. Student achievement may be measured in various ways using different types of assessment tools. While there are diverse approaches to the assessment and measurement of student academic outcomes and achievement, standardized tests allow educators to monitor student achievement over time. Additionally, standardized tests permit comparison between school systems locally, nationally, and internationally.

Self-efficacy is not the only influence on teacher effectiveness as it relates to student achievement. Parental support, building quality, peer interaction, class size, curriculum,

classroom management, goal-setting, reflection, using data to inform instruction, intense

tutoring, specialists on hand to address diverse student educational needs, teacher's emotional

intelligence, teacher and student motivation, and socioeconomic status are some of the factors

that impact teacher effectiveness as it relates to student achievement. Teacher effectiveness can

also be affected by principal leadership approaches, professional development, and training.

While many factors have an influence on teacher effectiveness, self-efficacy, given it is a

psychological construct, underlies a great deal of the factors that impact teacher effectiveness

listed above. Research demonstrates that teacher self-efficacy is a transformable concept, and it

develops through mastery, vicarious, verbal-persuasive, and physiological and emotional

experiences. As teacher self-efficacy develops, it positively affects teacher effectiveness

through, and with, many of the previously discussed teacher effectiveness factors.

The thesis contends that teachers in Lutheran schools are effective, and as such, have

high self-efficacy, which is evidenced in Lutheran school students' test scores on the NAEP.

Based on this review of literatures and Bandura's (1977) Theory of self-efficacy, there is ample

reason to conclude that exploring and identifying the influences on the sources of self-efficacy of

teachers in Lutheran schools will add to the field of research on the subject and answer the calls

from the field for a better grasp on the construct of teacher self-efficacy sources and the

influences that impact them (Holzberger, Philipp, & Kunter, 2013; Morris, Usher, & Chen, 2016;

Stipek, 2012; Swanson, 2014; Wang, Tan, Li, Tan, & Lim, 2016). This literature review

provides strong support for a study that will offer an answer to the research question: What

influences teacher self-efficacy in a Lutheran school? A better understanding of the influences

that affect the sources of teacher self-efficacy will help to inform and improve overall teacher

effectiveness. Improving teacher effectiveness will result in the improvement of student

achievement. Improving student achievement will help students to be prepared to be competitive

and successful in the global economy that they will enter, as well as serve to ensure the future of

the nation by preparing students for thoughtful and responsible citizenship.

<div align="center">**Review of Methodological Issues**</div>

Conceptual Framework

Bandura's (1977) Theory of self-efficacy developed as a construct of his Social Cognitive

Theory, and it is the conceptual basis for the majority of the studies that researchers have

conducted in the field over the past 40 years. The level of self-efficacy that an individual has is a

reflection of how well the individual feels he has the ability to affect a desired outcome. This

emphasis on human agency reflects the belief that individuals have the capacity to exercise

control over those things that influence and affect them (Bandura, 2012). Teachers that exhibit

high self-efficacy, that is a belief that they have the agency to positively impact student

achievement and the environment within which they teach, are effective teachers. Highly self-

efficacious teachers help students to be successful in their academic endeavors. It is the

individual's belief in his or her ability and competence to exercise agency that Bandura contends

is the most important factor that influences an individual's behavior (Bandura, 2012). The belief

required to exercise agency is a result of the sources that have developed self-efficacy in the

individual.

The Evolution of Research

The research that has emerged from this theory has been largely quantitative in nature.

The studies have relied on teacher self-reports of efficacy beliefs via surveys and questionnaires,

some of which were flawed measures (Klassen, Tze, Betts & Gordon, 2011; Zee & Koomen,

2016). In the early years of self-efficacy research Gibson and Dembo constructed a scale to

measure teacher self-efficacy and, in the process, identified two independent factors that appeared to function like self-efficacy known as personal teaching efficacy and general teaching efficacy (Wyatt, 2014; Zee & Koomen, 2016). Researchers in the field used the Gibson and Dembo scale for over a decade, but then its use was called into question because of concerns with the content validity and the construct of the factor of general teaching efficacy (Pajares, 1996; Tschannen-Moran & Hoy, 2001). Other measurements that were created by researchers failed to fully capture the construct, and their results were limited.

Inasmuch as the research of teacher self-efficacy continued, researchers came to acknowledge that teacher self-efficacy was more task-specific, situation-specific, and variable according to differing tasks, classroom circumstances, and students than previously understood. While the conceptualization of the self-efficacy paradigm began to change, researchers such as Emmer (1990), Ross, Cousins, and Gadalla (1996), and Friedman and Kass (2002), among others, designed different self-efficacy scales that were specific to domains and tasks (Tschannen-Moran & Hoy, 2001). Bandura (1997), seeking to clarify the concepts involved in teacher self-efficacy, designed a scale that reflected the understanding that teacher self-efficacy is not absolutely uniform across tasks. Bandura's (1997) scale was not validated, but from the understandings gained by Bandura's (1997) work and their own studies, Tschannen-Moran and Hoy (2001) designed the Teacher's Sense of Efficacy Scale (TSES) that has become a widely used measurement tool for overall teacher self-efficacy (Morris, Usher, & Chen, 2016; Wheatley, 2005; Wyatt, 2016; Zee & Koomen, 2016). The progression of research in the field resulted in more reliable scales to measure the construct, however, the quantitative nature of the studies did not permit for deeper understanding of the sources and influences on teacher self-efficacy.

TSES Scales and Limitations of Quantitative Research

The TSES scale, designed by Tschannen-Moran and Hoy (2001), uses a short form 12-item survey or a long form 24-item survey that addresses teacher self-efficacy beliefs regarding strategies for instruction, the management of classroom behaviors as well as overall classroom environment, and student engagement. As the researchers developed the long and short form questionnaires, they found a challenge in creating a measurement that was neither too global nor too specific or precise in the statement design, but still reflected the tasks and expectations that teachers are faced with regularly (Tschannen-Moran & Hoy, 2001). The TSES instrument, since its inception, has demonstrated reliability and validity in numerous studies (Klassen, Tze, Betts, & Gordon, 2011). As it is a tool for self-reporting however, it is limited in its effectiveness to clarify objectively whether or not a teacher that self-reports is actually as effective as he believes. A teacher may report strong self-efficacy beliefs but may not be as effective as he or she perceives.

Since the development of Tschannen-Moran and Hoy's (2001) teacher self-efficacy scale, there have been numerous quantitative studies that have increased understanding in the field of teacher self-efficacy, yet there are questions that persist. Defining the term 'self-efficacy' and developing a reliable measure of it have presented a challenge to the research of it (Reynolds et al., 2016). There are still unknowns about teacher self-efficacy beliefs that demand answers to questions about what they are, how they can be studied, what influences them, how they can be developed, how they predict student outcomes, how researching them can inform educational practice, and how they function along with other social cognitive constructs (Bandura, 2012; Madni, Baker, Chow, Delacruz, & Griffin, 2015; Swanson, 2014; Wang, Tan, Li, Tan, & Lim,

2016; Wyatt, 2012, 2016). Quantitative research has failed to provide answers to those questions.

The underlying reason that Tschannen-Moran and Hoy's (2001) teacher self-efficacy scale and any other type of Likert-scaled measurement or quantitative approaches are limited in their ability to answer the questions framed above lies in the reliance on self-reported information. The affirmations on the teacher self-efficacy scale may be interpreted and understood in different ways, yielding different responses, and ambiguity can be an issue as well (Morris, Usher, & Chen, 2016; Wheatley, 2005). Construct validity concerns, in the development of instruments to measure self-efficacy, arise from "the extent to which a statement, or item, represents what it claims to represent" (Glackin & Hohenstein, 2017, pp. 3-4). The language on the scales can be understood in differing and distinct ways depending on the individual's experiences and understandings. These differences affect the measurement of the construct.

Qualitative Research

Quantitative approaches substantiate the construct of self-efficacy and its outcomes, but they fall short in helping to understand how a phenomenon works or how individuals derive and construct meaning (Wheatley, 2005). Given the limitations of research based on self-reported data to further research in teacher self-efficacy, numerous studies have called for qualitative and mixed-methods research to advance understanding of the antecedents and factors that impact and influence self-efficacy in teachers (Chong & Kong, 2012; Holzberger, Philipp, & Kunter, 2013; Moseley, Bilica, Wandless, & Gdovin, 2014; Shoulders & Krei, 2015; Wyatt, 2016). Belief systems vary. It can be difficult to generalize or create global measures for the myriad belief systems that people possess. This makes the development of a self-efficacy measurement tool

that is valid, reliable and generalizable in all instances and for all purposes impossible to accomplish (Bandura, 2012). While quantitative research provides an understanding of data across larger samples and may be considered more "scientific" in nature, qualitative methods like case-study research allow for an examination of the phenomenon in depth, can lend support to, and provide in-depth information independent of quantitative studies as well as reliably allowing for generalization (Flyvbjerg, 2006). Exploring and understanding a phenomenon requires more than a quantitative approach.

Mixed-methods and other qualitative research designs offer the opportunity to use a self-reported scale, such as the TSES, along with observations, interviews, peer interviews, open-ended survey questions, and reflective journaling in order to study and further apprehend the determinants that influence teacher self-efficacy (Stipek, 2012; Swanson, 2014; Wyatt, 2013). When subjects agree to being observed and given the opportunity to talk, write, and reflect on their experiences and their beliefs in regard to their agency, deeper and richer meanings will emerge which will lend understanding to survey statements. According to Wheatley (2005), "understanding teacher's efficacy beliefs and their possible influences, requires understanding what teacher's perceived self-efficacy interpretations mean to them" (p. 761). The use of qualitative methods makes is possible to gain a better overall view of the construct of self-efficacy. Given the call from the field for more qualitative and mixed-method studies, along with the failure of quantitative research methods to answer the questions posed above, a qualitative case study is the approach that was used to address the research question.

Research Synthesis

The purpose of this literature review is to consider what is known about teacher self-efficacy in relation to its impact on teacher effectiveness, especially in the way that it influences

student achievement as measured by standardized assessments. Self-efficacy is an understanding that developed out of Social Cognitive Theory. Bandura's Self-efficacy Theory (1977) contends that self-efficacy is the belief that an individual holds in his, or her, ability to influence the desired outcome of a situation. Effective teachers have high self-efficacy. The sources of self-efficacy are mastery experience, vicarious experience, verbal persuasion, and emotional and physiological experience (Bandura, 1977, 1993, 2012; Tschannen-Moran & Hoy, 2001). The experiences that influence the development of self-efficacy ultimately have an impact on teacher effectiveness.

Self-efficacy, influenced by the four sources, is an influencer itself. Researchers have studied the effect of teacher self-efficacy and its beneficial impact on student learning outcomes and achievement (Holzberger, Philipp, & Kunter, 2013; Mojavezi & Tamiz, 2012; Stronge, Ward, & Grant, 2011; Swanson, 2014; Tai, Hu, Wang, & Chen, 2012). Currently, standardized assessments are the tools that measure and monitor student achievement and growth on local, state, and national levels. The only national measure of student achievement in the United States currently, however, is the NAEP assessment (Innes, 2012; NCES, n.d.). The NAEP assessments show student academic achievement over time and across states, school systems, demographics and academic subject. Students that demonstrate academic achievement on standardized assessments like the NAEP have been helped to do so by effective teachers.

Public and non-public schools take part in the NAEP. The government reports the progress of both sectors, with subsectors in the non-public group including Lutheran, Catholic, private and nondenominational schools. Consistently, the subsectors of Lutheran and Catholic schools have scored higher than other non-public and public sectors.

The NCES (n.d.) is specific in noting on its website and in publications that caution should be taken with comparisons. Lubienski and Lubienski (2006, 2013) have published research that contends nonpublic schools score at the same level, or lower than public schools when adjustments are made for demographics, on the NAEP. Wolf (2014), on the other hand, asserts that Lubienski and Lubienski (2006, 2013) relied on a research design that was flawed to draw their conclusions. Jeynes (2012) and Fenzel (2013) offer support to the argument that NAEP results confirm the effectiveness of nonpublic religious schools in academic achievement differences between the sectors. Non-public school systems, specifically Catholic and Lutheran systems, have demonstrated their capacity to effectively educate students.

The Lutheran school systems comprise the second-largest non-public school system in the United States. Lutheran schools, reported in the non-public sub-sector of NAEP as a stand-alone school system, show consistently high scores overall in the content areas that NAEP assesses (NCES, n.d.; Fenzel, 2013). Given that Lutheran schools demonstrate high student achievement, the argument may be made that teachers in Lutheran schools are effective in educating students. Thus, the conclusion is that there are teachers in Lutheran schools that have high self-efficacy.

Given the assertion that teachers in Lutheran schools have high self-efficacy, the question emerges concerning what influences the self-efficacy of these teachers, and what is the best way to measure it. Bandura (1977, 2012) identified the antecedents of self-efficacy as mastery, vicarious, verbal, and physiological and emotional experiences. Numerous studies in the field have addressed these sources of self-efficacy along with teacher effectiveness in regard to student achievement (Zee & Koomen, 2016). Morris, Usher, and Chen (2016), in a review of self-efficacy literature, have called for further study of teacher self-efficacy and its sources given

46

the complexity of the construct and the paucity of research in the field that addresses the sources of self-efficacy. The limitations of the studies included in the literature review encompass data from small sample sizes as well as flaws in the conceptualization of the sources of self-efficacy.

Wyatt (2013) and Stipek (2012) extend the call for qualitative inquiry to further deepen the understanding of teacher self-efficacy sources. Other studies considered the sources of teacher self-efficacy with the purpose of understanding what influences it and how that understanding could influence leadership, professional development, and any specific programming that could assist teachers in increasing self-efficacy in order to improve student achievement (Chong & Kong, 2012; Gkolia, Koustelios, & Belias, 2015; Huber, Fruth, Avila-John, & Rodriquez, 2016; Senler, 2016; Simmons, 2013; Tschannen-Moran & McMaster, 2009). Self-efficacy, however, is not the only factor that influences teacher effectiveness.

Studies have demonstrated other factors that influence teacher effectiveness as well as student achievement. There are various psychological constructs that impact teacher motivation and overall effectiveness beyond self-efficacy (Madni, Baker, Chow, Delacruz, & Griffin, 2015; Wang, Tan, Li, Tan, & Lim, 2016). External influences have been shown to impact teacher effectiveness as well (Curci, Lanciano, & Soleti, 2014; Easley, 2016; Woessmann, 2016). Research on teacher self-efficacy has demonstrated a reciprocal effect wherein student success impacts teacher self-efficacy as well as being impacted by it (Holzberger, Philipp, & Kunter, 2013). While these differing factors impact teacher effectiveness, teacher self-efficacy remains a major component and underlying psychological process of teacher effectiveness.

Critique of Previous Research

The majority of studies in the field of teacher self-efficacy over the past 40 years have been quantitative. Bandura (1977) asserted that self-efficacy develops through environmental

and personal factors which influence each other and which result in self-efficacy behaviors. Regarding the plethora of quantitative research in the field, Glackin and Hohenstein (2017) contended that the theoretical framework's dualistic foundation of environmental and personal factors affecting each other that has driven the use of quantitative measures to understand it.

Quantitative studies rely on self-reported survey data from teachers along with student achievement data. The reliance on self-reported surveys alone as a self-efficacy measure is a limitation of quantitative studies as there are no observations, interviews, or other information to corroborate teachers' perceptions of their effectiveness or self-efficacy (Wheatley, 2005; Wyatt, 2014). While qualitative and mixed-methods studies have increased in the past decade, there remains a call from researchers for qualitative and mixed-methods derived data to clarify how the sources of teacher self-efficacy develop, what impacts them, and how understanding teacher self-efficacy sources might generalize across domains (Chong & Kong, 2012; Morris, Usher, & Chen, 2016; Stipek, 2012; Swanson, 2014; Wang, Tan, Li, Tan, & Lim, 2016; Wyatt, 2014). Qualitative case study can deepen an understanding of "how people interpret their experiences, how they construct their worlds, and what meaning they attribute to their experiences" (Merriam & Tisdell, 2009, p. 5). Qualitative studies permit exploration and discovery of phenomenon in richer and deeper ways.

Some researchers have used qualitative case study to research teacher self-efficacy (Haigh & Anthony, 2012; Moseley, Bilica, Wandless, & Gdovin, 2014; Senler, 2016; Wyatt, 2013). Case study can employ multiple methods, allow the researcher to test theories as well as discover new information, and permit the researcher to study the subject as a whole entity while also considering the individual factors that contribute to the whole, providing dense and rich information (Crasnow, 2012; Morgan, 2012). A qualitative case study design permits a focused

consideration of a particular issue. The particular issue in this study is teacher self-efficacy.

This focused consideration can lead to findings that other methodologies are not designed to

provide. Case study allows the researcher to explore the issue in a specific context while using

diverse data sources in order to consider the different facets of the issue (Baxter & Jack, 2008).

Case study provides the opportunity to deepen understanding of the construct of teacher self-

efficacy.

There has not been a single quantitative research study that has achieved complete

validity or capacity for generalization. The same is true of qualitative research. In both research

designs it is important to ensure the reliability of the results inasmuch as is possible. According

to Yin (2016), "no study will attain complete validity, which will always remain elusive, you can

strengthen validity by attending to several concerns or challenges" (p. 88). The implementation

of a qualitative case study that is designed with the goal of exploring and understanding what

influences teacher self-efficacy in a Lutheran school will address the call issued by prior studies

in the field for more study of the sources of self-efficacy as well as more qualitative research.

