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# The Relationship Between Teacher Accountability Measures and Self-Efficacy

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# THE RELATIONSHIP BETWEEN TEACHER ACCOUNTABILITY MEASURES AND SELF-EFFICACY

by

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ABSTRACT

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This study was designed to critically analyze teacher accountability and evaluation systems that are being utilized nation-wide, to discover how the systems impact teacher self-efficacy. One hundred thirty-two teachers from a large, diverse Wisconsin school district participated in a longitudinal study. The participants completed surveys at two time points (fall and spring) including collective efficacy, teacher self-efficacy, and sources of efficacy measures. A 2 x 2 mixed ANOVA showed no significant interaction between summary year status and changes in teacher self-efficacy. A multiple regression analysis revealed that sources of teacher self-efficacy included in the evaluation system positively predicted teacher self-efficacy when all of the sources were working together, and when student demographic factors were held constant. An independent samples t-test compared experiences of the sources of self-efficacy of teachers who were on-summary year to teachers who were off-summary year according to the evaluation system. Contrary to predications, the results indicated that teachers who were off-summary year reported more frequent and valuable experiences of the sources of self-efficacy, particularly in social persuasion, than teachers who were on-summary year. Also, this study analyzed the relationship between school context (collective efficacy and student demographics) and the

relationship to teacher self-efficacy. The results from this study support the need for meaningful evaluation and accountability systems that provide opportunities for experiences and reflection on the four sources of self-efficacy. The results also indicate that there is a need to ensure proper implementation of such systems, as teachers on-summary year should have frequent experiences of social persuasion that they find value in. Themes in participant responses are used to provide recommendations for administrative implementation of the evaluation systems. The results additionally confirm a possible reciprocal relationship between collective efficacy and teacher self-efficacy. This suggests that providing a focus on supporting teacher self-efficacy can positively impact the school culture, which can also lead to more positive implementation of evaluation systems. Finally, the results suggest that student ethnic diversity and economic disadvantage positively impacts teacher self-efficacy, whereas teachers exposed to a more diverse student populations and more students with economic disadvantage reported higher teacher self-efficacy. English language learners and students with disabilities populations negatively predicted teacher self-efficacy. Future research is needed to investigate reasons for differences in reports of social persuasion between on-summary year and off-summary year teachers.

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# Chapter 1

## Introduction

The impact of an effective teacher is irreplaceable. No other classroom factor has more of an influence on student learning and achievement than the teacher (Rotherham & Mitchel, 2014; Kane, McCaffrey, Miller, & Staiger, 2013). For this reason, it is imperative that teachers are supported within an environment that cultivates effectiveness. The number of students entering the teaching profession is at a low point, and historically the majority of those who do enter the field tend to leave within the first five years (Rich, 2015). Coinciding with the teacher shortages are new challenges within the profession. Student populations are becoming more diverse than ever (Causey, Thomas, & Armento, 2000), and schools need to be places that foster effectiveness in teachers for the benefit of all of the students they serve. The current political climate has changed what it means to teach. A profession once considered a craft has been transformed into one that now measures the effectiveness of its teachers by quantitative means such as student test scores and proficiency rubrics. Multiple measures are being used by more states in order to quantify school and educator effectiveness, and to prove their innovation and reform in order to qualify for state and federal grants (Ujifusa, 2014). The attempt to quantify something as multidimensional as teacher effectiveness is a challenge. The definition of teacher effectiveness varies greatly between sources. One definition states that an effective educator is an individual who has the ability to use effective teaching methods, classroom organization, and resources to obtain the result of improved student performance (Campbell, Kyriakides, Muijs & Robinson, 2004). The challenge of measuring a multidimensional construct, while supporting and strengthening teachers is present in

modern schools. In order to ensure the integrity of the profession, it is crucial to critically analyze the types of evaluation and accountability systems being implemented to confirm that they support and advance teachers, the most important piece of the classroom environment.

In response to the national and state initiatives, a variety of teacher accountability and evaluation measures have been created and implemented to provide evidence for educator effectiveness. Many states use changes in student test scores as a part of the teacher evaluation system. However, test scores alone cannot account for the complexity of the teaching task. The role of an educator includes leadership roles, peers interactions, community relationships, school leadership, which are all influenced by the school's resources, climate and culture (Goe, Bell, & Little, 2008; Campbell et al., 2004). The National Education Association's (NEA) policy on teacher evaluation and accountability practices stresses the importance of implementing a system that allows for feedback, reflection, and growth (National Education Association, 2015). In response, over twenty states have officially adopted the Danielson Framework for Teaching as a part of their evaluation systems to provide educators with additional component of reflection on the multifaceted task of teaching (Danielson, 2007). This rubric accounts for the complexity of the teaching task by breaking it down into four domains and twenty-two components based on the InTASC standards. To date, minimal studies have addressed the impacts of new evaluation and accountability systems on educators (Mead, 2012). Teacher accountability and effectiveness measures are now a large part of the environment influencing educators' learning and development. As the systems include additional components to allow for reflection, they are becoming even more time intensive and

involved. Determining the implications of accountability and evaluation systems on teachers is important in order to ensure that teachers are being supported and encouraged to grow professionally, particularly in this time of change. Investigating which factors influence teachers' self-efficacy beliefs in the school context will provide insight into the impact of accountability and evaluation systems, and help influence the creation of systems that positively impact teachers' self-efficacy.

The impacts of teacher evaluation and accountability systems have rarely been studied in regards to teacher self-efficacy. Teacher self-efficacy is a vital area of focus because it has the potential to impact the effectiveness of teachers in a school. The construct of self-efficacy originates from Bandura's (1989) Social Cognitive Theory, and the utilization of this framework provides the opportunity to investigate how systems being used to evaluate the effectiveness of teachers impact teacher self-efficacy. Effective teaching behaviors are choices that are influenced by intrinsic and extrinsic factors. According to Social Cognitive Theory, human agency is comprised of the choices an individual makes within a particular context. Among the mechanisms of agency, none is more central to an individual's beliefs about ability to exercise control over their own functioning and events than self-efficacy, which influences how people feel, think, motivate themselves, and behave (Bandura, 1993). Teacher self-efficacy beliefs are identified as an avenue to directly impact teacher quality (e.g., Tschannen-Moran & Woolfolk Hoy, 2001; Wolters & Daugherty, 2007), and are associated with a variety of positive student and teacher outcomes (e.g., Caprara, Barbaranelli, Steca, & Malone, 2006; Ashton & Webb, 1986; Moore & Esselman, 1992). A focus on supporting and building teachers' self-efficacy beliefs will influence teacher agency, by promoting and supporting positive choices, which are the

foundation of effective teaching. Four sources have the capacity to build or diminish teacher self-efficacy: mastery experiences, social persuasion, vicarious experiences, and affective responses (Bandura, 1977; Shaughnessy, 2004; Tschannen-Moran & Hoy, 2007). These sources are embedded into the daily teaching task, the school environment, as well as into many of the new accountability and effectiveness systems. One way to investigate how the systems are impacting teacher self-efficacy is to analyze the relationship between the sources of self-efficacy and the evaluation systems. The positive educational outcomes associated with high teacher self-efficacy reinforce that an ideal teacher effectiveness measure will support and foster positive self-efficacy beliefs, therefore positively impacting effectiveness and student outcomes.

**Study Purpose and Significance**

The purpose of the current study is to utilize social cognitive theory as a framework to examine how commonly used teacher evaluation and accountability systems are impacting teacher self-efficacy. Prior research substantiates the impact of teacher self-efficacy on positive student and teacher outcomes (e.g., Caprara, Barbaranelli, Steca, & Malone, 2006; Ashton & Webb, 1986; Moore & Esselman, 1992). The evaluation and accountability systems have been introduced and implemented abruptly in response to current political initiatives, and there is a need to know how the systems support or diminish teacher self-efficacy. Evidence gained from this study will provide validation for current teacher evaluation systems, or aide in the improvement or the creation of future systems. The study further evaluates teacher reported experiences of the four sources of self-efficacy as they are related to teacher evaluation systems. The goal of the study is to determine whether the newly implemented accountability measures are having a positive,

negative, or absent impact on teacher self-efficacy. A sample evaluation system will be utilized in order to explore reports of teachers' positive and negative experiences of the four sources of self-efficacy as they relate to the system. The intention of the research is to use the information gained from teacher reports to provide recommendations on the creation and implementation of teacher evaluation and accountability systems that strengthen teacher self-efficacy, for the benefit of students, educators, and school systems nation-wide.

**Researcher Background**

The current study was inspired by the researcher's unique position in the implementation of the Wisconsin Department of Public Instruction Educator Effectiveness System. During the 2012-2013 school year, the researcher participated, as a teacher, in the pilot program, implemented by WI Department of Public Instruction. The purpose of the pilot program was to utilize teacher and district feedback in order to modify the evaluation system before the full implementation in 2014. As a part of the pilot, the researcher attended a conference in which Charlotte Danielson spoke about the purpose of the Framework for Teaching (2007). Danielson (2012) reported that it was designed as a growth tool for teachers to utilize, and she cautioned against using it for evaluative purposes. The researcher continued in the pilot program, again in the role of a teacher, during the 2013-2014 school year. Throughout both years of the pilot program, the researcher used Charlotte Danielson's (2007) Framework for Teaching rubric as a guide for reflecting on teaching practices, and developed practice to match proficiency or higher in all four domains of the rubric. This rubric played an integral role in reflection and improvement of personal practice for the researcher. All teachers in all districts in

Wisconsin were required to participate fully in the evaluation system during the 2014-2015 statewide implementation. During that year, the researcher participated both as a teacher and was a district-appointed Educator Effectiveness Coach in the school. The main duties of coaching included helping colleagues understand and navigate the new evaluation system, as well as providing them with opportunities for observation and feedback to support their goals. During the implementation year, the researcher observed colleagues struggling with the new system, especially with finding the time to complete the required tasks, enter information into an unfamiliar software system, and collect evidence to support their growth related to the goals they created. While facilitating the navigation of the new evaluation system, the researcher began to question the implications of the system on teachers. From there, the research questions were born. While the system was designed as an evaluation system with a teacher growth component, the system was quite unfamiliar and time-intensive. The time had come to investigate the evaluation system's impacts on teacher self-efficacy.

The study was designed and approved. The 2015-2016 school year was the year in which the data was collected from the participating school district. The Educator Effectiveness System was in its second year of full implementation at the time of the study. The purpose of the study is to gain an understanding of how teachers report their experiences of the new evaluation and accountability systems, while further investigating how teacher self-efficacy may be impacted. The researcher's intimate involvement in the process adds strength to the study, due to the experiences involved. However, such involvement may influence researcher bias, both of which will be revisited in the discussion section.

# Chapter 2

## Literature Review

This chapter is organized into four topic areas (a) an explanation of the importance of teacher self-efficacy (b) an overview of current teacher evaluation and accountability systems (c) a synthesis of the overlap between the current evaluation system and the sources of teacher self-efficacy, and (d) the research questions. The first section provides a background on Bandura's (1989) Social Cognitive Theory and teacher self-efficacy to familiarize the reader with the concept, the components, and the significance of positive teacher self-efficacy. The second section will present information on teacher effectiveness and teacher evaluation. The subsequent section will use an existing teacher evaluation system, the Wisconsin DPI Educator Effectiveness System (2014), as a sample to analyze the relationship between current teacher evaluation systems and teacher self-efficacy. The final section of the literature review will provide specifics about the current study including aims and hypotheses.

### Teacher Self-Efficacy

Teacher self-efficacy plays an integral role in the choices a teacher makes in his or her daily routines in the profession. Evaluation and accountability systems that promote and build positive teacher self-efficacy must be in place to ensure successful experiences for teachers and students alike. In order to understand the importance of teacher self-efficacy and how it is related to educator effectiveness, the definition and evolution of the construct must be thoroughly examined.

**Definition.** Teacher self-efficacy, also known as teacher efficacy, is defined as the belief a teacher has about his or her ability to positively influence student outcomes, amidst

the many uncontrollable, external factors that can impinge on student success (Gibson & Dembo, 1984). Teacher self-efficacy influences how teachers feel, think, motivate themselves, and ultimately behave (Bandura, 1989, 1993). Cognitive processes are impacted by self-efficacy and lead individuals to set higher goals and persevere in the face of obstacles. Individuals with higher self-efficacy beliefs approach difficult tasks as challenges, rather than threats. They are more likely to set challenging goals and remain committed to them. Individuals with higher self-efficacy recover quickly from failures or setbacks, and have lower stress. Self-efficacy is especially important in the field of teaching because of the variety of external factors that can influence success or failure. A teacher's belief that they can impact the students' outcomes beyond external barriers can be the difference in students' educational outcomes and lead teachers to make effective choices that positively impact job performance and ultimately, student learning.

**History.** The study of teacher self-efficacy can be traced back approximately forty years, to a study that analyzed various contributors to student learning in a school where students were exposed to several risk factors (Armor, Conroy-Oseguera, Cox, King, McDonnell, Pascal, Pauly, & Zellman, 1976). The study found that the perception a teacher has of his or her ability to influence student learning was the only reported factor that had a significant, positive influence on student achievement. Subsequently, the study of teacher self-efficacy was born. Social Cognitive Theory (Bandura, 1989) states that intrapersonal factors and behaviors interact with the environment to influence each other through reciprocal determinism. Self-efficacy is the most influential intrapersonal factor that contributes to this model. Self-efficacy exerts its influence through cognitive, motivational, affective, and selection processes (Bandura, 1993).

**Social cognitive theory.** As new evaluation and accountability systems are becoming a large portion of a teacher's duties, it is imperative to examine the effects they are having on teachers, particularly on teacher self-efficacy. Self-efficacy is important to consider because it influences how people feel, think, motivate themselves and behave through four major processes: cognitive, motivational, affective, and selection (Bandura, 1989, 1993). Teachers who report higher self-efficacy beliefs are more likely to set challenging goals for themselves, as well as remain committed to them (Bandura, 1993) and are more willing to implement innovative teaching strategies that include stimulating and difficult teaching techniques that extend students' thinking to higher levels and conceptual understandings (Ross, 1994). Motivation is influenced through causal attributions, expectancy-value, and goal theory (Bandura, 1993). It determines the goals people will set for themselves and determine how long they will persevere in the face of obstacles. Teachers with high self-efficacy beliefs are more likely to show persistence with students (Tschannen-Moran & Woolfolk Hoy, 2001; Wolters & Daugherty, 2007), help students overcome challenges, encourage their students to persevere in the face of obstacles (Wolters & Daugherty, 2007; Gibson & Dembo, 1984) and use praise to reinforce accomplishments (Gibson & Dembo, 1984). Perceived self-efficacy in the affective realm determines the control an individual recognizes over stressors and plays an integral role in anxiety arousal (Bandura, 1993). Teachers with higher self-efficacy beliefs also demonstrate more enthusiasm and increased commitment to the profession (Tschannen-Moran & Woolfolk Hoy, 2001) and are more likely to attribute students' success and failures to sources that were within their control (Ross, 1994). Higher teacher self-efficacy is related to teachers using less sick days (Hoy, 2000) and they are less likely to experience

teacher burnout (Breso, Schaufeli, & Salanova, 2011; Skaalvik & Skaalvik, 2007; Schwarzer & Hallum, 2008; Brown, 2012). High teacher self-efficacy can be viewed as a physiological toughening agent, which provides beneficial wellbeing outcomes (Schwerdtfeger, Konermann, & Schonhofen, 2008). Finally, efficacy plays a role in the selection process by determining which tasks an individual is confident in or overwhelmed by, whereas individuals are more likely to select activities and tasks in which they have higher self-efficacy beliefs (Bandura, 1993). Teachers who have high self-efficacy for instruction devote more classroom time to academic learning (Gibson & Dembo, 1984) and were more likely to focus on student improvement (Wolters & Daugherty, 2007). The positive teacher behaviors that are a product of high teacher self-efficacy unquestionably make a positive impact on student outcomes (Stipek, 2012).

All realms of education can agree that the principal goal of schools is to improve student learning. As teacher behaviors are impacted by self-efficacy, so are student outcomes. Some of the earliest findings date back to the original RAND research in the study conducted in Los Angeles that searched for ways to improve reading practice, and researchers discovered that teachers who felt efficacious significantly impacted students' reading improvement (Armore, et al., 1976). Subsequently more relationships were discovered between teachers' self-efficacy beliefs and student outcomes. Students who were taught by teachers with high self-efficacy were more likely to exhibit higher motivation to achieve academically and conveyed higher self-efficacy beliefs for themselves (Tschannen-Moran & Woolfolk Hoy, 2001). An abundance of research has identified a relationship between teachers' self-efficacy beliefs and student achievement, where higher beliefs have led to favorable academic results by students across all grade levels (Caprara,

Barbaranelli, Steca, & Malone, 2006; Ashton & Webb, 1986; Moore & Esselman, 1992). Students taught by teachers with higher self-efficacy beliefs have reported a more democratic classroom experience where they felt a part of the classroom decision-making processes (Moore & Esselman, 1992). Lower levels of teacher self-efficacy have demonstrated contrary results, wherein students who were taught by teachers who reported lower teacher self-efficacy suffered consequences consisting of lower academic outcome expectancy, lower perceived performance and a higher perception of task difficulty (Midgley, Feldlaufer, & Eccles, 1989). The research on the impacts of teacher self-efficacy suggests that there are implications to high and low teacher efficacy. By analyzing the possible implications of the Educator Effectiveness System on self-efficacy beliefs, one can better understand how the systems may be influencing teacher behaviors, as well as student outcomes.

The Educator Effectiveness System is becoming a large part of environmental factors that could positively or negatively influence teacher self-efficacy. The goal of the system is to act as a tool for constant reflection, and the activities associated with it typically span one academic year. Bandura's Model of Triadic Reciprocal Determinism states that learning is a product of the interaction of three components: intrapersonal (ie. self-efficacy), environmental (ie. educator effectiveness measures, collective efficacy, student demographics, etc.) and behavioral factors (ie. educator behaviors related to effectiveness), and together these factors influence agency (Bandura, 2012) (Figure 1). Of the intrapersonal factors, self-efficacy has the largest impact on human agency, or teacher behavior.

The goal of the EE System is to encourage teachers to use the evaluation system to learn and grow within the profession (State of Wisconsin Department of Public Instruction, 2014). Investigating the EE System within the framework of Social Cognitive Theory, it may have a positive or negative impact on teacher self-efficacy. The evaluation system may have a positive impact on self-efficacy because it provides teachers with opportunities to reflect on student growth (Caprara, et al., 2006; Holzberger et al., 2013). The reflection on positive student outcomes may be perceived as mastery experiences, therefore leading to higher teacher self-efficacy. The Educator Effectiveness System may negatively impact teacher self-efficacy because of the time and intensity of being involved the evaluation system. Teachers' reports of stress are related to lower teacher self-efficacy beliefs (Klassen & Chiu, 2010). The possibility also exists that the Educator Effectiveness System has no impact on teacher self-efficacy. Bandura (1989) suggests that once efficacy beliefs have been established within a given context, they remain fairly constant, barring no significant changes.

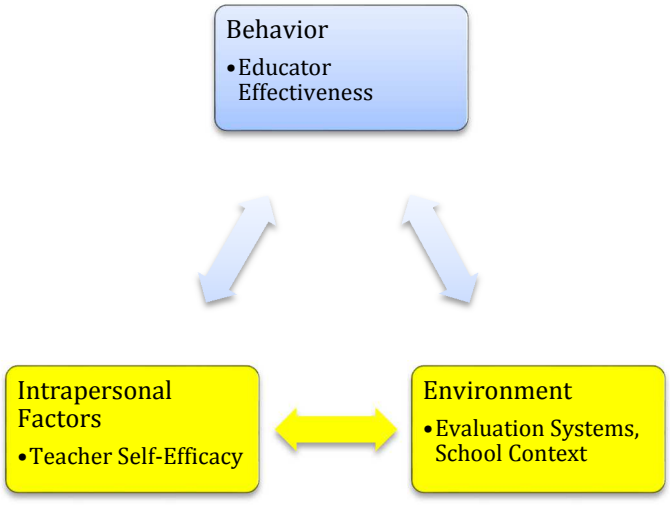


*Figure 1.* Bandura's (1989) model of triadic reciprocal determinism overlaps with the constructs of teacher self-efficacy, effective teaching behaviors, and evaluation and accountability systems. The current study focuses specifically on how the evaluation models and school context, which are part of the environment, influence the intrapersonal factor of self-efficacy.

**The four sources of teacher self-efficacy.** In order to understand how a teacher accountability or evaluation system can positively impact teacher self-efficacy, it is important to understand how self-efficacy is developed. Social Cognitive Theory posits that individuals build self-efficacy through experiences (Bandura, 1986, 1989, 2012). The four sources that contribute to building self-efficacy include: mastery experiences, vicarious experiences, social persuasion, and affective or physiological responses. In order to accurately measure experiences of the four sources of teacher self-efficacy, one must consider more than frequency reports of each source. It is not only the experience of a source of efficacy, but the recognition of that source that leads to higher teacher self-efficacy (Carleton, Fitch, & Krockover, 2008). When attempting to measure impact of the sources, it is essential to include frequency of experiences, as well as the contribution of the source to a teacher's overall success that year.

***Mastery experiences.*** Mastery experiences are self-acknowledged, successful attempts individuals experience within a given context (Bandura, 1986), and of the four sources, are considered to have the strongest, most direct relationship to increasing self-efficacy beliefs (Carlton, et al., 2008). It is not the success itself, but the cognitive processing of the success that influences self-efficacy beliefs (Holzberger, et al., 2013). If an individual has a positive experience and acknowledges success, self-efficacy should be enhanced. The WI DPI Educator Effectiveness System provides a platform for reflection on mastery experiences through teacher created goals, as well as the Danielson (2007) Framework for Teaching rubric. First, the system requires teachers to set two goals annually: the

Professional Practice Goal (PPG), which is related to teacher practice and Student Learning Objective (SLO), which is related to student achievement. Students' achievement contributes to self-efficacy beliefs (Caprara, et al., 2006), therefore successfully completing a goal involving student achievement will likely increase teacher self-efficacy. The Educator Effectiveness System requires teachers to frequently reflect on goal progress, which allow teachers to recognize successful experiences, which contributes to higher self-efficacy (Carleton, et al., 2008). At these points teachers evaluate their progress, provide evidence to support goal attainment, and modify goals if necessary. When the Educator Effectiveness Cycle concludes, evaluators use evidence that was showcased, and formal and informal observation notes to complete the Danielson Framework for Teaching (2007) for on-summary year teachers. The final evaluation meeting allows for collaboration and reflection on overall successes and areas for improvement. Reflection on successes included in the system allows teachers to internalize the mastery experiences, and recognition of the experiences is what leads to higher self-efficacy (Carleton, et al., 2008). However, if a teacher experiences a negative evaluation or does not meet the goals they created, the negative experiences of mastery may decrease teacher self-efficacy (Bandura, 1986). This suggests that the direction of the influence of the mastery experience largely depends on the individuals' unique experiences pertaining to the goals they created and personal reflection upon them, as well as reflection on the Framework for Teaching and conversations with coaches and evaluators.

***Vicarious experiences.*** Vicarious experiences occur when individuals observe someone similar to themselves having success within the context in which self-efficacy is being built. When an individual identifies with the person participating in the activity, it

will lead to higher self-efficacy for that individual in the given context (Bandura, 2012). Direction of the influence of the model will vary by performance. When the model performs favorably, self-efficacy beliefs will be enhanced, whereas when the model performs poorly, self-efficacy beliefs will likely decrease (Goddard, Hoy, & Hoy, 2004).

The Educator Effectiveness System also allows for, and encourages opportunities of vicarious experiences. The Danielson Framework for Teaching (2007), Domain 4 focuses on Professional Responsibilities. Participating in a professional community is the title of Domain 4, Component D. This component encourages teachers to learn and grow from each other. Many schools allow teachers to observe each other in the classroom. If a teacher identifies with the teacher they are observing, and that teacher is having successful experiences, the observer's self-efficacy may increase. Vicarious experiences can also occur during professional development opportunities that are teacher-led, wherein teachers are learning from other teachers. Professional development can also be viewed as a mastery experience that is related to higher self-efficacy (Carleton, et al., 2008). Participation in such an activity can also increase self-efficacy when the teacher identifies with the instructor.

The Educator Effectiveness System (2014) includes an online software component called Teachscape. Teachscape has a *Learn* component that can be used by teachers as a reference tool. This section provides teachers with short videos of teachers in the classroom demonstrating the different proficiency levels in Danielson's (2007) Framework for Teaching. Teachers can utilize this to reference their own performance level. If teachers use this tool to witness the domain proficiencies, and they identify with the teacher in the

video, the Learn section of Teachscape can serve as a vicarious experience, and positively influence teacher self-efficacy.

***Social persuasion.*** Social persuasion is the verbal influence of other individuals on the development of self-efficacy, sometimes experienced as encouragement or conversation about a specific context (Bandura, 2012). Social persuasion is included in several aspects of the Educator Effectiveness System. It is present in support, feedback, and constructive conversations with evaluators, coaches, and peers. Principals and other administrators often serve as evaluators, or people who are trained in the Educator Effectiveness System in order to objectively assess teacher effectiveness. Responsibilities of evaluators include meeting with on-summary year teachers to discuss goals, monitor progress, and reflect. They are also regularly observing teachers and providing feedback. Because principals' instructional leadership behaviors have positive effects on self-efficacy (Calik, Sezgin, Kavgaci, & Kilinc, 2012), it is logical to assume that reporting these experiences would increase teacher self-efficacy. High self-efficacy is associated with principals being responsive to needs, pointing out skills, and offering ways to improve (Brissie, Hoover-Dempsey & Bassler, 1988). The Danielson (2007) Framework for Teaching for provides a rubric for individuals and evaluators to reflect and have meaningful, constructive conversations about teaching practices. Effectiveness Coaches are also available to provide similar feedback to teachers both on and off-summary year. Social persuasion is evident in this arena of the Educator Effectiveness System; however, it is not be limited to administrative and coaching support alone. Both administrator and parent support are significantly correlated to self-efficacy (Stipek, 2012). Parent feedback is yet another way teachers can experiences social persuasion.

Parent relationships play an important role in building or diminishing teacher self-efficacy. There is a strong correlation between teachers' self-efficacy and trusting, cooperative relationship with parents (Skaalvik &Skaalvik, 2010), and conflicts with parents are related negatively to self-efficacy (Skaalvik & Skaalvik, 2007). The Danielson (2007) Framework for Teaching includes community engagement and parent communication. Domain 4C is titled, Communicating with Families. This domain encourages teachers to communicate about the instructional programing, as well as individual students. It also advises teachers to engage families in the instructional programs (Danielson, 2007). The Danielson Framework provides a foundation for a relationship of communication and support between teachers and families, and encourages community collaboration. Support of parents and community is positively related to self-efficacy beliefs (Tschannen-Moran & Woolfolk Hoy, 2007). Therefore, an evaluation or accountability system that supports and encourages parent and community relationships may lead to higher teacher self-efficacy.

Student feedback is also a form of social persuasion that is weaved into the fabric of the Danielson (2007) Framework for Teaching. The entirety of Domain 3 is dedicated to instructional practices, and has a focus on student communication, questioning techniques, engagement, assessment, and responsiveness. Teachers can experience social persuasion from students when they evaluate a teacher or give feedback on instruction. Teachers often seek out student feedback in order to reflect on and improve their instruction. When teachers take the time to focus on students and get feedback from them, they are able to use this as a form of social persuasion to strengthen self-efficacy.

Professional development opportunities can also be considered a form of social persuasion when used in a meaningful way. In Danielson's (2007) Framework for Teaching, Domain 4E is titled, Growing and Developing Professionally. This component reminds teachers to seek out opportunities to improve and inform their instruction. Professional development has a positive effect on teachers' ability to handle management issues and it is related to higher self-efficacy (Ross & Bruce, 2007a). Professional development is often provided by the school administration to enact new initiatives, help reach school goals, or for a variety of other reasons. Coaches, teachers, and administration commonly direct professional development focused on the Educator Effectiveness System in the first few years of the implementation. In order for teachers to be successful with the new evaluation and accountability measures, it is imperative to inform them and help them understand the purpose of the system. As perceptions of support increases, so does self-efficacy (Hoy, 2000). This type of support helps provide the teachers with the resources they need to feel successful and utilize the system to help them grow in the profession and build higher self-efficacy.

***Affective responses.*** Finally, physiological responses or affective states are the physical and emotional states that help individuals judge self-efficacy in certain contexts (Bandura, 2012). Affective responses related to the Educator Effectiveness System can be viewed in a few ways. If individuals experience excitement, or other positive emotions regarding participation in the system, teacher self-efficacy will be positively influenced. However, if negative emotions like stress or anxiety are associated with and felt regarding the Educator Effectiveness System, self-efficacy can be negatively influenced. Several teachers expressed that the stress associated with participation in the new evaluation

system influenced the way they felt about their ability to influence student outcomes. Stress can negatively influence teacher self-efficacy (Klassen & Chiu, 2010). Much of the reported stress was attributed to a lack of time to fulfill the several aspects of the Educator Effectiveness System. Therefore, it is important for districts to provide the proper training for teachers on how to use the system, as well as time for them to complete the many facets of the system without feeling overwhelmed.

**School context.** Teacher self-efficacy varies systematically by school (Goddard & Goddard, 2001), and a variety of school contextual factors have been studied to explain some of the differences. The collective efficacy of the teachers in the school can influence student and teacher performance (e.g., Goddard, Hoy, & Woolfolk Hoy, 2000; Klassen, Usher, & Bong, 2010) and teacher self-efficacy (Calik, et al., 2012). Student demographics are also related to teacher self-efficacy (Tschannen-Moran & Hoy, 2002; 2007). Previous research has investigated the impact of students' ethnic diversity, low socioeconomic status, and special education population on teacher self-efficacy (Stipek, 2012; Knoblaugh and Woolfolk Hoy, 2008; Goddard & Goddard, 2001). For the purposes of this study, collective efficacy and student demographics will be utilized to analyze school contextual differences when reporting teacher self-efficacy.

***Collective efficacy.*** Collective efficacy has the potential to impact school climate, which is one of the most critical variables in successful implementation of the Educator Effectiveness System. Collective efficacy is defined as the perception teachers have in the cumulative efforts of the faculty to impact student learning within the constraints of other environmental factors (Goddard, et al., 2000). Collective efficacy is composed of the group analysis of the teaching task and the assessment of group teaching competence. High

collective efficacy leads to the acceptance of challenging goals, strong organizational effort, and persistence, which leads to better school performance and higher student achievement (Bandura, 1993). Collective efficacy beliefs play an integral role in the fulfillment of school goals (Goddard, et al., 2004) and predict teacher commitment to community partnerships (Ross & Gray, 2006). Higher teachers' collective efficacy decreases teachers' stress attributed to student behavior (Klassen, 2010) and is predictor of job satisfaction (Klassen, et al., 2010). Reciprocal causality has been used to describe the relationship between collective efficacy and teacher self-efficacy because as the number of teachers with high self-efficacy beliefs increase, so do the reports of collective efficacy and as collective efficacy increases, so does the number of teachers reporting high self-efficacy beliefs (Bandura, 1993; Calik, et al., 2012; Goddard & Goddard, 2001; Goddard, et al., 2004). Current findings indicate that collective efficacy may contribute to differing teacher self-efficacy reports between schools, and should be considered when studying the relationship between teacher self-efficacy and teacher accountability and effectiveness systems.

***Student demographics.*** Current research on the relationship between student demographics and teacher self-efficacy has yielded many conflicting results, which warrants further investigation. Some studies suggest that teacher self-efficacy is not impacted by student demographics, whereas others suggest that more student diversity is related to higher teacher self-efficacy. So many variables constitute student demographics, that for the purposes of this research, the descriptors were mainly limited to student characteristics that have been previously studied in relation to teacher self-efficacy or in need of investigation. Urban teachers do not report different teacher self-efficacy from those who teach in other contexts (Tschannen-Moran & Hoy, 2002; 2007). This finding

must be interpreted with caution, as the word urban doesn't provide enough information about the student population to determine which, if any, factors may be influencing teacher self-efficacy. Many teachers feel unprepared to teach students from different cultural backgrounds (Pang & Sablan, 1998). While some research indicates no correlation between ethnicity, poverty status, or grade-level performance of student populations (Stipek, 2012), and race and gender of the student population and teacher self-efficacy (Tschannen-Moran & Hoy, 2007), there is some that suggests otherwise. Stipek (2012) reports that when administrative and parent support and SES are held constant, more ethnic diversity predicts higher teacher self-efficacy. English Language Learners present teachers with a unique challenge in the classroom. Walker and colleagues found that 70% of teachers were not actively interested in having English Language Learners in their classrooms (Walker, Shafer, & Iiams, 2004). No research to date has explored the implications of the English Language Learners populations on teacher self-efficacy, and the large percentage of teachers who expressed an aversion to having the students in the classroom provides a need to understand if there is a relationship between ELL population and teacher self-efficacy. Moreover, little research explores how special education populations influence teacher self-efficacy; however, the research that does exist indicates that there is a relationship between teacher self-efficacy and special education referrals (Meijer & Foster, 1988). The current study uses the student characteristics of ethnic diversity and economic disadvantage to expand on current research. It also explores how a higher percentage of students with disabilities or English Language Learners may impact teacher self-efficacy and collective efficacy.

**Relationship Between Educator Effectiveness System and Teacher Self-Efficacy**

Given the nature and goals of the teacher accountability system, as well as the time and commitment involved, it is likely that the participation in the evaluation system will impact teacher self-efficacy in some way. Minimal research has examined the relationship between the systems and self-efficacy. When examining the effect of the measures on teacher self-efficacy, a few possible outcomes have been considered. First, it is possible that the reflective, supportive nature of the process will align with the four sources of self-efficacy, and therefore teacher self-efficacy will increase (Bandura, 1989). However, the stress and pressure of being involved in the evaluation system, alongside the time commitment added to an already busy list of demands in the teaching profession, may negatively impact teacher self-efficacy (Klassen & Chiu, 2010). The possibility also exists that a teacher would receive a negative review, or negative feedback or other negative experiences related to the four sources of self-efficacy, in which case efficacy would theoretically decrease (Bandura, 1989). The possibility also exists that the evaluation and accountability systems have no relationship with teacher self-efficacy. Overall, it is important to explore if and in which direction the relationship between evaluation and accountability systems and teacher self-efficacy exists.

**Positive Relationship.** Bandura's (1989) Social Cognitive Theory supports the possibility that involvement in evaluation and accountability systems may positively predict teacher self-efficacy. The positive relationship between teacher reflective practice, autonomy, and teacher self-efficacy (Noormohammadi, 2014) suggests that the evaluation process would lend itself to higher self-efficacy. When mastery experiences, social persuasion, vicarious experiences, and a positive affect are experienced as a product of the system, they should strengthen teacher self-efficacy beliefs. The Educator Effectiveness

System requires continuous reflection, which is essential to building teacher self-efficacy because it is not the success itself, but the cognitive processing of the success that contributes to higher self-efficacy (Holzberger et al., 2013). Social persuasion is present in the Educator Effectiveness System due to required interaction with administrators, evaluators, coaches, and peers. The observational feedback from Danielson's (2007) Framework for Teaching and meetings required with an evaluator through the year are forms of social persuasion. If support is provided by the administration within the system, teacher self-efficacy may increase because support of administration has a positive relationship with teacher self-efficacy beliefs (Stipek, 2012). Effectiveness coaches also provide opportunities for educators to work with other professionals in the building to reflect on practice and effectiveness. Vicarious experiences are available through Teachscape (2011), within the Learn component, where educators can observe teachers performing at each rating level within the Framework for Teaching (Danielson, 2007). If an individual is meaningfully experiencing the four sources of self-efficacy within the evaluation system during a summary year, teacher self-efficacy should increase.

The frequency and attention to reflection on the sources of teacher self-efficacy incorporated into the Educator Effectiveness System suggests that participation in a summary year would lend itself to experiencing more frequent and more valuable experiences of the four sources of self-efficacy. The creation, monitoring, and assessment of the Student Learning Objective and Professional Practice Goal allow teachers to work with evaluators to reflect and strategize. Regular meetings with evaluators and coaches may serve as social persuasion, which should increase teacher self-efficacy. Vicarious experiences are incorporated in the Danielson's (2007) Framework for Teaching. All of the

aforementioned components of the evaluation system create frequent, valuable experiences of the four sources of self-efficacy. Affective responses that may be associated with a summary year are excitement, or other positive feelings about the opportunity to get feedback and improve professional practice, or feelings of stress, or other negative feelings sometimes associated with formal evaluation. Stress because of evaluation and more time spent on the evaluation system could have negative implications on self-efficacy.

Finally, mastery experiences, social persuasion, vicarious experiences, and affective responses work together to build teacher self-efficacy (Bandura, 1986). More frequent and more meaningful reports of the sources should lead to higher teacher self-efficacy. One single experience may qualify as more than one source, as the sources often work in tandem, rather than in isolation. For example, positive evaluator feedback can be viewed as both social persuasion and a mastery experience. Therefore, all four sources must be experienced in order for them to work together to influence teacher self-efficacy.

**Negative Relationship.** If the extra time commitment or stress of being on a summary year associated with the evaluation process becomes a burden, there may be negative implications on self-efficacy, or self-efficacy may not grow as anticipated. There is also a possibility that a teacher would experience a poor review or negative experience of one or more sources of self-efficacy, in which case self-efficacy beliefs may be depleted. Educator Effectiveness System pilot program participants reported apprehension about the implementation of the Framework for Teaching (Danielson, 2007), citing concerns about consistency of implementation and inequality of evaluations due to different evaluators, types of students, and different subject areas (Jones, 2015). Time and resource burdens are the largest barriers to schools when using new systems. The Teachscape (2011) data

collection platform is viewed as a serious deficiency that is frustrating to use and described by many educators in the pilot program as a "waste of time". The Educator Effectiveness system may provoke stress and greater classroom stress is related to lower self-efficacy beliefs (Klassen & Chiu, 2010). Stress created by the extreme time commitment, poor reviews, lack of consistency, and sometimes confusing technology component may outweigh the positive, reflective components of the evaluation system and negatively impact teacher self-efficacy beliefs.

**Absent Relationship.** The possibility also exists that the teacher accountability and evaluation systems will have no relationship with teacher self-efficacy. Bandura (2012) states that once self-efficacy has been established within a given context, it remains fairly stable, barring an extreme shift. Teacher accountability and evaluation systems may not be impactful enough to change self-efficacy for the better or worse.

## Educator Effectiveness Evaluation Systems

Teacher accountability and evaluation systems have been created with the purpose of measuring the effectiveness of a teacher. Repeated studies have shown that an effective teacher is the classroom variable most closely related to students' academic achievement (e.g., Rotherham & Mitchel, 2014; Kane, et al., 2013; Sanders, Wright, & Horn, 1997). Several states are creating and implementing measures to identify, reward, or reprimand teachers in new teacher accountability and evaluation systems. According to the Education Commission of the United States, all fifty states and the District of Columbia now measure student achievement and graduation rates, and forty-two of them measure student growth (Ujifusa, 2014) and many have moved beyond the traditional evaluation systems to

incorporate a teacher growth component (Danielson, 2007). Before examining the evaluation and accountability systems themselves, it is imperative to understand the definition of teacher effectiveness. Through exploring the meaning of teacher effectiveness, it is possible to determine whether or not the systems that have been created are accurately measuring the construct. Understanding effectiveness can also help predict possible implications of evaluation systems on teacher self-efficacy.

**Educator effectiveness definition.** In order to determine if an educator is effective, the definition must be clear and concise. The existing definitions of educator effectiveness are considered unclear and a collective definition is regularly debated (Rivkin, Hanushek, & Kain, 2005; Goe et al., 2008; Gordan, Kane, & Staiger, 2006). A commonality between many early definitions of educator effectiveness is that student test scores represent the single gauge of an effective teacher (Goe et al., 2008). Even today, funding initiative, Race to the Top, defines a "highly effective teacher" as one whose students achieve high rates of growth, as indicated by a change in test scores, between two or more points in time (U.S. Department of Education, 2010). Definitions similar to this have serious limitations because they fail to include the multifaceted job of a teacher consisting of duties like student socialization, school leadership roles, professional development and community involvement. They also do not take into consideration other variables that influence student achievement such as other teachers, peers, school resources, community support, school leadership, climate and culture (Goe, et al., 2008). Classroom factors, such as teaching methods, teacher expectations, and the utilization of classroom resources that impact students' performance (Campbell et al., 2004), leadership roles (Goe et al., 2008) and the socialization of students and promotion of their affective and personal

development (Brophy & Good, 1986) must be incorporated into the definition. After reviewing multiple definitions, the following definition of educator effectiveness will be used for the purpose of this study: educator effectiveness is the ability of a teacher to effectively plan challenging, relevant curriculum, create a classroom environment that promotes social development and learning, engage students of all abilities and backgrounds in meaningful activities, and fulfills professional responsibilities beyond the walls of the classroom in order to positively impact student learning.

**Measuring effectiveness.** The field of education is being faced with the mission of attempting to measure a construct with a complex definition. Traditional annual teacher observations by administration are deemed insufficient evidence of teacher effectiveness therefore student test score changes are often used as the indicators (Goe, et al., 2008; Rivken, et al., 2005). The uses of test scores as the only indicator of effectiveness is highly criticized because too many other factors determine the way in which students learn and grow (Goe, et al., 2008; Campbell, et al., 2004). Recently developed value-added models are statistical procedures that attempt to control for student and school characteristics and prior student achievement in order to distinguish the unique contributions of an individual educator. These standardized, common metrics for estimating teacher effects are intended to provide causal information about a teacher's individual impact on student growth, are based on large-scale standardized assessments, and are able to be evaluated for validity (Jones, Buzick, & Turkan, 2013). However, the results may be flawed because other factors that may have the potential to impact test scores, which are unaccounted for. These factors include, but are not limited to family events, school level interventions, influence of past teachers' knowledge on this year's test material, disruptive or helpful students in the class,

students with disabilities and English language learners (Jones, et al., 2013). Value-added measures alone are not enough to identify effective educators (Hill, Kapitula, & Umland, 2011). Observational systems, such as formal educator observations and mini-observations by trained evaluators, are needed to support value-added measures in order to appropriately measure educator effectiveness.

**WI DPI Educator effectiveness system.** For the purposes of this study, the Wisconsin Department of Public Instruction's Educator Effectiveness System will be utilized because it is comprised of many similar features as systems being implemented across the nation. The Educator Effectiveness System is in its second year of full implementation in the state of Wisconsin. The purpose of the system is to improve and support teacher practice and student outcomes (State of Wisconsin Department of Public Instruction, 2014). The model is composed of three main components, each exhibiting the potential to impact teacher self-efficacy: goal setting, the Danielson (2007) Framework for Teaching, and the Teachscape software. Each of these elements provides teachers with opportunities for experiencing and reflecting upon the four sources of teacher self-efficacy.

***Overview.*** The WI Educator Effectiveness System is a multi-step process that lasts one cycle (the duration of the school year or one semester). A summary year is a formal evaluation year, in which teachers are required, by state law, to participate at least every three years. A mandatory component of the system for teachers on-summary year is the completion of a variety of training modules that demonstrate how to navigate the evaluation system in Teachscape (2011), an online platform for viewing and storing evaluation data. Next, the teachers complete a self-review using Charlotte Danielson's (2007) Framework for Teaching rubric, which requires educators to self-assess their

professional practice in four domains and twenty-two components (State of WI DPI, 2014). The results from the self-evaluation are then used to develop an individualized Educator Effectiveness Plan (EEP). This plan consists of a Student Learning Objective (SLO) and a Professional Practice Goal (PPG). The educator and the evaluator meet for a planning session in which the SLO and the PPG are approved or modified. Pre-observation forms are completed in Teachscape (2011) and the evaluator completes one formal observation, several mini-observations and many walk-throughs. A post-observation reflection is completed and a meeting with the evaluator occurs. Teachers are required to gather evidence that demonstrates proficiency in the twenty-two components of the Framework for Teaching (Danielson, 2007) and upload these artifacts into Teachscape (2011) throughout the evaluation cycle. At mid-cycle, educators complete a mid-year review in Teachscape (2011), meet with evaluators, use evidence to determine their progress in meeting their PPGs and SLOs and modify if necessary. At the end of the cycle, teachers are required to complete an end-of-cycle reflection, upload all remaining evidence, and self-score the Educator Effectiveness Plan. A final conference with the evaluator occurs, in which progress is discussed and the evaluator provides a final score. Teachers who are off-summary year are required to complete many of the same tasks as teachers on-summary year. The main difference between off and on-summary year is that off-summary year teachers are not required to meet with evaluators to discuss goals and progress and they are not given an overall effectiveness score.

***Goal setting.*** Through reflecting on practice and student data, teachers create a Professional Practice Goal (PPG) and a Student Learning Objective (SLO). This provides teachers with the opportunity to reflect on strengths and weaknesses, and create goals that

are meaningful to each individual's practice. The goal setting process encourages autonomy, which has a positive relationship with teacher self-efficacy (Noormohammadi, 2014). The goals also provide the possibility of experiencing all four sources of teacher self-efficacy. Goals are created and discussed with a coach or evaluator several times throughout the year (beginning, mid-cycle review, and end of cycle review). Each meeting presents an opportunity to reflect on progress, and mastery experiences. Mastery experiences are also acknowledged during meetings and in the process of providing evidence to substantiate goal progress. The goals also provide opportunities for social persuasion to occur when teachers meet with evaluators and coaches to discuss progress. Vicarious experiences come into play if teachers choose to observe peers or participate in professional development as a part of the goal. Finally, affective responses may be experienced if the teacher is excited about the goals, or has other strong positive or negative feelings regarding them.

***Framework for teaching.*** Charlotte Danielson's (2007) Framework for Teaching is the observation component of the WI DPI Educator Effectiveness System teacher evaluation measure (State of WI DPI, 2014) (Appendix B). The rubric itself can be considered an opportunity to reflect on mastery experiences across four domains of the teaching task. It provides teachers with specific criteria, which indicate varying levels of proficiency. Both the independent nature of the task, which provides autonomy, and the overall reflection on successful experiences across several domains, which provide mastery experiences, should impact self-efficacy (Noormohammadi, 2014; Bandura, 2012). Moreover, the Framework for Teaching provides and opportunity to experience other sources of self-efficacy. Mastery experiences, social persuasion, vicarious experiences, and

affective responses are all present within the model. The four sources of teacher self-efficacy are woven into the fabric of the rubric (Appendix C). For purposes of this study, the researcher critically analyzed the rubric and created an overlay of how the four sources of self-efficacy could be experienced as a result of the four domains and twenty-two components.

The Framework for Teaching is a research-based set of twenty-two components of instruction that emphasizes a constructivist approach to teacher evaluation and defines the complex task of teaching. The framework is divided into four domains: Domain 1: Planning and Preparation, Domain 2: Classroom Environment, Domain 3: Instruction, and Domain 4: Professional Responsibilities (Danielson, 2007). Professionalism, community involvement, student engagement and other factors that are missing in test score only measures (Goe, et al., 2008; Gordan, et al., 2006; Campbell, et al., 2004; Brophy & Good, 1996), are accounted for in the Framework for Teaching. The framework has been adopted as a component of almost one-fifth of the nation's education effectiveness models because it provides a consistent process for evaluating teachers, which is directly related to verifiable student growth (Teachscape, 2011). A majority of teachers in the pilot program report that they know how to implement the WI DPI Educator Effectiveness System, and that the Framework for Teaching accurately defines instructional quality and is a fair measurement of educator effectiveness (Jones, 2015). The Framework for Teaching is a comprehensive, reflective tool that has the power to influence both educator effectiveness and teacher self-efficacy.

The Framework for Teaching is useful because it is a clear and concise rubric containing specific criteria necessary to attain proficiency in four domains of the teaching

profession (Appendix B). The four domains are directly related to the four sources of teacher self-efficacy (Appendix C). Teachers and evaluators utilize the framework to determine overall effectiveness. At the beginning of the year, on-summary year teachers use the rubric to reflect on their teaching practice. They place themselves within a proficiency level depending on the attributes they recognize in their practice. The attributes are clearly explained for each level. Subsequently, the evaluator uses the rubric to observe the teacher and provide them with feedback related to the rubric. Throughout the year, teachers collect evidence that demonstrates their proficiency level in each of the domains. At the end of the evaluation cycle, the rubric is used to calculate an effectiveness score. The effectiveness score is a number, one through four, that indicates effectiveness based upon the observations and the evidence provided. Within this process, the four sources of self-efficacy are experienced. The researcher critically analyzed how the components of the Framework for Teaching overlaps with the four sources of self-efficacy according to current research (Appendix C). Each time the teacher reflects on experiences of success or a need for growth in any of the domains, mastery experiences are occurring. When the rubric is being discussed with the evaluator during one of the four required meetings (beginning of cycle, pre-observation, post-observation, end of cycle) or any other point during the year, social persuasion is occurring. Affective responses can occur when an individual experiences positive or negative emotions as a result of, or in anticipation of an experience. They are included in all domains where there is a possibility of this occurring. Other domains and components lend themselves directly to vicarious experiences or social persuasion. Appendix B is a sample of the Danielson Framework for Teaching rubric self-assessment, which is the same as the formal assessment rubric used

by the evaluator. Included in the rubric are the critical components that both the teacher and evaluator use to gauge the level of performance. Teachers use the rubric at the beginning of the evaluation cycle to reflect and create a Personal Professional Goal (PPG). Evaluators use the rubric throughout the evaluation cycle, as a tool to document observations. Unobservable items are collected as evidence and shared with the evaluator to provide guidance. The same rubric is used for self-reflection and evaluation.

***Teachscape.*** The data management system of the Educator Effectiveness System can be directly linked to the sources of teacher self-efficacy. When the Educator Effectiveness System was initially implemented in the state of Wisconsin, districts had the option of reporting the data through two computer programs: My Learning Plan or Teachscape. Teachscape is unique to My Learning Plan because the Danielson Framework for Teaching is embedded into a section called Learn. The Learn section provides teachers with the opportunity to choose a domain and view videos of classroom teachers providing an example of the critical components of the domain. This serves two purposes. First, teachers have the opportunity to witness fellow educators, in the field demonstrating the domain and component at various levels of proficiency. The software allows for efficacy building through vicarious experiences when teachers use it in this way. Second, it can be used to standardize the otherwise somewhat subjective observation and evaluation procedure. Evaluators utilize the videos to create a baseline for proficiency in the domain and component. The current study uses Teachscape (2011) because it was used in the participating school districts.

## Research Questions

The literature and research presented above indicates that there is a need to determine the implications of teacher accountability and evaluation systems on teachers' self-efficacy and to investigate how the sources of self-efficacy influence teacher self-efficacy in the school context.

**Research Question 1**

Does the WI DPI Educator Effectiveness evaluation system impact teacher self-efficacy? How so?

Teachers participating in a summary year are required to participate in observations, meetings and reflections that are not required of teachers off summary year. The extra opportunities to experience the sources of self-efficacy should impact teacher self-efficacy so that teachers on summary year report higher teacher self-efficacy.

**Hypothesis 1.** Teacher self-efficacy (especially in classroom management, instructional practices, and engagement) of participants in their summary year will differ from those of teachers not in their summary year. It is expected that participants on-summary year will show significantly higher teacher self-efficacy than those off-summary year in the Educator Effectiveness System.

**Hypothesis 2.** Teacher self-efficacy of participants on-summary year will be more consistent, or increase more over the course of the year than those of participants not in the summary year.

**Hypothesis 3.** It is expected that summary year status will mediate the relationship between reported model sources of self-efficacy and teacher self-efficacy, such that on-summary year participants will experience more sources of efficacy and report higher teacher self-efficacy.

**Hypothesis 4.** It is expected that participants on-summary year in the Educator Effectiveness System will report more frequent and valuable experiences of the sources of self-efficacy than those off-summary year in the system.

**Hypothesis 5.** It is expected that reported sources of self-efficacy (mastery experiences, vicarious experiences, social persuasion and affective responses) will predict teacher self-efficacy so that more frequent and valuable reports of the sources correspond with higher teacher self-efficacy when student demographics are controlled.

**Research Question 2**

Does school context influence teacher self-efficacy? How so?

**Hypothesis 6.** It is expected that the collective efficacy of a school will predict participants' self-efficacy beliefs, so that higher collective efficacy will be related to higher teacher self-efficacy.

**Hypothesis 7.** Based on findings by Stipek (2012) and the mixed findings regarding school culture and efficacy, it is expected that school context (ethnic diversity, ELL population, students with disabilities, and SES) will positively predict teacher self-efficacy.

**Hypothesis 8.** It is expected that student demographics will influence teacher self-efficacy and collective efficacy so that participants from schools with higher diversity scores report higher teacher self-efficacy and collective efficacy.

# Chapter 3

# Method

## Procedures

A mixed methods, longitudinal study design was used, with survey data gathered at two time points over a six month time period. The study can be considered mixed-methods because both qualitative and quantitative data were collected from participants. It can be considered longitudinal because data was collected at two time points from the same group of participants in order to interrogate changes in self-efficacy. A content analysis was used for the qualitative portion of the study because it allowed the researcher to understand participants' perceptions, perspectives and understandings of the Educator Effectiveness System. The study included a random sample of teachers from a large mid-western school district. The district was chosen because of the large size and the diversity of the student population. During the 2015 – 2016 school year, the district consisted of 41 schools including 24 elementary schools (grades 4K - 5), 5 middle schools (grades 6 – 8), 6 high schools (grades 9 – 12), and 6 charter schools. The 22,160 students who attended the district were composed of 49% ethnic diversity (0.2% American Indian, 1.4% Asian, 15% Black or African American, 27.2% Hispanic or Latino, 0.1 % Pacific Islander, 51% White, and 5.1% identified with two or more). