Southeastern University

FireScholars

Doctor of Education (Ed.D)

Spring 2021

TEACHER SELF-EFFICACY AND TEACHER WORK ENGAGEMENT FOR EXPATRIATE TEACHERS AT INTERNATIONAL K12 SCHOOLS IN CHINA

Jennifer L. Johnson
Southeastern University - Lakeland

Follow this and additional works at: https://firescholars.seu.edu/coe

⚙️ Part of the Educational Assessment, Evaluation, and Research Commons, Educational Leadership Commons, International and Comparative Education Commons, Other Teacher Education and Professional Development Commons, and the Social and Philosophical Foundations of Education Commons

TEACHER SELF-EFFICACY AND TEACHER WORK ENGAGEMENT

FOR EXPATRIATE TEACHERS AT INTERNATIONAL K12 SCHOOLS IN CHINA

By

JENNIFER L. JOHNSON

A doctoral dissertation submitted to the
College of Education
in partial fulfillment of the requirements
for the degree Doctor of Education
in Organizational Leadership

Southeastern University
June, 2021

TEACHER SELF-EFFICACY AND TEACHER WORK ENGAGEMENT

FOR EXPATRIATE TEACHERS AT INTERNATIONAL K12 SCHOOLS IN CHINA

by
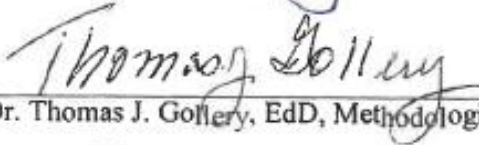
JENNIFER L. JOHNSON

Dissertation Approved:

_____

Dr. Sarah J. Yates, EdD, Dissertation Chair

_____

Dr. Thomas J. Gollery, EdD, Methodologist

_____

Dr. James A. Anderson, PhD, Dean, College of Education

DEDICATION

To all my students past, present, and future. Never stop learning.

To all the folks in Taylor, Arkansas. You gave this girl roots and wings.

To TJ, Noah, and Nate. You are my why.

LORD, Your Name and Renown are the desires of my heart…

to know You and to make You known.

ACKNOWLEDGMENTS

Thank you, Dr. Yates, for your steadfast commitment to our program and to my dissertation process. It has been an honor to learn under you as my chair. From Learning and Cognition to Dissertation and Defense you have been right by my side the whole way cheering me on and challenging me to grow.

Thank you, Dr. Gollery, for believing in me and my research. I appreciate how you make statistics so engaging. Thank you for your constant encouragement and support.

Thank you, Incredibles, for always being there for me and talking me off the ledge more than once. You are the best cohort anyone could ever be a part of. I would not have gotten this far without you.

Thank you, Dr. Klassen, for sharing your research with me and encouraging me. Thank you, Dr. Poole, for caring about expat educators in China. Thank you, Dr. Eplin, for being my constant sounding board. Thank you, Dr. McCaslin, for helping me to complete the journey.

Thank you, Dr. Bandura, for being the shoulders upon which my research stands.

Abstract

The purpose of this non-experimental, descriptive quantitative survey study was to evaluate if teacher self-efficacy predicts teacher work engagement for expatriate teachers in international schools in China. The purposive sample was composed of 103 expatriate, international school teachers who have worked in China during the past 10 years at an international K12 school and are personally known to the researcher or the researcher's contacts. The Teachers' Sense of Efficacy Scale (TSES) and the Engaged Teachers Scale (ETS) measured teacher self-efficacy and teacher work engagement. Results from simple linear regression indicated a statistically significant predictive relationship between teacher self-efficacy and teacher work engagement. Multiple linear regression analysis indicated that the student engagement dimension of self-efficacy was the most statistically significantly predictive of study participants' overall perception of their level of work engagement. Multiple linear regression analysis indicated that the teacher work engagement factors of emotional engagement and social engagement with students were the most statistically significantly predictive of study participants' overall perceptions of self-efficacy. The data suggest that investigating the role of teacher self-efficacy and its impact on teacher work engagement can address the problem of hiring and retaining quality expat teachers in international schools in China.

*Keyword*s: self-efficacy, teacher self-efficacy, work engagement, teacher work engagement, Teachers' Sense of Efficacy Scale, TSES, Engaged Teachers Scale, ETS, Bandura, Kahn, Klassen, international schools, expatriates, expats, China, teacher attrition, teacher retention, teacher professional development

TABLE OF CONTENTS

LIST OF TABLES

I. INTRODUCTION

The demand for international schools, schools that adopt an international curriculum, and generally use English as the language of instruction (Nagrath, 2011) is on the rise worldwide, especially in China (Associated Press, 2016). Expatriate (expat) professionals, which refers to individuals working cross-culturally in a foreign country, are often afforded respect, the opportunity for adventure, and attractive financial remuneration (Tarc et al., 2019). By 2026, an estimated 800,000 expatriate teachers will be working in international schools globally (Bunnell, 2017). However, many of these wanderlust expats lack the training or skills of sound pedagogy (Ramalu & Subramaniam, 2019; Tarc et al., 2019), such as planning curriculum, delivering instruction, employing classroom management strategies, assessing student work, and reporting progress to stakeholders (Marzano, 2007).

To meet demand, international schools often make hiring decisions based on incomplete and imperfect information (Staiger & Rockoff, 2010) and find themselves competing for competent teachers from a small pool of genuinely qualified applicants (Machin, 2017). Once a person is hired, responsibility may fall on schools to train and equip novice educators (Kozikoğlu, 2018). School leaders may need to devote valuable professional development time to teaching instruction and classroom management skills to faculty who lack essential teaching competencies (Rutledge et al., 2008) and other proficiencies necessary to fully engage in the teaching practice (Budrow & Tarc, 2018).

Once a school hires and invests capital in a teacher, the potential for attrition still exists (Fong, 2018). Therefore, school administrators need to identify the factors that lead to positive work absorption, teaching vigor, and dedication towards organizational goals (Bakker, 2011). Identifying factors that correlate with work engagement is vital during both the hiring process and professional development because work engagement correlates to teacher retention (Burić & Macuka, 2018) and positive student learning outcomes (Lemon & Garvis, 2016). Researchers have recommended further investigation into which factors contribute to teacher effectiveness and work engagement (Klassen & Tze, 2014).

Background of the Study

Teacher shortage and the lack of early-career retention negatively impact schools and students (Talley, 2017). In international education, a small qualified candidate pool and governmental visa restrictions limit administrators' options when hiring new staff (Rutledge et al., 2008). International schools in China face high teacher turnover rates each year, and as China's visa laws become even more strict, the total pool of potential candidates continues to shrink despite the incentives to teach abroad (Cadell, 2019).

Limited teacher availability is a problem for all international schools in China (McInerney et al., 2015). Teachers must qualify for a work permit to teach in China. The process of obtaining a work permit is lengthy, costly, and time consuming. Teachers for a fall start should be hired by January. Any hire made past April is considered a too-late hire (Eplin, 2020). Teachers hired in the summer usually cannot begin working by the first day of school in August. Until a teacher has the proper work permit, they cannot teach (Cadell, 2019). If this regulation is ignored, the school faces hefty fines, and the teacher can suffer jail time and deportation (Oberholzer, 2018).

When a teacher leaves, the hiring and training process must start over with a new employee. Most novice teachers, international or otherwise, leave the teaching profession within their first five years of teaching (Wagner & Imanel-Noy, 2014). Because many non-traditional expat teachers also possess degrees, skills, and experiences outside the scope of education, few barriers to attrition exist (Ovenden-Hope et al., 2018). Many expat teachers at international schools are early in their careers, and research shows that millennials change jobs several times early on in their professional lives (Fong, 2018). High turnover affects school administrators' time, school financial resources, and student learning (Carver-Thomas & Darling-Hammond, 2019).

Teaching at an international school is challenging. New teachers are expected to learn many new systems and technologies, create units from curricular standards they may be unfamiliar with, and begin preparations for the first day of school (Eplin, 2020). Teachers must consider setting up their classrooms, planning first day procedures, and creating syllabi and take-home newsletters for parents (Wong & Wong, 1998). For teachers with an educational background and years of teaching experience, the first week of school is stressful (Loreman et al., 2013). The stress is even more significant for teachers with limited professional development and experience teaching (Brickhouse & Bodner, 1992) or teachers who may have taught in language schools or kindergartens in China but are new to the K12-type international school system (Fenwick & Weir, 2010).

Novice teachers may also be teaching students with special needs or language deficits without enough supports in place (Pang, 2018). International schools in China often do not adhere to special education guidelines found in many Western countries. Nevertheless,

international school budgets are dependent upon the tuition monies from the families of special needs children and children with low-level English ability (Eplin, 2020).

Despite these challenges, teachers with high self-efficacy are capable of learning new procedures, crafting lesson plans for the first time, or teaching students with special needs (Craig, 2010). Teacher self-efficacy deals with "the belief a teacher holds about [her] capability to carry out an instructional practice in an educational context that results in positive student outcomes" (Lemon & Garvis, 2016, p. 392). According to Wagner and Imanel-Noy (2014), teachers with high self-efficacy are "more innovative in pedagogy" (p. 35) and have better classroom management skills than teachers with low self-efficacy. Research has linked teacher self-efficacy to teacher performance, student achievement, and teacher retention (Klassen & Tze, 2014). In addition, teachers with high self-efficacy levels are more likely to engage in professional development and implement innovative teaching practices (Kent & Giles, 2017).

Teacher burnout and attrition are often associated with low self-efficacy levels and result from lacking proper coping strategies to deal with job strain. In general, low self-efficacy is closely linked to anxiety, depression, and helplessness (Schwarzer & Hallum, 2008), and lack of teacher self-efficacy is linked to teacher burnout (Skaalvik & Skaalvik, 2007). On the other hand, high self-efficacy is linked to job satisfaction and is a critical component in teacher retention (Ozder, 2011).

Liu and Huang (2019) maintained that self-efficacy leads to teacher work engagement, supporting a more positive learning environment. Researchers have found that "teachers with higher perceived self-efficacy are more engaged in their work, experience more joy, pride, and love, and less anger, fatigue, and hopelessness towards their students" (Burić & Macuka, 2018, p. 1917). In addition, "teachers with a strong sense of self-efficacy tend to be better planners,

more resilient through failure, and more open-minded and supportive with students" (The Room 241 Team, 2018, para. 2). Burić and Macuka (2018) found that "self-efficacy, as expected, positively predicted both positive emotions (β= .41, p < .001) and work engagement (β = .53, p < .001), but inversely predicted negative emotions (β = -.38, p < .001)" (p. 1927).

An intrinsic resilience against obstacles allows emerging teachers the capacity for growth in self-efficacy. Research shows that self-efficacy is not a fixed trait (Bandura, 1997). Successful outcomes lead to increased self-efficacy, whereas failures undermine self-efficacy. An individual's self-efficacy may be positively or negatively affected by success or failure (Skaalvik & Skaalvik, 2007) which can impact teachers' work engagement (Bandura, 1997).

Bandura's Theory of Self-Efficacy

The construct of teacher self-efficacy borrows from Bandura's seminal works *Self-efficacy: Toward a Unifying Theory of Behavioral Change* (Bandura, 1977) and *Self-Efficacy: The Exercise of Control* (Bandura, 1997). Efficacy relates to the skills and competencies that individuals or organizations need to achieve an intended or desired outcome (Bandura, 1977). Self-efficacy is "an individual's belief in one's ability to organize and implement actions to carry out designated types of performance and tasks" (Young et al., 2018, p. 49). According to Bandura (1997), self-efficacy determines whether an individual will initiate action, the level of commitment and effort he will be willing to exercise, and if he will persevere in the face of potential failure and obstacles. Bandura claimed a person with strong self-efficacy would intentionally choose challenging work, be willing to invest more time and energy towards meeting goals, and persist even in the face of potential failure to achieve personal or organizational goals (Burić & Macuka, 2018).

Bandura (1977) based his construct of self-efficacy on social cognitive theory, the idea that people have an internal locus of control that influences their behavior. Bandura (1997) theorized that self-efficacy is derived from four areas: "enactive mastery experiences, vicarious experience, verbal persuasion, and physiological reactions" (Skaalvik & Skaalvik, 2007, p. 612). Of these areas of self-efficacy, according to Bandura, mastery experiences are the most important. Thus, teachers with more cumulative successes in teaching and instruction will perpetuate an increase in their self-efficacy (Bandura, 1997).

Kahn's Theory of Engagement

Kahn (1990), considered to be the founding father of employee engagement, first theorized that people engage with their work physically, emotionally, and cognitively. Kahn (1990) related his theory to three psychological dimensions: meaningfulness, safety, and availability. Kahn's framework seeks to determine to what degree workers present their true selves while acting in roles. He describes roles as houses and workers as occupants. He argues that the more a person draws on their true self to perform duties that fit within those bounded roles, the more likely she is to perform well within that prescribed role (Kahn, 1990).

Schaufeli et al. (2002) built on this theory and defined work engagement as a "positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption" (p. 74). Highly engaged workers are energetic and resilient to stressors, possess a strong sense of purpose and significance in their work, and are often so engrossed in their work that they have difficulty detaching themselves from their work.

Bakker (2011) defined work engagement as absorption, vigor, and dedication towards organizational goals. Absorption describes the mental state in which a teacher is so engrossed in work that time seems to pass quickly. Vigor relates to mental and physical resilience during work

activities and energy to persevere through difficult tasks. Dedication refers to an individual's sense of purpose, inspiration, and significance related to organizational goals (Burić & Macuka, 2018). Work engagement is a direct predictor of worker performance, client satisfaction, and organizational fiscal health (Bakker & Demerouti, 2008). Work engagement is also a predictor of performance in novice teachers (Bakker & Bal, 2010).

Klassen et al. (2013) further expanded Kahn's theory of engagement by categorizing teacher work engagement into four domains: (a) emotional, referring to affective aspects of teaching; (b) cognitive, referring to absorption and performance; (c) social: students and (d) social: colleagues—referring to relationships and empathy with students and peers. When teachers are highly engaged at work, attrition rates decrease, and student learning improves (Burić & Macuka, 2018; Lemon & Garvis, 2016).

Problem Statement

International school administrators in China experience difficulty hiring, training, and retaining quality expat teachers for international schools (Fong, 2018). Researchers have demonstrated that high teacher work engagement is a predictor of positive student learning outcomes and low teacher attrition (Bakker & Bal, 2010; Burić & Macuka, 2018; Klassen & Tze, 2014). The problem is that researchers are still exploring whether high teacher self-efficacy is enough to predict high work engagement (Klassen & Tze, 2014). Although some researchers (von Kirchenheim & Richardson, 2005; Yerdelen et al., 2018) have advocated that international school administrators consider teacher self-efficacy when hiring, a paucity exists in the literature examining teacher self-efficacy and teacher work engagement in the international school context. The consequences of not researching this problem are potentially wasted resources and missed opportunities for student growth. Unless school administrators identify the factors that predict

work engagement and retention, international schools will continue to suffer high turnover rates for expat teachers, and student learning will be negatively affected. Researching the role of teacher self-efficacy as it relates to teacher work engagement in expat international school teachers in China will help address the problem of hiring and retaining quality expat teachers.

Purpose Statement

The purpose of this non-experimental, quantitative survey study was to evaluate if teacher self-efficacy predicts teacher work engagement for expatriate teachers in international K12 schools in China. At this stage in research, teacher self-efficacy is generally defined as teachers' self-confidence in their competency to learn new skills and make decisions that enhance student learning (Bandura, 1977; Klassen & Tze, 2014).

Methodology

Research Question 1

To what extent does teacher self-efficacy most associate with and predict teacher work engagement in expatriate, international school teachers in China?

H_a1

There will be a statistically significant predictive relationship between teacher self-efficacy and work engagement.

Research Question 2

Of the three factors of teacher self-efficacy: instructional strategies, classroom management, and student engagement, which factor most associates with and predicts teacher work engagement for expatriate, international school teachers in China?