Summary

Self-efficacy theory, an understanding derived from Bandura's (1977) Social Cognitive

Theory, asserts that an individual has high self-efficacy if he demonstrates or expresses agency

to affect the desired outcome. Self-efficacy grows through mastery experience, vicarious

experience, verbal persuasion, and physiological and emotional experience (Bandura, 1977,

2012). Teacher self-efficacy is the teacher's belief in the ability that the individual teacher has to

convey knowledge and understanding as well as to influence student behavior regardless of

student motivation (Tschannen-Moran & Hoy, 2001; Tschannen-Moran & McMaster, 2009).

Teachers with high self-efficacy are effective in helping students to achieve academically, as measured by standardized assessments.

Standardized assessments are the measurements that educators and policy makers use to assess student academic achievement and growth. The NAEP assessments are the only measures used in the United States on a national level that allow for comparison of student achievement across school systems and states (NCES, n.d.). Of the subgroups reported on by the NCES, Lutheran and Catholic schools consistently score higher across demographics than other nonpublic and public schools in academic areas assessed. While formative and summative assessments measure student achievement in diverse ways, internal assessments of this nature, unlike standardized assessments, do not allow for monitoring of student academic progress over time. Standardized assessment remains the preferred tool to monitor student academic achievement.

Teacher self-efficacy, while a determinant, is not the sole factor that impacts teacher effectiveness and student academic achievement (Wang, Tan, Li, Tan, & Lim, 2016; Woessmann, 2016). There are external, internal and psychological factors that affect how well teachers teach and how well students achieve. Such factors range from school environments and parent involvement to goal setting, emotional intelligence, and principal leadership approaches (Darling-Hammond, Amrein-Beardsley, Haertel, & Rothstein, 2012; Darmody & Smyth, 2012; Moeller, Theiler, & Wu, 2012; Wilder, 2014). While there are numerous elements that can impact teacher effectiveness, self-efficacy, because it is a construct of psychological processes, is a major factor that influences teacher effectiveness (Madni, Baker, Chow, Delacruz, & Griffin, 2015).

This review of literature is based on self-efficacy as a theory derived from Bandura's (1977) Social Cognitive Theory. Given that self-efficacy is a significant determinant in teacher effectiveness which impacts student achievement, and given that NAEP assessments demonstrate that Lutheran schools are effective in teaching students, exploring what influences teacher self-efficacy in a Lutheran school will address the call of previous research studies to study the sources of teacher self-efficacy in order to further understanding in the field. There is sufficient reason for thinking that an investigation examining the influences on teacher self-efficacy in a Lutheran school may yield important findings. The research can, therefore, claim that the literature review provides a substantial foundation for pursuance of a research project to explore the following research question: What influences teacher self-efficacy in a Lutheran school?

Chapter 3: Methodology

This intent of this study was to explore influences on teacher self-efficacy in a Lutheran school. The research design was qualitative, in the form of an instrumental case study. This instrumental case-study approach allowed for the exploration of the phenomenon of self-efficacy in depth in an understudied population.

The goal of this study was to explore influences on teacher self-efficacy in a nationally recognized Lutheran school. The researcher identified teachers' perceptions of their self-efficacy and discovered influences on the sources of teacher self-efficacy. The research questions, description of the research design and its purpose, the population involved in the study, the survey instruments, data collection, the identification of attributes, procedures for data analysis, limitations of the research design, validation, expected findings, and a discussion of the ethical issues as they pertain to any conflict of interest, the position of the researcher, and any other ethical issues that may exist in the proposed study are included in this chapter.

Research Questions

Researchers design qualitative case study questions to understand the lived experiences of the people that are being studied and their perspectives. The use of these types of research questions helps the researcher to narrow and specify the focus of a study in a field, while the sub-questions direct the central question into more specific themes. The researcher designed one overarching question and four sub-questions in this study in order to explore influences on the sources of teacher self-efficacy in a Lutheran school. The overarching research question helped the researcher to address the subject of influences on teacher self-efficacy sources in a Lutheran school specifically. The sub-questions designed by the researcher focused on an exploration of how teachers in a Lutheran school perceive their self-efficacy and the influences that have

impacted it. The central question and sub-questions directed the researcher's inquiry toward an

understanding of teachers' perspectives of their self-efficacy. This single case study was guided

by one question and four sub-questions:

Research Question and Sub-Questions:

How is teacher self-efficacy influenced in a Lutheran school?

Sub-Questions:

a. How do teachers describe their growth as effective teachers?

b. What experiences do teachers identify as influential to their self-efficacy?

c. Which of the four sources of self-efficacy have more influence on teacher

effectiveness in a Lutheran school?

d. How does a sense of vocation influence teacher self-efficacy?

Purpose, Research Method and Design of the Study

The purpose of this case study was to explore influences on teacher self-efficacy in a

Lutheran school in order to positively add to understanding in the field of teacher self-efficacy

and teacher effectiveness overall. At this stage in the research, teacher self-efficacy was defined

as the confidence a teacher has in his or her ability to affect desired outcomes in the classroom

and in student achievement. Teacher effectiveness, directly informed by teacher self-efficacy, is

the most important factor in student achievement (Garrett & Steinberg, 2014; Mojavezi &

Tamiz, 2012; Tai, Wang, Chen, & Hu, 2012). Teacher self-efficacy is also a predictor of teacher

effectiveness (Klassen & Tze, 2014). Therefore, a Lutheran school that has earned national

recognition for student academic achievement provided an appropriate site for fieldwork.

This focus of this research explored influences on teacher self-efficacy in a Lutheran

school. Initially, the researcher considered a quantitative approach to the research question, and

subsequently rejected that approach. The majority of studies in the field of teacher self-efficacy

over the past 40 years have been quantitative in design, and they have used data gathered with

instruments that have been shown to be less than reliable, or with limitations (Wheatley, 2005).

The use of triangulation in a qualitative approach, in the form of interviews, observations,

reflective journals along with self-reported data, offered the possibility of seeing how self-

reported information is displayed in teacher practice (Wyatt, 2014). It also provided the

opportunity to explore the meaning that participants derived from their experiences.

Over the past 10 years there has been an increase in the number of mixed-methods and

qualitative studies in the field that have added to the understanding of the construct of teacher

self-efficacy. These more recent qualitative and mixed-methods studies, while augmenting what

is known about teacher self-efficacy, cited the need for more qualitative research in order to

deepen understanding of the complex issue of teacher self-efficacy (Stipek, 2012; Swanson,

2014; Wyatt, 2014). Qualitative case study can facilitate understanding "how people interpret

their experiences, how they construct their worlds, and what meaning they attribute to their

experiences" (Merriam & Tisdell, 2009, p. 5). Case study research provided an opportunity to

more deeply and richly consider a specific group of teachers and the significance they gleaned

from their experiences.

Teachers' experiences, work context, and beliefs influence their self-efficacy. Bandura

(1977) asserted that self-efficacy develops through environmental and personal factors which

influence each other and which result in self-efficacy behaviors. Researchers that have used

quantitative approaches substantiate the construct of self-efficacy and its outcomes, but the

research falls short in facilitating an understanding of how the phenomenon works (Dibapile,

2012; Wyatt, 2013). According to Wheatley (2005), it is essential to understand what influences

teacher self-efficacy beliefs, the beliefs themselves, and the personal meanings that teachers

derive from experiences that help to construct those beliefs. Understanding the meaning of the

beliefs that undergird self-efficacy is important to understanding the construct.

The purpose of a case study is to promote an understanding of specific issues. It is

important to understand how people act, interact, and derive meaning when exploring the nature

of psychological constructs. A researcher chooses a case in order to understand, or gain insight

into a question by researching a particular case (Stake, 1995). In exploring how teacher self-

efficacy is influenced in a Lutheran school, the researcher studied a particular group of teachers

in a nationally recognized Lutheran school. Stake (1995) asserted that understanding human

interaction within a social unit is the purpose of case study and that "the real business of case

study is particularization, not generalization.... the first emphasis is on understanding the case

itself" (p. 8). While a single case may not be capable of generalization, an instrumental case can

offer insights that enlighten or inform other cases (Patton, 2002). As the research focused on a

bounded system of a particular group studied during a specific period of time so as to help

construct meaning that could deepen understanding of a particular construct or phenomenon in

the field, the researcher chose an instrumental case study design (Yin, 2014).

Research Population and Sample

Lutheran school student and teacher populations are much smaller than the majority of

public school populations, thus the sample size of this study was smaller than a similar study

done in a public school would have been. In addressing sample size in qualitative research

Patton (2002) asserted, "There are no rules for sample size in qualitative inquiry. Sample size

depends on what you want to know, the purpose of the inquiry...and what can be done with

available time and resources" (p. 244). The researcher determined sample size from the 21

available participants within the school being studied. In order to best manage the data the sample size was set at a maximum number of 15 participants and a minimum of five participants.

The target population for the case study was teachers in the LCMS K-8 Lutheran schools in the United States. There are 804 Lutheran schools with a K-8 configuration in the United States supported by the Lutheran Church Missouri Synod (LCMS, 2016). This large number of schools permits a wide choice for sample selection. Additionally, the NAEP test assesses students at the fourth and eighth grade levels across public and private schools, which makes the selection of a Lutheran K-8 school, as opposed to a secondary school, a choice that reflects NAEP testing levels. A study of teachers working in a K-8 Lutheran elementary school allowed for exploration of a participant population that teaches students within the areas of NAEP evaluation and where strong student academic achievement has been recorded. A study of a K-8 Lutheran National Blue Ribbon School, a nationally recognized exemplary school status, was preferred in this category as the school had a nationally recognized record of high student performance across subjects and demographics assessed.

There are a greater number of Lutheran schools in the Midwest than in other regions of the country. The National Blue Ribbon School Program, designed by the United States government, "recognizes public and private elementary, middle, and high schools based on their overall academic excellence or their progress in closing achievement gaps among student subgroups" (National Blue Ribbon Program, n.d.). A Lutheran school that has been awarded National Blue Ribbon status was the site for the case study. The teachers employed at this school were the population used in the case study. Given that not all teachers chose to participate in the study, and given the need for the researcher to be able to competently manage the data that would emerge from the case study, a minimum number of five participants and a

maximum number of 15 teachers was the sample. Patton (2002) posited that the insight, understandings, meanings, and validity derived from case study depend more on the richness of the information in the case than sample size. Setting a maximum number of participants for the case study in an exemplary school allowed the researcher to explore an information-rich case and manage the data without becoming overwhelmed by it.

For the purpose of sampling, the teachers at this school had demonstrated academic success with their students. Teachers that are self-efficacious are effective in facilitating student achievement (Garrett & Steinberg, 2014; Mojavezi & Tamiz, 2012). While effective teachers are not the only influence on student achievement, researchers contend that teachers have a significant affect on student achievement and growth (Garrett & Steinberg, 2014; Swanson, 2014; Hill, Blazar, & Lynch, 2015). As such, a study of these teachers provided the opportunity to explore what influences the sources of their self-efficacy.

The intent of the study question was to explore influences on the sources of teacher self-efficacy in a Lutheran school. Teacher self-efficacy impacts teacher effectiveness, and teacher effectiveness is a factor in student achievement (Dibapile, 2012; Guo, Connor, Yang, Roehrig, & Morrison, 2012; Lilla, 2013; Pajares, 1996; Swanson, 2014). A case study that focuses on teachers in a Lutheran school that has demonstrated success in student academic achievement provided a sample that could give insight and depth of understanding of the influences on the sources of self-efficacy in this understudied population. The sample population for this case study, teachers in a Lutheran school, was a purposive sample. This purposive sampling, according to Merriam and Tisdell (2009), permitted the selection of a sample that allowed the researcher to uncover the most possible information from the data. The intended result of purposive sampling is to discover data that is rich with relevant information (Yin, 2016). The

teachers at the Lutheran school offered an opportunity to understand in depth what influences the self-efficacy sources of effective teachers.

Sources of Data

Teachers in the school evaluated their self-efficacy using the 12-item TSES developed by Tschannen-Moran and Hoy (2001) for the purpose of identifying those teachers with high self-efficacy. This survey is a Likert-style survey (see Appendix A). The TSES asked teachers to evaluate their capability in regard to management of the classroom, engaging students, and instructional strategies. Eight teachers who responded to the survey were the sample selected for the semi-structured interview protocol.

The questions on the TSES fall into three categories. Four questions in the category of instructional strategies ask the teacher to self-assess their ability to plan and implement instruction. In the category of classroom management there are four questions that ask the teacher to consider how well they control the classroom to positively influence student learning. There are four questions in the area of student engagement as well, which seek to elicit the teacher's assessment of how effectively they can capture and encourage student interest in academic material. The survey permitted the researcher to identify the self-efficacy levels of the participating teachers.

The participants answered questions from a semi-structured interview protocol. This type of protocol, according to Yin (2016), "covers the broad line of inquiry that you are to undertake, rather than any tightly scripted interaction between you and any source of evidence, such as a field participant" (p. 108). The semi-structured interview guide addressed the sub-questions presented above. The questions in the semi-structured interview guide differed from the TSES questionnaire in that they addressed the participants' understanding of influences on their self-

efficacy, rather than the outcomes that demonstrate self-efficacy addressed in the survey (see Appendix B).

Unobtrusive measures observations were the third source of data for this study. Unobtrusive measures help to minimize reflexivity in data collection. Reflexivity, the unknown influence that the researcher has on participants, or the influence that participant activity may have on the way that a researcher observes, is unavoidable, but minimizing it can be possible when the researcher utilizes unobtrusive measures observation (Yin, 2016). Unobtrusive measures were those things that the researcher could not have affected: bulletin boards, physical plant organization and cleanliness, classroom design, or displays of student work, for example, were physical evidence of human activity that pointed to behaviors, beliefs, and structures already in place and not influenced by the researcher's presence or interactions at the site (Yin, 2016). Each site visit offered the opportunity for the researcher to observe and note these measures. The interviews, field notes and observation of unobtrusive measures during the site visits contributed to data used for triangulation.

Data Collection

As the first step in data collection, the researched gained site access permission from the school administrator. Once permission was granted, the researcher sought voluntary informed consent from the participants. The researcher met with the participants and explained the purpose of the study, the intended use of the data, and the confidentiality of the participants. Additionally, the researcher communicated the right of the participants to refuse to participate (see Appendix C).

Once all participants confirmed their consent with the signed consent form, they completed the TSES described above. The rationale for using the TSES was to verify that the

teachers in the study identified themselves as self-efficacious. Since the purpose of the study was to explore influences on the sources of self-efficacy in a Lutheran school, it was important that the participants identified themselves as self-efficacious teachers. The researcher distributed the TSES to the teachers, collected them, and tabulated the results to confirm high self-efficacy in each participant. The researcher then scheduled on-site interviews with the participants.

Before beginning each interview, the researcher reminded participants of their right to decline to participate. The researcher conducted the interviews using a semi-structured interview guide, and used the same interview protocol with each participant. The questions helped the researcher to explore how the participant perceived their self-efficacy as well as how they understood influences on their self-efficacy. The interviews were structured to allow any additional questions that might be necessary for purposes of clarifying information (Merriam & Tisdell, 2009). The researcher recorded the interviews, took field notes, and made unobtrusive measures observations while on site. The researcher used audio recording in order to facilitate a more natural and conversational atmosphere as well as to allow for field notes to be taken during the interview. The researcher transcribed the recorded interviews after the site visits. Once the recorded interviews were transcribed and checked for accuracy, the recordings were stored in a locked cabinet and marked for destruction at the close of three years from the study.

In addition to interviews and field notes, the researcher used observation of unobtrusive measures in the data collection process. Unobtrusive measures "record aspects of the social and physical environment that are already in place, not manipulated by researchers or affected by their presence" (Yin, 2016, p. 153). The use of unobtrusive measures observations allowed the researcher to observe data not influenced in any way by the researcher or the study process, and to consider the meaning of the unobtrusive measures in relation to the other data (Yin, 2016).

The researcher used an unobtrusive measures observation guide to facilitate the notation of physical evidence (see Appendix D).

Identification of Attributes

Tschannen-Moran and Hoy (2001) have described the construct of teacher self-efficacy as a simple phenomenon that is elusive. As a psychological construct, it has influences on other psychological and behavioral constructs as well as being influenced by a variety of psychological constructs and outside factors. Bandura (1977) identified self-efficacy in his Social Cognitive Theory as a construct influenced by four sources: mastery experience, vicarious experience, verbal persuasion, and physiological and emotional experience. Researchers have shown that highly self-efficacious teachers impact student achievement by positively managing the classroom environment, utilizing effective teaching strategies, and they report higher job satisfaction, contributing to overall collective efficacy in an institution, as well as responding to reasonable cognitive dissonance by seeking ways to improve their subject-matter knowledge and pedagogical practice (Klassen, Tze, Betts & Gordon, 2011; Wyatt, 2013). Quantitative studies have furthered understanding of the construct, and yet questions about the phenomenon remain unanswered.

Self-efficacy research shows the positive influence of teacher self-efficacy on teacher effectiveness. A strong indicator of effective teaching is the academic achievement of students (Swanson, 2014). While many variables can impact student achievement, teacher effectiveness is the most influential factor in student achievement, and it is directly related to teacher self-efficacy (Garrett & Steinberg, 2014; Mojavezi & Tamiz, 2012; Tai, Hu, Wang, & Chen, 2012). Three attributes of teachers with high self-efficacy have surfaced in studies of the construct. These attributes influence student achievement across grade levels and subject areas: positive

classroom management, adaptive and innovative instruction, and fostering of student

engagement (Dibapile, 2012; Holzberger, Phillip, & Kunter, 2013; Nie, Tan, Liau, Lau, & Chua,

2013; Stipek, 2012; Tschannen-Moran & Hoy, 2001; Zee & Koomen, 2016). Teacher self-

efficacy matters to student achievement.

Positive classroom management. Teachers with demonstrated high self-efficacy have

the capacity to control the classroom environment in such a way that learning is supported even

if there is a disruption. Teachers that manage their classroom well have systems in place to

create an optimal learning environment. Classroom management includes clear behavioral

expectations, which enhance and facilitate learning (Dibapile, 2012; Zee & Koomen, 2016).

Adaptive and innovative instruction. Teachers with high self-efficacy demonstrate the

capacity to evaluate and adapt instruction to meet the needs of the learner, and their instructional

choices are influenced by the outcomes of those choices. A self-efficacious teacher can adapt

instructional practice in order to differentiate for diverse student need. The teacher with high-

self efficacy will seek out instructional practices that are innovative in order to more effectively

engage students as well (Holzberger, Phillip, & Kunter (2013); Moseley, Bilica, Wandless, &

Gdovin, 2014; Stipek, 2012).

Fostering of student engagement. Teachers that foster student engagement understand

the cultural and socioeconomic backgrounds of the students, their interests, and the challenges to

learning and achieving that the students may present. Teachers with high self-efficacy

deliberately plan and implement strategies that focus on engaging students. In order to nurture

this aspect of their teaching, self-efficacious teachers seek professional development

opportunities that facilitate the understanding and implementing of student engagement

approaches (Huber, Fruth, Avila-John, & Rodriquez, 2016; Mojevezi & Tamiz, 2012; Thoonen, Sleegers, Peetsma, & Oort, 2011; Wang, Tan, Li, Tan, & Lim, 2016).

Teachers with high self-efficacy identify themselves as having these attributes on the TSES. Teachers that report high numbers in these categories on the TSES may have become self-efficacious through mastery experiences, vicarious experiences, verbal persuasion, or physiological and emotional experiences. Regardless of which experiences facilitated their self-efficacy development, the factors that influenced those experiences are likely varied and multifaceted. The focus of this study is to explore what influences the development of those attributes in teachers working in a Lutheran school.

Data Analysis Procedures

Inductive analysis in this qualitative case study entailed preparing the data, organizing the data, classifying the data into patterns, themes and categories through a coding process, and then representing the data (Creswell, 2013). Inductive analysis is a process that "involves discovering patterns, themes, and categories" (Patton, 2002, p. 453). The researcher employed Yin's (2016) five-phased cycle that involved compiling, disassembling, reassembling and arraying, interpreting, and concluding in order to complete analysis. Themes, and categories generated from them, emerged throughout data analysis.

The TSES was used to verify that the participants viewed themselves as self-efficacious. As the study proposed to discover influences on the sources of self-efficacy in teachers, it was necessary that the participants verified their belief in their self-efficacy prior to beginning the interview process. Once self-efficacy was verified for each participant, the participant interviews began. Compiling the interview, field notes, and unobtrusive measures data occurred with each site visit.

The interview process followed the same protocol with each participant. The researcher asked questions of the participants about their understandings and perceptions regarding their self-efficacy and how it was influenced, as well as how they perceived its effect on student achievement and their professional practice. Audio recording of the interviews allowed for a more natural conversation flow. The researcher was free to listen more closely and to be observant to nuances in the participant's responses without the burden of writing down the participant's answers. According to Yin (2016), the process of taking notes is equivalent to having a silent partner and, as such, should be a process that does not attract attention. The audio recordings of the interviews in combination with field notes facilitated the interview process, and the observations of unobtrusive measures completed the data gathering each time at the site. Once the interviews were completed, the researcher transcribed the interviews verbatim from the audio recordings. The researcher gave each interview transcript a pseudonym in order to guard the privacy of each individual.

Once all interviews were transcribed, the researcher began the disassembling phase by reading and rereading through the interviews, field notes, and unobtrusive measures observations and creating labels for the emerging information using open coding. The researcher utilized pattern analysis to re-examine and study the transcripts and other data. This open coding permitted the researcher to remain "open to the data" (Patton, 2002, p. 453) while looking for patterns, or themes, in the data. The researcher manually coded the information on different colored index cards to help with visual organization of the data. As the researcher progressed through the content analysis of the interview data, themes that the data related to were identified and category codes were created (Creswell, 2013; Yin, 2016). The researcher coded each of the interviews, field notes, and unobtrusive measures observations in order to identify patterns in the

different data sources.

The researcher analyzed the field notes by identifying key words or phrases on each page and writing them on index cards. The researcher placed key words and phrases under labeled headings in a similar fashion to that of the interviews, and identified codes that related to the interviews. The unobtrusive measures observation notes were cross-referenced with the interviews and field notes to look for connections among the data observed to the patterns that emerged.

Once the researcher analyzed all data, completed coding, and identified the themes, she began the reassembling phase. The data analysis process involved reading, rereading, and rereading the data again as themes, and the data's relationship to possible broader concepts emerged. Throughout the process the researcher questioned and analyzed the information in order to sort through emerging ideas, to look for similarities, dissimilarities, rival explanations, and to identify patterns in the data. According to Yin (2016), "You can increase the accuracy and robustness of your work by giving close attention to constant comparisons, negative cases, and rival thinking" (p. 211). The researcher employed the use of a matrix to help with the organization of data in the reassembling process

Once reassembled, the researcher began the interpretation phase. This involved making sense of the data using description. According to Creswell (2013), description is "a detailed view of aspects about the case-the 'facts'"(p. 200). In the final phase of data analysis, the researcher drew conclusions and offered recommendations or suggestions, known as naturalistic generalizations, for further research. Creswell (2013) defined naturalistic generalizations as "generalizations that people can learn from the case either for themselves or to apply to a population of cases" (p. 200). Case study can inform other situations or cases as well as adding

insights that offer a value different from that of statistical or analytic generalization (Yin, 2016).

The data analysis process involved a cyclical progression of examination to find themes in the responses of the participants, the field notes, and the unobtrusive measures observations. These three sources provided triangulation of the data in order to confirm and support the research (Yin, 2016). In the data disassembling phase, the researcher identified common phrasing and vocabulary across the interviews, field notes and unobtrusive measures, and then, using poster boards, colored index cards, and colored labeling to visually organize and manage the data, the researcher created codes.

The researcher reviewed the transcripts of the interviews, the field notes and the unobtrusive measures observation in order to find similar responses and data. The researcher listed the open codes from the interviews, the field notes, and the unobtrusive measures observation notes on a poster under labeled headings that helped to identify patterns in the data across the three sources. The researcher created a code guide that explained the meanings of the codes. The researcher expected that other codes, categories, and themes might emerge as data analysis progressed. The process of organizing this emergent data required a different code sheet and organization of categories and themes as the researcher continued to analyze the information and manage the data. The researcher also considered personal bias and any insight that it gave to the analysis.

Moving from the poster board and notes phase, the researcher created matrices on a computer and placed the themes in the headings of the columns. This gave organization to the information. The columns were then populated with codes from the data that related to the themes. From the data, categories emerged that related to the themes. The cells of the matrix were filled with text from the interviews and other data collected that related to the themes in the

headings, and color-coded in order to easily refer back to the original data sources. Once the data was input into the matrix, the researcher began to develop a descriptive narrative (Yin, 2016). The process culminated in the conclusions that the researcher made at the end of the study.

Limitations

There are limitations to any case study, and this particular study was no different. The situations of a particular case are difficult to replicate. The behaviors of this one case may not be generalizable. There will be time constraints that will pose a limitation to this case study as well. The researcher cannot spend an indeterminate amount of time with each participant in order to capture all the nuances of the phenomenon of teacher self-efficacy. In general, case studies are limited in that they are not amenable to making causal interpretations from the data.

Delimitations of this case study will allow for strengthening of the results. A delimitation of the case study is its purposive sampling. The particular site and participant selection helped the researcher to meet the requirements for an instrumental case. The goal of purposive sampling is for the specific cases to result in data that has the most relevance (Yin, 2016). Researcher reflection, in addition to triangulation of data as explained above, also served to lend credibility to the study.

Validation

Yin (2016) argues that it is not possible to conduct a study that has complete validity; rather it is important to strengthen and work toward validity by paying attention to concerns or challenges in the study. The researcher ensured the validity of this case study in several ways. Initially, the researcher identified the participants in the study by using the TSES. The TSES is a popular instrument whose validity and reliability for self-reporting has been established (Fives &

Buehl, 2009; Tschannen-Moran & Hoy, 2001). It is a reliable measure for identifying teachers that believe themselves to be self-efficacious. Triangulation of the data strengthened and provided validation to the study (Creswell, 2013). The use of rich and thick description of the data was yet another way to improve the validity of the study (Yin, 2016).

Expected Findings

Teachers in Lutheran schools have similar training and professional experiences as those teachers within other school types. Teachers in a Lutheran school setting, while they may or may not be trained in Lutheran teacher programs set within the Lutheran university system, are teaching within the Lutheran educational environment by choice. The researcher expected to find that the influences of the sources of teacher self-efficacy are the same as those of teachers in non-Lutheran schools. Additionally, the researcher expected that a sense of vocation, motivated by personal faith, was an influence on the sources of self-efficacy of teachers in a Lutheran school. The researcher also expected to find that administrative leadership positively influenced the sources of self-efficacy in teachers in a Lutheran school as well.

Ethical Issues

Ethical issues are always present in research. The responsibility to protect the research participants as well as to respect the data by reporting it honestly and fully in order to avoid data exclusion is of paramount importance. The researcher was not a participant in the study, but the researcher is a teacher in a Lutheran school. As such, the researcher acknowledged and controlled for bias during the fieldwork and data analysis phases of the research. Researcher reflection was a part of the process in order to identify and control bias. The researcher did not receive any compensation or benefit from the study.

The researcher informed the study participants of the nature and scope of the study prior to their granting consent to participate (see Appendix D). There was no intent to deceive participants. The researcher made every effort to follow ethical guidelines for research and to disclose to the participants the purpose and intent of the study. There was little to no potential harm for the participants in the study, and participants were made aware of their right to exclude themselves from the study at any time. All data was placed in a locked file cabinet in the researcher's office. At the end of three years all data will be destroyed as a further protective measure to ensure participants' anonymity.

Summary

This chapter explained the focus of the research design for this study. The purpose, research design, and methodology of the study addressed the sources of teacher self-efficacy as they are influenced in a Lutheran school. The researcher delineated the types of data that were collected as well as the coding, disassembling, reassembling, and interpreting done with the data in order to triangulate and strengthen the study. The researcher detailed the limitations of the case, the validity of the study, and the expected findings as well. Finally, the researcher identified the ethical issues and the steps that were taken to address them.

Chapter 4: Data Analysis and Results

Introduction

   This instrumental case study explored the influences on teacher self-efficacy in a Lutheran school. The purpose of this chapter was to present the findings from the study that asked the question: How is teacher self-efficacy influenced in a Lutheran school? The researcher sought to explore and understand the influences on the sources of teacher self-efficacy in an instrumental case: a Lutheran school that had recently received National Blue Ribbon School status. While there is a great deal of quantitative research on the subject of teacher self-efficacy and its effect on student achievement, more understanding about how the sources of self-efficacy are influenced was needed. Consequently, the researcher chose an understudied population of successful teachers to explore how their self-efficacy was influenced. The researcher discovered influences that can be helpful to strengthening the sources of self-efficacy.

   In this chapter, the researcher presents a description of the sample, research approach and analysis, a summary of the findings, data presentation, study results, and a summary of the study. The presented data and summary addressed the research questions completely. The results of this case study offered information that can be shared with educational leaders across the spectrum of educational institutions regarding how schools can create environments that foster the growth of self-efficacy in teachers. The findings from this study will be shared initially with Lutheran educators and subsequently with public school, non-public school, and university educators to improve understanding about influences on the sources of self-efficacy in hopes of improving how teacher effectiveness can be supported and improved. A qualitative research design using an instrumental case consisting of eight effective teachers in a successful Lutheran school was used for this study.

The data presented in this study were gathered from field notes, unobtrusive measures observations, and one-to-one interviews. The purpose of the interviews was to explore how teachers understand the influences on the sources of their self-efficacy. Throughout the process the researcher analyzed the data inductively. The data helped the researcher to understand the multiple influences on self-efficacy as well as the interrelatedness of these influences. The concepts that emerged from the data were important to the research question and sub-questions.

RQ: How is teacher self-efficacy influenced in a Lutheran school?

Sub-Questions:

    a. How do teachers describe their growth as effective teachers?

    b. What experiences do teachers identify as influential to their self-efficacy?

    c. Which of the four sources of self-efficacy have more influence on teacher

       effectiveness in a Lutheran school?

    d. How does a sense of vocation influence teacher self-efficacy?

The initial stage of the study offered evidence of the participants' level of self-efficacy via the TSES, verifying them as a highly self-efficacious sample overall. The participants' names were replaced with pseudonyms in order to protect identities.

Table 1

Participants' TSES Mean Scores

Participants	TSES Mean Score
T1	8.75
T2	8
T3	8.5
T4	7.5
T5	6.91667
T6	8.16667
T7	8.25
T8	8.58333

Note: This table displays the participants' TSES mean scores.

Description of the Sample

The potential target population for the case study was teachers in the LCMS K-8 Lutheran schools in the United States. Of the 804 Lutheran schools with a K-8 configuration in the United States supported by the Lutheran Church Missouri Synod (LCMS, 2016), study of a K-8 Lutheran National Blue Ribbon School was preferred given the nationally recognized record of high student performance across subjects and demographics assessed.

A purposive sampling technique was used for this study because the selection of a sample allowed the researcher the opportunity to uncover the most possible information from the data. According to Yin (2016), the intent of purposive sampling is to discover data rich with relevant information. The potential population of participants at the Lutheran National Blue Ribbon School was 21. The researcher determined that 15 was the maximum number of participants that would be used in the study, and ultimately, eight teachers at the school were the population interviewed. There are no specific rules for determining sample size in case study research; the insight, understandings, meanings, and validity derived from case study depend more on the richness of the information in the case than sample size (Patton, 2002). Additionally, Stake (1995) contended, "Case study research is not sampling research" (p. 4). The researcher was further convinced that the eight participants in the study would suffice for the case study given Yin's (2016) assertion that, "There is no formula for defining the desired number of instances (or sample size) for each broader or narrower unit of data collection in a qualitative study" (p. 95). The focus of this study was to explore how the construct of self-efficacy was influenced in a Lutheran school and what insights could be gleaned from the data.

At the outset of the study, the researcher explained the construct of self-efficacy to the participants, and they were informed that the purpose of the study was to explore influences on

their self-efficacy. All participants were told that the information they provided for the study would be confidential and their identities would be protected by use of pseudonyms. Participants varied in years of teaching experience, teaching time at the study site, and grade levels taught. These demographic differences were not factors included in the study. The TSES scores of each participant were important to demonstrate their levels of self-efficacy and this was the demographic most foundational to the study.

Of the eight participants, only one teacher scored slightly lower on the self-efficacy scale compared to the others (See Table 1). Participant T5 scored 6.91667 and Tschannen-Moran and Hoy (2001) determined the mean on the total TSES scale to be 7.1. While participant T5's score was within the average score for self-efficacy overall, T5 recorded only an average capacity to assist families in helping students do well. The remaining items T5 scored as 6 and higher on the scale (see Appendix A).

Research Methodology and Analysis

This study relied on several sources of information. The sources of information encompassed semi-structured interviews, unobtrusive measures observation, and field notes. The researcher used inductive analysis to analyze the data derived from the sources of information. Given that inductive analysis "involves discovering patterns, themes, and categories" (Patton, 2002, p. 453). The researcher used open coding and pattern, or thematic, analysis to discover "core consistencies and meanings" in the data (Patton, 2002, p. 453).

Initially, the researcher met with the teachers at the study site to explain the study, answer questions, and to distribute the consent forms and the TSES (see Appendix C). The researcher reviewed the critical components of the study including the participants' right to decline to participate, confidentiality, purpose of the study, as well as participants' right to withdraw from

the study at any time. Prior to beginning the interview process, participants returned their

consent forms and then completed the TSES 12-item instrument to measure their perception of

their efficacy. The mean for the TSES short form is 7.1 (Tschannen-Moran & Hoy, 2001). The

collective mean score for the teachers at the Lutheran school was 8.08292. Table 1 includes the

individual mean scores for the eight participants. The completed surveys confirmed the

participants' high self-efficacy beliefs.

After confirming the self-efficacy levels of the participants, the researcher began

contacting the teachers and scheduling the interviews. The interview process followed the same

protocol with each participant. The researcher asked questions of the participants about their

understandings and perceptions regarding their self-efficacy and how it is influenced, as well as

how they perceive its effect on student achievement and their professional practice using the

semi-structured interview guide (see Appendix B). The researcher recorded the interviews and

took field notes during the process. This allowed for a more natural conversational flow in each

interview, as the researcher was able to focus more closely on participant responses and make

observations without interrupting the flow of the participants' responses.

After each interview, the researcher wrote questions and thoughts derived from the

interview. The researcher kept a personal journal to use for reflection in order to monitor for

bias and to search for insights into the research. After concluding the interviewing process, the

researcher transcribed the interviews verbatim from the audio recordings and labeled each

interview with a pseudonym in order to protect the privacy of each participant.

Once all of the interviews were transcribed, the researcher began to disassemble the data.

This was a recursive process that involved reading through the transcripts, field notes, and

unobtrusive measures observations and creating labels for the information using open coding.

The researcher used pattern analysis in examination and study of the transcripts and developed a code guide. The process of open coding allowed the researcher to remain "open to the data" (Patton, 2002, p. 453). The researcher coded the information on different colored index cards to help with visual organization of the data, and subsequently identified patterns, core meanings, and broader concepts in the data, which then led to creating category codes (Creswell, 2013; Yin, 2016).

The researcher analyzed the field notes by identifying key words or phrases on each page and writing them on index cards. The researcher placed key words and phrases under labeled headings in the same manner as the interviews and then identified codes that related to the interviews. The researcher used pattern analysis with this data as well. Once the researcher analyzed the field notes, close examination of the unobtrusive measures observations began. The researcher employed pattern analysis to code this data also. Subsequently, the researcher cross-referenced the unobtrusive observation notes with the interviews looking for connection among the artifacts and data observed to the patterns that emerged. Furthermore, the researcher consulted a personal journal throughout the process to look for bias and insights in order to help avoiding negative bias, as well as to identify any insights that could add to the data.

Having completed the disassembling of the data, the researcher began the reassembling phase, which involved reading, re-reading, and re-reading the data again while searching for broader concepts to emerge. The researcher continually questioned, analyzed the information, looked for negative cases, and engaged in rival thinking throughout the process in order to increase, inasmuch as possible, the accuracy and robustness of the study (Yin, 2016). The researcher used a matrix to organize the data while working through the reassembling process.

Descriptive Summary of the Findings

In this segment, a descriptive summary for each of the themes is offered. The categories emerged from the participants' interview responses, field notes, and unobtrusive measures observations. Data analysis revealed five themes: (a) Relationship (connection between teachers, students, and family), (b) Vocation (a calling or strong inclination to a particular course of action), (c) Professional development (specialized training, formal education, or advanced professional learning), (d) Student achievement (the quality and quantity of students' work), (e) Collaboration (working jointly with others toward common goals). Table 2 displays the themes and the categories relating to each. Both the themes and the categories addressed the research question and sub-questions.

Table 2

Major Themes and Categories

Themes	Categories
Relationships	Family
	Care
	Connection
	Communication
Vocation	Faith
	Spiritual fulfillment
	Obedience
	Eternal Impact
Professional Development	Graduate work
	Conferences
	Professional Learning Communities
Student Achievement	Engagement
	Assessment Academic growth
Collaboration	Teamwork
	Support

Note: This table contains major themes and categories generated from the data analysis.

The table contains 16 categories that were identified as a result of analyzing the interview, field notes, and unobtrusive measures data. The greater number of categories emerged from the themes of Relationship and Vocation, a total of four each, while collaboration generated only two categories.

Relationship

Relationship refers to the connection between individuals. In this study, relationship could also be understood as relating to social capital, or the intangible aspects and valuable resources that develop out of the social relationships between people involved in communal effort (Wubbels, 2012). Plagens (2011) posited that social capital emerges from social structure and relationships. Social capital theory in the field of education finds it origins in Dewey and his assertion of the notion that there is great importance in people interacting and associating with each other (Plagens, 2011). The intangible factor that the researcher initially struggled to identify as important to the participants' self-efficacy was ultimately identified as relationship.

Participants repeatedly used the phrase "like family" in the interviews when talking about their relationships with colleagues, students, school, and church families. Siciliano (2016) contended that self-efficacy beliefs are strengthened both by peer interaction which can reduce uncertainty in practice, as well as influenced by the self-efficacy beliefs of peers with whom they are directly connected. Further reading and research on the subject of relationships in education uncovered studies, cited above, conducted on the importance of social capital in education. The categories that were created within this theme of relationship are: (a) family, (b) care, (c) connection, and (d) communication.

Participants affirmed that they interact with students, families, and each other outside of the school environment. Several participants talked about the positive experience of

worshipping with students and their families on Sundays. Participants were notably enthusiastic when talking about the importance of the close-knit community that teaching at the school provided. Interactions in the main office between parents, staff, and students were open, personal, and warm. The researcher repeatedly reflected on the "feeling of the place" every time a site visit was made.

Vocation

Vocation, referred to also as a sense of calling, influences one's perspective and perception. Vocation is interconnected with relationship as social capital as it positively influences teachers' relationships with students (Hartwick, 2015). Vocation, as it relates to teacher self-efficacy, is an understudied field as is the concept of religiosity in relation to self-efficacy (Bullough & Hall-Kenyon, 2012; Wright, 2010). Participants in the study identified a sense of calling as pivotal to their decision to either work in a Lutheran school or become a Lutheran-trained teacher. Participants repeatedly interchanged the words "faith" and "calling" demonstrating a strong identification of the concept of vocation as an expression of personal faith. Participants spoke of the importance of teaching the whole child, which includes teaching the spiritual side of the student as well as the academic and physical. The participants also spoke of teaching as something God called them to and that, while they could maintain their faith in a public school setting, they wanted to be able to express and communicate their faith with their students as an integral part of their workday. The categories that originated within the theme of vocation were: (a) faith, (b) spiritual fulfillment, (c) obedience, and (d) eternal impact.

Participants referenced their feeling of "being the hands and feet" of God, "meant to be here", and "this is what God has called me to do" when talking about vocation and its meaning to them and their work. Several participants talked about how working in a faith-based

environment allowed them to care in deeper ways for their students than they could in public school. The importance of being able to hug a hurting or happy child, coupled with their expression of the vital importance of prayer in their classrooms as well as in their personal lives were other elements that surfaced as they answered questions about vocation. Vocation was an important theme in responses across participants

Professional Development

Professional development is an influence on improving teachers' instructional practice and self-efficacy when it focuses both on content knowledge and pedagogy (Carney, Brendefur, Thiede, Hughes, & Sutton, 2016; Tschannen-Moran & McMaster, 2009; Widener, 2014). Professional development in this case study was reflective of administrative support for pursuit of graduate work, individual teacher initiative in seeking online professional development, teacher attendance at professional conferences, and the establishment of professional learning communities (PLC). The participants frequently referred to innovative instructional approaches that they had learned about and implemented after professional development had helped them to gain the necessary understanding to be successful and to help their students. Participants also shared that the administration supported graduate-level work in education to strengthen them both personally and professionally. The categories that developed within the theme of professional development were: (a) graduate work, (b) conferences, and (c) professional learning communities.

Professional learning communities were of great importance to the participants. Each one talked about meeting with their colleagues in PLCs on a regular basis. The PLCs offered participants the opportunity to share and exchange ideas, seek advice and input, or discuss strategies for working with students or implementing instructional approaches. Participants also

talked about meeting during lunchtime, which the administration facilitated by providing supervisors for students in the lunchroom so that teachers would have time to meet. This access to colleagues also helped to develop personal relationships between them that strengthened their school community. Each participant related at least two professional development experiences that had made a significant impact on their teaching effectiveness.

Student Achievement

Student achievement is a theme that emerged from the participants speaking about how not only the success of their students on standardized tests affirmed their effectiveness, but that their students' growth, regardless of percentage points on standardized tests, meant a student expanding what they knew and how they could express it. All participants acknowledged the importance of test scores for measuring student academic growth over time. Nonetheless, the teachers overwhelmingly discussed the growth of the whole child in the process of improving the students' academic knowledge. As student achievement refers to the quality and quantity of students' work, the participants focused on the qualitative aspects of student achievement.

Student engagement was a key term for the participants. When the participants expressed certainty as to their students' achievement, they spoke as one voice in terms of the varying degrees of student engagement and the qualities of engaging lessons that facilitate student academic growth. Participant responses echoed current educational practices reflective of project and inquiry based learning, interactive learning activities, and other elements of constructivist theories in education that are considered innovative. The participants expressed that the standardized test scores, while not as important to them as an indicator of student understanding, served as confirmation that their work was improving their students' learning.

The categories that were produced within this theme were: (a) engagement (b) assessment, and (c) academic growth.

Collaboration

The fifth theme that emerged from this case study was that of collaboration. Collaboration can be understood as individuals working jointly with others toward common goals. Collaboration is an element that relates to teacher collective self-efficacy, which has an impact on individual teacher self-efficacy and, consequently, student academic outcomes (Gibbs & Powell, 2011; Madni, Baker, Chow, Delacruz, & Griffin, 2015; Ronfeldt, 2015). The participants made numerous references to the importance of working in teams on curricular and programming improvements. The professional learning communities that they participated in were mentioned not only as a support of their professional growth, but also as an aspect of collective support and collegiality. Participants recounted accessing the PLCs for ideas on how to address instructional, content, and classroom management issues that they were encountering as the school year progressed. In some regards the PLCs served as support groups, along with functioning in the capacity of a form of professional development, as the teachers expressed a level trust in, and respect for, their community members (Kelly & Cherkowski, 2015). The categories that were created in the collaboration theme were: (a) teamwork, and (b) support.

Central Research Question and Sub-Questions

The central research question asked: How is teacher self-efficacy influenced in a Lutheran school? The participants openly shared their beliefs, experiences, and thoughts about their effectiveness as teachers and the influences on their self-efficacy. Participants reflected on childhood experiences that brought them to the decision to become teachers. Participants overwhelmingly voiced the importance of their faith and their relationships with each other as

well as with the community of parents, students, and church within which they work. They

expressed the importance of caring for the whole child as paramount to their work. They

acknowledged the importance of initial and ongoing training to stay abreast of the innovations

and best practices in the field of education, and they stressed the importance of teamwork and

collaboration to their overall effectiveness. The data that emerged revealed a deep

interdependence, reliance, and trust that the participants share with each other and the school

community. The following responses offer insight into the participants' perception of how

relationships influence their self-efficacy:

> Knowing the love and support we have from our congregation and taking pride in that,
>
> but also responsibility...like, I have a responsibility. (T1)
>
> I like having connections with the students and parents outside of the classroom, too,
>
> and I think that's helped in the classroom because then you can just make the personal
>
> connections with them. (T2)
>
> We're a pretty big family here so there's lots of siblings and you see the kids at games
>
> and stuff. I like having connections with the students and parents outside of the
>
> classroom, too. (T5)
>
> Here I know that the people I hang out with, who have grown to be my family, my
>
> friends. We definitely share very strong common values and then you can pass those
>
> values along to the kids. (T6)
>
> How important communication is with the parents **...**sending them a note saying, 'hey, by
>
> the way, your kid was awesome today!' and writing that note so they can read with their
>
> kid at home. It makes them feel better, too. It made me more comfortable with parents,
>
> after putting myself out there to get to know them more, because they really wanted to

know me.... You're not just getting to know these kids. You're getting to know them as a whole child and the family included. (T7)

Having this family base...you're not only getting to know these kids in school but we do family nights. We are really big on getting family involvement from everyone and not only seeing them in school, but seeing them in church, seeing them in community events.

I love the feel of actually feeling like a family even though you're not blood related. (T8) Relationship was an important theme that flowed through the entirety of the interviews and manifested as the overarching idea that influenced the sources. In answering questions related to the subsections of classroom management, student engagement, and student achievement, participants included aspects of relationship such as connectedness, care, and communication in their answers and these emerged as categories within the relationship theme.

Sub-Question A: How Do Teachers Describe Their Growth as Effective Teachers?

The first sub-question asked: How do teachers describe their growth as effective teachers? The theme of professional development emerged from this question and the categories within the theme were graduate work, conferences, and professional learning communities. The categories aligned with practices that influenced mastery experience, vicarious experience, and verbal persuasion as sources of teacher self-efficacy (Bandura, 1977). Each participant responded to the interview questions that explored answers for this question with references to specific professional conferences that helped them to improve either content or pedagogical knowledge. Some of the participants also talked about the impact that working on their Master's degrees had on their teaching practice as well as deepening their understanding of students and learning. Some responses to the interview questions probing their understanding of their professional growth included:

I worked in the lab school all through college... also being in a very professional

community.... attending the national conference...the leaders of the field that have

influenced the way that I think and I teach, and so getting to see those people. (T1)

I like going to the seminars, I listen to them online or podcasts. They always have

things that I like hearing or to say or topics. I think I love going to them. Over the

summer I went to a few. (T2)

I like going to conferences...my Master's degree in Educational Psychology. (T3)

I think learning new things each year professionally - professional development, going

to those conferences - and speaking to other educators in my grade level or just in

different grade levels and hearing what they're looking for. (T4)

I got to go to the ** Reading Conference last year, and that was a lot of fun and great

ideas. I was able to come home from that and implement, like, three new things, like,

immediately when I got back. (T5)

I went and got my Master's - that was awesome, that step along the way to help you.

There was so much - again, that theory into practice - just about everything that I did

through that work was stuff, even today, I still use in my classroom. (T6)

I went to an early childhood conference at the end of last year with the kindergarten

ladies and we got to see so many awesome teachers. (T7)

I have several Master's degrees, I'm always seeking professional development - I just

love to learn and I feel like if I'm in that process, I can help students along in that process

as well. So, like my Master's in Special Ed helps me with those learners that perhaps are

struggling....I get outside training, and I work with other teachers in the community to get

ideas and also talk to other schools to see what they're doing in their classrooms, not just

curriculum-wise but management-wise, assessment-wise, that kind of thing, to bring that

back here. (T8)

Sub-Question B: What Experiences Do Teachers Identify as Influential to Their Self-Efficacy?

The second sub-question asked about experiences as they related to influencing

participants' self-efficacy. The answers to the interview questions that addressed this question

reflected more responses pointing toward professional development and collaborative

relationships with colleagues. The participants identified their training and professional growth

as critical to their effectiveness. They also talked about the collegial environment, supportive

administration, and mutual support - both personal and professional - that they have experienced

at the school. The themes of relationship, professional development, and collaboration emerged

from this question.

> The amount of support that I have here when I first came here was overwhelming in
>
> a great way. I was obviously terrified as any other teacher would be - it's a new thing.
>
> But they were welcoming. They gave me all the things I needed; they're still there for
>
> me now. If I have a question about something, I can run to them. (T2)
>
> We do get together in our grade levels and chat about things. If anybody needs support
>
> or if anybody needs guidance on things, we have personal learning communities. (T4)
>
> We really, really strive. We have an excellent principal...an excellent curriculum
>
> coordinator who's up on all the latest stuff. We have, again, technology-based stuff....
>
> We're going to conferences, and we're going out, and we're going online to find new
>
> things, and we're looking at webinars, and we're not just sitting back and   saying, 'Well,
>
> this is the way we've done it for 25 years, we're not going to change'. (T6)

Easily my team of teachers that I work with...many times we'll bounce ideas off of

each other.... I've got my principal who helps me and so we talk. We have meetings once

a week basically - how can we support our teachers what can we do to help them. (T8)

Sub-Question C: Which of the Four Sources of Self-Efficacy Have More Influence on

Teacher Effectiveness in a Lutheran School?

Participant responses to the interview questions that addressed the four known sources of

self-efficacy aligned with what the past 40 years of research have shown. Participant responses

supported the importance of mastery experience, vicarious experience, verbal persuasion and

emotional/physiological experience on self-efficacy in teachers. Participants talked about what

they learned in their undergraduate training and ongoing professional development, which

corresponded to mastery and vicarious experience.

I did my undergrad work there and I worked in the lab school all through college. (T1)

I like going to conferences. (T3)

So it's K, 1, 2, 3, 4, 5, and junior high - each meet separately once or twice a month and

we kind of just either choose a topic that we want to focus on, professional

development type thing or if we need help with strategies to help a student behaviorally

or academically. (T4)

When I was going through university it was all that integration and it was everything's

not a separate sort of subject, so I felt I was able to take some of my learning experience

and apply it to my own classroom, which was kind of neat. So it wasn't a theory any

longer, I was putting it into practice. (T6)

I've seen such an improvement in the way that students write so that professional

development was crucial to the way that I teach. (T8)

Participants talked about a supportive and collaborative environment and their feelings about student achievement as well as their own. It became apparent very early in the fieldwork phase that the participants were emotionally involved in the life of the school, the students, and their students' achievement. They enthusiastically talked about helping students to grow academically, but also as individuals, and several teachers referenced how positive feedback from peers, students, administration, and parents helped them to solidify their own perception of their effectiveness. Both positive feedback, which is a type of verbal persuasion, and the emotional experience of seeing students achieve are sources of self-efficacy (Bandura, 1977). The categories of engagement, assessment, and student growth within the theme of student achievement were gleaned from this sub-question.

Participants' responses offered insight into the importance of student achievement as an influencer on teachers' perception of their effectiveness.

