

A COMPARATIVE ANALYSIS OF SELF-EFFICACY AMONG VARYING GROUPS OF  
COACHING EXPERIENCE OF TEACHERS IN NORTHERN MIDDLE TENNESSEE

by

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Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

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## ABSTRACT

The purpose of this causal-comparative study was to measure the variable of self-efficacy among teacher-coaches, former teacher-coaches, and non-coaching teachers to identify differences in individual beliefs of themselves. Determining whether a difference exists in self-efficacy among teacher-coaches, former teacher-coaches, and non-coaching teachers can provide insight into how the role of a teacher-coach influences various instructional beliefs within the role. The researcher investigated how teacher self-efficacy impacts the competing job demands of teacher-coaches and teachers. The researcher used a causal-comparative design to measure overall teacher self-efficacy of each group. To measure self-efficacy, the researcher used the Teacher Sense of Efficacy Scale. A convenience sampling procedure was used for this study and the sample included a population of teachers from a middle Tennessee school district. The researcher distributed online surveys via electronic mail to a county list of middle and high school teachers. The sample size was 126 teachers. The data were analyzed using an analysis of variance. The dependent variable was overall teacher self-efficacy while the independent variable was coaching experience. The researcher used an ANOVA for data analysis of the independent and dependent variables. Data analysis revealed no significant difference in overall teacher-efficacy between teacher-coaches, former teacher-coaches, and non-coaching teacher. Limitations of the study include the causal-comparative design, self-reported data, and lack of generalizability to a larger population. Recommendations for further research include using a larger sample size and evaluating other constructs using the groups of non-coaching teachers and teacher-coaches.

*Keywords:* coach efficacy; former teacher-coaches; non-coaching teachers; self-efficacy; teacher-coaches; teacher efficacy

### **Dedication**

I dedicate this work to my loving and supportive wife, Ross, Dax, Hattie, and my parents who worked hard to change their family tree.

## **Acknowledgments**

I would like to thank all those teachers who have encouraged my desire to learn over the years. My curiosity has led me to a level of education I thought I would never track.

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### **List of Abbreviations**

Analysis of Variance (ANOVA)

Collaborative Institutional Training Initiative (CITI)

Institutional Review Board (IRB)

National Center for Education Statistics (NCES)

National Federation of State High School Athletics Association (NFHS)

Statistical Package for the Social Sciences (SPSS)

Teacher Self-Efficacy (TSE)

Teacher Sense of Efficacy Scale (TSES)

Tennessee Secondary Schools Athletic Association (TSSAA)

## **CHAPTER ONE: INTRODUCTION**

### **Overview**

In this chapter, the researcher presents an outline of the study by discussing the historical, theoretical, and conceptual framework of the study topic. The researcher explains the historical context through a brief summary of each important variable. Next, the researcher discusses Bandura's (1977) self-efficacy theory to frame potential efficacy differences between teacher-coaches, former teacher-coaches, and non-coaching teachers. Finally, the researcher provides a conceptual analysis of teacher-coaches', former teacher-coaches', and non-coaching teachers' impact upon students and society. The researcher concludes the chapter by stating the research problem and defining terms that are pertinent to the study.

### **Background**

#### **Historical Overview**

A teacher-coach carries the dual role of two occupations within a classroom and coaching environment. Most researchers studying teacher-coaches have explored the concept of role conflict or competition between these disparate occupations (Conner, 2020; Egalite et al., 2015; Knowles et al., 2020). Teacher-coach role conflict can lead to ineffective teaching in the classroom because of the mismanagement of valuable resources (Conner, 2020; Egalite et al., 2015; Knowles et al., 2020). Knowles et al. (2020) revealed that teacher-coaches used resources such as textbooks for instruction more frequently than first-hand accounts of a topic. Teacher-coaches were also likely to misappropriate classroom-based lesson planning time in favor of their coaching responsibilities (Conner, 2020). The concept of teacher-coach role conflict led Egalite et al. (2015) to examine the difference between the academic performance of students who received instruction from a teacher-coach and those who received instruction from a non-

coaching teacher over a 7-year period. Egalite et al. (2015) determined that students' performance was the same under a teacher-coach as it was under a non-coaching teacher. The aforementioned researchers determined that teacher-coaches developed coping strategies for balancing the role of a teacher with the role of a coach.

Several researchers have investigated the relationships between variables such as job satisfaction, attrition, and well-being among teacher-coaches (Lee & Chelladurai, 2018; Lee et al., 2018; Richards et al., 2019). Rocchi and Camiré (2018) sought to determine how the responsibilities of extracurricular coaching influenced the job satisfaction of high school teacher-coaches. They determined that coaching while being a teacher increased teacher-coaches' job satisfaction within an academic setting. They concluded that the increased job satisfaction was due to additional mastery experiences from the extracurricular coaching or extended time with students for building relationships. Bandura (1977) defined mastery experiences as personal accomplishments or failures that are transferred into other situations where self-efficacy is present. Bandura's concluded that mastery experiences had a positive influence on self-efficacy. Rocchi and Camiré (2018) concluded that teacher-coaches' positive experiences on the field led to increased feelings of coach efficacy. By determining the differences in self-efficacy among teacher-coaches, former teacher-coaches, and non-coaching teachers, the current findings may support or disprove this assertion.

The concept of teacher self-efficacy originated from a study conducted by the Rand Corporation (Tschannen-Moran et al., 1998). The Rand researchers investigated student achievement gains as a result of intervention programs such as student test preparation or addressing student mentality before test within an urban classroom. Rand researchers found that teacher self-efficacy was positively linked to student performance and student goal achievement

(Armor et al., 1976). These researchers used concepts from Bandura's (1977) theory of self-efficacy and Rotter's (1966) theory of social learning as the foundation of teacher self-efficacy.

While self-efficacy theory and social learning theory contribute to the framework of teacher self-efficacy, the ways in which each concept affects teacher self-efficacy differ. Rotter (1966) used social learning theory to describe the interaction between the internal and external locus of control. Rotter defined personality as an interaction between the external locus of control and the internal locus of control (Gibson & Dembo, 1984). An internal locus of control refers to the control over expectancy that resides within an individual while an external locus of control assigns this control to others. Teachers perceived the external locus of control as an obstacle to quality instruction in the classroom. Teachers who used an internal locus of control in the classroom believed they were capable of handling troublesome students (Rotter, 1966; Tschannen-Moran et al., 1998).

Rand researchers merged Rotter's (1966) social learning theory with Bandura's (1977) self-efficacy theory to create the theoretical framework for the Rand studies (Armor et al., 1976). Rotter described social learning theory as the interaction between the external locus and internal locus. Bandura described self-efficacy theory as an individual's belief in his or her capabilities. The body of research on social learning and self-efficacy can be categorized into two separate areas: teacher self-efficacy research and locus of control research (Tschannen-Moran et al., 1998).

For the area of teacher self-efficacy, Gibson and Dembo (1984) developed a teacher self-efficacy instrument by linking the items from the previous Rand studies with dimensions of self-efficacy theory. Following the teacher self-efficacy research by Gibson and Dembo (1984), Albert Bandura developed his own teacher self-efficacy instrument (Tschannen-Moran et al.,

1998). During the same time, Tschannen-Moran et al. (1998) completed a review of the existing research on teacher self-efficacy, ultimately developing a synthesized definition of this construct. They concluded that teacher self-efficacy is the belief of teachers' in their ability to engage students, manage a classroom and deliver a lesson. Self-efficacy remains an important part of the social cognitive theory because internal beliefs are determinants of how an individual acts or reacts in a setting (Bandura, 2001).

Social cognitive theory denotes that decisions are influenced by three types of determinants: personal, behavioral, and environmental (Bandura, 1977). The triadic model is reciprocal and bidirectional as each determinant can influence the other two. Social cognitive theory posits personal and behavioral determinants are formed observationally through reinforcement, expectation, and efficacy (Bandura, 2001).

Like the social cognitive theory determinants, self-efficacy constructs are rooted in observation, reinforcement, and experience. The four constructs of self-efficacy proposed by Bandura (1977) are performance accomplishments, vicarious experience, verbal persuasion, and physiological/ emotional states. These self-efficacy constructs provide a foundation for exploring internal beliefs of teachers in an education setting (Tschannen-Moran et al., 1998).

Self-efficacy is an important factor for developing a classroom environment and school culture (Dicke et al., 2014; Egalite et al., 2015; Huang et al., 2019). A positive school climate facilitates feelings of acceptance and connectedness among students and teachers (National Association of School Psychologists [NASP], 2019). A school's ability to provide students with safety and support is vital to the process of creating strong teacher-student relationships (Gibney et al., 2017; Harding et al., 2019; Schwab, 2017; Sun & Leithwood, 2015; Zee & Koomen, 2016).

The teacher-student relationship can influence the emotional and moral development of student-athletes by creating an environment of connectiveness (Johnson et al., 2018; Turgeon et al., 2019). Pierce et al. (2019) concluded that a teacher who also holds the role of a coach must transfer behaviors such as intrinsic motivation and teacher-student relationship building between the classroom and the field. Relationships with both teachers and coaches provide opportunities for student-athletes to receive social-emotional and academic support from trustworthy adults (Pierce et al., 2019).

Researchers explored self-efficacy in the setting of education to better understand teacher internal beliefs of themselves and their students. Gibson and Dembo's (1984) development of the Teacher Efficacy Scale allowed for the construction of two questionnaire items measuring teachers' personal self-efficacy and teaching efficacy. Gibson and Dembo (1984) defined the former construct as an individual's conviction that he or she can generate student learning through tasks such as classroom management or lesson delivery whereas teaching efficacy is an individual's conviction that they can complete a behavior to manage the external environment of student learning, such as family background. Researchers used the items on Gibson and Dembo's (1984) questionnaire to expand the knowledge base on numerous factors related to teacher self-efficacy, including student engagement, instructional practices, and classroom management (Ma & Trevethan, 2020; Tschannen-Moran et al., 2001; Yang et al, 2020).

The factors of teacher self-efficacy are not applicable in athletic coaching. Feltz et al. (1999) concluded athletic coaching has distinct differences from classroom instruction, such as the development of sport specific skills and team management. Feltz et al. (1999) developed a specialized instrument to measure a coach's ability to manage a team. The instrument measured coach efficacy within the factors of motivation, character building, technique, and strategy. Feltz



et al. (1999) defined coach efficacy as the confidence coaches have in their ability to impact player performance and coaching outcomes. Previous researchers compared coaches' self-efficacy with variables such as job satisfaction (Myers et al., 2019; Rocchi & Camiré, 2018), attrition (Pope, 2020), burnout (Ho, 2018; Sas-Nowosielski et al., 2018), and self-regulation habits (Hodgson et al., 2017; Teatro et al., 2017; Teques et al., 2019).

### **Problem Statement**

Through this study, the researcher investigated whether differences in teacher self-efficacy existed among non-coaching teachers, former teacher-coaches, and teacher-coaches. A review of the related literature revealed that teacher self-efficacy had a positive influence on job satisfaction, attrition, and student-teacher relationships (Huk et al., 2018; K. Kim & Seo, 2018; L. Kim & Burić, 2019; Klassen & Tze, 2014; Zee & Koomen, 2016). Self-efficacy researchers concluded that the benefits of increased teacher mastery experiences were transferable to the classroom (Caron et al., 2018; Myers et al., 2019; Pope, 2020; Rocchi & Camiré, 2018).

The current body of literature lacks an evaluation of the differences in teacher self-efficacy among non-coaching teachers, former teacher-coaches, and teacher-coaches. Researchers investigated efficacy in the role of an athletic coach or in the role of a teacher, but not in the role of teacher-coach (Camiré et al., 2017; Richards & Templin, 2012). Teacher-coach researchers also investigated how the role of coaching influenced the role of teaching, but not how the role of teaching-coaching influenced the role of teaching (Conner, 2020; Egalite et al., 2015; Richards & Templin, 2012). The problem is a lack of knowledge regarding the differences in teacher self-efficacy among teacher-coaches, former teacher-coaches, and non-coaching teachers (Rocchi & Camiré, 2018).

### **Purpose Statement**

The purpose of this quantitative, causal comparative study was to determine whether there are differences in teacher self-efficacy between teacher-coaches, former teacher-coaches, and non-coaching teachers. The population included secondary teacher-coaches, former teacher-coaches, and non-coaching teachers from a middle Tennessee school district. The researcher used the Teacher Sense of Efficacy Scale (TSES) to measure teacher self-efficacy. In addition to completing the items on the TSES, the participants provided their demographic information and indicated if they have ever coached a sport at their schools.

The dependent variable for this study was teacher self-efficacy while the independent variable was coaching experience. Teacher self-efficacy is a teacher's belief in his or her capacity to accomplish the various tasks in a classroom context (Bandura, 1977; Bong & Skaalvik, 2003; Tschannen-Moran et al., 1998). The researcher categorized the independent variable of coaching experience in three groups: teacher-coaches, former teacher-coaches, and non-coaching teachers. The first group of teachers coached a sport within a middle school or high school context. The second group of teachers have coached a sport in the past but did not currently coach a sport. The third group was teachers who have never coached a sport during their tenure as an educator.

### **Significance of the Study**

Researchers found that non-coaching teachers expressed negative perceptions of teacher-coaches because teacher-coaches placed a greater emphasis on their athletic coaching than on their classroom teaching, leading to teacher-coach mismanagement of time and negligence of teacher responsibilities (Conner, 2020; Knowles et al., 2020; Richards & Templin, 2012). Egalite et al. (2015) found that negative perceptions were unwarranted as there were no significant

differences between the test scores of students with teacher-coaches and students with non-coaching teachers. The findings of Egalite et al. (2015) differed from the more recent conclusions of Conner (2020) and Knowles et al. (2020) who identified the negative effects of dual roles held by teacher-coaches such as prioritizing the role of coach over teacher and implementing teacher-centered instructional methods over student-centered instructional methods.

Rocchi and Camiré (2018), who investigated the dual role of a teacher-coach, recommended further comparative research to examine how coaching roles can influence teaching roles. Rocchi and Camiré (2018) also recommended further comparative research to determine the influence of one role on another role. Other researchers also emphasized a need to evaluate the influence of extracurricular activities such as coaching on the role of teaching (Egalite et al., 2015; Richards & Templin, 2012; Rocchi & Camiré, 2018).

Current researchers have underscored the importance of mastery experiences in the development of teacher self-efficacy (Granziera & Perera, 2019; Wilson et al., 2020; Yada et al., 2019). Tschannen-Moran and Hoy (2001) indicated the importance of mastery experiences by embedding them within the subfactors of the TSES. Morris et al. (2017) explored the sources of teacher self-efficacy and concluded that mastery experiences were beneficial in any general or educational setting.

The benefits of mastery experiences to both teacher and coach self-efficacy have been established (Boardly, 2018; Morris et al., 2017). Teachers' mastery experiences are derived from performance accomplishments in an educational setting, including actively managing a classroom or actively engaging students (Morris et al., 2017; Tschannen-Moran & Hoy, 2001). In contrast, coaches' mastery experiences are derived from performance accomplishments in an athletic setting such as winning athletic contests or successfully preparing for practices and

games (Boardly, 2018; Feltz et al., 1999). Bandura (1977) suggested that increased mastery experiences in a specific setting extend into generalized settings. Bandura (1977) also described mastery experiences as having a culminative effect on self-efficacy.

Feltz et al. (1999) developed the construct of coach efficacy using a foundation of Bandura's (1977) performance accomplishments. The subfactors of coach efficacy were established as personal mastery experiences such as coaching experience, education/preparation, and prior success (Feltz et al., 1999). Prior coach efficacy research focused on how coaches' prior experience and education could improve their efficacy (Boardly, 2018; Caron et al., 2018; Myers et al., 2019).

Rocchi and Camiré (2018) cited the potential transferability of athletic coaching into the classroom using the variable of job satisfaction. Therefore, the potential exists for the role of athletic coaching to be extended into the role of a teacher in a classroom setting. Through a study examining the differences in teacher self-efficacy between teacher-coaches and non-coaching teachers, the researcher aimed to extend the current body of knowledge of teacher-coach self-efficacy.

### **Research Question**

**RQ1:** Is there a significant difference between the overall teacher self-efficacy scores of teacher-coaches, former teacher-coaches, and non-coaching teachers?

### **Definitions**

In this section, the researcher provides definitions of commonly used terminology in order to ensure reader clarity.

1. *Coaching-efficacy*. This describes the confidence that coaches possess in themselves to impact player performance and athletic outcomes (Feltz et al., 1999). A coach is defined as a

teacher who coaches students in an athletic capacity by staying after school hours (Tennessee Secondary Schools Athletic Association, 2019).

2. *Efficacy for classroom management.* This term refers to teachers' confidence in their capability to implement effective rules systems and control disruptive student behavior in the classroom (K. Kim & Seo, 2018; Tschannen-Moran & Hoy, 2001).

3. *Efficacy for instructional practices.* This describes teachers' confidence in their capability to implement and modify instructional methods in the classroom (K. Kim & Seo, 2018; Tschannen-Moran & Hoy, 2001).

4. *Efficacy for student engagement.* This defines teachers' confidence in their capability to foster student learning, improve student creativity, and increase student motivation (K. Kim & Seo, 2018; Tschannen-Moran & Hoy, 2001).

5. *Former teacher-coach.* This includes teachers who formerly coached a sport governed by a state athletic association at the secondary level and who currently teach in a secondary classroom (Bandura, 1977; Konukman et al., 2010).

6. *Mastery experiences.* Mastery experiences are personal accomplishments or failures that are transferred into other situations where efficacy is present (Bandura, 1977).

7. *Non-coaching teacher.* This describes any teacher who is not an athletic coach of a governed athletic sport regulated by the Tennessee Secondary Schools Athletic Association (TSSAA) (Egalite et al., 2015).

8. *Self-efficacy.* This refers to the confidence that an individual possesses in themselves to complete a task or activity (Bandura, 1977).

9. *Teacher.* Teachers are professionals who promote learning through crafting lessons, setting expectations, contributing to student outcomes, developing and managing classrooms,

and collaborating with colleagues, but do not coach (Burgess, 2012; Van Brummelen, 2009; Varlas, 2009).

10. *Teacher-coach*. This classifies an individual who holds the role of teacher in a secondary school setting and the role of coach of a sport governed by the TSSAA simultaneously (Konukman et al., 2010).

11. *Teacher self-efficacy*. This describes teachers' confidence in their ability to engage students, manage a classroom, or deliver lessons (Bandura, 1977; Bong & Skaalvik, 2003; Tschannen-Moran & Hoy, 2001).

12. *Tennessee Secondary Schools Athletic Association*. The TSSAA is the governing body of high school athletics in the state of Tennessee. This body sets guidelines and rules for coaches to follow (TSSAA, 2020).

## **CHAPTER TWO: LITERATURE REVIEW**

### **Overview**

In the following chapter, the researcher presents a review of relevant literature on the study topic, beginning with a review of Bandura's (1977) self-efficacy theory, which was the theoretical framework for this study. The researcher then discusses the underlying theoretical nature of teacher self-efficacy and coach efficacy to provide context for the study. Next, the researcher introduces the variable under investigation, teacher self-efficacy, and reviews related literature. Lastly, the researcher synthesizes current research concerning coach efficacy and teacher-coaches and identifies the present gap in the literature.

### **Theoretical Framework**

In the following section, the researcher introduces Bandura's (1977) self-efficacy theory as the theoretical framework of this study. Bandura's (1977) self-efficacy theory is important for understanding varying levels of teacher self-efficacy (Tschannen-Moran & Hoy, 2001). Bandura (1977) conceptualized self-efficacy as an outcome expectation and an efficacy expectation. An outcome expectation originates from individuals' belief in themselves to estimate the end behavior. An efficacy expectation is an individual's belief in themselves to complete the behavior needed for the estimated outcome (Bandura, 1977). Expectations are valued in any area where individuals develop beliefs in themselves. Bandura (1977) defined self-efficacy as the confidence individuals possess to complete a task or activity. Self-efficacy can be influenced positively or negatively within a K-12 setting based on individuals' beliefs in their ability. An individual's positive efficacy expectation can be a strong determinant of success within a content area or may adversely impact the individual's ability to be persistent in the educational environment (Bandura, 1977; Greene, 2017). The expectation of efficacy varies between

individuals based on their belief in their ability or the source from which they derive the expectation (Bandura, 1977).

Individuals' belief in their ability to execute the behavior stems from four sources: performance accomplishments, verbal persuasion, vicarious experiences, and physiological states (Bandura, 1977). Bandura (1977) concluded that performance accomplishments are based on mastery experiences. Successful or unsuccessful performance accomplishments dictate the mastery expectation of individuals, and success or failure at a task can lead to constructive or destructive beliefs in their ability to execute a behavior (Bandura, 1977). Verbal persuasion works with performance accomplishments as a source of constructing or destructing the personal beliefs that influence an individual's behavior (Bandura, 1977). Bandura (1977) defined verbal persuasion as the ability to cope successfully with past experiences through overwhelming suggestion. Such coping is useful, unless one is trying to redirect a long-held belief or a long history of failure (Bandura, 1977).

Although verbal persuasion is through non-experiences, the reciprocal nature of the four sources provides an equal balance (Bandura, 1977). Bandura believed verbal persuasion lacked the experiences necessary for a beneficial reciprocal exchange; therefore, vicarious experiences provide supplemental knowledge for the exchange (Bandura, 1977; Tschannen-Moran et al., 1998). Vicarious experiences develop after witnessing another individual experience success or failure. The comparison between the observer and the observed individual(s) leads to individuals experiencing physiological states or emotional arousal (Bandura, 1977). Bandura (1977) described emotional arousal as a response to environmental situations that elicit fear, anxiety, or other emotional states. The emotional state that individuals create based on their responses to environmental situations helps them understand their efficacy expectation (Bandura, 1977).



Individuals use their emotional competencies to inform their belief in themselves, which directly impacts their ability to execute a behavior (Greene, 2017; Tschannen-Moran et al., 1998).

Similar to Bandura's (1977) self-efficacy theory, Gibson and Dembo (1984) used the terminology of *outcome expectation* and *efficacy expectation*. Using this adapted educational terminology, Gibson and Dembo (1984) reexamined the original dimensions of teacher self-efficacy developed by the RAND Corporation researchers (Tschannen-Moran et al., 1998). Gibson and Dembo (1984) used a three-phase study to analyze the factors of teacher self-efficacy and observe the factors in a classroom setting. Gibson and Dembo merged a 30-item teacher self-efficacy questionnaire with Bandura's (1977) model of self-efficacy in the first phase. The second phase consisted of the vetted phase one questions and an additional open-ended measure where teachers checked off variables related to the student environment (Gibson & Dembo, 1984). The final phase involved classroom observations of teachers with a focus on instructional time usage. Gibson and Dembo (1984) determined that teacher self-efficacy was multidimensional and consisted of measures from Bandura's (1977) self-efficacy model. The researchers concluded that more research into teacher self-efficacy was necessary because their model lacked some of the additional elements proposed in Bandura's (1977) model of general efficacy.

To increase the body of knowledge regarding the construct teacher self-efficacy, Bandura (1997) produced his version of teacher self-efficacy. Bandura proposed seven factors of teacher self-efficacy: (a) efficacy to influence decision-making, (b) efficacy to influence resources, (c) efficacy to influence parents, (d) efficacy to influence the community, (e) disciplinary efficacy, (f) instructional efficacy, and (g) efficacy to create a positive school climate (Bandura, 1997). Bandura's (1997) definition of teacher self-efficacy provided opportunities for additional

researchers to refine the sources of teacher self-efficacy. One instrument created from the refining process of teacher self-efficacy is the Teacher Sense of Efficacy Scale (Tschannen-Moran & Hoy, 2001).

The widely used TSES remains an effective measurement tool for teacher self-efficacy (Cao et al., 2020; Perera et al., 2018). The factors measured by TSES are (a) efficacy for instructional strategies, (b) efficacy for classroom management, and (c) efficacy for student engagement (Tschannen-Moran & Hoy, 2001). Tschannen-Moran and Hoy (2001) defined efficacy for instructional strategies as a teacher's confidence in his or her capability to implement and modify instructional methods in the classroom. Next, Tschannen-Moran and Hoy (2001) defined efficacy for classroom management as a teacher's confidence in his or her capability to implement classroom rules systems and control disruptive student behavior in the classroom. Finally, Tschannen-Moran and Hoy (2001) defined efficacy for student engagement as a teacher's confidence in his or her capability to foster student learning, improve student creativity, and increase student motivation. The measured factors have been derived from a comprehensive body of knowledge of teacher self-efficacy instruments and vetted through multiple studies conducted by Tschannen-Moran and Hoy to determine their reliability and validity.

Since the creation of the TSES in 2001, teacher self-efficacy research concerning other variables and groups has increased. Findings within the last 10 years have reflected teacher self-efficacy's relationship with understanding instructional practices (Skaalvik & Skaalvik, 2017; Tarrasch, 2019), school characteristics (Huk et al., 2018), students (Harding et al., 2019), overall teacher retention (Geiger & Pivovarova, 2018), and the collective efficacy of teachers (Cansoy & Parlar, 2018; Paterson & Grantham, 2016; Zonoubi et al., 2017). The body of knowledge investigating teacher self-efficacy as a variable has more than doubled since the creation of the

TSES (Zee & Koomen, 2016).

To increase the body of knowledge regarding teacher self-efficacy, researchers have used complex data analysis procedures and diverse populations. Researchers investigating teacher self-efficacy found positive relationships with job satisfaction, goal creation, and classroom processes, as well as a negative relationship between teacher self-efficacy and burnout (Klassen & Tze, 2014; Klassen et al., 2010; Morris et al., 2017; Zee & Koomen, 2016). The results of these studies provide a comprehensive perspective by investigating a different outcome of self-efficacy.

In addition to the comprehensive perspective of teacher self-efficacy obtained through investigation, Bandura (1997) has refined his definition of self-efficacy. Bandura (1977, 1997) defined self-efficacy as the confidence an individual possesses to complete a task or activity. Furthermore, the self-efficacy body of knowledge has been extended beyond the field of psychology (Bandura, 1997). One example is teacher self-efficacy research, which increased drastically since the creation of the TSES (Klassen et al., 2010). Teacher self-efficacy findings have reflected teacher self-efficacy's relationship with understanding instructional practices (Skaalvik & Skaalvik, 2017; Tarrasch, 2019), school characteristics (Huk et al., 2018), students (Harding et al., 2019), overall teacher retention (Geiger & Pivovarova, 2018), and the collective efficacy of teachers (Cansoy & Parlar, 2018; Paterson & Grantham, 2016; Zonoubi et al., 2017). A gap remains in the literature in comparing the levels of self-efficacy between teacher-coach, former teacher-coach, or non-coaching teacher.

## **Related Literature**

### **Teacher Self-Efficacy**

The creation of the TSES has provided many opportunities for researchers to measure

overall teacher self-efficacy in the educational setting. The domain of teacher self-efficacy has been measured using instruments that vary based on the research context and the desired outcomes. For example, Bandura (1997) used his self-efficacy instrument to measure classroom factors and community factors whereas Tschannen-Moran and Hoy's (2001) instrument measured only classroom factors. The differences in measured factors have led to mixed results; therefore, researchers must continue examining teacher self-efficacy in diverse settings to further the body of knowledge and to provide educators with practical tools and data (Zee & Koomen, 2016).

A synthesis of prior teacher self-efficacy research revealed that researchers focused on the topics of technology, student success, and educational settings, identifying those themes as gaps within teacher self-efficacy research (K. Kim & Seo, 2018; Klassen & Tze, 2014; Klassen et al., 2010; Morris et al., 2017; Zee & Koomen, 2016). A synthesis of current literature was necessary in order to provide a basis for the current study. The synthesis includes teacher self-efficacy related to the following categories: (a) preservice teachers, (b) first-year teachers, (c) student engagement, (d) emotional arousal, (e) within-teacher variables, and (f) mastery experiences.

### ***Teacher Self-Efficacy and Preservice Teachers***

Previous researchers have established relationships between self-efficacy and teachers' classroom practices (Zee & Koomen, 2016), collective efficacy (Klassen et al., 2010), and effectiveness (Klassen & Tze, 2014). One group that current researchers investigated was preservice teachers (Clark & Newberry, 2019; Dursun, 2019; Weber & Greiner, 2019). A preservice teacher is a preliminary education major enrolled in a teacher education program at a university (Clark & Newberry, 2019).

Researchers have underscored the importance of context when considering the self-efficacy of preservice teachers (Clark & Newberry, 2019; Dursun, 2019; Weber & Greiner, 2019). Context remains an important aspect of measuring teacher self-efficacy because of the various elements surrounding preservice and novice teachers' self-reported capabilities (Klassen & Tze, 2014). One example of context is a preservice teacher's first practicum experience in a special education classroom. Weber and Greiner (2019) utilized a preservice teacher's practicum experience to evaluate how his or her self-efficacy increases or decreases while in a special education classroom. Weber and Greiner (2019) described a practicum as a 4-week course in which preservice teachers participated in their first teaching experience in a classroom. They found that classroom management was the most important factor for preservice teachers to master in a special education classroom. While Weber and Greiner (2019) found that classroom management was essential for preservice teachers' self-efficacy, they also documented a positive relationship between preservice teachers' positive experiences in the inclusion classrooms and their level of self-efficacy. Dursun (2019) found a positive relationship between self-efficacy and a positive attitude in a classroom practicum within a teacher education program. Both Dursun (2019) and Weber and Greiner (2019) indicated that preservice teacher self-efficacy increased throughout the practicum portion of a teacher education program. Durson (2019) found a significant increase in self-efficacy between preservice teachers' junior year and senior year. Weber and Greiner (2019) also found a significant increase in self-efficacy using pre and posttest of a preservice teacher's practicum year.

For preservice teachers, the practicum experience is the conclusion of a teacher preparation program and the commencement of a teaching career. Clark and Newberry (2019) explored the extent to which preservice teachers who had finished a teacher education program

reported four sources of teacher self-efficacy: verbal persuasion of teacher education faculty, verbal persuasion of the cooperating teacher, vicarious experiences in teacher education programs, and student teaching mastery experiences. Clark and Newberry (2019) found moderate, positive correlations between vicarious experiences in a teaching program and teacher self-efficacy. Other researchers found the existence of a positive relationship between preservice teacher self-efficacy and positive practicum experiences (Feng et al., 2019; George et al., 2018; Klassen & Tze, 2014). Durson (2019) recommended tracking preservice teachers' self-efficacy as they continue their practicum experience in schools.

### ***Teacher Self-Efficacy and First-Year Teachers***

The first year of a novice educator's tenure is important in the development of his or her self-efficacy (Feng et al., 2019; George et al., 2018). In a longitudinal study, George et al. (2018) tracked first-year teachers over a 5-year period and measured teacher self-efficacy at the beginning of their first year and then at their fifth year. George et al. (2018) concluded that first-year primary teachers had greater teacher self-efficacy for the dimensions of classroom management and student engagement at the end of their fifth year when compared to secondary first-year teachers. George et al. also found an increase in the subscales of classroom management and student engagement of primary and secondary teachers through 5 years of tracking. Primary teachers rated themselves higher in both classroom management and student engagement at the end of their fifth year than at the beginning of their first year. George et al. (2018) noted an increase in teacher self-efficacy for both first-year primary and first-year secondary teachers.

For first-year teachers, the support from peers and administrators promote self-efficacy. George et al. (2018) discussed the importance of contextual factors such as administrative

support or colleague collaboration on a first-year teacher's experience (George et al., 2018). Feng et al. (2019) found teacher self-efficacy increased with the implementation of mentorship programs that supported a new teacher in the classroom. Feng et al. (2019) described a mentorship program as a way for teachers or other professionals to see examples of exemplary instruction and to work alongside a knowledgeable colleague. These researchers determined the self-efficacy of a first-year teacher benefited from a mentorship program. Feng et al. (2019) concluded that longstanding content-specific mentors—who teach in the same areas as the teachers being mentored—have a greater impact on first-year teacher self-efficacy than non-content-specific mentors.

### ***Teacher Self-Efficacy and Student Engagement***

K. Kim and Seo (2018) described the construct of efficacy in student engagement as the teacher's belief in his or her capability to motivate their students. They discussed the need for teachers to promote student motivation through other outcomes such as increased teacher motivation and student-teacher relationships. Keller et al. (2014) determined that teacher motivation or enthusiasm was important when constructing lessons. Mahler et al. (2018) assessed the relationship between student performance and the constructs of self-efficacy, subject specific enthusiasm, and enthusiasm for teaching a subject. Mahler et al. (2018) concluded that teacher motivation increased student performance. Mahler et al. (2018) utilized a formative assessment to calculate the success of students retaining the instruction of the teacher's lesson for the study. The researchers found successful student performance was not related to teachers' belief in themselves to create a successful lesson.

Tsigilis et al. (2019) investigated the association between teacher self-efficacy and teachers' perception of their student-teacher relationship. Tsigilis et al. (2019) noted that a

student-teacher relationship differed based on the gender of a teacher and a student. They also found that the quality of a student-teacher relationship varied in relation to gender. A teacher's ability to build relationships with students is an outcome of a teacher's ability to motivate students (Tsigilis et al., 2019).

The relationship a teacher develops with students depends on the teacher-student interaction. Woodcock et al. (2019) used vignettes to investigate the relationship between teachers' causal belief towards students and teacher self-efficacy. Woodcock et al. (2019) concluded that higher teacher self-efficacy was positively associated with a teacher providing more positive feedback and encouragement in response to the fictional scenario. Woodcock et al. (2019) found that a teacher who exhibited strong self-efficacy became less frustrated with low student effort and displayed more sympathy for those students who struggled academically. Woodcock et al. also found teachers with a strong sense of teacher self-efficacy could be a positive asset to students who exhibited low levels of effort.

When students exhibit low levels of effort, teachers with a strong sense of efficacy possesses an ability to influence students. Mahler et al. (2018) determined that teachers took responsibility for low student effort when they believed students could be successful; however, the benefits of a strong sense of efficacy do not affect higher-achieving students (K. Kim & Seo, 2018; Woodcock et al., 2019). Other factors such as setting and understanding a student's strengths and weaknesses could influence student engagement and teacher self-efficacy (Lev et al., 2018; Mahler et al., 2018). Conducting research within an effective classroom setting where teachers establish relationships with students is vital for both teacher self-efficacy and student engagement (K. Kim & Seo, 2018; Lev et al., 2018).

In a high school setting, teachers do not have the time to build relationships with students



because of limited instructional time and limited interaction opportunities (K. Kim & Seo, 2018). Yet opportunities still exist for high school teachers to develop relationships with students in the homeroom setting. The homeroom setting provides an extended time for teachers to interact with students while not having to cover academic content (Lev et al., 2018). Lev et al. (2018) emphasized the importance of teacher-student interaction within a school's organizational culture when building relationships with students.

K. Kim and Seo (2018) highlighted the need for promoting student engagement through student-teacher relationships established in the classroom. Lev et al. (2018) concluded that teachers influenced students if teachers perceived they were capable of motivating the student. The researchers determined that students performed more to the teacher's expectation when a positive relationship was established. Lev et al. suggested further research on organizational variables and student achievement.

While student achievement is important, a strong sense of efficacy can aid in organizational variables like school culture. Schipper et al. (2020) sought to determine how to improve a school culture's influence on student engagement by increasing teacher self-efficacy through a lesson study. Schipper et al. (2020) defined a lesson study as a professional learning approach designed to provide teachers with day-to-day, high-quality professional development. Schipper et al. (2020) concluded that promoting a professional school culture through lesson study led to an increase in student engagement. Schipper et al. (2020) determined the increase in efficacy was due to teachers feeling more confident in their capacity to engage students by practicing the suggested changes observed through lesson study with students.

### ***Teacher Self-Efficacy and Emotional Arousal***

Bandura's (1977) dimensions of general self-efficacy consist of performance

accomplishments, vicarious experiences, verbal persuasion, and emotional arousal. Although performance accomplishments have been identified as the most powerful source of efficacy (Bandura, 1997) and teacher self-efficacy (Zee & Koomen, 2016), emotional arousal informs and motivates individuals' belief in themselves. Bandura (1997) determined that emotional arousal was a response to environmental situations elicited by fear, anxiety, or other emotional states, and he concluded that the ability of individuals to manage their behavior in an environment influenced their perception of the environment. Bandura (1997) and Tschannen-Moran et al. (1998) concluded that self-efficacy beliefs are formed through an individual's interpretation of the emotional arousal response.

Understanding how emotional arousal can inform and motivate a teacher is important for understanding teacher self-efficacy. Greene (2017) determined that emotional arousal was used in situations to gain an insight into an individual's self-efficacy. Greene (2017) explained that how individuals interpret each situation could increase or decrease their self-efficacy. Emotional states like anxiety and depression have been negatively associated with teacher self-efficacy whereas emotional states like enthusiasm and contentment have been positively associated with teacher self-efficacy (Huang et al., 2019). Perera et al. (2019) found that teachers who experienced positive emotional states provided an engaging learning environment for students. The control that teachers exert over classroom outcomes may be influenced by how teachers perceived their own emotional state (Barni et al., 2019).

### ***Teacher Self-Efficacy and Within-Teacher Variables***

Levels of teacher self-efficacy can change depending on internal variables. Zee and Koomen (2016) found internal variables can have an indirect or direct effect on teacher self-efficacy in the classroom. In the following discussion, the researcher will examine several

internal variables. These variables include burnout, attrition, and job satisfaction.

**Burnout.** Maslach et al. (2001) categorized burnout into the factors of exhaustion, depersonalization, and decreased personal accomplishment. Exhaustion is an internal feeling of tiredness felt by an individual toward a job. Depersonalization is an individual losing satisfaction in a job based on external factors. Decreased personal accomplishment is when an individual has negative feelings about a job or his or her life (Maslach et al., 2001). Maslach et al. (2001) determined burnout was an emotional response to stress on the job.

Shoji et al. (2016) investigated the association between self-efficacy and burnout. The researchers found that teachers had a higher overall burnout-efficacy association than workers in other professions. The researchers also found older age to be a significant predictor of burnout throughout multiple occupations. One factor of burnout is emotional exhaustion. Emotional exhaustion refers to a sense of weariness derived from an individual's occupation and is considered one of the most important factors of burnout (Maslach et al., 2001). A teacher with poor classroom management skills expends more energy managing troubled students and may experience emotional exhaustion as a result. Tschannen-Moran et al. (1998) describes classroom management as the teacher's ability to manage the external environment such as student behavior or class culture.

When evaluating the dimensions of teacher self-efficacy and burnout, Dicke et al. (2014) found that classroom management had an indirect effect on emotional exhaustion. Dicke et al. (2014) also indicated that a teacher's efficacy in student engagement and efficacy in instructional practices formed positive associations with exhaustion, depersonalization, and reduced personal accomplishment. Efficacy in student engagement is derived from teachers' perceived belief in themselves to encourage and engage a student with instructional strategies (Tschannen-Moran et

al., 1998). Efficacy in instructional practices is the teachers' perception of their capability to utilize instructional strategies (Tschannen-Moran et al., 1998). Huk et al. (2018) found that low teacher self-efficacy in instructional practice led to decreased personal accomplishment in the classroom. Huk et al. (2018) also concluded that lower teacher self-efficacy in classroom management led to higher levels of emotional exhaustion and depersonalization. Huk et al. (2018) determined that teachers had lower emotional exhaustion in the classroom because of a belief to maintain order by managing students properly.

Teachers who develop engaging lessons experience effective student management in the classroom. Teachers who develop engaging lessons experience less burnout, which females experience more than males (Huk et al., 2018; L. Kim & Burić, 2019). Lauermann and König (2016) investigated the functions of teacher gender within the variables of burnout, pedagogical knowledge, and self-efficacy. They concluded that no differences existed in the relationship between gender and teacher burnout-efficacy relationship.

Although Lauermann and König (2016) found no burnout-efficacy relationship based on gender, other researchers found a relationship between the two variables while not controlling for gender. Naz et al. (2017) investigated the relationship between burnout and teacher self-efficacy and found that lower teacher self-efficacy was significantly related to the higher levels of burnout. Like Naz et al., (2017) L. Kim and Burić (2019) investigated the relationship between teacher self-efficacy and burnout. Although these investigators found a consistent association between burnout and teacher self-efficacy, this association varied with teaching experience. For example, L. Kim & Burić (2019) found the years a teacher was exposed to the factors of burnout in a school environment increased the chance of a teacher experiencing lower self-efficacy over time. Therefore, L. Kim & Burić (2019) concluded that increased teacher burnout preceded

lower teacher self-efficacy.

**Attrition.** Teacher attrition is a measure of teachers exiting the profession (Perryman & Calvert, 2020). Researchers who investigated teacher attrition used various closed-ended questions to identify teachers' reasons for leaving the profession. Perryman and Calvert (2020) used closed-ended questions to identify teachers' reasons for leaving the teaching profession. They found that 75% of teachers left the teaching profession because of a work-life imbalance. Zee and Koomen (2016) determined that the imbalance between job-related time and home-related time led to emotional exhaustion. The stress created from the imbalance in time is an internal mechanism that Bandura (1977) described as an internal response to the environment. Bandura's self-efficacy theory has been indirectly related to teacher attrition through mediators like emotional exhaustion and lack of classroom management (Zee & Koomen, 2016).

For the meditating variables of classroom management and emotional exhaustion, researchers reported mixed results between teacher self-efficacy and teacher attrition (L. Kim & Burić, 2019; Zee & Koomen, 2016). Zee and Koomen (2016) investigated the effect of teacher self-efficacy on teacher attrition and found an indirect effect exists. They concluded that teachers with low efficacy in the factors of classroom management and instructional strategies were more likely to leave the profession than teachers with high efficacy. Zee and Koomen (2016) determined higher levels of teacher emotional exhaustion developed from a lack of control in the classroom. Huk et al. (2018) posited that teacher emotional exhaustion originating from stress in the classroom led to a lower sense of efficacy.

For teachers, efficacy in classroom management is the teachers' confidence in their capability to implement effective rules and control disruptive student behavior in the classroom environment (K. Kim & Seo, 2018; Tschannen-Moran & Hoy, 2001). Zee and Koomen (2016)

cited a teacher's efficacy in classroom management as a common sign of teacher attrition. Perryman and Calvert (2020) determined that 40–50% of teachers who left the teaching profession cited issues within the classroom environment as a reason for leaving the teaching profession. They indicated that most respondents did not calculate the demands of teaching in their preservice program. Another environmental factor cited by teachers who left the teaching profession was hypercritical administrators who demoralized teachers. Perryman and Calvert's (2020) noted the difficulty of identifying a causal relationship between teacher self-efficacy and teachers leaving their job.

**Job Satisfaction.** In the teaching profession, job satisfaction is a measure of how teachers positively or negatively evaluate their work experience (Skaalvik & Skaalvik, 2017). The association between job satisfaction and teacher self-efficacy has been explored various settings. Skaalvik and Skaalvik (2017) found that establishing school culture goals in a building setting provides direction for teachers. The researchers also found that establishing educational goals in the classroom setting provides direction for teachers. Skaalvik and Skaalvik (2017) posited that goals provided teachers with assurance of success within a classroom; however, an unsuccessful experience within a classroom setting led to lower teacher self-efficacy. Skaalvik and Skaalvik (2017) found that teachers enjoyed seeing successful activities in the classroom, especially when the activity provided an opportunity for higher mastery expectation. They found a positive relationship between job satisfaction and self-efficacy when teachers set higher mastery expectations in the classroom.

Although Skaalvik and Skaalvik (2017) and Granziera and Perera (2019) found an association between job satisfaction and teacher self-efficacy, they included different mediating variables. Granziera and Perera (2019) did not find an association between all factors of teacher

self-efficacy and job satisfaction. Granziera and Perera (2019) concluded that teacher job satisfaction could depend on a third variable or factor. They found teacher self-efficacy had an indirect relationship on job satisfaction with student engagement mediating the relationship. Granziera and Perera (2019) determined that teacher engagement in work-task could mediate the relationship between teacher job satisfaction and teacher self-efficacy. They concluded that the more an efficacious teacher engaged with his or her job indirectly increased job satisfaction.

Teachers' engagement in a job has been shown to increase their self-efficacy (Granziera & Perera, 2019; Huang et al., 2019; Perera & John, 2020). Granziera and Perera (2019) concluded that a teacher who experienced feelings of gratification or fulfillment in work-related tasks had more opportunities for mastery experiences in the school environment. Mastery experiences are considered the most influential source of teacher self-efficacy (Granziera & Perera, 2019; Skaalvik & Skaalvik, 2017).

### ***Teacher Self-Efficacy and Mastery Experiences***

Among the four dimensions of self-efficacy, mastery experiences are the most powerful driver of increased teacher self-efficacy (Granziera & Perera, 2019; Wilson et al., 2020; Yada et al., 2019). Bandura (1977) suggested that acquisition of skills and knowledge was culminative. Yada et al. (2019) investigated the other three sources of general self-efficacy in relation to teacher self-efficacy. The other three sources of general self-efficacy are verbal persuasion, vicarious experiences, and physiological state (Bandura, 1977). Yada et al. (2019) determined that the general efficacy sources of vicarious experiences and physiological state had no relationship with teacher self-efficacy. They also found that the general efficacy source of verbal persuasion did not increase teacher self-efficacy but could contribute to an increase if a quality student-teacher relationship existed in the classroom. Yada et al. (2019) determined that the

relationship between teachers and their students may be a prerequisite for building vicarious experiences/physiological states and teacher self-efficacy. For example, a teacher-student vicarious experience would be a teacher role model with similar personal characteristics to a student. The lack of a sufficient role model with similar characteristics created a weak vicarious experience and teacher self-efficacy relationship.

In teacher self-efficacy research, researchers posited that mastery experiences were derived from performance accomplishments in an educational setting such as classroom management and student engagement (Morris et al., 2017; Tschannen-Moran & Hoy, 2001). Perera et al. (2018) found that teachers with additional mastery experiences in the classroom environment had higher levels of efficacy in student engagement and instructional strategies, increased social engagement with students, and greater job satisfaction.

Mastery experiences are associated with settings where self-efficacy is present (Bandura, 1977). Troesch and Bauer (2017) investigated the difference between first-career teachers' and second-career teachers' job satisfaction and self-efficacy. They found that second-career teachers had higher general efficacy than first-year teachers. The researchers concluded that the additional experiences developed through second-career teachers' first career were extended into their teaching career. Troesch and Bauer (2017) also concluded that second-career teachers had higher job satisfaction than first-career teachers. They determined that additional mastery experience from a previous job contributed to the second-career teachers' job satisfaction in their teaching role.

Blackburn et al. (2017) also found that additional mastery experiences from previous settings can be extended into a new setting. Blackburn et al. (2017) found agricultural teachers had high teacher self-efficacy scores and higher job satisfaction because of previous mastery



experiences gained in the agricultural industry before becoming an agricultural teacher. They also found a positive relationship exists between teacher self-efficacy and job satisfaction. Blackburn et al. concluded the teachers' high overall self-efficacy score and job satisfaction were due to mastery experiences from previous agriculture experiences.

Mastery experiences have a strong positive correlation with teacher self-efficacy (Granziera & Perera, 2019; Wilson et al., 2020; Yada et al., 2019). Mastery experiences are imbedded within the teacher self-efficacy dimensions of classroom management and instructional strategies (Klassen & Chiu, 2010). Wilson et al. (2020) investigated how teacher self-efficacy was fostered in teacher mastery experiences and the school environment. Wilson et al. (2020) determined that teacher reflection over instructional lessons encouraged the teacher to improve his or her mastery experiences. A teacher who does not reflect over instructional lessons does not have opportunities to develop beliefs in their capabilities. Poulou et al. (2019) concluded that teachers consistently gave themselves high scores within the factor of classroom management on the TSES. However, Poulou et al. (2019) observed the classrooms of each participant and determined the teacher's belief in his or her classroom management did not align with observer data. Poulou et al. (2019) concluded that participants had not been effectively trained on proper classroom management.

### **Coach Efficacy**

Literature related to coach efficacy underpinned this study. Feltz et al. (1999) designed the coach efficacy instrument to measure a coach's belief in his or her capabilities. The instrument measures motivation, character building, technique, and strategy (Feltz et al., 1999). A review of coach efficacy research revealed coaching experience is linked with elevated coach

efficacy (Boardly, 2018).

### *Coach Efficacy and Current Literature*

Feltz et al. (1999) defined coach efficacy as the confidence coaches possess in themselves to impact player performance and coaching outcomes. Feltz et al. (1999) concluded that improved coach efficacy can impact on-field tactical decisions of a coach, and team management. Coach efficacy researchers investigated differences in the demographic variables of gender, coaching experience, and level of education (Boardly, 2018; Caron et al., 2018; Myers et al., 2019).

Caron et al. (2018) and Myers et al. (2019) found that coaches perceived their coaching efficacy higher than players and parents did. They noted that female coaches received lower coach efficacy scores from players than male coaches did. Caron et al. (2018) attributed the lower player ratings to differences in leadership style. Myers et al. (2019) found that female coaches rated themselves lower than males.

In addition to gender, coaching level (e.g., high school, college) is important in developing coach efficacy (Caron et al., 2018; Myers et al., 2019). Myers et al. (2019) concluded that collegiate coaches have higher coach efficacy ratings from players than high school or youth coaches, and suggested that player performance (progress) might be the reason. At the professional sports level, Keatlholetswe and Malete (2019) found that coaches consistently rated themselves higher than non-professional coaches. The researchers found coaching experience and preparation were positive factors.

Coaching experience provides opportunities for emotional regulation mastery. Emotional regulation refers to the ability of coaches to manage their emotions (Teques et al., 2019). Coaches who can regulate their emotions have higher coach efficacy and are successful at

motivating student-athletes (Teques et al., 2019). Teques et al. (2019) found a coach's ability to regulate emotions enhanced coach efficacy and the athlete's ability to learn game strategy.

Teques et al. (2019) noted that coaches may have better emotional regulation with large crowds present suggesting being observed could be an incentive for coaches to manage their behaviors.

For a coach, a crowd consists of a group of stakeholders who are invested in the athletic event. The stakeholders in the Teatro et al. (2017) study were coaches, student athletes, and student athletes' parents. Teatro et al. (2017) explored the stakeholders' views of coach efficacy and found that players and parents carried similar beliefs. The student-athletes believed in their coach's capability to promote sportsmanship on the field; however, coaches and players rated motivation as the lowest factor on the coach efficacy scale (Teatro et al., 2017).

Although the coach efficacy scale does not account for the level of coach training, researchers have positively associated it with coach efficacy (Boardly, 2018; Myhre & Moen, 2017; Villalon & Martin, 2020). Myhre and Moen (2017) found coaches who attended coaching had higher coach efficacy than peers who did not. The coach education program they used utilized mastery experiences nearly 50% of the time. They concluded that the emphasis on practical application over theoretical knowledge accounted for heighten self-efficacy. The program incorporated situational tasks and stressed the importance of reflecting on coaching methods for gaining deeper understanding and practical application.

Myhre and Moen (2017) posited experience enhanced a coach's ability to analyze, evaluate, and apply his or her knowledge in different coaching situations. They surmised that practical experiences used by a coach while managing a team would be more likely to increase efficacy than knowledge of coaching theory. The researchers stressed the importance of an experienced-based approach for increasing coach efficacy. Myhre and Moen (2017) suggested

future researchers investigate the link between coaches' own experiences and the theoretical knowledge of coach education.

### ***Coach Efficacy and Within-Coach Outcome***

Coach efficacy can change depending on internal variables. Boardley (2018) found within-coach outcomes can affect coach efficacy. In the following discussion, several such variables, including attrition, burnout, and job satisfaction are examined.

**Attrition.** Pope (2020) studied teacher-coach attrition using open and closed-ended questions about the challenges they face. They found the cause of attrition to be sustained pressure which resulted in a gradual loss of effectiveness (Pope, 2020). The participants cited time management, family obligations, and negative (parental) perception of coaches. Pope (2020) found that most teacher-coaches only stay in education so they can continue coaching. However, Boardly (2018) posited that research was inconclusive because of the limited body of knowledge.

**Burnout.** Maslach et al. (2001) cited three factors that advanced teacher burnout, perceived decreased personal accomplishment, exhaustion, and depersonalization. Maslach et al. (2001) defined decreased personal accomplishment as downgrading one's own abilities, emotional exhaustion as role fatigue followed by withdrawal from responsibility, and depersonalization as a loss in job satisfaction due to internal (e.g., stress) and external (e.g., money) factors. Ho (2018) noted that job withdrawal and emotional exhaustion caused chronic stress, which is positively correlated to burnout. Maslach et al. (2001) defined burnout as an emotional response to stress on the job. The stress-related factors of burnout align with Bandura's (1977) self-efficacy theory insofar as an individual's personal belief in their ability to influence a task or activity. Bandura (1977) defined self-efficacy as the confidence to complete a

task or activity and posited that an individual's belief in their capability to exercise control over a situation was a self-efficacy response.

Efficacy impacts a coach's response to their role which in turn can determine burnout. Sas-Nowosielski et al. (2018) found that low coach efficacy can lead to burnout through decreased personal accomplishment, exhaustion, and depersonalization. They also found that coaches managed stress better when they felt appreciated but reported greater emotional exhaustion when they were dissatisfied with pay or strived for perfection. Ho (2018) learned that emotional exhaustion was caused by chronic stress and found a positive relationship between teacher-coach role stress and burnout which increased with demands from superiors or the public. Ho (2018) determined that the stress of coaching was greater than the stress of being a teacher because of the expectations of superiors or the public. Ho (2018) also concluded that positive self-efficacy moderated the effect of role stress and burnout.

**Job Satisfaction.** Rocchi and Camiré (2018) used a questionnaire with a 4-point Likert scale to measure teacher-coach job satisfaction. They investigated the relationship between job satisfaction and coaching outcomes such as stress and self-efficacy. The researchers determined that self-efficacy impacted other outcomes which in turn affected job satisfaction.

Rocchi and Camiré (2018) found job satisfaction higher in teachers who lead extra-curricular activities. They suggested that the extra time a coach spends with student-athletes outside of normal school hours contributes to relationships in the classroom and noted that good instructors on the field can reduce student-related stressors in the classroom. They concluded that overall, coaching enhanced the quality of the teaching experience. They recommended further research comparing teacher-coacher and non-coaching teacher job satisfaction.

## **Teacher Coaches**

Teacher-coaches serve as teacher and coach concurrently (Konukman et al., 2010).

Teacher-coach researchers investigate the influence coaching has on teaching (Conner, 2020; Pierce et al., 2019).

### ***Teacher-Coaches and Current Literature.***

Konukman et al. (2010) defined teacher-coaches as someone simultaneously teaching in a secondary school and coaching an interscholastic sport. Researchers concluded that it would benefit teacher-coaches to understand the demanding nature of maintaining both roles (Camiré, 2015; Pope, 2020). Common obstacles teacher-coaches cited were managing time, interacting with administration, interacting with colleagues, and planning student-athlete travel (Camiré, 2015; Pope, 2020). Effective time management was the most cited challenge. Camiré (2015) also indicated that non-coaching teachers often approached teacher-coaches for help disciplining student-athletes, causing additional stress.

Although teacher-coaches experience challenges, the dual role has benefits. Camiré et al. (2016) used a national sample of Canadian teacher-coaches to develop a general profile of how the role of a coach impacted the role of classroom teacher. One benefit reported by teacher-coaches was improved teacher-student relationships because of extended interaction outside of the classroom. Camiré et al. (2016) determined that positive student-teacher relationships develop because of synergy between the role of coach and the role of teacher. They reported even better student-teacher relationships were established when the teacher-coach coached more than one sport.

In some content areas, teacher-coaches may experience bias from non-coaching teachers (Conner, 2020; Egalite et al., 2015; Richards & Templin, 2012). Burgess (2012) described a

teacher as someone who promoted learning through engaging lessons and various pedagogy. Knowles et al. (2020) studied teacher-coaches and non-coaching teachers in this regard. Participants were primarily first-year (less experienced) teacher-coaches assigned coaching duties because of their standing and the limited labor pool in the rural setting. Responsibilities varied by setting and content area but compared to non-coaching teachers, teacher-coaches utilized lecture and textbook instruction more than examining primary sources. Knowles et al. (2020) also concluded that advanced placement teachers were less likely to coach. They suggested further research on whether the greater responsibility associated with teaching advanced placement classes leads to teacher-coach assignment in general courses.

Conner (2020) investigated role retreatism between three social studies teachers who also served as coaches. Conner (2020) defined role retreatism as prioritizing one role over another. Conner (2020) interviewed three social studies teacher-coaches to determine the extent of their retreatism to the role of coach and compared their responses. The interview questions were designed to address potential role conflict. Conner (2020) determined participants spent more time operating in the role of coach than teacher and noted teacher coaches expended more energy and time as coach because they perceived more stakeholder accountability in that role. Conner (2020) concluded the energy expended in the role of coach was justified because a coach's performance on the field was attached to job security as a teacher. Even so, every teacher evaluation score was at proficient or exemplary level. Furthermore, Conner (2020) noted that teacher-coaches felt more effective in the role of teacher because of their role as a coach.

Conner (2020) extended the body of knowledge by investigating social studies teachers who also coached; other researchers investigated teachers from different content areas who coached. Egalite et al. (2015) investigated math and reading teacher-coaches. They compared

proficiency outcomes on student standardized test scores over 7-years and found no difference between teacher-coach and non-coaching teachers. Egalite et al. (2015) concluded that teacher-coaches possessed the ability to balance roles through coping strategies. Egalite et al. (2015) posited coping strategy, like exercise, helps teacher-coaches regulate stress between roles. They agree that additional interaction with student-athletes in athletic settings provide social capital with the students in the classroom. Egalite et al. (2015) suggested the social capital gained negates the potential negative effects of the role conflict. Egalite et al. (2015) and Camiré et al. (2017) recommended further research to elucidate how teacher-coaches' coaching experience can improve their teaching outcomes.

Camiré et al. (2017) researched the differences between physical education teacher-coaches and non-physical education teacher-coaches. Physical education teacher-coaches felt they had better classroom environments and student relationships than non-physical education teacher-coaches. Camiré et al. (2017) suggested the teacher-coaches felt this way because the setting was similar for both roles. They found that physical education teacher-coaches had higher coach efficacy scores; however, most sports were coached by non-physical education teacher-coaches.

For teacher-coach researchers, understanding how their subjects balance roles is important. Researchers have investigated teachers-coaches from different perspectives. Some researchers investigated how managing roles affects the teacher-coach. Pope (2020) and Camiré et al. (2016) investigated how balancing roles affect teacher-coach emotion and time management. Other researchers investigated how the role of coach affects the role of teacher. Camiré et al. (2016) and Egalite et al. (2015) suggested that further research is needed to understand how coaching experiences effect different aspects of teaching.



**Teacher-Coaches and Within-Teacher-Coach Outcomes.** Teacher-coach performance outcomes can change because of internal variables. For example, Lee et al. (2018) described emotional labor as the ability to regulate and manage emotion to achieve organizational goals. According to Lee et al. (2018,) teacher-coaches are appropriate subjects for surveying emotional labor levels because the environment in which they work requires considerable emotional regulation. They noted that teacher-coaches sometimes use negative emotions (e.g., shouting) to increase student-athlete performance and that timing is important. They also found that teacher-coaches experienced negative emotions more while coaching than teaching; however, Lee (2019) noted that studies on teacher-coaches' emotional labor levels and burnout factors were limited.

Lee et al. (2018) also found teacher-coaches experience different emotions in the two roles. Lee (2019) observed that surface acting was frequently used by teacher-coaches in both roles. Lee et al. (2018) described surface acting as expressing an emotion which the individual did not want to portray. Surface acting is positively associated with every factor of teacher-coach burnout: decreased personal accomplishment, exhaustion, and depersonalization (Lee, 2019). Lee and Chelladurai (2018) also noted the connection between coach turnover and coach surface acting. In addition, Lee and Chelladurai (2018) found that surface acting was negatively associated with coach job satisfaction. They determined that coaches more experienced with managing emotions were more likely to use appropriate emotions in other situations. Lee and Chelladurai (2018) suggested future research in how experience with emotional regulation could be transferred into other settings and contexts.

### **Summary**

Chapter two summarizes the theoretical framework and related literature related to teacher self-efficacy, coach efficacy, and teacher-coaches. The researcher used Bandura's (1977)

concept of self-efficacy as the theoretical framework. Self-efficacy researchers conclude many groups benefit from elevated self-efficacy including preservice teachers (Clark & Newberry, 2019; Dursun, 2019; Weber & Greiner, 2019), students (K. Kim & Seo, 2018; Lev et al., 2018; Woodcock et al., 2019), and coaches (Boardly, 2018; Caron et al., 2018; Myers et al., 2019). Researchers found a relationship between elevated teacher self-efficacy and job satisfaction, goal creation, and classroom processes, as well as a relationship between low self-efficacy and burnout (Klassen & Tze, 2014; Klassen et al., 2010; Morris et al., 2017; Zee & Koomen, 2016).

Teacher-coach researchers did not find a difference between teacher-coach and non-coaching teacher student achievement (Egalite et al., 2015). They did find that extended time with student-athletes builds relationships in the classroom (Camiré et al., 2016; Lee et al., 2018), and the additional responsibilities associated with coaching improved teacher job satisfaction (Pope, 2020; Rocchi & Camiré, 2018). Researchers recommended further studies concerning the benefits of the role of coaching on the role of teaching (Camiré et al., 2017; Egalite et al., 2015; Richards et al., 2019), and teacher self-efficacy among teacher-coaches, former teacher-coaches, and non-coaching teachers. By comparing the experiences of teacher-coaches, former teacher-coaches, and non-coaching teachers, the current researcher extended that body of knowledge.

## **CHAPTER THREE: METHODS**

### **Overview**

In this chapter, the researcher provides a rationale for the selection of a causal-comparative design and identifies this study's independent and dependent variables. The researcher presents the research question and the corresponding null hypotheses. The researcher then describes the study's population, sampling procedures, and sample demographics, followed by an overview of the research setting. Next, the researcher outlines the framework for instrumentation, including construct validity and scoring procedures. The procedures include a description of how participants were contacted through electronic mail, how the survey was constructed and distributed, and how the data were analyzed.

### **Design**

The researcher used a quantitative causal-comparative design to investigate the variable of overall teacher self-efficacy among the groups of teacher-coaches, former teacher-coaches, and non-coaching teachers. The researcher selected a quantitative causal-comparative design due to the quantifiable variables and the need for statistical analysis between groups. Gall et al. (2007) described the characteristics of a causal-comparative design to include the use of ex-post facto data, the inability to manipulate the independent variable, the inability to establish a causal relationship, and the use of categorical independent variables (Gall et al., 2007). The categorical variables for this study were teacher-coaches, former teacher-coaches, and non-coaching teachers. Through causal-comparative analysis, the researcher determined whether teacher self-efficacy varies among the three groups of coaching experience (Gall et al., 2007).

The independent variable for this study was coaching experience and the researcher had three groups: teacher-coaches, former teacher-coaches, and non-coaching teachers. Teacher-

coaches were defined as teachers who hold the role of teacher and the role of coach simultaneously (Konukman et al., 2010). Those employed in a teacher-coach position held dual roles as a classroom teacher and an athletic coach who coaches a sanctioned sport as defined by the TSSAA (2020). A potential existed for a teacher-coach to coach two or more sports, but this group of teacher-coaches was too small to consider for inclusion in the current study.

### **Research Question**

**RQ1:** Is there a significant difference among the overall teacher self-efficacy scores of teacher-coaches, former teacher-coaches, and non-coaching teachers?

### **Hypothesis**

**H<sub>0</sub>1:** There is no significant difference in the overall teacher self-efficacy scores of teacher-coaches, former teacher-coaches, and non-coaching teachers.

### **Participants and Setting**

The participants for the study were recruited from a suburban school district, hereinafter referred to as District A, in middle Tennessee consisting of 47 K-12 schools. The suburban district lies outside a large metro area, and the target population consists of teachers from eight high schools and 12 middle schools. The school district would be considered in the middle- to upper-income levels in comparison to other counties across the state. The ethnicity breakdown of District A was 85% White, 7% Black, 5% Hispanic or Latino, 2% of two or more races, and 1% Asian. Students with a disability in District A represented 5.6% of the student population. Of the families in the district, approximately 11% of the students came from low socioeconomic backgrounds while 17.2% of the families received food stamps/SNAP benefits. The median income for families in District A was \$64,631 per household (NCES, 2019).

The researcher used a convenience sampling procedure to gather participants. This

sampling method is a non-random technique in which the researcher recruits participants who are easily accessible to the researcher, usually geographically (Fey, 2018). The researcher's proximity to District A provided ease of access to potential participants; therefore, the sample came from this district.

The researcher recruited a sample of middle school and high school teachers from District A. Including a sample of high school and middle school teachers was necessary because K-5 grade levels in District A did not have interscholastic sports. The researcher contacted potential participants via their school email addresses. After receiving permission from Liberty University's Institutional Review Board (IRB) and School District A to conduct this study, school district officials provided the researcher with the school email addresses of potential participants. In a preliminary email to potential participants, the researcher provided a brief overview of the study. The respondents were all certified teachers.

The minimum number of participants is 126, which required data collection until there were 42 participants per group. If one group had more than the minimum number of participants, the researcher selected a random sample to approximately match the other two groups. The necessary sample for an assumed medium effect size with a statistical power of .7 at the .05 alpha level is 126, which is 42 per group (Gall et al., 2007). The sample was composed of an equal number of participants in each group.

The individuals self-reported the role they assume within District A as a teacher-coach, former teacher-coach, or non-coaching teacher. Accordingly, the non-coaching teachers had no coaching experience at their current or previous schools. A teacher-coach must have coached a school-level sport while in the role of a teacher at their current school. A former teacher-coach must have coached a school-level sport while in the role of a teacher at their current school or a

previous school. A school-level sport was defined as an athletic contest sanctioned by the TSSAA (2020). A teacher-coach was a head coach or an assistant coach for one of 22 potential sports, whereas a teacher-coach, former teacher-coach, or non-coaching teacher instructed multiple subjects based on content offerings at each middle or high school.

The participants responded to a series of demographic questions related to gender, nationality, teaching experience, and coaching experience. For gender, participant responses were 60% female, 38% male, and 2% preferred not to answer. For nationality, participant responses were 96% White or Caucasian, 1% Hispanic or Latino, 1% Black or African American, 2% Other. For teaching experience, participant responses were 12% 0-4 years, 19% 5-9 years, 14% 10-14 years, 22% 15-19 years, and 33% 20+ years. For coaching experience, participant responses were 20% 0-4 years, 15% 5-9 years, 12% 10-14 years, 5% 15-19 years, and 13% 20+ years.

### **Instrumentation**

For this study, the researcher utilized the short-form version of the TSES because of the similar overall reliability scores between the long form ( $\alpha = .94$ ) and the short form ( $\alpha = .90$ ; Tschannen-Moran & Hoy, 2001). The TSES assesses teachers' self-efficacy concerning student engagement, instructional strategies, and classroom management (Tschannen-Moran & Hoy, 2001). Tschannen-Moran and Hoy (2001) developed the scale as a response to the movement of educational research to understand how teachers' personal characteristics contribute to student outcomes. Prior to developing the TSES, Tschannen-Moran and Hoy reviewed previous teacher efficacy scales and investigated the construct of teacher self-efficacy. Consequently, they developed an updated TSES that addressed personal competence of teachers. The addition of classroom management items and instructional strategies items to student engagement items

completed the 12-item short form version of the TSES (Tschannen-Moran & Hoy, 2001). The TSES is a commonly used evaluation tool for measuring teacher self-efficacy in various contexts. The TSES has been used in numerous studies (Blackburn et al., 2017; Colson et al., 2017; Naz et al., 2017). Blackburn et al. (2017) found a positive relationship between efficacy and job satisfaction and concluded the relationship was due to mastery experiences. Colson et al. (2017) found that the efficacy of a year-long cohort of preservice teachers was higher in the subfactors of student engagement and classroom management than a one-semester cohort of preservice teachers. Naz et al. (2017) found gender differences in teachers' self-efficacy scores.

Tschannen-Moran and Hoy (2001) conducted three studies to expand the scope of the TSES. The first version of the instrument was a combination of items from the teacher self-efficacy scales of Bandura (1997) and Gibson and Dembo (1984). Tschannen-Moran and Hoy (2001) removed redundant questions and all questions that had a low factorial analysis loading in the second version of their instrument. In their second study, they confirmed the factors for the instrument as efficacy for instructional strategies, efficacy for classroom management, and efficacy for student engagement as those three factors composed 51% of the variance. In their third study, they refined the scale further by adding additional classroom management questions for stronger reliability (Tschannen-Moran & Hoy, 2001). The validation of the instrument was established by comparing each factor to the factorial analysis of other teacher self-efficacy instruments. The factorial analysis of the TSES 12-item short-form varied from .50 to .78 for each question. The reliability of the instrument was measured using Cronbach's  $\alpha$  ( $\alpha > .7$  is acceptable), which indicated strong reliability for the whole instrument ( $\alpha = .90$ ) and each factor (instrumentation = 0.86, management = 0.86, and engagement = .81; Tschannen-Moran & Hoy, 2001).

The final product consisted of 12 items composed of the following three subscales: efficacy for classroom management, efficacy for student engagement, and efficacy for instructional strategies (Tschannen-Moran & Hoy, 2001). The factors of instructional strategies, classroom management, and student engagement each contained four questions. The instrument was designed using a 9-point scale ranging in value from 1 (*nothing*) to 9 (*a great deal*; Tschannen-Moran & Hoy, 2001, p. 796). The items do not require reverse coding. For example, most questions begin with “to what extent,” “how much,” or “how well.” The total points that participants received was derived from the sum of their responses. A higher overall point value represented elevated teacher self-efficacy, whereas a lower value represented poor teacher self-efficacy. The possible point totals for the overall scale had a high value of 73 to 108, a medium value of 37 to 72, and a low value of 12 to 36.

The administration of the instrument was not discussed by the creators; however, the numerical form of the survey allows for online distribution via reliable survey sites. The time required to fully complete the TSES was between 5 to 8 minutes. Following the completion of the questionnaire, Survey Monkey produced a report. Permission was granted by the appropriate parties for the researcher to use the TSES for this study (see Appendix A).

### **Procedures**

The researcher obtained permission to conduct this study through Liberty University’s IRB. The researcher included permission letters, recruitment materials, consent materials, and instruments as part of the IRB application (see Appendix B). The researcher was required to obtain permission from District A prior to distributing the survey within the schools for recruiting teachers to participate.

The researcher presented the proposed study and accompanying paperwork to District



A's review board for approval before conducting the study. Each certified teacher who worked in District A had a district email account available to the public for communication. The District A administration published an email list reflecting all teachers in the county for the purposes of internal communication. After receiving permission to distribute the survey, the researcher constructed an email for District A to send to all teachers on the list. The email list used by District A provided anonymity to the sample through the use of email groups only available to the Assistant Superintendent.

The email included a hyperlink to the survey and a brief description of the researcher's purpose in administering the survey. After the participants clicked on the link, they were transferred to the online website, allowing them to answer demographic questions and complete the survey anonymously. The first question of the survey inquired about respondents' informed consent to participate (see Appendix C). The next questions obtained participants' demographic information such as gender, years of experience, and grade level taught. Finally, the survey included a question about coaching experience followed by the TSES questionnaire. Each participant was allowed one attempt to complete the survey. Participants could have withdrawn their responses from the survey at any time without penalty. After the survey was completed, the participants were thanked for their participation and directed to an email where they could have contacted the researcher with questions about the survey or requested the results of the study (see Appendix D). The participants were provided an option to receive a copy of their survey responses, which the researcher sent to a provided email address.

The survey responses were automatically recorded onto the survey website and became available for the researcher to view and download. The survey site collected IP addresses to prevent duplicate responses; these were excluded from the results. The survey was deactivated

after 4 weeks to ensure that no individuals could have completed the survey outside of the intended timeframe. After deactivating the survey, the researcher accessed the results by transferring the data into an Excel file. The researcher coded the participants' demographic information and coaching experience as follows: gender (1-male and 2-female), numerical years of experience, grade level taught (1-middle school and 2-high school), and coaching experience (1-teacher-coach, 2-former teacher-coach, and 3-non-coaching teacher). After coding, the researcher uploaded the data into SPSS for data analysis.

### **Data Analysis**

The researcher answered the research question using a one-way analysis of variance (ANOVA). Through the ANOVA, the researcher tested the null hypothesis that there was no significant difference in the overall teacher self-efficacy score among teacher-coaches, former teacher-coaches, and non-coaching teachers. This analysis was the appropriate statistical method to use when comparing the means of a categorical independent variable with three or more groups and one continuous (ratio or interval scale) dependent variable (Gall et al., 2007; Warner, 2013). The researcher investigated a categorical independent variable that included three groups (i.e., teacher-coaches, former teacher-coaches, and non-coaching teachers) and one continuous dependent variable of overall teacher self-efficacy, as measured by the TSES. The sample for this analysis exceeded the minimum required sample size of 126 for a one-way ANOVA with three groups, assuming a medium effect size at a statistical power of 0.7 and an alpha of 0.05 (Gall et al., 2007).

Data obtained for the dependent variable, overall teacher self-efficacy, was screened for inconsistencies and extreme outliers. A box and whisker plot was used to screen for extreme outliers for each of the three groups (Gall et al., 2007). The use of a one-way ANOVA assumes

that the dependent variable is normally distributed in each group of the independent variable and that the variances are equal. The researcher performed a Kolmogorov-Smirnov test to assess normality because the sample was greater than 50 ( $N = 152$ ; Warner, 2013). The assumption of variance was examined using Levene's Test of Equality of Error Variances.

Descriptive statistics of mean and standard error were reported in addition to reporting the results of the ANOVA. If the result of the ANOVA was significant,  $p < .05$ , then post hoc Tukey tests were performed to determine what groups differ. The effect size of the study was interpreted through the eta square statistic (Gall et al., 2007).

## CHAPTER FOUR: FINDINGS

### Overview

In this chapter, the researcher presents the descriptive and inferential statistics of this study. Under the results, the researcher reports the statistical procedure used for the hypothesis, data screening, and assumption testing for the study. The purpose of this study was to determine whether there were differences in teacher self-efficacy between teacher-coaches, former teacher-coaches, and non-coaching teachers. The researcher assessed teacher self-efficacy levels using the TSES.

### Research Question

**RQ1:** Is there a significant difference among the overall teacher self-efficacy scores of teacher-coaches, former teacher-coaches, and non-coaching teachers?

### Null Hypothesis

**H<sub>0</sub>1:** There is no significant difference in the overall teacher self-efficacy scores of teacher-coaches, former teacher-coaches, and non-coaching teachers.

### Descriptive Statistics

Descriptive statistics obtained for the dependent variable of *teacher self-efficacy* for the groups of teacher-coach, former-teacher coach, and non-coaching teacher are found in Table 1. The researcher collected data on 126 participants using an eighteen-item questionnaire. The possible point total for each teacher self-efficacy item had a high value of 9, a medium value of 5, and a low value of 0.

**Table 1***Descriptive Statistics for the TSES and Coaching Level*

Variable	TSES					
	<i>N</i>	<i>M</i>	<i>SD</i>	<i>SE</i>	<i>Min</i>	<i>Max</i>
TC	43	7.01	.91	.14	5.25	8.83
FTC	40	7.03	.90	.14	5.17	8.75
NCT	43	7.29	1.05	.16	5.17	9.00

### Results for Null Hypothesis

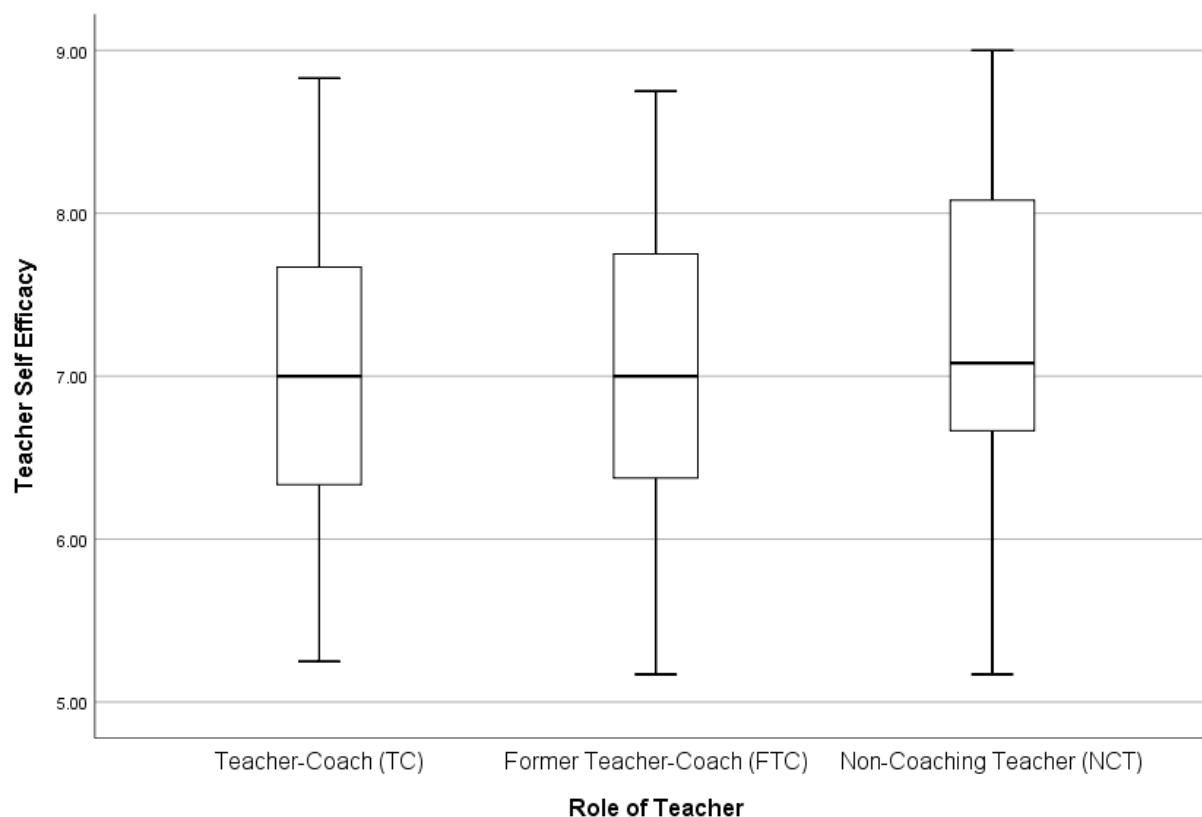
#### Data Screening

Prior to data analysis, the researcher screened all data to ensure participants' information submitted was complete. A total of 152 teachers at District A responded to the survey. The researcher excluded 10 responses because the respondents did not complete the TSES portion of the survey. For example, a respondent answered six demographic questions and then opted out of the 12 TSES questions. The researcher removed the incomplete responses from the data and continued screening the data.

For a one-way ANOVA, similar group sizes were necessary to run the analysis. The researcher took the lowest group number, former teacher-coaches ( $n = 40$ ), and randomly selected 43 responses from the teacher-coach group ( $n = 48$ ) and non-coaching teacher group ( $n = 56$ ). The resulting sample size between the three groups was  $N = 126$ . The researcher then examined the sample for extreme outliers using a box and whiskers plot. No extreme outliers were identified so all data were retained. See Figure 1 for box and whisker plot of TSES scores and coaching level.

**Figure 1**

*Box and Whiskers Plot for TSES and Coaching Level*



### **Assumption Tests**

The researcher used an ANOVA to test the null hypothesis that there was no significant difference in the *overall teacher self-efficacy* scores of *teacher-coaches, former teacher-coaches, and non-coaching teachers*. The one-way ANOVA required that the assumption of normality and homogeneity of variance be met. The researcher examined normality using the Kolmogorov-Smirnov test. The Kolmogorov-Smirnov test was used because the sample size was more than 50 ( $N = 126$ ). The assumption of normality was tenable due to the significance being greater than .05 for all groups. The Kolmogorov-Smirnov test for normality is found in Table 2.

**Table 2***Kolmogorov-Smirnov Test for Normality for TSES and Coach Level*

Role of Teacher	Kolmogorov-Smirnov <sup>a</sup>		
	Statistic	<i>df</i>	Sig.
TC	.095	43	.200*
FTC	.097	40	.200*
NCT	.100	43	.200*

\*. This is a lower bound of the true significance.

The assumption of homogeneity of variance was examined using the Levene's test. The assumption was tenable due to the significance being greater than .05 ( $F(2,123) = .877, p = .418$ ). See Table 3 for Levene's test.

**Table 3***Levene's Test of Equality of Error Variance*

	F	<i>df1</i>	<i>df2</i>	Sig.
Teacher Self Efficacy	.877	2	123	.418

**Null Hypothesis**

The researcher used a one-way ANOVA to test the null hypothesis that there was no significant difference in the overall teacher self-efficacy scores of teacher-coaches, former teacher-coaches, and non-coaching teachers. The researcher failed to reject the null hypothesis because there was no statistically significant difference between groups:  $F(2,123) = 1.096, p = .338, \eta^2 = .018$ . The researcher determined effect size using partial eta squared and concluded

the effect size was very small. There was not a statistical difference in overall teacher self-efficacy scores of teacher-coaches ( $M = 7.01$ ,  $SD = .91$ ), former teacher-coaches ( $M = 7.03$ ,  $SD = .90$ ), and non-coaching teachers ( $M = 7.29$ ,  $SD = 1.05$ ). Therefore, the researcher failed to reject the null hypothesis and a post hoc analysis was not required. The results of the ANOVA are below in Table 4.

**Table 4**

*ANOVA Tests Between-Subjects for TSES and Coaching Level*

Source	<i>SS</i>	<i>Df</i>	<i>MS</i>	<i>F</i>	<i>Sig.</i>	<i>SE</i>	<i>ηp2</i>
Corrected Model	2.01 <sup>a</sup>	2	1.00	1.096	.338		.018
Intercept	6362.43	1	6362.43	6906.487	.000		.983
Current_Role	2.01	2	1.00	1.096	.338		.018
Error	113.31	123				.92	
Total	6488.59	126					
Corrected Total	115.33	125					

a.  $R^2 = .018$  (Adjusted  $r^2 = .002$ )



## **CHAPTER FIVE: CONCLUSIONS**

### **Overview**

The purpose of this quantitative, causal comparative study was to determine whether there were differences in teacher self-efficacy between teacher-coaches, former teacher-coaches, and non-coaching teachers. Through this study, the researcher examined differences in teacher self-efficacy between the three groups, as well as extended the current body of knowledge of teacher-coach self-efficacy. In the following chapter, the researcher discusses the findings, implications, and limitations of the study. The researcher concludes the chapter with recommendations for future research.

### **Discussion**

The researcher defined teacher self-efficacy as a teachers' confidence in their ability to engage students, manage a classroom, or deliver lessons (Bandura, 1977; Bong & Skaalvik, 2003; Tschannen-Moran & Hoy, 2001). The researcher distributed a survey with TSES items and demographic questions to all middle and high school teachers in District A. There were 152 responses and a final sample size of 126. The researcher analyzed the response data and the result for research question one is below.

#### **Research Question One**

Is there a significant difference among the overall teacher self-efficacy scores of teacher-coaches, former teacher-coaches, and non-coaching teachers?

#### **Null Hypothesis One**

There was no significant difference in the overall teacher self-efficacy scores of teacher-coaches, former teacher-coaches, and non-coaching teachers.

The researcher found no significant difference in the overall teacher self-efficacy scores

of teacher-coaches, former teacher-coaches, and non-coaching teachers. No previous research studies have examined differences in overall teacher self-efficacy between the groups of teacher-coach, former teacher-coach, and non-coaching teacher. Previous researchers have investigated teacher-coach coaching efficacy or teacher-coach role conflict (Camiré, 2015; Boardley, 2018; Rocchi & Camiré 2018).

The variable of teacher-coaches was previously investigated within the variable of coach efficacy (Rocchi & Camiré, 2018). Rocchi and Camiré (2018) investigated the relationship between perceived teacher-coach job satisfaction and other coaching outcomes such as stressors and coach efficacy. The current research study differed from Rocchi and Camiré's (2018) study. The current researcher investigated the construct of teacher self-efficacy rather than the construct of coach efficacy. Additionally, the current researcher included differences between teacher-coaches and non-coaching teachers whereas Rocchi and Camiré (2018) included only teacher-coaches.

For teacher-coach role conflict, previous researchers have determined that teacher-coaches spend more time operating, in the classroom environment, on coaching responsibilities than teacher responsibilities (Conner, 2020; Knowles et al., 2020; Pope, 2020). Although the current study did not evaluate how teacher-coaches or non-coaching teachers operate in the classroom, the researcher found no difference exists for the overall teacher self-efficacy score between the groups of teacher-coach, former teacher-coach, and non-coaching teacher.

The current researcher concluded that although previous researchers determined teacher-coaches must manage more tasks, a difference in perceived teacher self-efficacy did not exist. This finding supports Egalite et. al.'s (2015) assertion that teacher-coaches possess additional knowledge gained from coaching a sport that is transferable into the classroom. Further research

is needed to identify what specific knowledge is transferred from the coaching setting into the educational setting.

### **Implications**

Although there was no statistically significant difference between the groups, there are implications for the current study that extend the existing body of knowledge. Bandura (1977) describes mastery experiences as the acquisition of skills and knowledge. Bandura (1977) suggested that acquisition of skills and knowledge was culminative. A teacher-coach or former teacher-coach would have additional skills and knowledge in the area of coaching a sport. Using Bandura's description of mastery experience, the additional skills and knowledge of coaching is culminative. Therefore, the potential exists for teacher-coaches to have more mastery experiences than non-coaching teachers. However, the current researcher concluded that no difference exists in teacher self-efficacy between teacher-coaches and non-coaching teachers.

Although the researcher concluded no difference exists, average overall teacher self-efficacy scores were similar between teacher-coaches, former teacher-coaches, and non-coaching teachers. Even with similar overall efficacy scores, the researcher determined through the review of literature that teacher-coaches carry additional responsibilities through coaching a sport, which led to issues with time management in the classroom (Pope, 2020; Camiré et al., 2016). The time management issues experienced by teacher-coaches did not seem to restrict their teacher self-efficacy when compared to non-coaching teachers. The researcher suggested that the additional mastery experiences held by teacher-coaches balanced the negative side effects of role conflict discussed by previous teacher-coach researchers.

One possible reason for this balance between the role of a teacher and the role of a coach was discussed by Myhre and Moen (2017). They determined that practical experiences used by a

coach while managing a team would be more likely to increase efficacy and knowledge than theoretical knowledge of coaching. Additionally, Egalite et al. (2015) concluded that teacher-coaches possess additional knowledge gained from coaching a sport that is transferable into the classroom. Egalite et al. suggested that the knowledge gained from managing a team can help a teacher-coach manage a classroom.

### **Limitations**

This research is subject to several limitations. The first few limitations pertain to the research design. Firstly, a limit of the causal-comparative design is an inability to gather a true random sample. For this study, the researcher used a convenience sample because of the ease of access to the needed population. The use of a convenience sample does not accurately represent a population and are hard to replicate. Second, another limitation of the causal-comparative design is the inability for a causal relationship to be established between variables (Gall et al., 2007). For this study, the researcher did not control for other variables which could lead to higher or lower teacher self-efficacy. The inability to control additional variables eliminated the ability to establish causation between teacher self-efficacy and teacher-coaches, former teacher-coaches, and non-coaching teachers. Additional limitations pertain to self-reported data and generalizability.

The researcher asked respondents to self-report data by rating their perceptions of their teacher self-efficacy using a Likert scale. The use of self-report data limits the depth of information provided by the respondent. Additionally, the respondent may not be able to assess themselves accurately or honestly, which can lead to inaccurate responses. The researcher could have asked participants open-ended questions or conducted interviews with participants to access in-depth information about participants perception of their teacher self-efficacy.

Another limitation of this research was the researcher's use of a convenience sampling procedure, which threatens the generalizability of the study. Gall et al. (2007) described generalizability as the inability to draw inferences across a setting or population. The researcher's sample was predominately white females from a suburban community with parts of the district being more affluent. Therefore, the inferences made from the data collected cannot be generalized to other districts. The final limitation was there were no internal validity threats to the study because the participants were kept anonymous. The researcher collected no identifying information of the respondents, and all data were password protected.

### **Recommendations for Future Research**

Based on the findings of this study, further research is recommended between the variable of teacher self-efficacy and teacher-coaches, former teacher-coaches, and non-coaching teachers. The following recommendations should be considered:

1. A mixed methods study between teacher self-efficacy and coaching level would be recommend for future research. A mixed methods study would provide additional information from which researchers can draw conclusions.
2. A qualitative study using interviews with participants for deeper understanding of responses.
3. A quantitative study using a random sampling procedure with a larger population from multiple school districts.
4. The use of a correlation design using years of coaching experience and teacher self-efficacy as variables would provide additional varied results and broaden the understanding of differences between teacher-coaches and non-coaching teachers.

5. A longitudinal study where the researcher collects data over multiple school years rather than at a specific point in time.

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## APPENDICES

### Appendix A

#### Permission to Use Instrument in Dissertation



## William & Mary School of Education

MEGAN TSCHANNEN-MORAN, PHD

PROFESSOR OF EDUCATIONAL LEADERSHIP

June 28, 2020

Ryan,

You have my permission to use the Teacher Sense of Efficacy Scale (formerly called the Ohio State Teacher Sense of Efficacy Scale), which I developed with Anita Woolfolk Hoy, in your research.

You can find a copy of the measure and scoring directions on my web site at <http://wmpeople.wm.edu/site/page/mxtsch> .

Please use the following as the proper citation:

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

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

All the best,

Megan Tschannen-Moran  
William & Mary School of Education

## Appendix B

### IRB Approval from Liberty

# LIBERTY UNIVERSITY

## INSTITUTIONAL REVIEW BOARD

EXTERNAL EMAIL: Do not click any links or open attachments unless you know the sender and trust the content. ]

May 7, 2021

Ryan Goostree  
David Gorman

Re: IRB Exemption - IRB-FY20-21-760 A comparative analysis of self-efficacy among varying groups of coaching experience of teachers in northern middle Tennessee

Dear Ryan Goostree, David Gorman:

The Liberty University Institutional Review Board (IRB) has reviewed your application in accordance with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) regulations and finds your study to be exempt from further IRB review. This means you may begin your research with the data safeguarding methods mentioned in your approved application, and no further IRB oversight is required.

Your study falls under the following exemption category, which identifies specific situations in which human participants research is exempt from the policy set forth in 45 CFR 46: 101(b):

Category 2.(i). Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording).

The information obtained is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained, directly or through identifiers linked to the subjects.

Your stamped consent form(s) and final versions of your study documents can be found under the Attachments tab within the Submission Details section of your study on Cayuse

IRB. Your stamped consent form(s) should be copied and used to gain the consent of your research participants. If you plan to provide your consent information electronically, the contents of the attached consent document(s) should be made available without alteration.

Please note that this exemption only applies to your current research application, and any modifications to your protocol must be reported to the Liberty University IRB for verification of continued exemption status. You may report these changes by completing a modification submission through your Cayuse IRB account.

If you have any questions about this exemption or need assistance in determining whether possible modifications to your protocol would change your exemption status, please email us at \_\_\_\_\_.

Sincerely,

**G. Michele Baker, MA, CIP**

*Administrative Chair of Institutional Research*

**Research Ethics Office**



## Appendix C

### Consent Form

### Consent

**Title of the Project:** A comparative analysis of self-efficacy among varying groups of coaching experience of teachers in northern middle Tennessee

**Principal Investigator:** Ryan Goostree, Ph.D. Candidate, Liberty University

#### Invitation to be Part of a Research Study

You are invited to participate in a research study. In order to participate, you must be at least 18 years of age or older, a certified teacher, and be currently teaching in a middle/ high school classroom. Taking part in this research project is voluntary.

Please take time to read this entire form and ask questions before deciding whether to take part in this research project.

#### What is the study about and why is it being done?

The purpose of the study is to determine whether there are differences in teacher self-efficacy between teacher-coaches, former teacher-coaches, and non-coaching teachers. This study will span over all content areas and two grade levels (middle and high school).

#### What will happen if you take part in this study?

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

1. Complete an 18-question survey which will take approximately 8 minutes to complete. The survey will consist of six demographic questions, followed by the 12-item Teacher Sense of Efficacy Scale.

#### How could you or others benefit from this study?

Participants should not expect to receive a direct benefit from taking part in this study. Benefits to society include a better understanding of the connection between the role of the coach and the role of the teacher.

#### What risks might you experience from being in this study?

The risks involved in this study are minimal, which means they are equal to the risks you would encounter in everyday life.

#### How will personal information be protected?

The records of this study will be kept private. Research records will be stored securely, and only the researcher will have access to the records.

- Participant responses will be anonymous.
- Data will be stored on a password-locked computer and may be used in future presentations. After three years, all electronic records will be deleted.

**Is study participation voluntary?**

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

**What should you do if you decide to withdraw from the study?**

If you choose to withdraw from the study, please exit the survey and close your internet browser. Your responses will not be recorded or included in the study.

**Whom do you contact if you have questions or concerns about the study?**

The researcher conducting this study is Ryan Goostree. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact him at \_\_\_\_\_. You may also contact the researcher's faculty sponsor, Dr. David Gorman, at \_\_\_\_\_.

**Whom do you contact if you have questions about your rights as a research participant?**

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA 24515 or email at \_\_\_\_\_.

**Your Consent**

Before agreeing to be part of the research, please be sure that you understand what the study is about. You can print a copy of the document for your records. If you have any questions about the study later, you can contact the researcher/study team using the information provided above.

## Appendix D

### Letter to Principals

*Good morning, Principals!*

*Below is the information and link to a survey for teachers to voluntarily complete. I would truly appreciate your time in forwarding this email! Additionally, you will find below the email with approval from \_\_\_\_\_ to conduct the survey in \_\_\_\_\_.*

As a graduate student in the School of Education at Liberty University, I am conducting research as part of the requirements for a Doctor of Philosophy degree. The purpose of my research is to compare differences in teacher self-efficacy among teacher-coaches, former teacher-coaches, and non-coaching teachers, and I am writing to invite eligible participants to join my study.

Participants must be 18 years of age or older, a certified teacher, and be currently teaching in a middle/ high school classroom. Participants, if willing, will be asked to complete a survey with demographic questions and the 12-item Teacher Sense of Efficacy Scale. It should take 5 minutes or less to complete the procedures listed. Participation will be completely anonymous, and no personal, identifying information will be collected.

### **In order to participate, please click**

**below:** <https://www.surveymonkey.com/r/QQBXMJN>

A consent statement is provided as the first question you will see after clicking on the survey link. The informed consent question contains additional information about my research; please click on the check mark box at the end of the informed consent question to indicate that you have read it and would like to take part in the survey.

Sincerely,  
Ryan Goostree Ph.D. Candidate

From: \_\_\_\_\_

Sent: Friday, May 7, 2021 8:07 AM

To: \_\_\_\_\_

Cc: Goostree, Ryan

Subject: [External] Mr. Ryan Goostree requesting to conduct research via a survey

[ EXTERNAL EMAIL: Do not click any links or open attachments unless you know the sender and trust the content. ]

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Principals:

Ryan Goostree, a fellow educator at \_\_\_\_\_, has requested to conduct research in our MSs and HSs for his doctoral thesis comparing differences in teacher self-efficacy among teachers-coaches, former teacher-coaches, and non-coaching teachers. The process includes a short survey he is requesting your teachers complete. The district has approved his request to conduct research.

As always, you are under no obligation to participate but I know Ryan would appreciate your assistance.

Below is his letter of request that would be sent to your faculty. You should expect to hear from Ryan soon via email.

*Dear Colleagues:*

*As a graduate student in the School of Education at Liberty University, I am conducting research as part of the requirements for a Doctor of Philosophy degree. The purpose of my research is to compare differences in teacher self-efficacy among teacher-coaches, former teacher-coaches, and non-coaching teachers, and I am writing to invite eligible participants to join my study.*

*Participants must be 18 years of age or older, a certified teacher, and be currently teaching in a middle/ high school classroom. Participants, if willing, will be asked to complete a survey with demographic questions and the 12-item Teacher Sense of Efficacy Scale. It should take eight minutes or less to complete the procedures listed. Participation will be completely anonymous, and no personal, identifying information will be collected.*

*In order to participate, please [click here](#).*

*A consent statement is provided as the first question you will see after clicking on the survey link. The informed consent question contains additional information about my research; please click on the check mark box at the end of the informed consent question to indicate that you have read it and would like to take part in the survey.*

*Sincerely,*

*Ryan Goostree Ph.D. Candidate \_\_\_\_\_*

I have attached a copy of the survey for your perusal.  
Thank you for considering his request.