H_a2

The factor of student engagement will represent the most viable, statistically significant predictor of teacher work engagement.

Research Question 3

Of the four domains of teacher work engagement: cognitive, emotional, social: students, and social: colleagues, which one most associates with and predicts a teacher's overall self-efficacy? H_a3

The cognitive domain will represent the most viable, statistically significant predictor of overall teacher self-efficacy.

Population and Sample

The population studied in this descriptive quantitative study (Creswell & Creswell, 2018) was expatriate teachers working in international schools in China. The purposive sample was international expatriate school teachers who have worked in China during the past 10 years and are personally known to the researcher or the researcher's contacts.

Instrument: Teachers' Sense of Efficacy Scale (TSES)

The Teachers' Sense of Self-efficacy Scale (TSES), formerly known as the Ohio State Teacher Efficacy Scale, was first developed in 2001 by researchers at The Ohio State University (Tschannen-Moran & Hoy, 2001). The TSES measures teacher self-efficacy across three domains: instructional strategies, classroom management, and student engagement. The scale is available in both a long and short form. This study utilized the 24-question long form. In the long form, instruction has a mean of 7.1, a standard deviation of 0.94, and a Cronbach's alpha of .94. Management has a mean of 6.7, a standard deviation of 1.1, and a Cronbach's alpha of .90. Engagement has a mean of 7.3, a standard deviation of 0.94, and a Cronbach's alpha of .94. The

overall mean for the TSES is 7.1. The standard deviation is 0.94, and Cronbach's alpha is .94 (Woolfolk Hoy et al., 2008).

The TSES is a self-report instrument that utilizes a Likert scale. Respondents answer questions such as "How much can you do to get through to the most difficult students?" (Tschannen-Moran & Hoy, 2001, p. 800) and then choose numerical values ranging from 1-9, 1 representing (*Nothing*) and 9 representing (*A Great Deal*) (Tschannen-Moran & Hoy, 2001, p. 796). For this study, the TSES scale will be altered to a 5-point Likert scale.

Instrument: Engaged Teachers Scale (ETS)

The Engaged Teachers Scale (ETS) was developed to measure the specific work characteristics salient for teachers in classrooms and schools (Klassen et al., 2013). The ETS measures a teacher's engagement across four domains: cognitive engagement, emotional engagement, social engagement: students, and social engagement: colleagues. Exploratory factor analysis (EFA) determined that there were four factors accounting for 71.31% in respondents' score variance: emotional engagement (EE) at 40.25%, social engagement: colleagues (SEC) at 13.84%, cognitive engagement (CE) at 9.56%, and social engagement: students (SES) at 7.66%. Analysis identified "correlations between factors ranged from .33 to .62. Cronbach's alpha coefficients for the EE, SEC, CE, and SES factors were .89, .85, .85, and .84, respectively" (Klassen et al., 2013, p. 38). For this study, the ETS scale was altered to a 5-point Likert scale.

Method of Data Collection

A Wufoo survey completed by Kindergarten-Grade 12 expat teachers from international schools in China was collected through a snowball method (Mills & Gay, 2019) via social media and other expat teacher networks.

Analysis

The Teachers' Sense of Efficacy Scale (TSES) measured teachers' self-efficacy in instructional strategies, classroom management, and student engagement. Correlation analysis determined the extent to which teacher self-efficacy predicted higher teacher work engagement in expatriate, international K12 school teachers in China.

Teacher work engagement was measured by The Engaged Teachers Scale (ETS) across four domains: cognitive engagement (CE), emotional engagement (EE), social engagement: students (SES) and social engagement: colleagues (SEC). Multiple linear regression was used to determine which factors of teacher self-efficacy predicted teacher work engagement. Multiple linear regression was also used to determine which teacher work engagement factors most predicted overall teacher self-efficacy.

Foundational analyses were conducted focusing upon evaluations of missing data and internal reliability. Research question one was addressed using simple linear regression. Research questions two and three were addressed using multiple linear regression. A critical p-value of alpha $\leq .05$ was adopted as the threshold for statistical significance of finding. SPSS was utilized to define groups and compare findings (Field, 2018). The observed p-value was determined and compared to the critical p-value. The effect size was based upon the interpretation of respective R^2 values. All major assumptions associated with the use of linear regression were assessed using both statistical techniques and visual interpretations. The study summarizes findings related to teacher self-efficacy and work engagement, discusses practical implications, and provides suggestions for future research.

Limitations and Delimitations

The researcher acknowledges certain biases within this study, namely that the researcher hires and trains teachers in an international K-12 school in China. Also, the TSES and ETS are both self-report diagnostic instruments and do not include any external evaluation. Therefore, the ETS does not measure the degree to which teachers complete assigned tasks, meet deadlines, or achieve other school administrative requirements. The study is limited to examining teacher self-efficacy (SE) and teacher work engagement (WE) in expat teachers at international schools. The study does not consider the SE or WE of local teachers at international schools or expat teachers at local schools in China. Also, data was gathered during the Covid-19 pandemic when many teachers were teaching online, which may have affected self-efficacy self-reporting.

Definition of Key Terms

What follows is a list of key terms used in this dissertation.

- **self-efficacy**: Self-efficacy is "an individual's belief in one's ability to organize and implement actions to carry out designated types of performance and tasks" (Young et al., 2018, p. 49).

- **teacher self-efficacy**: Teacher self-efficacy is generally defined as teachers' self-confidence in their competency to learn new skills and make decisions that enhance student learning (Bandura, 1977; Klassen & Tze, 2014).

- **instructional strategies**: Instructional strategies refer to the necessary competencies related to delivering a lesson's content and properly assessing students. Instructional strategies also consider a teacher's ability to adjust instruction based on student needs and capabilities (Tschannen-Moran & Hoy, 2001).

- **classroom management**: Classroom management addresses procedures, rules, consequences, and the ability to properly handle disruptions and misbehavior (Tschannen-Moran & Hoy, 2001).

- **student engagement**: For this dissertation, student engagement refers to the teacher's ability to motivate students, inspire creativity, foster critical thinking, engage failing students, and assist families in helping their children learn (Tschannen-Moran & Hoy, 2001).

- **work engagement**: Work engagement is a persistent affective-cognitive disposition characterized by mental resilience and high energy, dedication to personal and team goals even when faced with challenges, and a state of full absorption in one's work (Schaufeli & Bakker, 2004b).

- **teacher work engagement**: Teacher work engagement borrows from Schaufeli and Bakker's (2004a) framework of vigor, dedication, and absorption. Teacher work engagement encompasses physical, mental, emotional, and social engagement (Klassen et al., 2013).

- **cognitive engagement**: Cognitive engagement refers to work done with careful attention, absorption, and intensity, where time seems to pass unnoticed (Klassen et al., 2013).

- **emotional engagement**: Emotional engagement refers to love, joy, happiness, excitement, and fun related to the teaching occupation (Klassen et al., 2013).

- **social engagement (students & colleagues)**: For this study, social engagement with students refers to care, warmth, and empathy towards one's students. Social engagement with colleagues refers to the teacher's sense of connection with co-

workers, valuing collegial relationships, and caring for and helping co-workers (Klassen et al., 2013).

- **international school**: International schools are defined as schools that adopt an international curriculum that does not follow their host country's national curriculum and generally uses English as the language of instruction (Nagrath, 2011).
- **expatriate teacher**: Expatriate teacher refers to an individual working in education outside their home country (Ramalu & Subramaniam, 2019). The term *expat* is often used to describe professionals and students living in a foreign country.

Significance of the Study

Educational research has focused on business expatriates and international schools, but the subject of international school teachers "remains a relatively under-researched, under-theorized and little-discussed topic, even in mainstream international education literature" (Bunnell, 2017, p. 195). Choosing to teach at an international school presents its own set of distinctive challenges for both new and seasoned teachers (Akhal & Liu, 2019). Teachers must relocate to a new environment with the stressors of obtaining visas and completing other paperwork, moving and setting up new living spaces, departing from friends and family, learning a new language and culture, and finding their place in a new school situation (von Kirchenheim & Richardson, 2005).

While most teachers come to the field with a desire to serve and do their best, many teachers lack some of the necessary skills learned in traditional teacher education programs (Bunnell, 2017), such as planning, assessing, and reporting (Marzano, 2007). Due to the lack of applicants, administrators often hire less seasoned teachers in order to be able to continue to offer a full range of classes and programs (Viadero, 2006). Once hired, a school's responsibility is to

train and equip these educators (Kozikoğlu, 2018). When teachers leave the school or quit the profession altogether, that process starts over again with their replacements.

Therefore, researching what qualities make a strong teaching candidate and what procedures are best for selecting and training these teachers is crucial. Rockoff et al. (2011) found "a significant positive relationship between teachers' sense of self-efficacy and student achievement growth" (p. 11). This study is significant because it brings into question assumptions made in mainstream educational thought that presumes "higher training and level of education of teachers remains the top predictor of program quality" (Follari, 2019, p. 54). Klassen and Tze (2014) argued that teacher outcomes related to student learning are not strongly correlated to teacher preparatory educational programs or degrees; instead, a better understanding of engaged teachers' physiological profiles may assist more in the selection and professional development of novice and seasoned educators.

Summary

In conclusion, the responsibility for any institution's instructional excellence rests upon school leadership (Whitaker, 2012). School leaders hire, train, and take measures to retain or dismiss teachers. Ultimately, school leaders must decide which factors they will consider when selecting new faculty for their international schools. Administrators must then prioritize those factors when planning professional development.

Rockoff et al. (2011) argue that while "no single metric…has the ability [to predict] teacher effectiveness…using a number of metrics together may have meaningful power for screening effective teachers at the time of hire" (p. 3). When intentional questioning is combined with proper assessment tools, international school administrators are better poised to make the best decision they can with the limited information at their disposal (Staiger & Rockoff, 2010).

School leaders may benefit when they choose to consider a teacher's self-efficacy and its impact on work engagement, potentially resulting in improved student learning and a higher teacher retention rate.

II. REVIEW OF LITERATURE

The demand for international schools is on the rise worldwide, especially in China (Associated Press, 2016). To meet demand, international schools, schools that adopt an international curriculum and generally use English as the language of instruction (Nagrath, 2011), often make hiring decisions based on incomplete and imperfect information (Staiger & Rockoff, 2010) and find themselves competing for competent teachers from a small pool of genuinely qualified applicants (Machin, 2017). Once a school hires and invests capital in a teacher, the potential for attrition still exists (Fong, 2018). Teacher shortage and the lack of early-career retention negatively impact schools and students (Talley, 2017).

High turnover affects school administrators' time, school financial resources, and student learning (Carver-Thomas & Darling-Hammond, 2019). Liu and Huang (2019) maintained that self-efficacy leads to teacher work engagement, supporting a more positive learning environment. Positive work engagement is essential because work engagement correlates to teacher retention (Burić & Macuka, 2018) and positive student learning outcomes (Lemon & Garvis, 2016). Thus, identifying factors that correlate with work engagement is vital during the hiring process and when making decisions for professional development.

Despite a growing body of literature on self-efficacy and work engagement, little attention has been paid to self-efficacy's effect on teacher work engagement for expatriate (expat) teachers at international K12 schools; most international research has focused on

business expatriates (Bunnell, 2017; Klassen, 2004). With the exception of findings regarding teacher self-efficacy and work engagement taken from sampling teachers internationally, yet working in their own local contexts (Eldor, 2016; Klassen et al., 2012; Yerdelen et al., 2018), research on the predictive nature of teacher self-efficacy on teacher working engagement in expat teachers is scant. However, the extant research regarding teacher self-efficacy and work engagement does provide some insight and direction for empirical research on teacher self-efficacy and teacher work-engagement in international K12 schools.

This chapter begins by reviewing literature regarding the constructs of teacher self-efficacy and work engagement. Then research is presented regarding international school educators and expatriates as it relates to self-efficacy and work engagement. Also, research to support the importance of self-efficacy in the hiring and retaining of expatriate teachers at international K12 schools in China is discussed. The present study explored the research topic through the lens of Albert Bandura's (1977, 1997) theory of social learning and self-efficacy and William Kahn's (1990) theory on work engagement.

Teacher Self-efficacy

According to Bandura (1977, 1997), efficacy is the ability to integrate cognitive, social, behavioral, and emotional skills and execute them appropriately. Self-efficacy is "an individual's belief in one's ability to organize and implement actions to carry out designated types of performance and tasks" (Young et al., 2018, p. 49). Both beliefs and outcomes can be strengthened through vicarious experiences, affective states, mastery experiences, and verbal persuasion (Klassen & Tze, 2014). Teacher self-efficacy is teachers' self-confidence in their competency to learn new skills and make decisions that enhance student learning (Bandura, 1977; Klassen & Tze, 2014).

18

Bandura (1977) postulated that mastery experiences precede effective performance and that efficacy-altering experiences can have a compounding effect on personal self-efficacy. Informed by these theories, pre-service teacher orientation and professional development for novice teachers might include role play, modeling, performance rehearsal, collegial collaboration, and supportive feedback—all measures that can build a teacher's self-efficacy. However, self-efficacy is not a fixed trait and can grow or even decrease over time (Bandura, 1977; Klassen & Tze, 2014). Strategies to improve self-efficacy are needed for novice and veteran teachers alike. The first step to enhancing teacher self-efficacy is accurately measuring the construct.

Tschannen-Moran and Hoy (2001) developed an instrument to measure teachers' self-efficacy as it relates to instructional strategies, classroom management, and student engagement. Researchers from the Ohio State Teacher's College developed the Teacher Sense of Self-Efficacy Scale (TSES) to measure the self-efficacy of pre-service and novice teachers. Prior to the TSES, most self-efficacy instruments for teachers measured the degree to which teachers believed student outcomes resulted from teachers' control of internal or external factors, or what Rotter (1966) referred to as locus of control. Other instruments focused on general teaching and personal teaching efficacy in broad terms. The TSES conceptualized teacher self-efficacy (α = .94) more closely aligned to the realities of the everyday experiences of classroom teachers, namely student engagement (α = .87), instructional strategies (α = .91), and classroom management (α = .90). The TSES provides a one-factor measure for overall teacher self-efficacy and sub-score measures for each sub-factor (Tschannen-Moran & Hoy, 2001).

Duffin et al. (2012) concluded that the TSES multi-factor structure was most appropriate for seasoned teachers. Their findings from two studies of undergraduate pre-service teachers in

the United States ($n = 272$, $M = 6.69$, $SD = 1.10$ and $n = 180$, $M = 5.87$, $SD = 1.38$) confirmed earlier findings by Tschannen-Moran and Hoy (2001) that the one-factor model is a better fit for measuring novice and emerging teachers' self-efficacy. Teachers newer to the profession may be unable to accurately differentiate between the separate constructs of self-efficacy, but when taken together, overall self-efficacy can be measured. The implication for administrators hiring new teachers is that the overall TSES score may be best used when hiring and designing early career professional development. In contrast, the separate sub-scale scores of self-efficacy might be more informative for targeted hiring and training practices for veteran teachers, such as skill development in new curriculum initiatives and implementation.

Teachers need to feel confident and motivated to integrate 21st century skills into their teaching and instruction (Lemon & Garvis, 2016). One study of pre-service middle and high school teachers in Korea ($n = 296$) suggested self-efficacy ($\beta = .17$, $t = 2.07$, $p < .05$) is an antecedent for behavior regarding the intent to use technology in the classroom (Young et al., 2018), meaning teachers must possess strong self-efficacy towards technology before they attempt to integrate technology in the classroom.

In Australia, pre-service teacher programs are required to meet national integrated technology standards as part of their prescribed curriculum. Teachers completing teacher training programs must demonstrate a wide range of integrated skills that engage students and enhance learning. Using a modified version of the nine-point Likert scale TSES, Lemon and Garvis (2016) surveyed two cohorts from two different universities ($n = 85$ and $n = 121$) in Australia and found that teachers from Queensland ($M = 4.86$) showed less overall self-efficacy towards integrating technology than those from Victoria ($M = 6.23$). Students from Victoria were in their final year of their bachelor's degree, whereas students from Queensland were in their second

year. Findings suggested the more training and mastery experiences novice teachers acquired, the greater their self-efficacy towards integrating technology in their teaching and instruction.

Other studies have validated using the TSES to study teacher self-efficacy beyond early-career teachers (Burić & Macuka, 2018; Lemon & Garvis, 2016). For example, Koniewski (2019) found the TSES appropriate for both active primary and secondary school teachers in a study of 4,465 Polish teachers. While an argument can be made that self-efficacy cannot be studied uniformly across cultures (Klassen, 2004), research supports that self-efficacy is not merely a Western culture construct that cannot transcend cultures (Klassen et al., 2009). Duffin et al. (2012), Klassen (2004), and Klassen et al. (2012) suggested more research is needed studying teachers' self-efficacy beyond pre-service years and should explore cross-cultural contexts and implications as well.

Experience, cultural background, and work environment all affect teachers' self-efficacy. Talley (2017) explored the role of administrative support in novice teachers' self-efficacy, job satisfaction, and retention. In her phenomenological qualitative study, Talley examined the lived experiences of 10 novice middle and high school public school teachers through field notes, reflective journals, semi-structured interviews, and artifacts. Each of the participants selected had decided to leave the teaching profession or migrate to a different school, citing lack of administrative support as the primary reason for their decision. The researcher found that teacher stress was an essential factor affecting self-efficacy, which was often made worse when administrators did not provide enough expressed and instrumental support. Findings indicated support and care from administrators could offset common sources of attrition, such as heavy workloads, student behavioral issues, and overall stress. Recommendations for administrators

included planning more time for teacher collaboration and pairing veteran teachers with novice teachers to promote novice teacher self-efficacy and teacher retention.

Kini and Podolsky (2016) conducted an extensive review of 30 studies from 2003 to 2015 that analyzed the effectiveness of teacher experience on student learning outcomes in K12 public schools in the United States. In 93% of the studies under review, researchers found that teacher experience was positively associated with student achievement outcomes, such as higher scores on standardized tests and other factors like increased school attendance. Kini and Podolsky (2016) contended that while time does not necessarily make someone a better teacher, "the benefits of teaching experience will be best realized when teachers are carefully selected and well-prepared at the point of entry into the teaching workforce, as well as intensively mentored" (p. 1) early in their career. Recommendations included creating a professional and positive working environment with strong collegial relationships, investing in high-quality professional career development programs, and providing mentoring for novice teachers. These recommendations align with Bandura's framework for increasing self-efficacy, particularly related to experiences and affective states.

A 2014 meta-analysis by Klassen and Tze (2014) revealed both self-efficacy ($r = .12$, $p < .01$) and personality ($r = .08$, $p < .05$) were significantly associated with overall teaching effectiveness. Researchers examined 43 studies from 1985 to 2013 representing 9,216 participants. The meta-analysis explored self-efficacy and personality measured against student achievement and evaluated teaching performance. Researchers considered studies that looked at external measures of teaching performance, such as supervisor, principal, or student ratings, as opposed to studies utilizing self-report instruments of teaching effectiveness. Of those studies, 33 included measures of self-efficacy. Self-efficacy was strongly associated with both higher levels

of evaluated teacher performance ($r = .24$, $p < .01$) and achievement levels of students ($r = .07$, $p < .01$). Researchers noted that while personality may have elements of fixed traits, self-efficacy can be developed according to Bandura's framework of experiences, persuasion, and affective states through intentional professional training, leading to improved engagement and performance outcomes (Klassen & Tze, 2014).

Lisbona et al. (2018) studied the effects of work engagement and self-efficacy on personal initiative and performance. Quantitative survey data were collected from two separate studies ($n = 396$ and $n = 118$) from middle-aged participants, mainly from Spain, representing 22 and 15 organizations, respectively. Self-efficacy was measured using a four-item Likert-type response questionnaire, work engagement was measured using the Utecht Work Engagement Scale (UWES), personal initiative was measured by a six-item Likert-type response questionnaire, and performance was measured by a three-item Likert-type response questionnaire. Data were analyzed using multi-model confirmatory factor analysis.

In the first study, a significant, though weak, correlation ($r = .119$, $p < .01$) was found between self-efficacy ($M = 4.09$, $SD = 0.57$) and work engagement ($M = 4.10$, $SD = 1.10$). Another significant finding ($p < .05$) was that self-efficacy positively correlated ($r = .60$) to personal initiative ($M = 3.84$, $SD = 0.61$). Work engagement was also correlated statistically ($r = .42$, $p < .05$) to personal initiative. Although the researchers assumed that self-efficacy is an antecedent of work engagement, results indicated that each construct was best represented separately. The hypothesis that work engagement and self-efficacy lead to increased personal initiative and higher performance was supported. Researchers concluded that "organizations should foster an appropriate context where their employees can develop self-efficacy and [work]

engagement, which have been shown to affect personal engagement and performance" (Lisbona et al., 2018, p. 95).

In a study of 941 teachers in Croatia, Burić and Macuka (2018) explored the reciprocal nature of work engagement and emotions by measuring self-efficacy, work engagement, and emotions. Findings indicated that engaged teachers viewed themselves as more efficacious with respect to work demands. Researchers initially measured all three constructs in the autumn of 2015 and then measured work engagement and emotions again six months later in a two-wave, cross-lagged analysis. Self-efficacy was measured by a 10-item questionnaire utilizing a 4-point Likert scale. Work engagement was measured by the Utrecht Work Engagement Scale (UWES), which consists of 17 work-related items on a 7-point scale, with sub-scales for vigor, dedication, and absorption. Emotions were assessed by the Teacher Emotion Questionnaire developed by the researchers that used a 5-point scale, with sub-scales for joy, pride, love, anger, fatigue, and hopelessness.

Results of the initial surveys indicated that self-efficacy (M = 3.32, SD = .39) had strong correlations ($p < .01$) to vigor (r = .53), dedication (r = .52), and absorption (r = .44), the three sub-scales of work engagement. However, after six months, self-efficacy measured in the fall of 2015 failed to predict work engagement measured in the spring of 2016. These findings suggest that a teacher's self-efficacy at a fixed point does not necessarily correlate with work engagement equally over time. Results showed that self-efficacy also correlated positively with positive emotions (β = .41, $p < .001$) and inversely with negative emotions (β = -.38, $p < .001$) at the time of the first survey.

Participants' responses showed that teachers with more positive emotions at the time of initial survey data collection demonstrated stronger work engagement six months later (β = .13, p

< .001). Likewise, teachers with more negative emotions indicated a lower level of work engagement six months later (β = -.08, $p < .01$). Researchers contended that self-efficacy is an antecedent of emotional states that predict work engagement. Therefore, work engagement is directly impacted by a teacher's sense of self-efficacy. Burić and Macuka (2018) concluded that in order to support teachers' occupational well-being, administrators must employ strategies that increase a teacher's self-efficacy, promoting positive feelings, which will, in turn, have a reciprocal effect on positive work engagement.

Work Engagement

The Gallup organization first used the term employee engagement in the 1990s to describe engagement in business and consultancy (Schaufeli & Bakker, 2010). The focus was primarily on the organization and the relationship the employee had with organizational goals and profits. Theoretical understanding of work engagement has evolved over the years to shift focus away from the organization towards the individuals who comprise organizations. However, despite the past 30 years of research, no single definition or conceptualization of work engagement among researchers or practitioners has emerged.

Kahn (1990), considered to be the founding father of employee engagement, first theorized that people engage with their work physically, emotionally, and cognitively. Kahn (1990) related his theory to three psychological dimensions: meaningfulness, safety, and availability. Meaningfulness refers to feeling valued, incentivized, challenged, and dignified within the work environment. Safety is felt when employees experience consistency, trust, predictable circumstances, and freedom from fear of retribution. Availability includes investing energies and resources in work and having confidence in one's own abilities, which could be described as self-efficacy (Kahn, 1990).

Kahn's framework sought to determine to what degree workers present their true selves while acting in roles. He described roles as houses and workers as occupants. He argued that the more a person draws on their true self to perform duties that fit within those bounded roles, the more likely they are to perform well within that prescribed role (Kahn, 1990). In other words, because employees closely link their identity with their work, engaged workers put forth effort and energy into their work roles and tasks. The opposite is also true; workers who do not perform well in their roles are less energetic and less engaged at work. The major limitation in this early research is the lack of cross-culture considerations; Kahn's research participants were white, middle-class men and women. However, Kahn's findings provide a foundation from which to study implications across broader contexts.

Similar to Kahn, Rothbard (2001) viewed work engagement as both depleting and enriching. Within her framework, she defined engagement according to the intensity of focus on one's work, which she called absorption, and the amount of time an employee spends thinking about their work role, or what she called attention. Whereas Kahn (1990) focused on the employee's work role, Rothbard shifted focus towards the work activities within the roles and their connection to work and family. She considered engagement in light of positive and negative affective states, such as self-esteem, role privilege, stress, and depression. Rothbard (2001) found that emotions are the "linchpin connecting engagement in work and family" (p. 680).

Rothbard (2001) surveyed 790 employees at a large public university selected from a cross-section of ages, job types, and gender; about 90% of respondents were Caucasian. She postulated that positive emotions experienced in one role might increase a person's positive engagement in a different role, and conversely, negative emotions in one role would correlate with disengagement in the other. The researcher found work attention and family attention were

both positively and significantly related to work absorption ($r = .56, p > .10$) and family

absorption ($r = 0.52, p > .10$), respectively. She also discovered that work absorption and family

absorption were correlated ($r = .28, p > .10$) and that work responsibility demands correlated

with family responsibility demands ($r = .30, p > .10$). Also, work positive affect correlated with

family positive affect ($r = .53, p > .10$), and work negative affect correlated with family negative

affect ($r = .42, p > .10$). Findings suggested that researchers must also consider roles and

demands outside of the organizations and the emotionally enriching and depleting interconnected

aspects of work and family roles in order to properly understand an employee's work

engagement. Family issues can be particularly salient for expatriate employees where adjustment

emotions and personal or family issues of living cross-culturally can affect work engagement

(Akhal & Liu, 2019; Ramalu & Subramaniam, 2019; Tarc et al., 2019).

While some researchers see engagement as the antithesis of burnout (Maslach & Leiter,

1997), others contend work engagement is not merely the opposite of burnout (Schaufeli et al.,

2008), but rather a distinct construct that can be understood as "a positive, fulfilling, affective-

motivational state of work-related well-being" (Leiter & Bakker, 2010, p. 1). Leiter and Bakker

(2010) defined work engagement as a motivational construct where employees are fully

committed to attaining personal work goals and enthusiastically energetic about their daily work.

Positive emotions derived from daily job resources, such as appropriate feedback, job control,

social support, and participation in decision making, and personal resources such as self-efficacy,

self-esteem, and optimism, have a positive impact on the personal resources of employees

(Schaufeli et al., 2002; Schaufeli & Bakker, 2010).

Around the same time as Rothbard's study, Schaufeli et al. (2002) also built on Kahn's

theory and defined work engagement as a "positive, fulfilling, work-related state of mind that is

characterized by vigor, dedication, and absorption" (p. 74). Schaufeli et al. (2002) hypothesized that work engagement was the antipode of burnout but that the two concepts should be measured with independent instruments. Researchers conducted a study whereby participants were given the Maslach Burnout Inventory General Survey (MBI-GS), which measures exhaustion, cynicism, and reduced professional efficacy. Researchers hypothesized that vigor was the opposite of exhaustion and dedication to cynicism. While not direct opposites, absorption was considered as the third concept, which corresponded to reduced professional efficacy.

Schaufeli et al. (2002) sampled 314 undergraduate students and 619 employees in two separate studies with a 40-item questionnaire that randomly mixed the 16 items from the MBI-GS and 24 self-constructed items related to work engagement. Nine items on this scale measured vigor ($\alpha = .68$ and $\alpha = .80$), eight items measured dedication ($\alpha = .91$ in both samples), and seven items measured absorption ($\alpha = .73$ and $\alpha = .75$). Internal reliability was strong. As expected, burnout and engagement scales were significantly and inversely correlated.

For students in sample one, cynicism was negatively related to vigor ($r = -.27, p < .001$), dedication ($r = -.51, p < .001$), and absorption ($r = -.22, p < .001$). Likewise, and to a greater degree, in study two of employees, cynicism was negatively related to vigor ($r = -.47, p < .001$), dedication ($r = -.55, p < .001$), and absorption ($r = -.39, p < .001$). Exhaustion seemed to play more of a role in burnout for employees in regards to vigor ($r = -.34, p < .001$) and dedication ($r = -.30, p < .001$) than for students ($r = -.20, p < .001$ and $r = -.14, p < .05$). Findings indicated that absorption had an inverse correlation to reduced efficacy in students ($r = -.60, p < .001$), yet a positive correlation for employees ($r = .44, p < .001$), suggesting that when employees are more absorbed in their work, their sense of efficacy increases. Researchers concluded that burnout is comprised primarily of exhaustion and cynicism, whereas professional efficacy may

be considered separately and seems rather to be a factor of engagement.

Building upon their previous work, researchers Schaufeli and Bakker (2004a) from Utrecht University, Utrecht, Netherlands, developed the 7-point Utrecht Work Engagement Scale (UWES) based on a positive psychology approach that measured the three constructs of work engagement: vigor, dedication, and absorption in both a one-factor and three-factor model. The UWES has been made available in both a 17-question long and nine-question short form to measure positive organizational behavior (Schaufeli et al., 2006). The scale has demonstrated cross-national validity. The UWES has been translated into 30 languages, adapted as a student version in nine languages (*Tests and Manuals*, 2021), and as of 2010, boasted more than 60,000 employee results in its database (Schaufeli & Bakker, 2010). The UWES is a widely used and popular measure of employee work engagement among researchers (Eldor, 2016; Fietzer et al., 2020; Klassen et al., 2013; Lisbona et al., 2018; Liu & Huang, 2019; Minghui et al., 2018; Ramalu & Subramaniam, 2019; Yerdelen et al., 2018).

The first use of the UWES occurred when Schaufeli and Bakker (2004b) researched the correlation between job demands and health problems with burnout as the mediator and job resources and turnover with engagement as the mediator. Again, analysis indicated the inverse relationship between burnout and engagement ($r = -.34/-.54$ and $r = -.70$, $p < .001$). A total of 1,698 employees were sampled within business and health sectors in four studies. Participants were given the MBI-GS for burnout and the UWES for work engagement. Participants were also given other quantitative surveys that measured job demands, job resources, health, and turnover intentions. Job resources correlated with engagement ($r = .51/.53$ and $r = .51$, $p < .001$) and engagement inversely correlated with turnover intention ($r = -.16/-.33$ and $r = -.17$, $p < .001$). Burnout also positively correlated to turnover intention ($r = .19/.25$ and $r = .48$, $p < .001$). These

findings suggest that engagement increases retention, whereas burnout increases turnover. Thus, when engagement increases, burnout decreases, and turnover decreases as well. Likewise, when engagement decreases, burnout increases and turnover increases. Engagement directly affects turnover intentions.

According to Bakker and Bal (2010), work engagement ($M = 4.13$, $SD = 0.75$) is also a predictor of performance ($M = 3.68$, $SD = 0.54$) in novice teachers ($n = 54$, $r = .64$, $p < .01$). Bakker and Bal (2010) studied 54 Dutch teachers by having the teachers complete a weekly questionnaire that measured job resources (e.g., feedback and social support), work engagement, and performance. The factors of social support ($M = 5.09$), supervisory coaching ($M = 4.97$), autonomy ($M = 5.23$), performance feedback ($M = 3.68$), and learning opportunities ($M = 5.44$) were found to be statistically significant ($p < .01$) indicators of work engagement. Work engagement was measured by the Utrecht Work Engagement Scale ($M = 4.13$). Researchers employed exploratory factor analysis to study correlations between work engagement and performance. Bakker and Bal's (2010) hypothesis that job resources impacted weekly work engagement and performance was confirmed. Likewise, multi-level analysis confirmed a causal relationship between work engagement and performance. The hypothesis was confirmed; work engagement was positively related to job performance ($\beta = .424$, $p < .001$).

In a study of 328 graduate business students from three universities in China, researchers Liu and Huang (2019) examined the relationships between work engagement, organizational commitment, and occupational self-efficacy. Participants completed the six-item Occupational Self-Efficacy Scale, the 18-item Organizational Commitment Scale, and the nine-item short form of the Utrecht Work Engagement Scale. Results revealed that occupational self-efficacy showed a moderately significant positive effect on work engagement ($\beta = .31$, $p < .01$), as did

organizational commitment ($\beta = .37$, $p < .01$) on work engagement. The strongest correlation was self-efficacy on organizational commitment (($\beta = .40$, $p < .01$), which supported Liu and Huang's (2019) claim that organizational commitment is a partially mediating factor between self-efficacy and work engagement. Researchers concluded that occupational self-efficacy had an indirect effect on work engagement, with organizational commitment as the mediating factor.

Similar to Burić and Macuka's (2018) findings on emotions and work engagement, researchers Liu and Huang (2019) determined that personal resources, such as self-efficacy, enhanced job satisfaction, and positive job-related emotions and attitudes, directly impact work engagement. Liu and Huang (2019) advocated for organizations to "consider developing a training program with a focus on developing employee's self-efficacy belief in work settings to enhance their commitment to their organization, and to contribute to the development of work engagement" (p. 5). Findings suggest that by focusing on enhancing self-efficacy in a systemic way regarding job-specific demands, such as instruction, classroom management, and student engagement (Tschannen-Moran & Hoy, 2001), teachers will foster a more substantial commitment to their institution, and teacher work engagement will increase. Engaged teachers may experience less burnout and higher retention rates.

Measuring Teacher Work Engagement

Klassen et al. (2012) used the UWES to measure teacher work engagement in a study of 853 teachers from both Western (Australia and Canada) and non-Western (China, Indonesia, and Oman) countries. Researchers wanted to see how well the UWES measured work engagement cross-culturally, specifically with educators. Work engagement was measured by the 17-item UWES, which Klassen et al. (2012) translated into Chinese, Bahasa, and Arabic. Scores were compared to other survey items which measured job satisfaction and intention to quit.

Teacher work engagement was significantly and positively correlated to job satisfaction ($r = .74$, $p < .01$) and inversely correlated to quitting intention ($r = -.39$, $p < .01$). Researchers argued that engaged teachers are "less prone to burnout and associated health problems" (Klassen et al., 2012, p. 318), are less likely to leave their jobs and the teaching profession, and are more effective and more likely to take on extra duties that contribute to the overall wellness of the school. Klassen et al. (2012) suggested new measurements for teacher work engagement were needed that were more context-specific than the UWES and included a social-relational component.

Klassen et al.'s (2013) conceptualization of teacher work engagement borrows from Schaufeli and Bakker's (2004a) framework of vigor, dedication, and absorption. However, Klassen et al. categorized teacher work engagement into four domains: emotional, referring to affective aspects of teaching; cognitive, referring to absorption and performance; and social—students and colleagues—referring to relationships and empathy with students and peers (Klassen et al., 2013). Klassen et al. (2013) developed The Engaged Teachers Scale (ETS) to measure the specific work characteristics salient for teachers in classrooms and schools.

Cognitive engagement refers to work done with careful attention, absorption, and intensity, where time seems to pass unnoticed. Emotional engagement refers to love, joy, happiness, excitement, and fun related to the teaching occupation. Social engagement with students refers to care, warmth, and empathy towards one's students. Social engagement with colleagues refers to the teacher's sense of connection with co-workers, valuing collegial relationships, and caring for and helping co-workers (Klassen et al., 2013).

A 2018 study of the ETS by Yerdelen et al. validated the use of the ETS internationally. Data were gathered from 388 teachers in Turkey using a translated version of the ETS.

Confirmatory factor analysis supported the single-factor model of teacher engagement and the four-factor model of sub-scores. Multiple linear aggression also revealed that each of the four sub-scales was positively correlated with teacher self-efficacy, measured by a Turkish version of the TSES (Yerdelen et al., 2018).

One of the study questions was: "To what extent is teacher engagement predicted by teaching self-efficacy?" (Yerdelen et al., 2018, p. 4). Multiple linear regression showed that cognitive engagement demonstrated the highest correlation to instructional strategies ($r = .54$, $p < .01$) and that the weakest correlation among variables was between emotional engagement and student engagement ($r = .27$, $p < .01$). Furthermore, self-efficacy for student engagement predicted social engagement with students ($\beta = .35$) and colleagues ($\beta = .17$). Self-efficacy for classroom management predicted emotional engagement ($\beta = .19$) and social engagement for students ($\beta = .16$) and colleagues ($\beta = .16$). Self-efficacy for instructional strategies predicted cognitive engagement ($\beta = .47$). Teacher self-efficacy contributed to teacher work engagement.

Yerdelen et al.'s (2018) study helps researchers and practitioners understand how teacher self-efficacy predicts teacher work engagement in a non-Western context. However, one limitation of their study was that all participants lived and worked within their home country. More research needs to consider these constructs for educators living outside of their home culture.

International Schools and Work Engagement in Global Education

Prior to WWII, international education did not exist as it does today. Before the 1940s, most foreign schools overseas were national schools serving the children of American, French, and British foreign diplomats on assignment (Powell & Kusuma-Powell, 2016). However, after the atrocities of WWII, international schools began to grow in the wake of a shift in global

philosophy where diversity was not only tolerated but valued and appreciated. Today more than 10,000 international schools globally serve millions of foreign and local children and employ teachers from all over the world (Bunnell, 2016; Bunnell & Poole, 2020).

Bunnell (2017) presented a conceptual framework to help understand the nature of the international expatriate (expat) teacher experience. He defined international schools simply as "English-medium schools overseas" (Bunnell, 2017, p. 195), or rather, "schools outside an English-speaking country offering a curriculum through the medium of the English language" (Bunnell, 2016, p. 545). While some researchers strongly disagree with such a limited view of international school education (Bartlett, 1992; Hansen, 2002; Nagrath, 2011; Tate, 2012), for the purposes of this literature review, Bunnell's definitions cited above will be used. An expatriate teacher refers to an individual working in education outside their home country (Ramalu & Subramaniam, 2019).

Bunnell (2017) advocated that international school teachers represent a neglected sector in educational research, despite the rapid growth of international schools globally. He argued that "little or no attempt has been made in the international education literature to define an international school teacher" (p.197), adding "recruitment, retention, motivation, satisfaction, and turnover have received relatively almost no attention" (p. 195). He described expat teachers as "middling-actors" (Bunnell, 2017, p. 194) because they neither represent the traditional business nor diplomatic expatriate nor represent local teachers or other lower-skilled foreign workers in a community. Demand for international education increases the need for further study into the realities of life for expat international school teachers.

Budrow and Tarc (2018) interviewed international school recruiters to determine which personal qualities help teachers thrive in international school settings. Researchers found that

cultural sensitivity, adaptability, pedagogical flexibility, and school fit were all factors affecting thriving. The need for pedagogical flexibility fits within Tschannen-Moran and Hoy's (2001) framework for teacher self-efficacy, namely flexibility with instructional strategies. Cultural sensitivity and school community fit could also impact engagement with students and colleagues, components of Klassen et al.'s (2013) framework for engaged teachers.

Von Kirchenheim and Richardson (2005) researched the link between high scores of self-efficacy and the ability of expats to be successful in an international relocation. Researchers surveyed expat teachers ($n = 184$) and measured self-efficacy and flexibility against correlations to adjustment. Adjustment was defined as "the person's ability to function effectively, personally and vocationally, in the new environment" (von Kirchenheim & Richardson, 2005, p. 409) and was believed to be a mediating factor in job satisfaction and retention.

Findings indicated a positive correlation between self-efficacy and adjustment ($r = 0.27$, $p < 0.01$). Interestingly, flexibility showed no significant correlation to adjustment ($r = -.09$, $p = .208$). Adjustment was found to be a mediating factor for job satisfaction ($r = .53$, $p < .01$) and turnover intentions ($r = -.36$, $p < .01$).

Researchers argued organizations should look at self-efficacy for selecting job applicants who are more likely to adjust, claiming adjustment increases retention and job satisfaction. They stated, "when applicants are equally qualified, employers may be well-advised to evaluate and select those applicants demonstrating higher levels of self-efficacy" (von Kirchenheim & Richardson, 2005, p. 414). Educators who score high in self-efficacy are poised to adjust the best to international relocation.

With the growth in the international school market, consideration for factors such as self-efficacy and adjustment are key for administrators making hiring decisions. In a 2017 article for

the *Journal of Research in International Education*, Machin documented the rise in demand for international school education across Asia throughout the mid-2010s. He analyzed Independent Schools Consultancy's research data and found that in the years 2006-2012, the demand for international schools in Thailand increased by 49.5% even though school fees increased by 36%. The demand for international education in Singapore from 2010-2015 increased by 186%, and in just one year (2014-2015), the demand for international schools in Beijing and Shanghai increased by 23% and 22%, respectively (Independent Schools Consultancy, 2017).

Machin (2017) concluded that in order for schools to remain successful in this international school gold rush, schools must distinguish themselves from their competition, establish their legitimacy, and secure their prestige to protect their positionality in the market, even at the expense of short-term enrollment. He argued school leaders should consider the nature of their institution to enrollment numbers for sustained growth. Well-adjusted and self-efficacious teachers contribute to a positive learning environment that can set schools apart in the highly competitive market of international schools.

With the rise in demand for international school education in China (Associated Press, 2016), the need also increases for school administrators to be vigilant in their hiring and training practices of teachers. Lauring and Selmer (2014) examined how demographic characteristics and global mobility orientation impact work outcomes regarding job performance, adjustment, proficiency, and satisfaction by surveying 640 self-initiated expatriate academics living in what they term Greater China, consisting of Mainland China (including Hong Kong and Macau), Taiwan, and Singapore. A self-initiated expat differs from traditional expats in that they chose to relocate to China of their own volition, as opposed to being sent by a multi-national company or foreign government. Researchers examined questionnaire responses for global mobility

orientation according to the age of the expat, gender, marital status, and seniority at their university.

Researchers found married respondents ($n = 431$) scored higher on job performance ($M = 5.87$) and job satisfaction ($M = 5.55$) than unmarried respondents ($n = 207$, $M = 5.70$ and 5.31, respectively). Another notable finding was that senior self-initiated expats (n = 313) scored higher than their junior counterparts ($n = 306$) in both job performance ($M = 5.98$ and 5.63) and job satisfaction ($M = 5.64$ and 5.31). In addition, women ($n = 484$) scored higher than men ($n = 155$) in job performance ($M = 5.91$ and 5.78). Age showed no significance in their findings. Researchers also found no significant correlations between any demographics and job adjustment. Findings suggest school administrators in Greater China should consider giving deference to married individuals, females, and those qualified for leadership when looking for higher job performance in foreign applicants. However, researchers pointed out that findings are descriptive and not prescriptive and do not suggest causation.

In a more recent study, Lauring and Selmer (2018) surveyed 324 business expats in China and found a link between anger trait disposition and self-control to job performance and job satisfaction. Angry reaction was inversely correlated to job satisfaction ($\beta = -.09$, $p < .10$), while self-control had a positive relationship with both job performance ($\beta = .21$, $p < .10$) and job satisfaction ($\beta = .12$, $p < .05$). Results further supported their hypothesis that the link between trait anger and job satisfaction is strongest with self-initiated expats ($t = -2.97$, $p < .01$) compared to traditional, assigned expats ($t = -3.60$, $p < .001$). Researchers concluded that strong negative emotions could have unfavorable work outcomes for expats in China. While not associated directly with education, Lauring and Selmer's (2018) study contributes to the limited research on self-initiated expatriate studies and argues a need for continued research in this field.

McInerney et al. (2015) surveyed 1,060 primary and secondary teachers from a cross-section of religious and non-religious, English medium and Chinese medium schools in Hong Kong. They used an adapted, bilingual form of The Affective, Continuance, and Normative Organizational and Occupational Commitment Scales tool to measure teacher commitment. Affective commitment refers to the employee's positive emotional attachment, such as feeling as though belonging to a family. Continuance commitment refers to the employee's attachment to the organization and the perceived cost of leaving, such as losing retirement benefits. Normative commitment refers to the obligation the employee feels towards the organization, such as school loyalty. Researchers also asked teachers a set of four questions from the Intention to Quit questionnaire, available in English and Chinese translations, which measured the teachers' likelihood to quit their jobs or the teaching profession altogether. A 7-point, Likert-type scale was used for both instruments.

Their findings indicated that teachers at Chinese instruction schools ($n = 689$) were more likely to quit their jobs ($M = 3.21$) and their profession ($M = 2.98$) than teachers at English medium schools ($n = 232$, $M = 2.78$ and $M = 2.73$, respectively). Teachers at less prestigious schools ($n = 149$) were more likely to quit their jobs ($M = 4.14$) and their profession ($M = 3.03$) than teachers at well-known international schools ($n = 107$, $M = 2.57$ and $M = 2.54$, respectively).

Researchers also found that teachers from religious schools ($n = 608$) were more likely to be committed to their institutions in the affective ($M = 4.65$), normative ($M = 4.62$), and continuance ($M = 4.38$) domains compared to teachers from non-religious schools ($n = 342$) across the same domains: affective ($M = 4.4$), normative ($M = 4.55$), and continuance ($M = 4.37$). However, the opposite was true for commitment to their profession. Teachers from non-religious

schools were more likely to be committed in the affective ($M = 5.35$), normative ($M = 5.26$), and continuance ($M = 5.3$) domains towards their profession than teachers from religious schools across the same domains: affective ($M = 5.28$), normative ($M = 5.1$), and continuance ($M = 5.26$).

Results suggest teachers at religious, English-medium, top-tier schools are more likely to be committed to their jobs and institutions with fewer turnover intentions. However, researchers concluded that despite these findings, school leaders could mitigate intention to quit factors by intentionally creating a school environment that encourages teachers to love their school and their profession and by instilling a sense of responsibility towards students and their school (McInerney et al., 2015). Researchers did not identify the ethnicity or nationality of participants; therefore, results do not indicate how many respondents were expat teachers versus local Hong Kong educators.

Fong (2018) surveyed 216 international school teachers in Asia, primarily working in China, using the 9-facet Job Satisfaction Scale (JSS). Fong's study researched job satisfaction and its relationship to contract renewal by teachers in international schools in Asia. Binary logistic regression analysis revealed that satisfaction in administrative supervision (25.6% less likely to leave, $p = .032$), good communication (29.1% less likely to leave, $p = .025$), and satisfaction in the nature of their work (43.1% less likely to leave, $p = .004$) were predictors for contract renewal. In order to reduce teacher attrition, Fong (2018) encouraged international school administrators to a) share clear organizational goals, b) update staff members on what is happening in the school, c) clearly explain work expectations and assignments, d) help teachers feel their job is meaningful, e) help teachers to foster pride in their work, and f) construct a positive, enjoyable work environment.

Regarding attrition within the American context, Carver-Thomas and Darling-Hammond (2019) examined teacher attrition in the United States by analyzing data reported from the U.S. Department of Education, the 2011-2012 National Center for Education Statistics Schools and Staff Survey, and the 2012-2013 Teacher Follow-up Survey. They found around 16% of teachers quit or move schools annually in the United States. They also found that amongst teachers who have been teaching three years or less, between one-quarter and one-third leave the profession. That number is even higher for teachers serving in schools with students of color. While researchers found that experience did not affect the likelihood of turnover, the pathway to certification did. Teachers were 25% more likely to leave the profession if they did not enter teaching through a traditional certification program. Carver-Thomas and Darling-Hammond (2019) also found that compensation and administrative support did have a statistically significant relationship with teacher turnover rates ($p < .001$). Researchers advocated solid induction programs and mentoring opportunities for new and young teachers to improve retention.

Sutcher et al. (2019) also researched the causes and prospective solutions to teacher shortages in the United States. They found that schools that were difficult to staff experienced higher rates of turnover, affecting the performance of the students in a new teacher's classroom and all the students in the school because of the impact on school stability and continuity. Researchers cited the need for continued use of resources for recruitment and professional support of new teachers. They argued schools must continually invest in recruitment and professional development for new teachers. One principal remarked, "every year, we had to recover ground in professional development that had already been covered and try to catch people up to sort of where the school was heading" (Sutcher et al., 2019, p. 26).

In international schools where attrition can be high, the same issues associated with teacher retention exist. As Sutcher et al. (2019) argued, "a comprehensive approach to reducing attrition would effectively both lessen the demand for teacher hiring and save money that could be better spent on mentoring and other evidence-based approaches to supporting teacher development" (p. 26). One way to improve teacher retention in international schools is to consider the role of self-efficacy and work engagement for expat educators.

Teaching in an international school or foreign university is a unique experience for foreign educators, with unique stressors and unique motivators for work engagement. Often the opportunity to work in these contexts allows expats entry into the global middle class. Expat teachers often enjoy a social status higher than that of their local colleagues or what they might experience back home, even though not quite at the level of local elites or their students' parents on business or diplomatic assignments (Bunnell, 2017).

Tarc et al. (2019) interviewed three expat international school teachers to evaluate their experiences as citizens of the emerging global middle class. Researchers found that these teachers tend to accumulate social, cultural, and economic capital not necessarily available to them within their home countries. The teachers enjoyed an elevated status in their middling positions, referring to their place within the middle of the class spectrum between corporate executives and underprivileged foreigners (Bunnell, 2017). Tarc et al.'s study highlighted the opportunity international school education provided children of expat teachers. Children of international school teachers are afforded the chance to attend elite international private schools that would be financially prohibitive in their home countries. Tarc et al. (2019) also addressed how the overseas experience for these children developed a unique worldview different from their counterparts in their home countries.

Ramalu and Subramaniam (2019) surveyed 477 self-initiated expatriate academics, professors who sought employment abroad, from 20 public universities in Malaysia to measure the effects of cultural intelligence on work engagement while considering the presence of psychological needs satisfaction. Work engagement was measured by the Utrecht Work Engagement Scale (UWES), which gauged three dimensions of work engagement: vigor, dedication, and absorption. Cultural intelligence refers to a person's ability to understand cultural situations and function in appropriately responsive ways. Psychological needs satisfaction considers a person's autonomy or self-determination, relatedness or connection with others, and competence or feelings of effectiveness, similar to self-efficacy. When competence is lacking, workers feel competence frustrations towards their own efficacy within their jobs.

Researchers hypothesized that there would be positive associations between cultural intelligence, psychological needs satisfaction, and work engagement. Findings included a significantly positive relationship between psychological needs satisfaction and work engagement ($r = .670$, $p < .01$). Findings suggest that perceived competence, or self-efficacy, may lead to improved work engagement. In fact, with multiple regression and mediation analysis, researchers discovered that increasing psychological needs satisfaction was positively related to greater work engagement ($\beta = .2997$, $p < .05$).

Ramalu and Subramaniam (2019) suggested that cultural intelligence is a type of personal resource, similar to self-efficacy, that is a determinant of work engagement, which helps individuals fulfill their basic need for autonomy and competence. Researchers suggested more studies need to be done related to expatriate educators in particular and that school administrators should consider other recruitment strategies besides traditional background experiences as criteria for hiring to increase retention rates. While Ramalu and Subramaniam's findings

contributed to the limited body of research on expatriates and work engagement, their study failed to consider teachers in the K12 school environment, which is quite different from teaching in the university context.

Jonasson et al. (2017) surveyed 124 expatriate academics living in China and working at Chinese universities. Their study aimed to measure work adjustment and work outcomes by examining teacher-student relations and job satisfaction. Results indicated that job satisfaction had a positive relationship with teacher-student relations ($\beta = .31$, $p < .001$). They also found that job satisfaction was significantly and positively associated with intercultural job adjustment ($\beta = .32$, $p < 0.001$). Researchers concluded that positive relationships with colleagues and students contributed to positive well-being and, in turn, positive work outcomes. They argued, "expatriate academics' relations to their students, as a job resource, are beneficial in creating job satisfaction – especially when the expatriate is most vulnerable in the foreign context" (Jonasson et al., 2017, p. 14).

Wigford and Higgins (2019) conducted a mixed-methods study that surveyed 1,065 teachers from 72 countries. Researchers wanted to know what factors promote teacher well-being and what barriers exist towards teacher well-being. Researchers sent their questionnaires to senior staff at international schools found within the Independent Schools Consultancy's research database. The questionnaire included demographic questions and assessed well-being. Semi-structured follow-up interviews were conducted. Interview respondents mainly were classroom teachers and teachers with leadership responsibilities, representing schools from China, Hong Kong, Malaysia, Netherlands, Norway, Philippines, Poland, Singapore, Turkey, and Vietnam.

Wigford and Higgins (2019) found that appreciation, relationships, and belonging were critical factors in teachers' well-being in international schools, even balancing negative factors

such as weak leadership, lack of resources, and heavy workloads. These findings support Klassen et al.'s (2013) framework of cognitive, emotional, and social engagement as components of work engagement. Thus, it can be concluded that engaged teachers maintain cognitive, emotional, and socio-relational wellness (Wigford & Higgins, 2019). International school administrators need to consider ways to foster a culture of belonging and appreciation to support work engagement and reduce attrition.

Conclusion

This review of the literature aimed to examine the literature regarding the concepts of teacher self-efficacy and teacher work engagement with expat teachers at international K12 schools in view. Lisbona et al. (2018) cited several studies that suggest "a positive gain spiral where self-efficacy increases engagement, which increases self-efficacy over time" (p. 90). Previous research supports that teacher self-efficacy directly influences teacher performance (Klassen & Tze, 2014; Lemon & Garvis, 2016; Ozder, 2011; Woolfolk Hoy et al., 2008).

Highly engaged workers are energetic and resilient to stressors, possess a strong sense of purpose and significance in their work, and are often so engrossed in their work that they have difficulty detaching themselves from their work. Engaged employees experience good health, exhibit positive emotions, mobilize resources, and encourage engagement in others (Bakker & Demerouti, 2008).

Klassen and Tze (2014) argued that teacher outcomes related to student learning are not strongly correlated to preparatory educational programs or degrees; instead, a better understanding of the physiological profiles of engaged teaching may assist in the selection and professional development of novice and seasoned educators. Researchers argue "understanding the factors contributing to teacher effectiveness is a global research and policy priority with the

potential to influence teacher selection processes, enhance training and professional development of pre-service and practicing teachers, and improve educational outcomes" (Klassen & Tze, 2014, p. 60).

Despite more than 20 years of research in the field of self-efficacy in education, there appear to be few examinations in the literature of teacher self-efficacy among expat teachers in international schools. Poole and Bunnell (2020) contended "the domain of teachers in international schools remains largely under-researched and under-theorized" (p. 5). While previous studies have shown self-efficacy and work engagement are correlated in local and cross-cultural contexts, a continuation of the research using teacher self-efficacy and teacher work engagement scales among international expat teachers may provide additional insight into the factors that contribute most to work engagement in international schools, thereby reducing attrition and improving student learning outcomes in the international school context.

III. METHODOLOGY

The purpose of this quantitative survey study was to evaluate if teacher self-efficacy predicts teacher work engagement for expatriate teachers at international K12 schools in China. This research study was a non-experimental, correlational study of the relationships between the factors of teacher self-efficacy and teacher work engagement as measured by the Teachers' Sense of Efficacy Scale (TSES) and the Engaged Teacher Scale (ETS) (Klassen et al., 2013; Tschannen-Moran & Hoy, 2001). This chapter describes the research sample, instrumentation used, and method of data collection and analysis.

Sample

The population studied in this descriptive quantitative study (Creswell & Creswell, 2018) was expatriate teachers working in international schools in China. The purposive sample was composed of expatriate, international school teachers who have worked in China during the past 10 years at an international K12 school and are personally known to the researcher or the researcher's contacts. Surveys were completed in full by 103 participants. Two of the study participants, although teaching in China, marginally fulfilled the requirements for participation in this study. Nevertheless, their survey data was included in final analysis.

Instrumentation

The primary independent variables in this correlation study were the mean scores of teachers' overall self-efficacy according to the Teacher's Sense of Efficacy Scale (TSES). The

primary dependent variables were the mean scores of teachers' self-reported work engagement as measured by the Engaged Teachers Scale (ETS). Data were also analyzed to determine which sub-scale factor of teacher self-efficacy most predicted overall teacher work engagement. Furthermore, data were analyzed for each sub-scale factor of work engagement (independent variable) to see which one most predicted overall teacher self-efficacy (dependent variable).

Instrument: Teachers' Sense of Efficacy Scale (TSES)

The Teachers' Sense of Self-efficacy Scale (TSES), formerly known as the Ohio State Teacher Efficacy Scale, was first developed in 2001 by researchers at The Ohio State University (Tschannen-Moran & Hoy, 2001). The TSES measures teacher self-efficacy across three domains: instructional strategies, classroom management, and student engagement. The scale is available in both long and short forms. This study utilized the 24-question long form. In the long-form, instruction has a mean of 7.1, a standard deviation of 0.94, and a Cronbach's alpha of .94. Management has a mean of 6.7, a standard deviation of 1.1, and a Cronbach's alpha of .90. Engagement has a mean of 7.3, a standard deviation of 0.94, and a Cronbach's alpha of .94. The overall mean for the TSES is 7.1. The standard deviation is 0.94, and Cronbach's alpha is .94 (Woolfolk Hoy et al., 2008).

The TSES is a self-report instrument that utilizes a Likert scale. Respondents are asked to answer questions such as "How much can you do to get through to the most difficult students?" (Tschannen-Moran & Hoy, 2001, p. 800) and then choose numerical values ranging from 1-9, 1 representing *Nothing* and 9 representing *A Great Deal*. For this study, the TSES scale was altered to use a 5-point Likert scale.

Multiple studies have demonstrated strong validity and reliability for the TSES (Duffin et al., 2012; Klassen et al., 2009; Koniewski, 2019; Ruan et al., 2015; Tschannen-Moran & Hoy,

2001). In their original study of the Ohio State Teacher Efficacy Scale, later renamed the Teachers' Sense of Efficacy Scale, researchers Tschannen-Moran and Hoy (2001) tested their instrument on pre-service and in-service teachers in three separate studies, refining the instrument each time. In the third study, for the 24-item long form, researchers discovered the reliabilities for the sub-scales for teacher self-efficacy were 0.91 for instruction, 0.87 for engagement, and 0.90 for management. Participants in study three also completed the Rand questions that assess general teaching efficacy and personal teaching efficacy as well as the Gibson and Dembo teacher efficacy scale that measures personal teaching efficacy and general teaching efficacy. The TSES positively related to both the Rand items ($r = .18$ and $.53$, $p < 0.01$) and the Gibson and Dembo instrument ($r = .64$ and $.16$, $p < .01$). Therefore, the TSES can be reasonably considered both reliable and valid.

Instrument: Engaged Teachers Scale (ETS)

The Engaged Teachers Scale (ETS) was developed to measure the specific work characteristics salient for teachers in classrooms and schools (Klassen et al., 2013). The ETS measures a teacher's engagement across four domains: cognitive engagement, emotional engagement, social engagement: students, and social engagement: colleagues. The ETS is a self-report instrument that utilizes a Likert scale. Respondents rate themselves on prompts such as "I am excited about teaching" (Klassen et al., 2013, p. 39) and then choose numerical values ranging from 0-6, 0 representing *Never* and 6 representing *Always*. For this study, the ETS scale was altered to use a 5-point Likert scale.

Exploratory factor analysis (EFA) determined that four factors accounted for 71.31% of respondents' score variance: emotional engagement (EE) at 40.25%, social engagement: colleagues (SEC) at 13.84%, cognitive engagement (CE) at 9.56%, and social engagement:

students (SES) at 7.66%. Analysis identified "correlations between factors ranged from .33 to .62. Cronbach's alpha coefficients for the EE, SEC, CE, and SES factors were .89, .85, .85, and .84, respectively" (Klassen et al., 2013, p. 38).

Even though the ETS is a relatively newer and less utilized instrument than the widely used Utrecht Work Engagement Scale (UWES) to measure work engagement, the ETS has demonstrated validity and reliability and is domain specific to teaching (Klassen et al., 2013; Yerdelen et al., 2018). In the original study, the ETS's sub-scales of cognitive engagement, emotional engagement, social engagement: students, and social engagement: colleagues were correlated to the sub-scales of the UWES (vigor, dedication, and absorption) and the sub-scales of the TSES (instructional strategies, student engagement, and classroom management). Canonical correlation analysis demonstrated a positive relationship ($p < .001$) between all the factors of the ETS and those of the UWES and TSES. Researchers concluded that teachers with high scores on the TSES and UWES tend to have high engagement scores on the ETS sub-scales.

Data Collection and Analysis

Research Question 1

To what extent does teacher self-efficacy most associate with and predict teacher work engagement in expatriate, international school teachers in China?

H_a1

There will be a statistically significant predictive relationship between teacher self-efficacy and work engagement.

Research Question 2

Of the three factors of teacher self-efficacy: instructional strategies, classroom management, and student engagement, which factor most associates with and predicts teacher work engagement for expatriate, international school teachers in China?

H_a2

The factor of student engagement will represent the most viable, statistically significant predictor of teacher work engagement.

Research Question 3

Of the four domains of teacher work engagement: cognitive, emotional, social: students, and social: colleagues, which one most associates with and predicts a teacher's overall self-efficacy?

H_a3

The cognitive domain will represent the most viable, statistically significant predictor of overall teacher self-efficacy.

Data Collection

Kindergarten-Grade 12 expat teachers from international schools in China completed an anonymous Wufoo survey that was collected through a snowball method (Mills & Gay, 2019) via social media and other international school teacher networks within China. A QR code linked to a Wufoo survey was disseminated via a flyer that described the researcher and the research study. Participants were asked to confirm that they were over the age of 18 and voluntarily consented to complete the online research survey. The survey was open from March 15 to April 5, 2021.

Descriptive Data Analysis

The researcher downloaded the survey data from Wufoo as an Excel spreadsheet. Data were then imported into IBM's (v.27) Statistical Package for the Social Sciences (SPSS).

Members of the research team analyzed data according to the three research questions and corresponding hypotheses. Missing data, internal reliability, and participant demography were considered.

The Teachers' Sense of Efficacy Scale (TSES) measured teachers' self-efficacy in instructional strategies, classroom management, and student engagement. Correlation analysis determined the extent to which teacher self-efficacy predicted higher teacher work engagement in expatriate, international school teachers in China.

Teacher work engagement was measured by The Engaged Teachers Scale (ETS) across four domains: cognitive engagement (CE), emotional engagement (EE), social engagement: students (SES), and social engagement: colleagues (SEC). Multiple linear regression was used to determine which factors of teacher self-efficacy predicted teacher work engagement. Multiple linear regression was also used to determine which teacher work engagement factors most correlated with overall teacher self-efficacy.

Foundational analyses were conducted focusing upon evaluations of missing data and internal reliability. Research question one was addressed using simple linear regression. Research questions two and three were addressed using multiple linear regression. A critical p-value of alpha ≤ 0.05 was adopted as the threshold for statistical significance of finding. SPSS was utilized to define groups and compare findings (Field, 2018). The observed p-value was determined and compared to the critical p-value. The effect size was based upon the interpretation of respective R^2 values. All major assumptions associated with the use of linear regression were assessed using both statistical techniques and visual interpretations. The study summarizes findings related to teacher self-efficacy and work engagement, discusses practical

implications, and provides suggestions for future research. The results of the analyses are

presented in chapter four.

IV. RESULTS

The purpose of this non-experimental, quantitative survey study was to evaluate if teacher self-efficacy predicts teacher work engagement for expatriate teachers in international schools in China. Chapter four contains the formal reporting of the findings achieved in the study. Three research questions and hypotheses were stated in an effort to address the study's topic and purpose. Descriptive, inferential, and predictive statistical techniques were used to address the preliminary analyses and analytics associated with the study's research questions and hypotheses. The analysis and reporting of study findings were conducted using IBM's (v.27) Statistical Package for the Social Sciences (SPSS).

Preliminary Findings

Analyses were conducted in advance of the formal address of the study's three research questions and hypotheses. Specifically, descriptive statistical evaluations of missing data and completion rate, internal reliability, demography associated with study participants, and initial findings were conducted and are reported as follows.

Missing Data/Completion Rate

The study's response set was 100% intact, manifesting no missing values. The completion rate achieved in the study is noteworthy in light of the customary rate of approximately 60% generally achieved for research instruments using more than 14 survey items (Kowalska, 2019).

Internal Reliability

The internal reliability of study participant response to items on the research instrument was assessed using the Cronbach's alpha (α) statistical technique. Internal reliability of study participant response across survey items associated with the construct of teacher self-efficacy, the construct of teacher work engagement, and across all survey items was conducted and interpreted using the conventions espoused by George and Mallery (2018). As a result, excellent internal reliability levels were achieved ($a \geq .90$) for the constructs of self-efficacy, engagement, and all items on the survey. Table 1 contains a summary of findings for the internal reliability of study participant responses to items on the study's research instruments.

Table 1

Internal Reliability: Self-Efficacy, Engagement, & Overall

Category	# of Items	α
Self-Efficacy	24	.94
Engagement	16	.90
Overall	40	.95

Descriptive Statistics

Three primary demographic identifier variables were evaluated using descriptive statistical techniques for comparative and illustrative purposes. Frequencies (*n*) and percentages (%) represented the descriptive statistical techniques used to assess the study's demography. Table 2 contains a summary of the descriptive findings for the study's demographic identifier variables.

Table 2

Descriptive Statistics: Demography

Variable	*n*	*%*	Cumulative *%*
Teaching in China			
No	34	33.01	33.01
Yes	69	66.99	100.00
Missing	0	0.00	100.00
Passport (Non-China)			
No	1	0.97	0.97
Yes	102	99.03	100.00
Missing	0	0.00	100.00
Degree/Training			
No	7	6.80	6.80
Yes	96	93.20	100.00
Missing	0	0.00	100.00

Descriptive statistical techniques were used to evaluate the construct of teacher self-efficacy and the three elements of teacher self-efficacy. All four variables included in the analysis were normally distributed using the skew and kurtosis parameters for normality proposed by George and Mallery (2018). Table 3 contains a summary of findings for the descriptive statistical analysis of the construct of teacher self-efficacy and its three sub-factors.

Table 3

Descriptive Statistics: Self-Efficacy

Variable	*M*	*SD*	*n*	SE_M	Min	Max	Skewness	Kurtosis
Student Engagement	3.89	0.60	103	0.06	2.38	5.00	-0.16	-0.30
Instructional Strategies	4.12	0.57	103	0.06	2.50	5.00	-0.50	-0.01
Classroom Management	4.16	0.56	103	0.05	2.62	5.00	-0.44	-0.15
Self-Efficacy (Overall)	4.06	0.52	103	0.05	2.50	5.00	-0.42	0.12

Descriptive statistical techniques were used to evaluate the construct of teacher work engagement and the four domains of teacher work engagement. All five variables included in the analysis were normally distributed using the skew and kurtosis parameters for normality proposed by George and Mallery (2018). Table 4 contains a summary of findings for the descriptive statistical analysis of the construct of teacher work engagement and its four domains.

Table 4

Descriptive Statistics: Engagement

Variable	M	SD	n	SE_M	Min	Max	Skewness	Kurtosis
Cognitive Engagement	4.44	0.52	103	0.05	3.00	5.00	-0.70	-0.44
Emotional Engagement	4.28	0.74	103	0.07	1.00	5.00	-1.44	3.27
Social Engagement (Students)	4.45	0.45	103	0.04	3.00	5.00	-0.75	0.09
Social Engagement (Colleagues)	4.14	0.62	103	0.06	2.50	5.00	-0.52	-0.30
Engagement (Overall)	4.33	0.46	103	0.05	2.81	5.00	-0.54	0.01

Findings by Research Questions and Hypotheses

Three research questions and hypotheses were formally stated in the study. The probability level of $p \leq .05$ was used as the threshold value for statistical significance of findings. The magnitude of predictive effect was interpreted using the conventions proposed by Sawilowsky (2009). All three research questions were predictive in nature, and as such were addressed using linear regression statistical technique. All assumptions associated with the use of linear regression in the three research questions were addressed and satisfied through statistical means (e.g., influential outliers, multicollinearity, independence of error, and normality of residuals) and visual inspection (e.g., linearity and homoscedasticity).

The findings achieved in each of the three research questions are reported as follows.

Research Question 1

To what extent does teacher self-efficacy predict teacher work engagement in expatriate, international school teachers in China?

The simple linear regression statistical technique was used to address the predictive construct of research question one. The predictive model was statistically significant ($F_{(1,101)}$ = 87.40, $p < .001$, $R^2 = .46$), indicating that approximately 46% of the variance in study participants' perceived engagement is explainable by their perceived self-efficacy. Study participants' perceptions of overall self-efficacy was statistically significantly predictive of their perceptions of engagement ($B = .60$, $t_{(101)} = 9.35$, $p < .001$). The findings in research question one indicate that on average, a one-unit increase of a study participant's perceptions of self-efficacy will increase the value of their perceived engagement level by .60 units. The predictive effect for self-efficacy was considered approaching a huge effect ($R^2 = .46$). Table 5 contains a summary of findings for the predictive model used to address research question one.

Table 5

Predicting Study Participant Level of Engagement by Perceptions of Self-Efficacy

Model	B	SE	95% CI	β	t	p
(Intercept)	1.88	0.26	[1.36, 2.40]	0.00	7.13	< .001
Self-Efficacy	0.60	0.06	[0.48, 0.73]	0.68	9.35	< .001

H_a1

There will be a statistically significant predictive relationship between teacher self-efficacy and work engagement.

In light of the statistically significant finding achieved in research question one, the alternative hypothesis was retained.

Research Question 2

Of the three factors of teacher self-efficacy: instructional strategies, classroom management, and student engagement, which factor is most predictive of teacher work engagement for expatriate, international school teachers in China?

The multiple linear regression (MLR) statistical technique was used to address the predictive construct of research question two. The predictive model was statistically significant (F (3,99) = 31.16, $p < .001$, $R^2 = .49$), indicating that approximately 49% of the variance in study participants' perceptions of engagement is explainable by the variables of student engagement, instructional strategies, and classroom management.

The variable of student engagement was statistically significantly predictive of study participants' perception of their level of engagement ($B = .34$, $t_{(99)} = 3.83$, $p < .001$). The findings indicate that on average, a one-unit increase of perceptions of student engagement will increase the value of perceptions of the level of perceived engagement by .34 units. The predictive effect for the element of student engagement was considered to be between large and very large ($R^2 = .20$). Table 6 contains a summary of findings for the predictive model used to address research question two.

Table 6

Predicting Level of Engagement by Dimensions of Self-Efficacy

Model	B	SE	95% CI	β	t	p
(Intercept)	1.99	0.27	[1.46, 2.52]	0.00	7.47	< .001
Student Engagement	0.34	0.09	[0.16, 0.52]	0.45	3.83	< .001
Instructional Strategies	0.19	0.10	[-0.01, 0.38]	0.23	1.86	.07
Classroom Management	0.06	0.08	[-0.11, 0.23]	0.07	0.72	.47

H$_a$2

The factor of student engagement will represent the most viable, statistically significant predictor of teacher work engagement.

In light of the statistically significant finding for the variable of student engagement in research question two, the alternative hypothesis was retained.

Research Question 3

Of the four domains of teacher work engagement: cognitive, emotional, social: students, and social: colleagues, which is most predictive of a teacher's overall self-efficacy?

The multiple linear regression (MLR) statistical technique was used to address the predictive construct of research question three. The predictive model was statistically significant (F (4,98) = 24.33, p < .001, R^2 = .50), indicating that approximately 50% of the variance in study participants' perceptions of self-efficacy is explainable by the confluence of cognitive engagement, emotional engagement, social engagement: students, and social engagement: colleagues.

The factor of emotional engagement was statistically significantly predictive of study participants' perceptions of self-efficacy (B = .23, t (98) = 3.34, p = .001). The finding indicates that on average, a one-unit increase of study participants' perceptions of emotional engagement will increase the value of perceived self-efficacy by .23 units. The factor of social engagement: students was also statistically significantly predictive of study participant perceptions of self-efficacy (B = .39, t (98) = 3.54, p < .001). The finding indicates that on average, a one-unit increase of social engagement with students will increase the value of study participants' perceived self-efficacy by .39 units. Although both variables manifested statistically significant predictive effects for study participant perceptions of self-efficacy, the element of social

59

engagement with students exerted a slightly greater predictive effect over the element of emotional engagement. Table 7 contains a summary of findings for the predictive model used in research question three.

Table 7

Predicting Self-Efficacy by Factors of Engagement

Model	B	SE	95% CI	β	t	p
(Intercept)	0.60	0.40	[-0.20, 1.40]	0.00	1.50	.14
Cognitive Engagement	0.10	0.11	[-0.11, 0.31]	0.10	0.95	.34
Emotional Engagement	0.23	0.07	[0.09, 0.36]	0.33	3.34	.001
Social Engagement (Students)	0.39	0.11	[0.17, 0.61]	0.35	3.54	< .001
Social Engagement (Colleagues)	0.07	0.07	[-0.06, 0.20]	0.08	1.05	.30

H_a3

The cognitive domain will represent the most viable, statistically significant predictor of overall teacher self-efficacy.

In light of the statistically significant findings for the elements of emotional engagement and social engagement with students, the alternative hypothesis for research question three was rejected.

Summary

Chapter four contained formal reporting of findings achieved in the study. Exceptional levels of survey completion rates and internal reliability were reported. Two of the three alternative hypotheses were supported. Predictive models were viable in addressing each of the three research questions. Statistically significant findings were reported in each of the three research questions.

Study participant perceptions of self-efficacy were statistically and significantly predictive of their perception of engagement at work. Study participant perceptions of student

engagement were statistically and significantly predictive of their perception of level of overall engagement at work. The elements of emotional engagement and social engagement with students were statistically significantly predictive of study participants' overall perceptions of self-efficacy. Chapter five contains a thorough discussion of the findings reported in chapter four, including implications for future practice and recommendations for future research.

V. DISCUSSION

International school administrators in China experience difficulty hiring, training, and retaining quality expat teachers for international schools (Fong, 2018). Researchers have demonstrated that high teacher work engagement is a predictor of positive student learning outcomes and low teacher attrition (Bakker & Bal, 2010; Burić & Macuka, 2018; Klassen & Tze, 2014). Researching the role of teacher self-efficacy as it relates to teacher work engagement in expatriate, international school teachers in China will help address the problem of hiring and retaining quality expat teachers. The paucity of research on teacher self-efficacy and teacher work engagement for expat teachers in China catalyzed this study.

The purpose of this non-experimental, quantitative survey study was to evaluate if teacher self-efficacy predicts teacher work engagement for expatriate teachers in international schools in China. The purposive sample was expatriate, international school teachers who have worked in China during the past 10 years at a K12 international school and are personally known to the researcher or the researcher's contacts. An online survey was completed by 103 Kindergarten-Grade 12 expat teachers from international schools in China through a snowball method (Mills & Gay, 2019) via social media and other expat teacher networks.

The primary independent variables in this correlation study were the mean scores of teachers' overall self-efficacy according to the Teacher's Sense of Efficacy Scale (TSES). The primary dependent variables were the mean scores of teachers' self-reported work engagement as

measured by the Engaged Teachers Scale (ETS). Data were also analyzed to determine which sub-scale factor of teacher self-efficacy most predicted overall teacher work engagement. Furthermore, data were analyzed for each sub-scale factor of work engagement (independent variable) to see which one most predicted overall teacher self-efficacy (dependent variable). Descriptive and inferential statistics were used to address the research questions and hypotheses. Chapter five contains a discussion of the findings that were reported in chapter four.

Discussion of Preliminary Findings

The researcher conducted correlation analyses to further examine the relationships between variables. A critical p-value of alpha $\leq .05$ was adopted as the threshold for statistical significance of findings. The evidence identified that teacher self-efficacy predicts teacher work engagement ($B = .60$, $t_{(101)} = 9.35$, $p < .001$). Multiple linear regression identified that the student engagement factor ($B = .34$) of teacher self-efficacy most positively and significantly predicted teacher work engagement and that the emotional engagement ($B = .23$) and social engagement with students ($B = .39$) factors of teacher work engagement most positively and significantly predicted overall teacher self-efficacy, creating a reciprocal and cyclical effect that predicts teacher self-efficacy and teacher work engagement (Lisbona et al., 2018).

The online survey consisted of 47 required response fields. The study had an exceptional completion rate of 100%. The study also demonstrated exceptional internal reliability ($\alpha > .90$). Due to the adequacy of sample size ($n = 103$), the study was sufficiently powered. Considering completion rate, internal reliability, and sample size, the study could be considered robust and the study's findings credible and trustworthy. The data suggest that investigating the role of teacher self-efficacy and its impact on teacher work engagement can address the problem of hiring and retaining quality expat teachers in international schools in China.

Discussion of Findings by Research Question

Research Question 1

To what extent does teacher self-efficacy most associate with and predict teacher work engagement in expatriate, international school teachers in China?

H_a1

There will be a statistically significant predictive relationship between teacher self-efficacy and work engagement.

In line with the hypothesis, self-efficacy positively and significantly predicted teacher work engagement ($B = .60$, $t_{(101)} = 9.35$, $p < .001$) for expat K12 international school teachers in China. Also, the predictive effect for self-efficacy towards work engagement ($R^2 = .46$) demonstrated a huge effect size, giving teacher self-efficacy a predictive role in teacher work engagement. Results of the present study reinforce Burić and Macuka's (2018) research which found that self-efficacy predicted work engagement ($\beta = .53$, $p < .001$) in teachers working in Croatia, Lisbona et al.'s (2018) international study that found a positive correlation between self-efficacy and work engagement ($r = .119$, $p < .01$) outside of the field of education, and Liu and Huang's (2019) study of business students in China that showed a moderately significant positive association between self-efficacy and work engagement ($\beta = .31$, $p < .01$). As von Kirchenheim and Richardson (2005) have noted regarding international relocation adjustment, considering the predictive effect of teacher self-efficacy on teacher work engagement adds to the scant research for expats in international education.

Research Question 2

Of the three factors of teacher self-efficacy: instructional strategies, classroom management, and student engagement, which factor most associates with and predicts teacher work engagement for expatriate, international school teachers in China?

H_a2

The factor of student engagement will represent the most viable, statistically significant predictor of teacher work engagement.

According to Tschannen-Moran and Hoy (2001), teacher self-efficacy is comprised of three sub-factors: classroom management, instructional strategies, and student engagement. While classroom management ($B = .06$, $p = .47$) and instructional strategies ($B = .19$, $p = .07$) both positively predicted teacher work engagement, results demonstrated a stronger relationship between student engagement ($B = .34$, $p < .001$) and teacher work engagement. In light of the statistically significant finding for the variable of student engagement in research question two, the alternative hypothesis was retained.

This analysis supports Bandura's (1997) theory of self-efficacy that explains why teachers would intentionally choose challenging work and be willing to invest time and energy in their jobs, even in the face of potential failure. When teachers can engage students in learning, teachers are more fully engaged in their work. Engaged students provide teachers additional positive work experiences and cumulative teaching successes, thereby enhancing self-efficacy (Bandura, 1997) which further increases work engagement.

Although student engagement is the most predictive of teacher work engagement, the mean score of student engagement ($M = 3.89$) was lower than instructional strategies ($M = 4.12$) and classroom management ($M = 4.16$). Overall self-efficacy ($M = 4.06$) was higher than the sub-

score mean for student engagement. This finding suggests that even though student engagement is more predictive of work engagement, international school teachers in China rate themselves lower in engaging students than in their abilities related to instruction and classroom management. Perhaps this finding reflects the emphasis many schools place on hiring and training in traditional classroom teaching skills rather than on social-emotional skills (Klassen & Tze, 2014).

Strong self-efficacy leads to positive work engagement which impacts student learning outcomes and higher teacher retention rates (Burić & Macuka, 2018; Lemon & Garvis, 2016; Liu & Huang, 2019; Ramalu & Subramaniam, 2019; Schaufeli & Bakker, 2004b). The present study would suggest that spending resources developing teachers' student engagement skills, such as motivating students, inspiring creativity, fostering critical thinking, engaging failing students, and assisting families in helping their children learn (Tschannen-Moran & Hoy, 2001), impact teacher work engagement the most.

Research Question 3

Of the four domains of teacher work engagement: cognitive, emotional, social: students, and social: colleagues, which one most associates with and predicts a teacher's overall self-efficacy? H_a3

The cognitive domain will represent the most viable, statistically significant predictor of overall teacher self-efficacy.

Contrary to the hypothesis, a teacher's emotional engagement ($B = .39$, $p < .001$) and social engagement with students ($B = .23$, $p = .001$) impacted teacher self-efficacy the most. This study provides additional insight into the relationship between teachers' emotional connection with their students and their work and its reciprocal effect on their own self-efficacy towards

66

teaching. These findings are in line with Kahn's (1990) theory of work engagement that postulated that when workers find meaningfulness in their work, they are more engaged and Rothbard's (2001) assertion that emotions are the linchpin in work engagement. Jonasson et al. (2017) noted that a teacher's relationship to students is a type of job resource that contributes to positive well-being and job satisfaction in the expat experience. Also, as Burić and Macuka (2018) predicted, positive emotions at work increase teacher self-efficacy ($\beta = .41$, $p < .001$).

However, the study results seem to contradict the claims of Talley (2017) and Kini and Podolsky (2016) that emphasized the role of administrative support and collegial engagement as a means to best increase teacher self-efficacy. Also, Yerdelen et al. (2018), using a translated version of the TSES and ETS, found that emotional engagement had the weakest correlation to student engagement ($r = .27$, $p < .01$) and that cognitive engagement showed the most significant correlation to instructional strategies ($r = .54$, $p < .01$). While the researchers agree that teacher self-efficacy contributes to teacher work engagement, their findings contradict the predictive value of work engagement's social and emotional components and their role in self-efficacy presented in the present study.

Schaufeli et al. (2002) argued that work engagement could be conceptualized by vigor, absorption, and dedication. The present study's findings suggest Schaufeli et al.'s (2002) research is too limited in scope in that it did not consider the emotional aspect of work. Teacher work engagement must also include the emotional and personal elements purported by Klassen et al. (2013) and Klassen and Tze (2014). Likewise, Lauring and Selmer's (2018) research into favorable work outcomes in self-initiated expats in China points to the need to consider strong negative emotions and their impact on work engagement. Wigford and Higgins (2019) also

advocated that positive relationships could mitigate negative emotions and offer enhanced well-being for teachers in international schools.

Vigor and absorption relate to the mental components of work engagement. However, the present study results indicate that cognitive engagement, while positively related to teacher self-efficacy ($B = .10$, $p = .34$), was the least predictive of self-efficacy. Therefore, this study demonstrates the use of the UWES measurement for work engagement (Schaufeli & Bakker, 2004a) is questionable in research measuring teacher work engagement as it lacks the affective social-emotional components of highly engaged teaching as measured by the ETS.

Implications for Future Practice

This study provides insight into practical applications for better understanding self-efficacy and work engagement for expat teachers. Teacher work engagement begins before the point of hire. International school leaders may want to consider adding the 12 questions from the TSES short form into their applications to measure self-efficacy at the time of hire to predict work engagement and then use the results as a baseline for professional development effectiveness in the future.

Professional development could be built around a framework of direct training (verbal persuasion), observations of colleagues (vicarious experiences), and guided formal observations (mastery experiences) to increase overall self-efficacy in specific areas of the teaching practice, such as curriculum development or classroom management. Administrators should also consider providing professional development that specifically targets the student engagement portion of self-efficacy, such as integrating critical thinking, creativity, and inspiration into the learning process in classrooms, as this sub-factor most predicted overall work engagement.

Administrators in international schools should consider the emotional aspect of teaching cross-culturally in an unfamiliar environment and implement practices and policies that encourage emotional attachments at work. School leaders can provide opportunities for socialization outside of class for faculty and students, such as planning special events on the calendar that promote a positive school climate, encouraging faculty-led after-school activities, providing opportunities for sports coaching, and intentionally securing funding for field trips and outings.

Administrators should consider utilizing faculty surveys and drop-in meetings that are intended to gauge employee joy, happiness, excitement, and fun related to teaching and ask questions that assess how well teachers are providing care, warmth, and empathy towards students. By coupling practices that target the student engagement aspect of self-efficacy and the emotional and student engagement domains of work engagement, school administrators can expect to see faculty attrition decline and student learning outcomes improve.

Study Limitations

The researcher acknowledges that certain limitations exist within this study. The reliability of data is impacted because the TSES and ETS are both self-report diagnostic instruments and do not include any external evaluation from supervisors or administrators related to teacher work engagement. Therefore, the ETS does not measure the degree to which teachers complete assigned tasks, meet deadlines, or achieve other school administrative requirements. The study is limited to examining teacher self-efficacy (SE) and teacher work engagement (WE) in expat teachers at international schools. The study did not consider the SE or WE of local teachers at international schools or expat teachers at local schools in China, nor did the study

consider non-teaching personnel within K12 international schools and the role those professionals play in student learning outcomes.

While the researcher assumed teachers who completed the survey had lived cross-culturally in China, the generalizability of the results is limited by the fact that SE and WE were not explicitly measured against teachers' cultural backdrops (e.g., Asian, Western, or Middle Eastern). Data were gathered during the COVID-19 pandemic when many teachers were teaching online, which may have affected self-efficacy self-reporting. It is beyond the scope of this study to address the question of the effect of length in education or tenure at a given international school and the impact those factors might have on teacher self-efficacy and work engagement.

Recommendations for Future Research

Recommendations for future studies include replicating the same study during a non-COVID-19 era to compare which factors of self-efficacy most predict teacher work engagement and which factors of work engagement most correlate to overall teaching self-efficacy when teachers are not teaching online and in pandemic conditions. Future studies should also compare the self-efficacy and work engagement of international school teachers in China by comparing results from teachers working in differently tiered cities in China to study the effect of teaching in a rural or urban international school. Researchers might also expand the study to include all international school staff and use non-teaching specific instruments to measure self-efficacy and work engagement and consider the role of collective self-efficacy in K12 international schools in China.

Future studies might measure SE and WE against the length of time in international school education and longevity at the same school. Cross-cultural perspectives on teacher self-

70

efficacy in expat teachers at international schools in China are scant. Further research is required to establish whether cultural intelligence is a factor in self-efficacy or work engagement in expats working in international schools.

Future researchers should consider gaps in the current literature that use external measurements of teacher work engagement, such as supervisor observations or student achievement data. Research that focuses on teacher work engagement should give preference to using the ETS over the UWES for measuring teacher work engagement. Researchers should also consider the longitudinal effects of experience across the teaching life span on self-efficacy and work engagement and study the unique experiences of foreign expats working outside their passport countries and the impact living cross-culturally has on self-efficacy and work engagement.

Conclusion

Limited expat teacher availability is a problem for all international schools in China (McInerney et al., 2015). Ultimately, school administrators must decide which factors they will consider when selecting new faculty or designing professional development for their teachers. Considering the role of teacher self-efficacy and teacher work engagement empowers international school leaders to make decisions that promote teacher retention and impact student learning outcomes.

The current research study was the first to explore the relationship between teacher self-efficacy and teacher work engagement in expat K12 international school teachers in China. The results indicated that teacher self-efficacy is a predictor of teacher work engagement and that student engagement and social-emotional engagement play a reciprocal role in these constructs

whereby encouraging a more positive work environment. The study contributes to the body of

knowledge related to international school education and expatriate experiences.

REFERENCES

Akhal, K., & Liu, S. (2019). Cultural intelligence effects on expatriates' adjustment and turnover

intentions in Mainland China. *Management Research Review*, *42*(7), 818–836.

Associated Press. (2016, September 12). *In a class of their own: China has 'insatiable' demand*

for expensive international schools. South China Morning Post.

https://www.scmp.com/news/china/policies-politics/article/2018577/class-their-own-

china-has-insatiable-demand-expensive

Bakker, A. B. (2011). An evidence-based model of work engagement. *Current Directions in*

Psychological Science, *20*(4), 265–269. https://doi.org/10.1177/0963721411414534

Bakker, A. B., & Bal, M. P. (2010). Weekly work engagement and performance: A study among

starting teachers. *Journal of Occupational & Organizational Psychology*, *83*(1), 189–206.

https://doi.org/10.1348/096317909X402596

Bakker, A. B., & Demerouti, E. (2008). Towards a model of work engagement. *Career*

Development International, *13*(3), 209–223. https://doi.org/10.1108/13620430810870476

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

Review, *84*(2), 191–215. https://doi.org/10.1037/0033-295X.84.2.191

Bandura, A. (1997). *Self–efficacy: The exercise of control*. Freeman.

Bartlett, K. (1992). Defining international education: A proposal for the future. *International*

Schools Journal, *0*, 45.

Brickhouse, N., & Bodner, G. M. (1992). The beginning science teacher: Classroom narratives of

    convictions and constraints. *Journal of Research in Science Teaching*, *29*(5), 471–485.

Budrow, J., & Tarc, P. (2018). What teacher capacities do international school recruiters look for?

    Canadian Journal of Education, *41*(3), 860–889.

Bunnell, T. (2016). Teachers in international schools: A global educational 'precariat'?

    Globalisation, Societies and Education, *14*(4), 543–559.

    https://doi.org/10.1080/14767724.2015.1068163

Bunnell, T. (2017). Teachers in international schools: A neglected "middling actor" in

    expatriation. *Journal of Global Mobility*, *5*(2), 194–202. https://doi.org/10.1108/JGM-07-

    2016-0033

Bunnell, T., & Poole, A. (2020). Escaping the fire for the frying-pan? British teachers entering

    International Schooling. *British Journal of Educational Studies*.

    https://doi.org/10.1080/00071005.2020.1853673

Burić, I., & Macuka, I. (2018). Self-efficacy, emotions and work engagement among teachers: A

    two wave cross-lagged analysis. *Journal of Happiness Studies*, *19*(7), 1917–1933.

    https://doi.org/10.1007/s10902-017-9903-9

Cadell, C. (2019, August 13). Class dismissed: Surge in arrests of foreign teachers in China.

    Reuters. https://www.reuters.com/article/us-china-education-idUSKCN1V2233

Carver-Thomas, D., & Darling-Hammond, L. (2019). The trouble with teacher turnover: How

    teacher attrition affects students and schools. *Education Policy Analysis Archives*, *27*(36).

    https://eric.ed.gov/?id=EJ1213629

Craig, K.-L. (2010). *A historical analysis of special education services in conservative Christian*

    schools since 1950. Cedarville University. https://doi.org/10.15385/tmed.2010.4

Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (Kindle). SAGE Publications.

Duffin, L. C., French, B. F., & Patrick, H. (2012). The Teachers' Sense of Efficacy Scale: Confirming the factor structure with beginning pre-service teachers. *Teaching and Teacher Education*, *28*(6), 827–834. https://doi.org/10.1016/j.tate.2012.03.004

Eldor, L. (2016). Work engagement: Toward a general theoretical enriching model. *Human Resource Development Review*, *15*(3), 317–339. https://doi.org/10.1177/1534484316655666

Eplin, R. (2020). *Personal Communication*.

Fenwick, A., & Weir, D. (2010). The impact of disrupted and disjointed early professional development on beginning teachers. *Teacher Development*, *14*(4), 501–517. https://doi.org/10.1080/13664530.2010.533491

Field, A. (2018). *Discovering statistics using IBM SPSS statistics* (5th ed.). SAGE Publications, Inc.

Fietzer, A. W., Black, N., Ponterotto, J. G., Magaldi, D., Lipari, K., Pratt, A., & Jr, G. L. D. (2020). The Multicultural Personality Inventory – Short Form: Development and Validation. *Measurement and Evaluation in Counseling and Development*, *53*(3), 165–181. https://doi.org/10.1080/07481756.2019.1691460

Follari, L. (2019). *Foundations and best practices in early childhood education* (4th ed.). Pearson.

Fong, H. W. B. (2018). Factors influencing retention of Gen Y and Non-Gen Y teachers working at international schools in Asia. *The Educational Forum*, *82*(1), 59–67. https://doi.org/10.1080/00131725.2018.1379578

George, D., & Mallery, P. (2018). *IBM SPSS statistics 25 step by step: A simple guide and reference* (15th edition). Routledge.

Hansen, H. M. (2002). Defining international education. *New Directions for Higher Education*, *117*(Spring), 5–12. https://doi.org/10.1002/he.41

Independent Schools Consultancy. (2017). *ISC Research*. Online Database For Schools. https://www.iscresearch.com/

Jonasson, C., Lauring, J., Selmer, J., & Trembath, J.-L. (2017). Job resources and demands for expatriate academics. *Journal of Global Mobility*, *5*(1), 5–21. http://dx.doi.org.seu.idm.oclc.org/10.1108/JGM-05-2016-0015

Kahn, W. A. (1990). Psychological Conditions of Personal Engagement and Disengagement at Work. *Academy of Management Journal*, *33*(4), 692–724. https://doi.org/10.2307/256287

Kent, A. M., & Giles, R. M. (2017). Preservice teachers' technology self-efficacy. *SRATE Journal*, *26*(1), 9–20.

Kini, T., & Podolsky, A. (2016). *Does teaching experience increase teacher effectiveness? A review of the research*. Learning Policy Institute. https://eric.ed.gov/?id=ED606426

Klassen, R. M. (2004). Optimism and realism: A review of self-efficacy from a cross-cultural perspective. *International Journal of Psychology*, *39*(3), 205–230. https://doi.org/10.1080/00207590344000330

Klassen, R. M., Aldhafri, S., Mansfield, C. F., Purwanto, E., Siu, A. F. Y., Wong, M. W., & Woods-McConney, A. (2012). Teachers' engagement at work: An international validation study. *Journal of Experimental Education*, *80*(4), 317–337.

Klassen, R. M., Bong, M., Usher, E. L., Chong, W. H., Huan, V. S., Wong, I. Y. F., & Georgiou, T. (2009). Exploring the validity of a teachers' self-efficacy scale in five countries. *Contemporary Educational Psychology*, *34*(1), 67–76.

Klassen, R. M., & Tze, V. M. C. (2014). Teachers' self-efficacy, personality, and teaching effectiveness: A meta-analysis. *Educational Research Review*, *12*, 59–76. https://doi.org/10.1016/j.edurev.2014.06.001

Klassen, R. M., Yerdelen, S., & Durksen, T. L. (2013). Measuring teacher engagement: Development of the Engaged Teachers Scale (ETS). *Frontline Learning Research*, *1*(2), 33–52.

Koniewski, M. (2019). The Teacher Self-Efficacy Scale (TSES) factorial structure evidence review and new evidence from Polish-speaking samples. *European Journal of Psychological Assessment*, *35*(6), 900–912. https://doi.org/10.1027/1015-5759/a000475

Kowalska, K. (2019, May 13). *How to Get Survey completion rate of over 80%*. Survicate. https://survicate.com/surveys/survey-completion-rate/

Kozikoğlu, İ. (2018). A metaphorical analysis of novice teachers' perceptions concerning first year in teaching, induction process, school administrators and mentor teacher. *Educational Research Quarterly*, *42*(1), 3–44.

Lauring, J., & Selmer, J. (2014). Global mobility orientation and the success of self-initiated expatriates in Greater China. *Asia Pacific Business Review*, *20*(4), 523–540. https://doi.org/10.1080/13602381.2013.847607

Lauring, J., & Selmer, J. (2018). Person-environment fit and emotional control: Assigned expatriates vs. Self-initiated expatriates. *International Business Review*, *27*, 982–992.

Leiter, M. P., & Bakker, A. B. (2010). Work engagement: Introduction. In M. P. Leiter & A. B.

  Bakker (Eds.), *Work engagement: A handbook of essential theory and research* (pp. 1–9).

  Psychology Press.

Lemon, N., & Garvis, S. (2016). Pre-service teacher self-efficacy in digital technology. *Teachers*

  and Teaching, *22*(3), 387–408. https://doi.org/10.1080/13540602.2015.1058594

Lisbona, A., Palaci, F., Salanova, M., & Frese, M. (2018). The effects of work engagement and

  self-efficacy on personal initiative and performance. *Los Efectos Del Work Engagement y*

  La Auto-Eficacia En La Iniciativa Personal y El Desempeño., *30*(1), 89–96.

  https://doi.org/10.7334/psicothema2016.245

Liu, E., & Huang, J. (2019). Occupational self-efficacy, organizational commitment, and work

  engagement. *Social Behavior & Personality: An International Journal*, *47*(8), 1–7.

Loreman, T., Sharma, U., & Forlin, C. (2013). Do pre-service teachers feel ready to teach in

  inclusive classrooms? A four country study of teaching self-efficacy. *Australian Journal*

  of Teacher Education, *38*(1). https://eric.ed.gov/?id=EJ1008550

Machin, D. (2017). The great Asian international school gold rush: An economic analysis.

  Journal of Research in International Education, *16*(2), 131–146.

  https://doi.org/10.1177/1475240917722276

Marzano, R. J. (2007). *The art and science of teaching: A comprehensive framework for effective*

  instruction. Association for Supervision and Curriculum Development.

Maslach, C., & Leiter, M. P. (1997). *The truth about burnout: How organizations cause personal*

  stress and what to do about it. Jossey-Bass.

McInerney, D., Ganotice, F., King, R., Marsh, H., & Morin, A. (2015). Exploring commitment

  and turnover intentions among teachers: What we can learn from Hong Kong teachers.

Teaching and Teacher Education, *52*, 11–23.

http://dx.doi.org.seu.idm.oclc.org/10.1016/j.tate.2015.08.004

Mills, G. E., & Gay, L. R. (2019). *Educational research: Competencies for analysis and applications* (12th ed.). Pearson.

Minghui, L., Lei, H., Xiaomeng, C., & Potměšilc, M. (2018). Teacher efficacy, work engagement, and social support among Chinese special education school teachers. *Frontiers in Psychology*, *9*. https://doi.org/10.3389/fpsyg.2018.00648

Nagrath, C. (2011, August 26). What makes a school international? *The International Educator (TIE Online)*. https://www.tieonline.com/view_article.cfm?ArticleID=87

Oberholzer, E. (2018, June 7). South African teacher speaks out about time in jail in China after visa mishap. *The South African*. https://www.thesouthafrican.com/lifestyle/read-sa-teacher-speaks-out-about-time-in-jail-in-china-after-visa-mishap/

Ovenden-Hope, T., Blandford, S., Cain, T., & Maxwell, B. (2018). RETAIN early career teacher retention programme: Evaluating the role of research informed continuing professional development for a high quality, sustainable 21st century teaching profession. *Journal of Education for Teaching*, *44*(5), 590–607. https://doi.org/10.1080/02607476.2018.1516349

Ozder, H. (2011). Self-efficacy beliefs of novice teachers and their performance in the classroom. *Australian Journal of Teacher Education*, *36*(5), 1–15.

Pang, Y. (2018). Passion and vision for inclusion: A case study of China's rural pre-service teachers training program. *Journal for Multicultural Education*, *12*(4), 343–352. https://doi.org/10.1108/JME-01-2017-0003

Poole, A., & Bunnell, T. (2020). Developing the notion of teaching in 'International Schools' as precarious: Towards a more nuanced approach based upon 'transition capital.' *Globalisation Societies and Education*. https://doi.org/10.1080/14767724.2020.1816924

Powell, W., & Kusuma-Powell, O. (2016). The next frontier of inclusion: Re-defining international education one school at a time. *The Journal of the Association for the Advancement of International Education*, *43*(122), 2–57.

Ramalu, S. S., & Subramaniam, C. (2019). Cultural intelligence and work engagement of expatriate academics: The role of psychological needs satisfaction. *International Journal of Cross Cultural Management*, *19*(1), 7–26.

Rockoff, J. E., Jacob, B. A., Kane, T. J., & Staiger, D. O. (2011). Can you recognize an effective teacher when you recruit one? *Education Finance and Policy*, *6*(1), 43–74.

Rothbard, N. P. (2001). Enriching or Depleting? The Dynamics of Engagement in Work and Family Roles. *Administrative Science Quarterly*, *46*(4), 655–684. https://doi.org/10.2307/3094827

Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs: General and Applied*, *80*(1), 1–28. https://doi.org/10.1037/h0092976

Ruan, J., Nie, Y., Hong, J., Monobe, G., Zheng, G., Kambara, H., & You, S. (2015). Cross-cultural validation of Teachers' Sense of Efficacy Scale in three Asian countries: Test of measurement invariance. *Journal of Psychoeducational Assessment*, *33*(8), 769–779. https://doi.org/10.1177/0734282915574021

Rutledge, S. A., Harris, D. N., Thompson, C. T., & Ingle, W. K. (2008). Certify, blink, hire: An

    examination of the process and tools of teacher screening and selection. *Leadership and*

    Policy in Schools, *7*(3), 237–263.

Sawilowsky, S. (2009). New effect size rules of thumb. *Journal of Modern Applied Statistical*

    Methods, *8*, 597–599. https://doi.org/10.22237/jmasm/1257035100

Schaufeli, W. B., & Bakker, A. B. (2004a). *Utrecht work engagement scale: Preliminary Manual*.

    Department of Psychology, Utrecht University, The Netherlands.

Schaufeli, W. B., & Bakker, A. B. (2004b). Job demands, job resources, and their relationship

    with burnout and engagement: A multi-sample study. *Journal of Organizational*

    Behavior, *25*(3), 293–315. https://doi.org/10.1002/job.248

Schaufeli, W. B., & Bakker, A. B. (2010). Defining and measuring work engagement: Bringing

    clarity to the concept. In A. B. Bakker & M. P. Leiter (Eds.), *Work engagement: A*

    handbook of essential theory and research (2010-06187-002; pp. 10–24). Psychology

    Press.

Schaufeli, W. B., Bakker, A. B., & Salanova, M. (2006). The measurement of work engagement

    with a short questionnaire: A cross-national study. *Educational and Psychological*

    Measurement, *66*(4), 701–716. https://doi.org/10.1177/0013164405282471

Schaufeli, W. B., Salanova, M., González-romá, V., & Bakker, A. B. (2002). The measurement of

    engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of*

    Happiness Studies, *3*(1), 71–92. https://doi.org/10.1023/A:1015630930326

Schaufeli, W. B., Taris, T. W., & Van Rhenen, W. (2008). Workaholism, burnout, and work

    engagement: Three of a kind or three different kinds of employee well-being? *Applied*

Psychology: An International Review, *57*(2), 173–203. https://doi.org/10.1111/j.1464-0597.2007.00285.x

Schwarzer, R., & Hallum, S. (2008). Perceived teacher self-efficacy as a predictor of job stress and burnout: Mediation analyses. *Applied Psychology: An International Review*, *57*, 152–171. https://doi.org/10.1111/j.1464-0597.2008.00359.x

Skaalvik, E. M., & Skaalvik, S. (2007). Dimensions of teacher self-efficacy and relations with strain factors, perceived collective teacher efficacy, and teacher burnout. *Journal of Educational Psychology*, *99*(3), 611–625. https://doi.org/10.1037/0022-0663.99.3.611

Staiger, D. O., & Rockoff, J. E. (2010). Searching for effective teachers with imperfect information. *Journal of Economic Perspectives*, *24*(3), 97–118. https://doi.org/10.1257/jep.24.3.97

Sutcher, L., Darling-Hammond, L., & Carver-Thomas, D. (2019). Understanding Teacher Shortages: An Analysis of Teacher Supply and Demand in the United States. *Education Policy Analysis Archives*, *27*(35). https://eric.ed.gov/?id=EJ1213618

Talley, P. (2017). *Through the lens of novice teachers: A lack of administrative support and its influence on self-efficacy and teacher retention issues* [Ph.D., The University of Southern Mississippi]. http://search.proquest.com/docview/1954047291/abstract/E33EA628EB3443AFPQ/1

Tarc, P., Tarc, A. M., & Wu, X. (2019). Anglo-Western international school teachers as global middle class: Portraits of three families. *Discourse: Studies in the Cultural Politics of Education*, *40*(5), 666–681. https://doi.org/10.1080/01596306.2019.1570635

Tate, N. (2012). Challenges and pitfalls facing international education in a post-international

world. *Journal of Research in International Education*, *11*(3), 205–217.

https://doi.org/10.1177/1475240912461219

Tests and manuals. (2021). Wilmar Schaufeli. https://www.wilmarschaufeli.nl/tests/

The Room 241 Team. (2018, January 1). Teacher Efficacy: Why it matters and how

administrators can help. *Concordia University-Portland*. https://education.cu-

portland.edu/blog/curriculum-teaching-strategies/improve-teacher-efficacy/

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

Teaching and Teacher Education, *17*(7), 783–805. https://doi.org/10.1016/S0742-

051X(01)00036-1

Viadero, D. (2006). U.S. teacher-licensing debate found to echo in Asia: Comparison of training

and certification cites patterns and parallels. *Education Week*, *25*(33), 10.

von Kirchenheim, C., & Richardson, W. (2005). Teachers and their international relocation: The

effect of self-efficacy and flexibility on adjustment and outcome variables. *International

Education Journal*, *6*(3), 407–416.

Wagner, T., & Imanel-Noy, D. (2014). Are they genuinely novice teachers?: Motivations and

self-efficacy of those who choose teaching as a second career. *Australian Journal of

Teacher Education*, *39*(7). https://eric.ed.gov/?id=EJ1029789

Whitaker, T. (2012). *What great principals do differently: Eighteen things that matter most* (2nd

ed.). Routledge.

Wigford, A., & Higgins, A. (2019). Wellbeing in international schools: Teachers' perceptions.

Educational & Child Psychology, *36*(4), 46–64.

Wong, H. K., & Wong, R. T. (1998). *The first days of school: How to be an effective teacher* (2nd ed.). Harry K. Wong Publications.

Woolfolk Hoy, A., Hoy, W. K., & Kurz, N. (2008). Teacher's academic optimism: The development and test of a new construct. *Teaching and Teacher Education*, *24*, 821–834.

Yerdelen, S., Durksen, T., & Klassen, R. M. (2018). An international validation of the engaged teacher scale. *Teachers and Teaching*, *24*(6), 673–689. https://doi.org/10.1080/13540602.2018.1457024

Young, J. J., Park, S., & Lim, E. (2018). Factors influencing preservice teachers' intention to use technology: TPACK, teacher self-efficacy, and technology acceptance model. *Journal of Educational Technology & Society*, *21*(3), 48–59.

APPENDICES

Appendix A

Demographic Questions

1. Do you have experience teaching in a K-12 international school in China during the past 10 years?

   Yes/no

2. Are you currently teaching at an international K-12 school in China?

   Yes/no

3. Is your passport from a country other than China?

   Yes/no

4. What is your passport country? (optional)

5. How many total years have you taught in international schools in your career?

   0-3, 4-7, 8-11, 11-15, 16 or more

6. How many years have you taught at your current international school?

   0-3, 4-7, 8-11, 11-15, 16 or more, NA

7. How many years was the longest amount of time you stayed at the same international school in China?

   0-1, 2-3, 4-7, 8-11, 11-15, 16 or more, NA

8. Do you have an education degree or some other formal teacher training (e.g. took courses where you learned about lesson planning, classroom management, participated in student teaching, etc.)?

   yes/no

9-10. Open-ended questions:

   o Why did you decided to teach at an international school in China?

- o What factors or reasons made you decide to leave your last/current international

  school teaching job?

Appendix B

The Teachers' Sense of Efficacy Scale (long form)

Nothing 1
Very Little 2
Some Influence 3
Quite a Bit 4
A Great Deal 5

1. How much can you do to get through to the most difficult students?
2. How much can you do to help your students think critically?
3. How much can you do to control disruptive behavior in the classroom?
4. How much can you do to motivate students who show low interest in school work?
5. To what extent can you make your expectations clear about student behavior?
6. How much can you do to get students to believe they can do well in school work?
7. How well can you respond to difficult questions from your students?
8. How well can you establish routines to keep activities running smoothly?
9. How much can you do to help your students value learning?
10. How much can you gauge student comprehension of what you have taught?
11. To what extent can you craft good questions for your students?
12. How much can you do to foster student creativity?
13. How much can you do to get children to follow classroom rules?
14. How much can you do to improve the understanding of a student who is failing?
15. How much can you do to calm a student who is disruptive or noisy?
16. How well can you establish a classroom management system with each group of students?
17. How much can you do to adjust your lessons to the proper level for individual students?
18. How much can you use a variety of assessment strategies?
19. How well can you keep a few problem students from ruining an entire lesson?
20. To what extent can you provide an alternative explanation or example when students are confused?
21. How well can you respond to defiant students?
22. How much can you assist families in helping their children do well in school?
23. How well can you implement alternative strategies in your classroom?
24. How well can you provide appropriate challenges for very capable students?

Student Engagement = Items 1, 2, 4, 6, 9, 12, 14, 22
Instructional Strategies = Items 7, 10, 11, 17, 18, 20, 23, 24
Classroom Management = Items 3, 5, 8, 13, 15, 16, 19, 21

(Tschannen-Moran & Hoy, 2001)

Appendix C

The Engaged Teacher's Scale

Never 1
Rarely 2
On occasion 3
Frequently 4
Always 5

1. At school, I connect well with my colleagues.
2. I am excited about teaching.
3. In class, I show warmth to my students.
4. I try my hardest to perform well while teaching.
5. I feel happy while teaching.
6. In class, I am aware of my students' feelings.
7. At school, I am committed to helping my colleagues.
8. While teaching, I really "throw" myself into my work.
9. At school, I value the relationships I build with my colleagues.
10. I love teaching.
11. While teaching I pay a lot of attention to my work.
12. At school, I care about the problems of my colleagues.
13. I find teaching fun.
14. In class, I care about the problems of my students.
15. While teaching, I work with intensity.
16. In class, I am empathetic towards my students.

Cognitive Engagement = Items 4, 8, 11, 15
Emotional Engagement = Items 2, 5, 10, 13
Social Engagement: Students = Items 3, 6, 14, 16
Social Engagement: Colleagues = Items 1, 7, 9, 12

(Klassen et al., 2013)