> They're engaged in what's going on. That they are making progress in all areas of development...even success being a student who might not be meeting those goals but finding the right place for them, even if it's not here. Just feeling like I can see kids' growth.... if I'm gonna take less money to do a job that I could do somewhere else for more money, you know, I want to have that piece be big, you know, and I want to feel like I am making a difference. (T1)

> Every day I learn something new about myself. Every day I fail at something. Every day I don't get something done. Every day I get the 'ah-ha!' moment or the crying moment from a student. It teaches me something new about what I can do, what I should have done, what I can't do. I write notes and make mental notes to myself saying 'okay this is step one. We're getting there.' (T2)

I do reading, mostly, in this classroom - those will develop until about before

Christmas and then they start getting more confident and then once we get back from

Christmas those confident kids are flourishing and they're flying with their reading. (T3)

I get frustrated, too, but I feel that I enjoy a lot of what I do. So I think that seeing

all the success helps me feel successful. (T4)

Our biggest challenge was division. We spent a lot of time with it and going

through the right way and actually...the scores on the test came back right, but I think I

felt successful because I had a math teacher in the middle school come in, and she was

just observing that day, and she's like they're actually doing it the right way, and she

thanked me. (T5)

Just watching the kids be able to learn from something I created makes you feel pretty

successful. (T6)

Through grading and formative assessment and summative assessments...you can tell

when the kids are engaged and when they're not listening and asking a million

questions. When they're engaged in something, they don't need to ask questions

because they know what they're doing because they're excited to do it. (T7)

Once I started teaching language arts, their MAP scores jumped 7 points - and they

did - so each of my 6th, 7th, and 8th grade classes are now in the 80 to 85th percentile,

which is quite high. But that's not what - I find success in, for myself, personally, as a

teacher, my biggest successes are the students that maybe don't really get it and are

successful...But I think my, specifically, biggest success is last year a student who really

hated to read - about halfway through the school year, when we were setting goals, his

was: 'You know, I didn't think that I would be able to read all that you were expecting,

but I absolutely love reading.... you helped me find books, and I actually find the

meaning in books now that I never had before.' (T8)

Professional development was the most frequently identified source of participants' self-efficacy

in the study. Professional development did not function as a stand-alone source, however. When

participants reflected on professional development experiences there was a great interrelationship

with student achievement results confirming their efficacy as well as the collegial support that

they found in the professional development process.

Sub-Question D: How Does a Sense of Vocation Influence Teacher Self-Efficacy?

The fourth sub-question prompted the participants to respond to questions about working

in a faith-based environment, as well as their sense of vocation in terms of how a sense of calling

influences their effectiveness. Overwhelmingly, the participants acknowledged the importance

of their faith and a sense of a divine call to work in a Lutheran setting. When questioned about

how working in a public setting would alter their approach to working effectively with students,

only one participant voiced that there would be no change in her approach to teaching and that

she would be able to weave in Biblical elements in the content of her classroom. The remaining

participants all strongly voiced the importance of the Christian environment, as well as their

capacity to talk about faith and integrate it into every aspect of the classroom experience as being

crucial to their effectiveness as well as desire to continue teaching. The categories of faith,

spiritual fulfillment, obedience, and eternal impact were gleaned from the theme of vocation.

I think that knowing that part of my devotion is thinking about my professional life and

then being able to carry that through, but also to share that with colleagues and to have

that be part of our life together as a staff. So I think the faith piece - being able to say to a

parent, 'I'm gonna pray about this', to feel empathetic in a way that is deeper than just

89

'I'm sorry to hear that'; that you really feel like someone might not be as touched by that. But when you see these things in action of - oh my gosh this family! The ** family has surrounded my family with so much love and support, and when you say I'm part of that, and we're doing this because of our faith and because of Jesus Christ. It's like I'm living out something through my work, through what I do at church, relationships I have with people outside of this place... the faith based piece being part of the routine is just as important as the curriculum part and the social part. (T1)

I think I'm meant to be here giving His word, showing the light to them, with my experiences and what I've had and you know you sometimes get that weird feeling in your stomach, and I get that all the time here and it's a happy feeling... I definitely am where I'm supposed to be and I couldn't be happier sharing my hands and feet for God, and I thank him every day for this opportunity that I came. (T2)

I see it as this is what God wants me to do. I wasn't planning on it, but I feel good about it. I know this is where I'm supposed to be. This is what God wants me to do and I think if I saw that I wasn't being effective, I wouldn't want to do it. (T3)

This is what God has called me to do... But I definitely feel that sense of I'm here for a reason, and I'm supposed to be here, and God's using me to help these little ones and be here for somebody else just at that right time. (T4)

I've never doubted that this is what I wanted to do and I think that's helped me, just, be very passionate about it. I know what comes with that. It's not the salary. It's not anything else.... I really like to bring in the faith element. (T5)

I think vocation goes a little more with your calling than just a career. I think you have to have a little bit of a calling to work in a Lutheran school. ... you're not just doing

this job, it's part of you, part of what life means.... if I'm given a job to do, if I have this

vocation, I'm going to be the best at it that I can be...your reward is in heaven. (T6)

I think it's a big part of my job is to teach these children about God and what he did

for us. (T7)

I can bring Christ into helping students...understand that their behavior was not Christ-

like. I also think we can talk about - in not a behavior management way but in just a way

connecting to the world - we, we can talk about how we can bring Christ's love to the

world and how we see that in the world and bring it back into the classroom. (T8)

The subject of vocation evoked emotional responses in the majority of the participants. Some

participants became somewhat emotional and passionate when expressing the importance of

integrating faith in their lessons. Even more so, when reflecting on their vocation, the call from

God to serve, participants' responses became more emotional than in other parts of the interview.

Several participants were quick to share how they integrate faith into their lessons as well as how

their call to serve in a Lutheran school intertwines with the rest of their lives.

Unobtrusive Measures Observations

Unobtrusive measures observations allowed the researcher to look for evidence of

effective educational practices that supported student achievement and teacher effectiveness at

the study site. When a teacher displays students' work, sets up the classroom, or considers

classroom design it is done with the students' success in mind, not to impress a researcher or

casual observer. Observing facets of the study site that had been put in place, not for the benefit

of a researcher, but rather for the benefit and edification of the students allowed the researcher to

minimize reflexivity in the study. The researcher's presence could produce unintended

influences in data collection. Unobtrusive measures observation helped to minimize this

reflexivity and facilitated getting a truer picture of the learning environment as designed by the teachers and interacted upon by both the students and the teachers. Not only was the school kept in a clean and orderly condition, student artwork and classwork was displayed on classroom and hallway walls. The entrance of the school was uncluttered and a large mural of children of diverse ethnicities accompanied by a Bible verse welcomed visitors and communicated openness to diversity as well as Christ's love for all. These measures enhanced the categories of connection, care, communication, and family that emerged from the theme of relationship as well as the integration of faith, which is gleaned from the theme of vocation.

In the office and on the walls in specific areas were hung pictures of graduated students and student achievement awards. The National Blue Ribbon Schools banner was hanging in the main lobby and the Blue Ribbon plaque was placed over the entrance door on the outside. These displays silently and effectively promoted achievement on different levels and in the area of academic, artistic, and athletic achievement. These measures supported the themes of student achievement and collaboration. In addition to these measures, several classrooms gave evidence of teachers' understanding of classroom design that came from professional development. Two classrooms utilized alternative seating options that included tall chairs, balls, beanbag chairs, and traditional school chairs. In the majority of the classrooms, desks were arranged in groupings as opposed to arrangement by rows. Alternative seating arrangements indicated interactive learning environments that gave support to participants' responses about student engagement in learning and non-traditional approaches to instruction.

Field Notes

Field notes supported the reflections and responses of the participants. The most ubiquitous notes paralleled personal reflection. After every site visit the notes reflected an

intangible element that the researcher noted and questioned. The researcher recorded

observations made during interviews as well as before and after when watching collegial

interactions, interactions between teachers and cleaning staff, and interactions between teachers,

parents, and students after school hours. Body language, tone and inflection of voice, speaking

volume, and the general 'feel' of the study site were all elements that the researcher observed and

reflected on. It was during data analysis that the researcher was able to put words to the

intangible element. Relationship was the theme that encompassed all the others.

Presentation of the Data and Results

The main research question for this case study was: How is teacher self-efficacy

influenced in a Lutheran school? The four sub-questions were: (a) How do teachers describe

their growth as effective teachers?, (b) What experiences do teachers identify as influential to

their self-efficacy?, (c) Which of the four sources of self-efficacy have more influence on teacher

effectiveness in a Lutheran school?, (d) How does a sense of vocation influence teacher self-

efficacy?. The responses that the participants offered were reflective of a deep sense of

responsibility for educating the whole child, to serving the school, church, and families in the

community, as well as being accountable for that service.

The answer to the main research question aligned with the research of the past 40 years.

The influences on self-efficacy in a Lutheran school are similar to the influences on self-efficacy

in schools across the country. Professional formation and ongoing professional development

influenced teacher self-efficacy through both mastery and vicarious experiences.

Encouragement, and positive feedback from other professionals about their students' level of

preparation influenced participants' self-efficacy in both verbal persuasion and social and

emotional response. The more training in academic content, instructional methods, instructional

approaches, and classroom management that participants received, the more they felt they improved in their effectiveness. The participants were actively engaged and seeking out opportunities to learn more and to improve in their practice.

Mastery and vicarious experiences were the most influential experiences for participants' self-efficacy. Professional development opportunities that the participants attended led to their willingness to try new and innovative approaches in their classrooms. The success of the approaches led to the participants seeking more opportunities to continue learning new things and experimenting with them in their classrooms. These positive mastery experiences strengthened participants' belief in their abilities to help students achieve, and an ongoing cycle of professional growth and student success perpetuated an effective environment.

All the participants, with the exception of one, voiced that they would need to teach differently and work with students in a less personalized way if they worked in the public educational sector because of the intertwining of their faith and their practice. The one participant who expressed that there would be no difference in her teaching approach acknowledged that the subject material she teaches lends itself to Biblical references that could be tied into the content area in the public school. Faith was an important influence for each participant as they talked about their work and their responsibilities.

The participants expressed a strong sense of vocation in their decision to work in a Lutheran setting. While not all of the teachers were trained in Lutheran universities, every teacher talked about having a sense of calling that motivated their decision to work in a Lutheran school setting, and to stay in a Lutheran school setting regardless of the level of pay. The work that they talked about doing with the students had a purpose beyond mere academic growth. Participants expressed the importance of students' spiritual selves as well as their own

responsibility for sharing the faith with their students. The eternal importance of their work was mentioned by all of them. Participant T6 response to a question about vocation accurately reflected the feelings expressed by participants in the following response: "I think you have to have a little bit of a calling to work in a Lutheran school....you're not just doing this job, it's part of you, part of what life means". In fact, all but one of the teachers expressed that faith lived out in vocation was an important influence on them and their teaching.

The data gathered from interviews, unobtrusive measures observations, and field notes supported each other. Field notes generated codes that contributed to themes and categories. Unobtrusive measures observations provided evidence within the physical plant that supported the data from the other two sources and generated codes that contributed to the identification of themes and categories as well. What the participants expressed in the interviews was evidenced in the observed interactions between school community members as well as how the teachers organized classrooms and displayed student work. Administrative leadership was quietly but effectively visible in the displays of student achievement and the intentional artwork that communicated a sense of care and community that undergirded the site and that supported the overall learning community.

Summary

The purpose of this case study was to explore the influences on teacher self-efficacy in a Lutheran school. The interview protocol was designed to elicit answers pointing to influences on the four sources of self-efficacy as delineated by Bandura (1977) and measured by Tschannen-Moran and Hoy's (2001) TSES survey. This chapter presented the findings of the research based on interviews, field notes, and unobtrusive measures observation. Data analysis resulted in uncovering five themes: (a) relationship, (b) vocation, (c) professional development, (d) student

achievement, and (e) collaboration. The theme of relationship, with the categories of care,

connection, communication, and family, was the most pervasive throughout the study. Chapter 5

presents the conclusions and recommendations that have resulted from the study for

administrators and teachers at every level of educational programs.

Chapter 5: Discussion and Conclusions

Introduction

Stake (1995) asserted that the purpose of case study research is to understand human interaction within a social unit, and Patton (2002) contended that an instrumental case study has the potential to enlighten or inform other cases. The purpose of this case study was to explore how self-efficacy was influenced in a Lutheran school. Data was gathered from eight teachers working in a nationally recognized Lutheran school in the Midwestern United States using semi-structured interviews, field notes, and unobtrusive measures observations.

The conceptual framework and research that supported the importance of deepening the understanding of teacher self-efficacy guided this study. As explained in Chapters 1 and 2, the field of self-efficacy research is populated with quantitative studies. These studies have confirmed the sources of teacher self-efficacy, but they have not provided an understanding of how self-efficacy develops and they have not investigated the construct in Christian schools to any depth. An exemplary Lutheran school offered both the opportunity to explore the construct qualitatively and to do so in an understudied population.

The chapter provides a synthesis of the data derived from this instrumental case study. A thorough synopsis of the findings is presented through implementation of a thick and rich description, along with discussion of both the results of the study and of the results in relation to the literature. Moreover, the implications of the results for practice, further research recommendations, and conclusions based on the findings of this case study are delineated.

Summary of the Results

Research literature of the past 40 years has confirmed the four sources of self-efficacy to be: mastery experience, vicarious experience, verbal persuasion, and physiological and

emotional experience (Bandura, 1977; Zee & Koomen, 2016). Studies indicated that these four

sources can be influenced through teacher training programs, professional development, peer

mentoring, and positive student academic achievement (Chong & Kong, 2012; Hendricks, 2015;

Moyer, 2015; Usher & Pajares, 2008; Wyatt, 2013). Even though there was a large body of

quantitative research in the field of self-efficacy, there remained a need for qualitative research

to study how teacher self-efficacy develops, how the sources are influenced and shaped (Morris,

Usher & Chen, 2016; Wyatt, 2013). The purpose of this study was to explore influences on self-

efficacy with self-efficacious teachers working in an exemplary Lutheran school to discover

influences on their self-efficacy. A qualitative research methodology was designed to answer

one research question and four sub-questions:

RQ: How is teacher self-efficacy influenced in a Lutheran School?

Sub-Questions:

a. How do teachers describe their growth as effective teachers?

b. What experiences do teachers identify as influential to their self-efficacy?

c. Which of the four sources of self-efficacy have more influence on teacher

effectiveness in a Lutheran school?

d. How does a sense of vocation influence teacher self-efficacy?

This instrumental case study was founded in the framework of Bandura's Social

Cognitive Theory (1977). Bandura's theory provided the basis for exploring how the participants

would explain the influences on their self-efficacy. Additionally, this case study research

considered previous studies that proposed to understand what influences the sources of self-

efficacy with hopes that understanding the construct better would result in improving leadership,

professional development, and student achievement (Chong & Kong, 2012; Gkolia, Koustelios,

& Belias, 2015; Huber, Fruth, Avila-John, & Rodriquez, 2016; Senler, 2016; Simmons, 2013; Tschannen-Moran & McMaster, 2009). Wyatt (2013) contended that teacher self-efficacy develops over time with support, mentoring, experience, reinforcement of pedagogical and content knowledge, and time for the teacher to be reflective. Ultimately, the influences on self-efficacy in teachers in a Lutheran school were the same as in schools of other types but exploring the construct in an instrumental case uncovered additional influences, such as vocation and the importance of relationships, that could inform effective approaches for instructional leaders and administrators at all levels of educational endeavor.

The researcher employed an instrumental case study research model. Creswell (2013) asserted that this type of research targets an issue and then chooses a single case to study. The researcher's choice of study site reflected purposeful instrumental case sampling. The justification for this type of case sampling, according to Patton (2002), was that "lessons may be learned about unusual conditions...that are relevant" (p. 232). This research explored the influences on self-efficacy of teachers in a Lutheran school in order to discover meanings that the participants derived from their experiences that influenced their effectiveness.

Yin's (2016) methodological process for qualitative research was used to design, implement, analyze and synthesize the data. Yin (2016) contended that qualitative research studies the meaning of people's lives as well as represents the perspectives of the participants and the context within which they live and work. The design of this case study included collecting data through semi-structured, in-depth interviews of eight self-efficacious teachers working in an effective Lutheran school. Additionally, field notes and unobtrusive measures observations were employed to allow triangulation of data, minimize reflexivity, and provide the opportunity to develop a richer description in the study.

In formal analysis, the researcher followed Yin's (2016) five-phased cycle: compiling, disassembling, reassembling and arraying, interpreting, and concluding. The process was recursive. Ultimately, five themes emerged: relationship, vocation, professional development, student achievement, and collaboration. Within these themes categories were generated. The categories of family, care, connection, and communication emerged from the theme of relationship. The categories of faith, spiritual fulfillment, obedience and eternal impact were generated from the theme of vocation. The theme of professional development produced the categories of graduate work, professional learning communities, and conferences. The theme of student achievement engendered the categories of assessment, student growth, and engagement. Finally, the theme of collaboration brought forth the categories of teamwork and support.

The themes and categories that emerged from the data analysis were consequential to answering the research question and sub-questions. Moreover, the themes of relationship and vocation were significant to understanding the meanings of the participants' lives and work. The theme of vocation seemed to overlap the theme of relationship as the participants voiced the importance of their calling having an influence on their work with students, families, and each other. The participants repeatedly referenced the familial aspect of the school and school community. The participants also expressed the importance of their faith in terms of their commitment and sense of responsibility to bring the best of themselves to their work for the students, families, and for God's glory. Table 3 displays the two themes of relationship and vocation, which, of the five themes generated from the data, produced the most categories.

Table 3

Themes Generating The Most Categories

Themes	Categories
Relationships	Family
	Care
	Connection
	Communication
Vocation	Faith
	Spiritual fulfillment
	Obedience
	Eternal Impact

Note: This table contains themes generating the most categories from the data analysis.

The concept of vocation, referred most often to at the site with the phrase "a calling", was integral to the participants' justification for working in a Lutheran environment and integrating their faith into curriculum and all aspects of the school experience. Participants became more emotional when talking about their faith and their sense of calling. They talked about the integration of faith in lessons, adjusting a lesson's focus to incorporate an aspect of faith that arose in class discussion. One participant talked about a faith lesson that the principal stopped in to observe and how the principal's feedback was complimentary and focused on how engaged the students were in the lesson. The researcher's notes indicate a pervasive feeling throughout the interview site visits of the participants' commitment to their faith lives and the faith development of the students, which extended to concern for students' families. Participants expressed an understanding of the eternal importance of their work.

Professional development factored most heavily when participants talked about how they had become effective teachers. Professional development correlates most with mastery and vicarious experience as sources of teacher self-efficacy. Ongoing professional development was part of the school's professional culture and participants talked enthusiastically about conference

attendance, graduate work, individual learning experiences, and their professional learning communities. There was a general feeling of excitement for learning new information in order to improve their practice and help students learn. Participants' responses regarding professional development included remarks about conference attendance with their colleagues as well as the professional learning communities being important to them professionally and personally. Here the theme of relationship appeared within the theme of professional development in the way in which participants talked about what they had learned together and how they had improved their practice and helped their students to learn. Data analysis revealed that relationship and faith were themes that appeared within other themes and their categories, which indicated the importance of understanding how interpersonal connections and belief influence teacher effectiveness.

Discussion of the Results

One unanticipated finding resulted from the data analysis. The importance and value of relationship in supporting teacher effectiveness was an important discovery derived from the case study. The main research question focused on exploring the influences on the sources of self-efficacy in teachers in a Lutheran school. The four sub-questions were designed to explore how participants understood their growth as self-efficacious teachers and the influences on that growth as effective teachers, along with their understanding of vocation and its impact on their effectiveness. The teachers responded to the semi-structured interview questions in like kind with little variation. Very early on in the interview process the researcher began to anticipate participants' responses to the interview questions. Overwhelmingly, the participants identified the importance of training and professional development as having an important impact on their effectiveness. Feedback from students, parents, colleagues, and student achievement data were

important to participants' feelings of accomplishment as effective teachers. The influences on these four sources of self-efficacy revealed themselves in each participant's interview responses.

The sense of vocation, or calling as it was often referred to by the participants, served as a strong motivator for teaching in a Lutheran environment for the majority of participants, in light of the lower compensation that they receive compared with their public school counterparts. The concept of relationship was the unexpected element that emerged in analysis of the data. Participants placed great emphasis and importance on the relationships that they had developed with the members of the school and church community and a sense of feeling that they and their work mattered to the community as a whole.

A sense of calling arises from metaphysical beliefs, and while a sense of calling may not be based on religious belief, teachers whose sense of vocation is based in religious belief have a higher sense of calling (Bullough & Kenyon, 2012). While all teachers in Lutheran schools are not Lutherans, teachers in Lutheran schools are Christians. Faith is an integral part of each school day and is integrated throughout the curriculum. Metaphysical beliefs influence decision-making and according to Hartwick (2015), "spiritual beliefs, such as belief about God, seem to translate into differing educational thoughts, practices, and outcomes" (p. 143). The sense of calling for the participants in the study impacted the daily decisions they made.

Lutheran schools were established to build the church and strengthen society by educating the young in the humanities as well as the teachings of the Bible (Adrone, 2014; Torvend, 2015). The participants' expressed their sense of calling in both eternal and material realms. Participants talked about classroom management and discipline as practical issues within which they employed elements of faith. The participants discussed preparing and equipping students for the future to serve as citizens. Participants also talked about the eternal

impact they were having on students because they were working in a school where they could freely express their faith and help students to develop their faith lives. Participants were more emotional in their responses when they addressed the aspect of teaching as their calling.

Relationship, the connection between people, can be positive or negative (Christakis & Fowler, 2009). The participants expressed respect for their coworkers and their administrative leadership as they moved through the interview questions. The participants also expressed enthusiasm when talking about their professional learning communities serving them both professionally and personally. They referenced their colleagues as friends and family. Participants also used the word 'family' quite often when talking about aspects of their work and interactions. The researcher noted an element eluding definition initially that ultimately was identified as 'family' and 'team', which then led to the identification of the concept of 'relationship'. Robert Hallowell (2011) posited that connection fosters engagement and that "the feeling of connection stabilizes and propels a person. It promotes growth....without the invigoration of connection, the brain shrivels and life sags" (p. 76). The relationships between the participants impacted how the participants' understood their experiences and their growth as effective teachers.

Discussion of the Results in Relation to the Literature

The information that emerged in the analysis of the data gathered from the interview process, field notes, and unobtrusive measures observation was reflective of the literature on teacher self-efficacy over the past 40 years. Mastery and vicarious experience were important to the participants' perception of their effectiveness and self-efficacy beliefs. Professional development was the element that the participants gave most importance to when answering the interview questions that sought to understand where their perception of self-efficacy was most

grounded. Participants attributed their growth and success as effective teachers to learning specific skills and approaches either in teacher training programs or professional development conferences and professional learning experiences. The ongoing professional training that the participants talked about reflected Wyatt's (2013) contention that teacher self-efficacy develops over time with mentoring, support, experience, as well as with reinforcement of pedagogical and content knowledge. Participants repeatedly talked about ideas and approaches that they learned and implemented with success in their classrooms. They also pointed to student achievement results as well as feedback and comments from colleagues, students, parents, and achievement tests as points of confirmation of their success.

Observing peers, other teachers and teaching professionals is one type of vicarious experience. Working cooperatively and collaboratively with colleagues as well as seeking out professional growth experiences are additional types of vicarious experiences that participants reported as being important to improving as a professional and as serving as a source of influence on their self-efficacy. The participants placed great importance on the professional learning communities that they had established, and they expressed that these were important to their growth as professionals as well as a source of personal and professional support. Participants' responses echoed the assertion by Chong and Kong (2012) that collaborative learning among teachers supports self-efficacy. Vicarious experience, while not as powerful as mastery experience, is an important source of self-efficacy (Bandura, 1997).

Participants responded to questions about knowing that they had been successful when they received feedback from students, parents, or other colleagues. Mohamadi and Asadzadeh (2011) asserted that mastery experience and vicarious experience are contributors to increasing self-efficacy, but that verbal persuasion is also effective at strengthening teacher self-efficacy.

The feedback that the participants received positively influenced feelings of success and effectiveness that reinforced their perception of self-efficacy and, in combination with their mastery and vicarious experiences, served to increase participant's self-efficacy. Verbal persuasion and the physiological and emotional responses resulting from experiences influence belief in one's effectiveness and, as such, are another source of self-efficacy for individuals.

Vocation is a sense of calling and it contributes to an individual's commitment, hope, and desire to nurture and guide the next generation (Bullough and Hall-Kenyon (2012). The participants expressed feelings of great responsibility for the academic and spiritual well being of their students. Several participants reflected on the eternal impact of their work with their students. According to Harwick (2015), it is important to understand the relationship between metaphysical beliefs and educational practice as these two variables impact student and teacher relationships, which have a central role in the educational process according to. Beliefs influence thought, and psychological processes have an impact on factors that influence teacher effectiveness (Madni, Baker, Chow, Delacruz, & Griffin, 2015; Wang, Tan, Li, Tan, & Lim, 2016). Vocation was a concept of central importance to the participants. It impacted their belief in their effectiveness and participants expressed certainty in the knowledge that they were working where God had called them.

The subject of teacher self-efficacy, its sources and how they are influenced has been the focus of 40 years of research. Seminal works and supporting research in this field demonstrate that mastery experiences, vicarious experiences, verbal persuasion, and social and emotional experiences are the recognized sources of self-efficacy (Bandura, 1977; Tschannen-Moran & Hoy, 2001). This instrumental case study, in exploring the influences on the sources of teacher self-efficacy, confirmed what is known about the four sources influencing self-efficacy in

teachers. Moreover, this study highlighted an aspect of teacher self-efficacy that was not discovered in a survey of research in the field. The fieldwork in this case study revealed the concept of relationship as an important factor in how teachers feel about their work and its effectiveness in academic and spiritual terms.

Limitations

As with any research, there were limitations to this study. The situation of this particular case is difficult to replicate and generalization is not possible. Another limitation is that the data was derived from a small number of participants. The participants were a purposive sample chosen to explore the influences on self-efficacy with the hope of gleaning information that could be relevant to improving understanding about the construct of self-efficacy and what influences it. A further limitation of this study was time constraint. The researcher could not spend an indeterminate amount of time with each participant in order to capture all the nuances of the phenomenon of teacher self-efficacy.

This case study could have been expanded to explore influences on teacher self-efficacy at other Lutheran schools to increase sample size and the opportunity for generalization. Nonetheless, the purpose of this study was to explore influences on teacher self-efficacy, and in the process understand the meanings the participants derived from their lived experiences. Patton (2002) argued, "Purposeful sampling involves studying information-rich cases in depth and detail to understand and illuminate important cases rather than generalizing from a sample to a population" (p. 563).

Implication of the Results for Practice

Founded in Bandura's Social Cognitive Theory (1977), a semi-structured interview guide explored participants' understanding of how their individual self-efficacy was influenced.

Throughout the interview phase, the researcher quickly found that all the research on the sources of teacher self-efficacy was being repeated and supported in each interview. After completing the first three interviews, the researcher began to anticipate, with great success, the answers the participants would give to each interview question. The only variable seemed to be the length of time it took each participant to answer. As the fieldwork site was an extremely successful school in terms of student academic achievement, the participants were teachers with high self-efficacy, and the responses of the participants reflected that.

Nonetheless, with all the repetitiveness of the interview answers, the unobtrusive observation measures, field notes, and personal reflections, the researcher was confronted with an intangible element that, initially, could not be defined. The researcher left the fieldwork site after each interview reflecting on the feelings that the school visits evoked. The researcher repeatedly reflected in notes the sense of missing an important but intangible element; asking in reflection: "What *is* it that I am not observing or hearing? ". It was during the recursive analysis that the intangible began to emerge from the data, and the theme of relationship was gleaned.

The theme of vocation had been anticipated at the outset of the study as an important influence on self-efficacy. Vocation, along with professional development, student achievement, and collaboration are influences reflected in the research literature delineated in Chapters 1 and 2. Relationship, beyond what has been studied in the area of collective efficacy, pointed to the feelings of familial relationships and responsibility. As discussed in Chapter 3, school leadership was anticipated to influence the self-efficacy, and the implication of this result in the study for practice points to the importance of administrative leadership training that helps principals and other administrative leaders understand how to foster positive relationships in the school communities that they lead.

The theme of relationship, ubiquitous throughout the data, merits consideration of the concept of social capital and how it might have an impact on self-efficacy. According to Plagens (2011), social capital is "an intangible resource that emerges—or fails to emerge—from social relations and social structure" (p. 40). The literature review did not reveal studies that explored social capital as an element of self-efficacy. Nonetheless, a study by Chong and Kong (2013) explored collaborative learning and its impact on self-efficacy. Additionally, Tschannen-Moran and Barr (2004) found a relationship between collective self-efficacy and student achievement. Türker, Duyar, and Çalik (2012) asserted that collective efficacy and transformational leadership positively affected teacher self-efficacy. Collaboration and collective efficacy require effective relationships to work and to produce positive results. Transformational educational leaders empower and encourage their teachers and staff, and this fosters a spirit of cooperation and can lead to innovation (Northouse, 2018). Transformational leadership practices by school administrators can foster the growth of social capital and nurture positive relationships among the members of the school community, which may support self-efficacy.

The themes and categories that were derived from the data are facets of the school community and school day that can be positively influenced by school leaders implementing a transformational leadership approach. What is known about improving teacher self-efficacy, combined with the understanding of the impact that positive relationships have on teacher effectiveness, can drive school administrator decision-making to ultimately effect student achievement and school improvement. While a transformational style is not the only approach to leadership of a school community, it promotes collaboration and cooperation as well as fosters trust and belief in the individual as well as the organization (Northouse, 2018). The administrator at the study site appeared to lead in this style, as well as in the style of servant

leadership, as several of the participants discussed how the principal was actively involved in the many facets of the school and church community, and had involved them in decision-making and encouraged their involvement in professional development.

Professional development opportunities that include the involvement of mastery experience, vicarious experience, verbal persuasion, and that evoke positive physiological and emotional responses can provide great support to teachers' self-efficacy, improving teacher effectiveness and student achievement (Chong & Kong, 2012; Moyer, 2015; Wyatt, 2013). When teachers identify common goals to help student achievement, and the professional development necessary to successfully accomplish those goals is done collaboratively, collective efficacy can result. Collective efficacy refers to the collective self-perception that the teachers make a difference in student achievement and can affect desired outcomes (Tschannen-Moran & Barr, 2004). School leaders should provide and encourage professional development for their teachers in order to grow teacher self-efficacy and improve student achievement. In the absence of school leadership encouragement for professional growth, teachers should be helped to understand the importance of seeking out professional development for themselves in order to strengthen their practice.

Recommendations for Further Research

This study analyzed data from interviews, field notes, and unobtrusive measures observation. Given the results of the findings that emerged from the data on the value and importance of both relationship and vocation, this study can be expanded to a larger group of participants in Lutheran schools in order to further explore the construct as well as to attempt generalization. Further studies in Christian and nonpublic schools as well would provide research opportunities in the field in other understudied populations to further understanding of

the construct. Additional research studies that explore the themes of relationship, social capital, or vocation as they influence teacher self-efficacy in both private and public schools should also be considered. These are understudied areas and offer the opportunity to deepen understanding of the complex construct of self-efficacy.

Research that focuses on how administrative and teacher leaders can work collaboratively to create and foster deeper relationships within the school community in order to support teacher self-efficacy would further deepen understanding in the field. Ultimately all positive and effective environments share common denominators that contribute to success. One of these common denominators is the importance of positive, affirming relationships that edify the individual as well as the whole and help improve achievement at the highest levels (Hallowell, 2011). Vocation, relationship, social capital, and the roles of administrative leadership in fostering social capital as they relate to the support of self-efficacy are recommended areas for further study.

Conclusion

The focus of this study was to explore influences on teacher self-efficacy in a Lutheran school. Specifically, this case study explored how teachers understand the influences on their self-efficacy and what meanings they derive from their experiences. The literature reviewed for this study identified four sources of teacher self-efficacy: mastery experience, vicarious experience, verbal persuasion, and physiological and emotional states. Furthermore, the literature revealed the need for qualitative study in self-efficacy that would deepen understanding of the influences on it.

The researcher employed semi-structured interviews, field notes, and unobtrusive measures observation to collect data. Data analysis revealed five themes: (1) relationship, (2)

vocation, (3) professional development, (4) student achievement, and (5) collaboration. Within these five themes, 16 categories were generated: family, care, connection, communication, faith, obedience, eternal impact, spiritual fulfillment, graduate work, professional learning communities, conferences, engagement, assessment, student growth, teamwork, and support.

The results of this study demonstrated the importance of positive, close, and meaningful relationships to supporting teacher effectiveness along with the importance of educational leaders' understanding of the need to foster the strengthening of the sources of teacher self-efficacy through meaningful professional development. Ongoing professional development for the case-study participants was an extremely important influence on self-efficacy and teacher effectiveness, and it should be a regular part of professional practice at every school. The shared experiences of learning together and collaboratively working toward improving student achievement were also important sources of self-efficacy in the study. The participants mentioned repeatedly that the ability to rely on each other as professionals for support and problem-solving strategies in the classroom was significant. Collegial and collaborative relationship building is another element of professional practice that should be in place in schools. The intangible element, that surfaced in the first interview and continually re-appeared, specter-like, at each subsequent visit, ultimately emerged from the data as the importance of relationship to supporting effective teachers and fostering student achievement. This study demonstrated the importance of relationships to effective practice, and fostering strong, interpersonal relationships in school communities - that strengthen the whole by valuing and supporting the individual - would help to improve student achievement, the ultimate goal of education.

References

Abbott, L. (2012). Tired of teaching to the test? Alternative approaches to assessing student

    learning. *Rangelands*, *34*(3), 34–38. Retrieved from

    http://www.jstor.org.cupdx.idm.oclc.org/stable/41681510

Althauser, K. (2015). Job-embedded professional development: Its impact on teacher self-

    efficacy and student performance. *Teacher Development*, *19*(2), 210–225.

    doi:10.1080/13664530.2015.1011346

Androne, M. (2014). The influence of the Protestant Reformation on education. *Procedia-Social*

    and Behavioral Sciences, *137*, 80–87.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change.

    Psychological Review, *84*(2), 191–215. Retrieved from

    http://cupdx.idm.oclc.org/login?url=http://search.proquest.com.cupdx.idm.oclc.org/docvi

    ew/614275783?accountid=10248

Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning.

    Educational Psychologist, 28(2), 117-148. doi:10.1207/s15326985ep2802_3

Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York, NY: Macmillan.

Bandura, A. (1999). Social cognitive theory of personality. In L. A. Pervin & O. P. John

    (Eds.), *Handbook of personality: Theory and research* (2nd ed., pp. 154–196). New

    York, New York: The Guilford Press.

Bandura, A. (2012, January). On the functional properties of perceived self-efficacy revisited.

    Journal of Management, *38*(1), 9–44. doi:10.1177/0149206311410606

Baxter, P., & Jack, S. (2008). Qualitative case study methodology: Study design and

    implementation for novice researchers. *The Qualitative Report , 13*(4), 544–559.

Retrieved from http://www.nova.edu/ssss/QR/QR13-4/baxter.pdf

Berger, R., Rugen, L., & Woodfin, L. (2014). *Leaders of their own learning: Transforming schools through student-engaged assessment*. San Francisco, CA: Jossey-Bass

Bullough, R., & Hall-Kenyon, K. (2012). On teacher hope, sense of calling, and commitment to teaching. *Teacher Education Quarterl*y, *39*(2), 7–27. Retrieved from http://www.jstor.org.cupdx.idm.oclc.org/stable/23479669

Carney, M. B., Brendefur, J. L., Thiede, K., Hughes, G., & Sutton, J. (2016). Statewide mathematics professional development: Teacher knowledge, self-efficacy, and beliefs. *Educational Policy*, *30*(4), 539–572. doi:10.1177/0895904814550075

Chong, W.H., & Kong, C.A. (2012). Teacher collaborative learning and teacher self-efficacy: The case of lesson study. *The Journal of Experimental Education*, *80*(3), 263–283. doi: 10.1080/00220973.2011.596854

Christakis, N.A., & Fowler, J. H. (2009). *Connected: The surprising power of our social networks and how they shape our lives*. New York: Little, Brown.

Cicotto, G., De Simone, S., Giustiniano, L., & Pinna, R. (2014). Psychosocial training: A case of self-efficacy improvement in an Italian school. *Journal of Change Management, 14*(4), 475. Retrieved from http://cupdx.idm.oclc.org/login?url=http://search.proquest.com. cupdx.idm.oclc.org/docview/1629387940?accountid=10248

Crasnow, S. (2012). The role of case study research in political science: Evidence for causal claims. *Philosophy of Science, 79*(5), 655–666. doi:10.1086/667869

Creswell, J. W. (2013). *Qualitative inquiry & research design: Choosing among five approaches*. Thousand Oaks, CA: Sage Publications.

Curci, A., Lanciano, T., & Soleti, E. (2014). Emotions in the classroom: The role of teachers' emotional intelligence ability in predicting students' achievement. *The American Journal of Psychology*, *127*(4), 431–445. doi:10.5406/amerjpsyc.127.4.0431

Darling-Hammond, L., Amrein-Beardsley, A., Haertel, E., & Rothstein, J. (2012). Evaluating teacher evaluation. *The Phi Delta Kappan*, *93*(6), 8–15. Retrieved from http://www.jstor.org cupdx.idm.oclc.org/stable/41497541

Darmody, M., & Smyth, E. (2012). Exploring school and classroom environments in Irish primary schools. *Children, Youth and Environments*, *22*(1), 178–197. doi: 10.7721/chilyoutenvi.22.1.0178

Dibapile, W. T. (2012). A review of literature on teacher efficacy and classroom management. *Journal of College Teaching & Learning, 9*(2), 79. doi:10.19030/tlc.v9i2.6902

Dobbie, W., & Fryer, R. (2013). Getting beneath the veil of effective schools: Evidence from New York City. *American Economic Journal: Applied Economics*, *5*(4), 28–60. Retrieved from http://www.jstor.org.cupdx.idm.oclc.org/stable/43189452

Dovre, P. J. (2015). The Lutheran calling in education: Context and prospect. *Intersections*, *2006*(23), 5.

Duyar, I., Gumus, S., & Bellibas, M. S. (2013). Multilevel analysis of teacher work attitudes. *International Journal of Educational Management*, *27*(7), 700–719. doi:10.1108/ijem-09-2012-0107

Dynarski, M. C. (2014, June 12). Public or private school? It shouldn't matter. Retrieved from https://www.brookings.edu/research/public-or-private-school-it-shouldnt-matter/

Easley, J. (2016). The audacity to teach: An examination of reform policy, school leadership, and their relationships mediated by instructional capacity. *Urban Education, 51*(1), 108–137.

doi:10.1177/0042085914543113

Egalite, A. J., & Kisida, B. (2016). School size and student achievement: A longitudinal

analysis. *School Effectiveness and School Improvement*, *27*(3), 406–417.

doi:10.1080/09243453.2016.1190385

Egger, K. J. (2006). *An exploration of the relationships among teacher efficacy, collective*

teacher efficacy, and teacher demographic characteristics in conservative Christian

schools. (Unpublished doctoral dissertation). University of North Texas, Denton, TX.

Evangelical Lutheran Church in America. (2016). from http://www.elca.org/

Fenzel, L. M. (2013). Achievement in faith-based schools. In J. Hattie & E. Anderman (Eds.),

International Guide to Student Achievement (pp. 128–130). New York, NY: Routledge.

Finn, A. S., Kraft, M. A., West, M. R., Leonard, J. A., Bish, C. E., Martin, R. E., & Gabrieli, J.

D. E. (2014). Cognitive skills, student achievement tests, and schools. *Psychological*

Science, *25*(3), 736. Retrieved from http://cupdx.idm.oclc.org/login?url=

http://search.proquest.com.cupdx.idm.oclc.org/docview/1509456921?accountid=10248

Fives, H., & Buehl, M. M. (2009). Examining the factor structure of the teachers' sense of

efficacy scale. *The Journal of Experimental Education*, *78*(1), 118–134.

Flyvbjerg, B. (2006). Five misunderstandings about case-study research. *Qualitative*

Inquiry, 12(2), 219–245. doi:10.1177/1077800405284363

Garrett, R., & Steinberg, M. P. (2014). Examining teacher effectiveness using classroom

observation scores: Evidence from the randomization of teachers to students.

Educational Evaluation and Policy Analysis, *37*(2), 224–242.

doi:10.3102/0162373714537551

Gkolia, A., Koustelios, A., & Belias, D. (2015). Exploring the association between

transformational leadership and teacher's self-efficacy in Greek education system: A
multilevel SEM model. *International Journal of Leadership in Education,21*(2). 176–
196. doi:10.1080/13603124.2015.1094143

Glackin, M., & Hohenstein, J. (2017). Teachers' self-efficacy: Progressing qualitative analysis.
International Journal of Research & Method in Education, 1–20.
doi:10.1080/1743727x.2017.1295940

Guo, Y., Connor, C., Yang, Y., Roehrig, A., & Morrison, F. (2012). The effects of teacher
qualification, teacher self-efficacy, and classroom practices on fifth graders' literacy
outcomes. *The Elementary School Journal, 113*(1), 3–24. doi:10.1086/665816

Haertel, E. (2013). How is testing supposed to improve schooling? *Measurement:*
Interdisciplinary Research and Perspectives, 11(1-2), 1–18.
doi:10.1080/15366367.2013.783752

Haigh, M. A., & Anthony, G. J. (2012). Induction and efficacy: A case study of New Zealand
newly qualified secondary science teachers. *Journal of Science Teacher Education,*
23(6), 651–671. doi:10.1007/s10972-012-9285-0

Hallowell, E. M. (2011). *Shine: Using brain science to get the best from your people*. Boston,
MA: Harvard Business Review Press.

Harbour, K. E., Evanovich, L. L., Sweigart, C. A., & Hughes, L. E. (2014). A brief review of
effective teaching practices that maximize student engagement. *Preventing School*
Failure: Alternative Education for Children and Youth, *59*(1), 5–13.
doi:10.1080/1045988x.2014.919136

Hargreaves, A., & Shirley, D. (2012). *The global fourth way: The quest for educational*
excellence. Thousand Oaks, CA: Corwin Press.

Hartwick, J.M. (2015). Public school teachers' beliefs in and conceptions of God: What

    teachers believe, and why it matters. *Religion & Education, 42*(2), 122–146. doi:

    10.1080/15507394.2014.944065

Hendricks, K. S. (2015). The sources of self-efficacy: Educational research and implications

    for music. *Applications of Research in Music Education*, *35*(1), 32–38.

    doi:10.1177/8755123315576535

Hill, H. C., Blazar, D., & Lynch, K. (2015). Resources for teaching: Examining personal and

    institutional predictors of high-quality instruction. *AERA Open, 1*(4)

    doi:10.1177/2332858415617703

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. Retrieved from http://cupdx.idm.oclc.org/login?url=

Huber, M. J., Fruth, J. D., Avila-John, A., & Rodriquez, E. (2016). Teacher self-efficacy and

    student outcomes: A transactional approach to prevention. *Journal of Education and*

    Human Development, *5*(1), 46–54.

Hung, C.M., Hwang, G.J., & Huang, I. (2012). A project-based digital storytelling approach for

    improving students' learning motivation, problem-solving competence and learning

    achievement. *Journal of Educational Technology & Society, 15*(4), 368–379. Retrieved

    from http://www.jstor.org.cupdx.idm.oclc.org/stable/jeductechsoci.15.4.368

Innes, R. G. (2012). Wise and proper use of National Assessment of Educational Progress

    (NAEP) data. *Journal of School Choice, 6*(2), 259–289.

    doi:10.1080/15582159.2012.673932

Jeynes, W. H. (2012). School choice and the achievement gap. *Education and Urban*

Society, 46(2), 163–180. doi:10.1177/0013124512447101

Kelly, J., & Cherkowski, S. (2015). Collaboration, collegiality, and collective reflection: A case study of professional development for teachers. *Canadian Journal of Educational Administration and Policy,* (169), 1–29.

Klassen, R. M., & Tze, V. M. C. (2014). Teachers' self-efficacy, personality, and teaching effectiveness: A meta-analysis. *Educational Research Review*, *12*, 59–76. doi: 10.1016/j.edurev.2014.06.00

Klassen, R., Tze, V., Betts, S., & Gordon, K. (2011). Teacher efficacy research 1998—2009: Signs of progress or unfulfilled promise? *Educational Psychology Review*, *23*(1), 21–43. Retrieved from http://www.jstor.org.cupdx.idm.oclc.org/stable/23883397

Libman, Z. (2012). Licensing procedures, teacher effectiveness and reasonable expectations. *International Review of Education / Internationale Zeitschrift Für Erziehungswissenschaft / Revue Internationale De L'Education, 58*(2), 151–171. Retrieved from http://www.jstor.org.cupdx.idm.oclc.org/stable/41502401

Lilla, D. (2013). *Principal transformational leadership behaviors, teachers' sense of efficacy, and student graduation rates in high needs high schools* (Doctoral dissertation) Retrieved from ProQuest. (ED555813)

Lubienski, C. A., & Lubienski, S. T. (2013). *The public school advantage: Why public schools outperform private schools*. Chicago: University of Chicago Press.

Lubienski, S., & Lubienski, C. (2006). School sector and academic achievement: A multilevel analysis of NAEP mathematics data. *American Educational Research Journal, 43*(4), 651–698. Retrieved from http://www.jstor.org.cupdx.idm.oclc.org/stable/4121774

The Lutheran Church-Missouri Synod. (2016). Retrieved from http://www.lcms.org/

Madni, A., Baker, E. L., Chow, K. A., Delacruz, G. C., & Griffin, N. C. (2015). Assessment of

    teachers from a social psychological perspective. *Review of Research in Education,*

    39(1), 54–86. doi:10.3102/0091732X14558203

Maxwell, L.E., & Schechtman, S.L. (2012). The role of objective and perceived school

    building quality in student academic outcomes and self-perception. *Children, Youth*

    and Environments, *22*(1), 23–51. doi:10.7721/chilyoutenvi.22.1.0023

Mehta, P., & Mehta, B. (2015). Teacher self-efficacy in relation to job burnout among private

    school teachers. *International Journal of Education and Management Studies, 5*(1), 58–

    62. Retrieved from http://cupdx.idm.oclc.org/login?url=http://search.proquest.com.

    cupdx.idm.oclc.org/docview/1680664488?accountid=10248

Merriam, S. B., & Tisdell, E. J. (2009). *Qualitative research: A guide to design and*

    implementation. San Francisco, CA: Jossey-Bass.

Moeller, A., Theiler, J., & Wu, C. (2012). Goal setting and student achievement: A

    longitudinal study. *The Modern Language Journal*, *96*(2), 153–169. Retrieved from

    http://www.jstor.org.cupdx.idm.oclc.org/stable/41684067

Mohamadi, F. S., & Asadzadeh, H. (2011). Testing the mediating role of teachers' self-efficacy

    beliefs in the relationship between sources of efficacy information and students

    achievement. *Asia Pacific Education Review, 13*(3), 427–433. doi:10.1007/s12564-011-

    9203-8

Mojavezi, A., & Tamiz, M. (2012). The impact of teacher self-efficacy on the students'

    motivation and achievement. *Theory and Practice in Language Studies*, *2*(3), 483–491.

Morgan, M. (2012). Case studies: One observation or many? justification or discovery?

    Philosophy of Science, 79(5), 667-677. doi:10.1086/667848

Morris, D.B., Usher, E.L., & Chen, J.A. (2016). Reconceptualizing the sources of teaching self-efficacy: A critical review of emerging literature. *Educational Psychology Review*. *29*(9). 795–833. doi:10.1007/s10648-016-9378-y

Moseley, C., Bilica, K., Wandless, A., & Gdovin, R. (2014). Exploring the relationship between teaching efficacy and cultural efficacy of novice science teachers in high-needs schools. *School Science and Mathematics*, *114*(7), 315–325. doi:10.1111/ssm.12087

Moyer, M. E. (2015). *Professional development, teacher efficacy, and student achievement* (Doctoral dissertation). Retrieved from ProQuest (3732571)

Muijs, D., Kyriakides, L., Van, D. W., Creemers, B., Timperley, H., & Earl, L. (2014). State of the art – teacher effectiveness and professional learning. *School Effectiveness and School Improvement*, *25*(2), 231–256. doi:10.1080/09243453.2014.885451

Murphy, D. (2014). Issues with PISA's use of its data in the context of international education policy convergence. *Policy Futures in Education*, *12*(7), 893–916.

NAEP Private Schools Results. (n.d.). Retrieved from http://nces.ed.gov/ nationsreportcard/pdf/about/schools/PrivateSchoolResultsBrochureForNAEP2013.pdf

National Blue Ribbon Schools Program. (n.d.). Retrieved from https://www2.ed.gov/programs/nclbbrs/index.html

National Center for Education Statistics. (n.d.). Retrieved from http://nces.ed.gov/

Nichols, S., Glass, G., & Berliner, D. (2012). High-stakes testing and student achievement: Updated analyses with NAEP data. *Education Policy Analysis Archives*, *20*,(20). 1–31.

Nie, Y., Tan, G. H., Liau, A. K., Lau, S., & Chua, B. L. (2013). The roles of teacher efficacy in instructional innovation: Its predictive relations to constructivist and didactic instruction. *Educational Research for Policy and Practice*, *12*(1). 67–77

Northouse, P. G. (2018). *Leadership: theory and practice*. Thousand Oaks: SAGE Publications.

Organisation for Economic Co-operation and Development. (n.d.). Retrieved from

    http://www.oecd.org/

Pajares, F. (1996). Self-efficacy beliefs in academic settings. *Review of Educational Research*,

    66(4), 543–578. Retrieved from http://www.jstor.org.cupdx.idm.oclc.org/stable/1170653

Pardoe, E. L. (2001). Poor children and enlightened citizens: Lutheran education in America,

    1748-1800. *Pennsylvania History: A Journal of Mid-Atlantic Studies*, *68*(2), 162–201.

Patton, M. (2002). *Qualitative research & evaluation methods* (3rd ed.). Thousand Oaks, CA:

    Sage.

Pedota, P. J. (2015). How can student success support teacher self-efficacy and retention? *The*

    Clearing House: A Journal of Educational Strategies, Issues and Ideas, 88(2), 54–61.

    doi:10.1080/00098655.2014.998600

Phillips, V., & Popović, Z. (2012). More than child's play: Games have potential learning

    and assessment tools. *The Phi Delta Kappan*, *94*(2), 26–30. Retrieved from

    http://www.jstor.org.cupdx.idm.oclc.org/stable/41763591

Plagens, G. K. (2011). Social capital and education: Implications for student and school

    performance. *Education and Culture,27*(1), 40–64. doi:10.1353/eac.2011.0007

Popham, W. J. (2011). *Classroom assessment: What teachers need to know*. Boston, MA:

    Pearson Education.

Reynolds, H. M., Wagle, A. T., Mahar, D., Yannuzzi, L., Tramonte, B., & King, J. (2016).

    Changes in residents' self-efficacy beliefs in a clinically rich graduate teacher

    education program. *Action in Teacher Education*, *38*(2), 137–155.

Rietschel, W. C. (2001). *An introduction to the foundations of Lutheran education*. St. Louis, MO: Concordia.

Ronfeldt, M. (2015). Field placement schools and instructional effectiveness. *Journal of Teacher Education, 66*(4), 304–320. doi:10.1177/0022487115592463

Routman, R. (2012). Mapping a pathway to schoolwide highly effective teaching. *The Phi Delta Kappan*, *93*(5), 56–61. Retrieved from http://www.jstor.org.cupdx.idm.oclc.org/stable/41497528

Rutkowski, D., Rutkowski, L., & Plucker, J. (2015). Should individual schools participate in PISA? Some cautions and recommendations for interested participants. *Phi Delta Kappan, 96*(4), 68–73.

Schuelka, M. J. (2013). Excluding students with disabilities from the culture of achievement: The case of the TIMSS, PIRLS, and PISA. *Journal of Education Policy*, *28*(2), 216–230.

Senler, B. (2016). Pre-service science teachers' self-efficacy: The role of attitude, anxiety and locus of control. *Australian Journal of Education*, *60*(1), 26–41. doi:10.1177/0004944116629807

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. Retrieved from http://cupdx.idm.oclc.org/login?url=http://search.proquest.com.cupdx.idm.oclc.org/docview/1746603939?accountid=10248

Siciliano, M. D. (2016). It's the quality not the quantity of ties that matters. *American Educational Research Journal, 53*(2), 227–262. doi:10.3102/0002831216629207

Simmons, M. L. (2013). *Teachers' perceptions of their self-efficacy and effects of principal leadership practices on self-efficacy beliefs in low and high-performing elementary*

schools in South Carolina (Doctoral dissertation). Retrieved from ProQuest. (Order No. 3581512).

Stake, R. E. (1995). *The art of case study research*. Thousand Oaks, CA: Sage.

Stewart, V. (2012). *A world-class education: Learning from international models of excellence and innovation*. Alexandria, VA: ASCD.

Stipek, D. (2012). Context matters. *The Elementary School Journal*, *112*(4), 590–606. doi:10.1086/66448

Straková, J., & Simonová, J. (2015). Beliefs of Czech teachers as a prerequisite for effective teaching. *Studia Paedagogica, 20*(4), 53–70. http://dx.doi.org.cupdx.idm.oclc.org/ 10.5817/SP2015-4-4

Stronge, J., Ward, T. J., & Grant, L. (2011). What makes good teachers good?: A cross-case analysis of the connection between teacher effectiveness and student achievement. *Journal of Teacher Education, 62*, 339–355. doi:10.1177/0022487111404241

Swanson, P. (2014). The power of belief: Spanish teachers' sense of efficacy and student performance on the National Spanish Examinations. *Hispania*, *97*(1), 5–20.

Tai, D. W. S., Hu, Y. C., Wang, R., & Chen, J. L. (2012). What is the impact of teacher self-efficacy on the student learning outcome? Presented at 3rd WIETE Annual Conference of Engineering and Technology Education. Pattaya, Thailand, 2012. WIETE.

Tanner, D. (2013, February 15). Race to the top and leave the children behind. *Journal of Curriculum Studies, 45*(1), 4–15. doi:10.1080/00220272.2012.754946

Thoonen, E. E., Sleegers, P. J., Peetsma, T. T., & Oort, F. J. (2011). Can teachers motivate students to learn?. *Educational Studies*, *37*(3), 345–360.

Torvend, S. (2015). Lutheran education in the none zone. *Intersections*, *2006*(23), 6.

Tschannen-Moran, M. (n.d.). Megan Tschannen-Moran's Web Site. Retrieved from

    http://wmpeople.wm.edu/site/page/mxtsch/home

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. doi:10.1080/15700760490503706

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

    Teaching and Teacher Education, *17*(7), 783–805. doi:10.1016/s0742-051x(01)00036-1

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. doi:

    10.1086/605771

Türker, K., Duyar, I., & Temel Çalik. (2012). Are we legitimate yet? *The Journal of*

    Management Development, *31*(1), 71–86. doi:10.1108/02621711211191014

Usher, E. L., & Pajares, F. (2008). Sources of self-efficacy in school: Critical review of the

    literature and future directions. *Review of Educational Research*, *78*(4), 751–796.

    doi:10.3102/0034654308321456

Walcott, C., Mohr, D., & Kloosterman, P. (2012). Looking at NAEP and the standards

    through the same lens. *Mathematics Teaching in the Middle School, 17*(9), 516–518.

Wang, L. Y., Tan, L. S., Li, J. Y., Tan, I., & Lim, X. F. (2017). A qualitative inquiry on sources

    of teacher efficacy in teaching low-achieving students. *The Journal of Educational*

    Research, *110*(2), 140-–150. doi:10.1080/00220671.2015.1052953

Wheatley, K. F. (2005). The case for reconceptualizing teacher efficacy research. *Teaching and*

    Teacher Education, 21(7), 747–766. doi:10.1016/j.tate.2005.05.009

Widener, M. B. (2014). *The Impact of Instructional Rounds Professional   Development on Teacher Self-Efficacy*. Gardner-Webb University.

Wilder, S. (2014). Effects of parental involvement on academic achievement: A meta-synthesis. *Educational Review*, *66(*3), 3777. Retrieved from http://cupdx.idm.oclc.org/login?url= http://search.proquest.com.cupdx.idm.oclc.org/docview/1526275819?accountid=10248

Woessmann, L. (2016). The importance of school systems: Evidence from international differences in student achievement. *The Journal of Economic Perspectives*, *30*(3), 3–31. Retrieved from http://www.jstor.org.cupdx.idm.oclc.org/stable/43855699

Wolf, P. J. (2014). Comparing public schools to private. *Education Next*, *14*(3). 52–54. Retrieved from http://educationnext.org/comparing-public-schools-private/

Wright, K. K. (2010). *An examination of the relationship between teacher efficacy and teacher religiosity*. (Doctoral dissertation). Retrieved from University of North Texas Digital Library. https://digital.library.unt.edu/ark:/67531/metadc33216/citation/#top

Wubbels, T., den Brok, P., van Tartwijk, J., Levy, J. (Eds.). (2012). *Interpersonal relationships in education: An overview of contemporary research*. [e-book version]. doi:10.1007/978-94-6091-939-8

Wyatt, M. (2013). Overcoming low self-efficacy beliefs in teaching English to young learners. *International Journal of Qualitative Studies in Education*, *26*(2), 238–255. doi:10.1080/09518398.2011.605082

Wyatt, M. (2014). Toward a re-conceptualization of teachers' self-efficacy beliefs: Tackling enduring problems with the quantitative research and moving on. *International Journal of Research & Method in Education*, *37*(2), 166–189. doi:10.1080/1743727X.2012.742050

Wyatt, M. (2015). Using qualitative research methods to assess the degree of fit between

    teachers' reported self-efficacy beliefs and their practical knowledge during teacher

    education. *Australian Journal of Teacher Education*, *40*(1). Retrieved from

    http://ro.ecu.edu.au/ajte/vol40/iss1/7

Wyatt, M. (2016). "Are they becoming more reflective and/or efficacious?" A conceptual model

    mapping how teachers' self-efficacy beliefs might grow. *Educational Review*, *68*(1),114–

    137. doi:10.1080/00131911.2015.1058754

Yin, R. K. (2009). *Case study research: Design and methods* (4th Ed.). Los Angeles: Sage

    Publications

Yin, R. (2014). *Case study research: Design and methods*. Thousand Oaks, CA: Sage

    Publications.

Yin, R. (2016). *Qualitative research from start to finish* (2nd Ed.). New York: The Guilford

    Press.

Zee, M., & Koomen, H. M. Y. (2016). Teacher self-efficacy and its effects on classroom

    processes, student academic adjustment, and teacher well-being: A synthesis of 40 years

    of research. *Review of Educational Research,86*(4). 981–1015.

    doi:10.3102/0034654315626801

Zenisky, A. L., Hambleton, R. K., & Sireci, S. G. (2009). Getting the message out: An evaluation

    of NAEP score reporting practices with implications for disseminating test

    results. *Applied Measurement in Education*, *22*(4), 359–375.

Appendix A: Teacher Self-Efficacy Scale

Teacher Beliefs

This questionnaire is designed to help us gain a better understanding of the kinds of things that create challenges for teachers. Your answers are confidential.

Directions: Please indicate your opinion about each of the questions below by marking any one of the nine responses in the columns on the right side, ranging from (1) "None at all" to (9) "A Great Deal" as each represents a degree on the continuum.

Please respond to each of the questions by considering the combination of your current ability, resources, and opportunity to do each of the following in your present position.

	None at all		Very Little		Some Degree		Quite A Bit		A Great Deal
1. How much can you do to control disruptive behavior in the classroom?	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?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
3. How much can you do to calm a student who is disruptive or noisy?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
4. How much can you do to help your students value learning?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
5. To what extent can you craft good questions for your students?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
6. How much can you do to get children to follow classroom rules?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
7. How much can you do to get students to believe they can do well in school work?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
8. How well can you establish a classroom management system with each group of students?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
9. To what extent can you use a variety of assessment strategies?	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?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
11. How much can you assist families in helping their children do well in school?	①	②	③	④	⑤	⑥	⑦	⑧	⑨
12. How well can you implement alternative teaching strategies in your classroom?	①	②	③	④	⑤	⑥	⑦	⑧	⑨

13. What is your gender?
   O Male
   O Female

14. What is your racial identity?
   O African American
   O White, Non-Hispanic
   O Other

15. What subject matter do you teach? (as many as apply)
   O All (Elementary/ Self-contained)
   O Math
   O Science
   O Language Arts
   O Social Studies

16. What level do you teach?
   O Elementary
   O Middle
   O High

17. What is the context of your school?
   O Urban
   O Suburban
   O Rural

18. What is the approximate proportion of students who receive free and reduced lunches at your school?
   O 0-20%
   O 21-40%
   O 41-60%
   O 61-80%
   O 81-100%

19. What grade level(s) do you teach? Ⓚ ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

20. How many years have you taught? ⓪ ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨
   ⓪ ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

For office use only.

⓪ ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨
⓪ ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨
⓪ ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

Appendix B: Interview Protocol

During the interview, information about the participant's teaching experiences, professional practices, and consideration of vocation in relation to effectiveness will be gathered. The interview will be digitally recorded and will last between 45-60 minutes. Field notes will be taken along with unobtrusive measures observations.

Semi-structured Interview Guide

1. What do you do as a teacher that you believe helps you to be effective?

2. How do you know if you have been effective?

3. Can you describe a time or experience when you felt successful as a teacher?

4. What about the experience influenced how you felt about it?

5. How do you know what an effective classroom looks like? Explain.

6. What influences your decision-making process as you design your classroom management strategy?

7. What outside factors do you believe influence your effectiveness?

8. Can you talk about a professional development experience that helped you to improve your practice as a teacher? How was the experience beneficial?

9. Does working in a Lutheran environment influence your effectiveness? Explain.

10. How do you understand the term 'vocation' in relation to your teaching?

11. Would you be the same teacher if you were in any other type of teaching environment other than a Lutheran one? Explain.

12. What factors of teaching effectively in a Lutheran school do you think could apply to you if you were teaching in any other type of educational environment?

13. Can you describe experiences that helped to strengthen your belief in your ability to help students achieve academically?

Appendix C: Informed Consent Form for Research Study

CONSENT FORM

Research Study Title: Exploring the Influences on Teacher Self-Efficacy in a Lutheran School
Principal Investigator: Kimberly Lavado
Research Institution: Concordia University Portland
Faculty Advisor: Dr. Jillian Skelton

Purpose and what you will be doing:
The purpose of this study is to explore the influences on teacher self-efficacy in a Lutheran school. We expect approximately 15 volunteers. No one will be paid to be in the study. We will begin enrollment on August 21, 2017 and end enrollment on September 11, 2017. To be in the study, you will read and sign a consent form, take a short 12-item survey and participate in an interview of approximately 30-45 minutes. Doing these things should take approximately 60 minutes of your time.

Risks:
There are no risks to participating in this study other than providing your information. However, I will protect your information.   Any personal information you provide will be coded so it cannot be linked to you. Any name or identifying information you give will be kept securely via electronic encryption or locked inside a file cabinet in my home office. When I look at the data, none of the data will have your name or identifying information. I will refer to your data with a code that only I know links to you. This way, your identifiable information will not be stored with the data. I will not identify you in any publication or report. Your information will be kept private at all times. I will omit any details in any published report that might make it possible to deduce or guess your identity. Additionally, I will not identify the school in any publication or report either. The recordings of interviews will be destroyed once the interviews are transcribed and checked for accuracy. Subsequently, all study documents will be destroyed 3 years after I conclude this study.

Benefits:
Information you provide will help to improve our understanding of teacher self-efficacy, which, in turn, can help us to understand how to better support teachers and improve student academic achievement. You could benefit this by

participating and sharing your experience, understanding, and reflections on teaching.

Confidentiality:
This information will not be distributed to any other agency and will be kept private and confidential. The only exception to this is if you tell us abuse or neglect that makes us seriously concerned for your immediate health and safety.

Right to Withdraw:
Your participation is greatly appreciated, but we acknowledge that the questions we are asking are personal in nature. You are free at any point to choose not to engage with or stop the study. You may skip any questions you do not wish to answer. This study is not required and there is no penalty for not participating. If at any time you experience a negative emotion from answering the questions, we will stop asking you questions.

Contact Information:
You will receive a copy of this consent form. If you have questions you can talk to or write the principal investigator, Kimberly Lavado at email: ▉. If you want to talk with a participant advocate other than the investigator, you can write or call the director of our institutional review board, Dr. OraLee Branch (email obranch@cu-portland.edu or call 503-493-6390).

Your Statement of Consent:
I have read the above information. I asked questions if I had them, and my questions were answered. I volunteer my consent for this study.

_____   _____

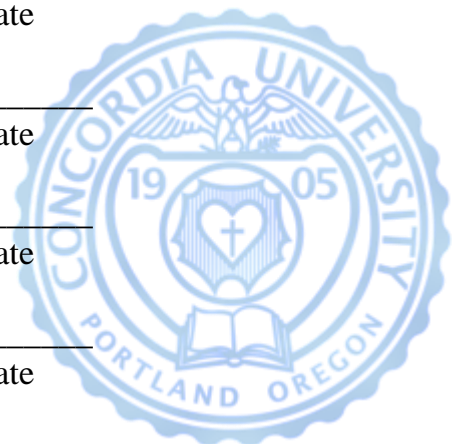Participant Name   Date

_____   _____

Participant Signature   Date

_____   _____

Investigator Name   Date

_____   _____

Investigator Signature   Date

Investigator: Kimberly Lavado; email: ▉
phone: ▉
c/o: Professor Dr. Jillian Skelton
2811 NE Holman Street Portland, Oregon 97221

Appendix D: Unobtrusive Measures Observation Guide

Unobtrusive Measures Observation Guide

Observable Features	Yes	No	Notes
Physical Plant Cleanliness			
Physical Plant Organization			
Physical Plant Safety Measures Evident			
Signs Communicate Necessary Information Clearly			
Administrative Professional Dress			
Teacher Professional Dress			
Student Work Displayed			
Student Motivation Measures Visible (Awards/Recognitions)			
Other Observations			

Appendix E

CU IRB Approval Letter

DATE:	July 17, 2017
TO:	Kimberly Lavado
FROM:	Concordia University - Portland IRB (CU IRB)
PROJECT TITLE:	[1070408-2] Exploring Teacher Self-Efficacy in a Lutheran School
REFERENCE #:	EDD-20170511-Skelton-Lavado
SUBMISSION TYPE:	Response/Follow-Up
ACTION:	APPROVED
APPROVAL DATE:	July 17, 2017
EXPIRATION DATE:	July 5, 2018
REVIEW TYPE:	Expedited Review

Thank you for your submission of New Project materials for this project. The Concordia University - Portland IRB (CU IRB) has APPROVED your submission. This approval is based on an appropriate risk/ benefit ratio. All research must be conducted in accordance with this approved submission.

This submission has received an Expedited Review based on the applicable federal regulations.

You are responsible for contacting and following the procedures and policies of Concordia University and any other institution where you conduct research.

Attached is a stamped copy of the approved consent form. You must use this stamped consent form. Please remember that informed consent is a process beginning with a description of the project and insurance of participant understanding followed by a signed consent form. Informed consent must continue throughout the project via a dialogue between the researcher and research participant. Federal regulations require that each participant receives a copy of the consent document.

Please note that any revision to previously approved materials must be approved by this committee prior to initiation. The form needed to request a revision is called a Modification Request Form, which is available at www.cu-portland.edu/IRB/Forms.

All UNANTICIPATED PROBLEMS involving risks to subjects or others (UPIRSOs) and SERIOUS and UNEXPECTED adverse events must be reported promptly to this office. Please email the CU IRB Director directly, at obranch@cu-portland.edu, if you have an unanticipated problem or other such urgent question or report.

All NON-COMPLIANCE issues or COMPLAINTS regarding this project must be reported promptly to this office.

This project requires continuing review by this committee on an annual basis. Please use the appropriate forms for this procedure. Your documentation for continuing review must be received with sufficient time for review and continued approval before the expiration date of July 5, 2018.

You must submit a close-out report at the expiration of your project or upon completion of your project. The Close-out Report Form is available at www.cu-portland.edu/IRB/Forms.

Please note that all research records must be retained for a minimum of three years after the completion of the project.

If you have any questions, please contact Dr. OraLee Branch at 503-493-6390 or irb@cu- portland.edu. Please include your project title and reference number in all correspondence with this committee.

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within Concordia University - Portland IRB (CU IRB)'s records. July 17, 2017

Appendix F: Statement of Original Work

I attest that:

1.   I have read, understood, and complied with all aspects of the Concordia University-Portland Academic Integrity Policy during the development and writing of this dissertation.

2.   Where information and/or materials from outside sources has been used in the production of this dissertation, all information and/or materials from outside sources has been properly referenced and all permissions required for use of the information and/or materials have been obtained, in accordance with research standards outlined in the *Publication Manual of The American Psychological Association.* ␣

Kimberly Lavado
Digital Signature ␣

Kimberly Lavado
Name

4/11/18
Date

135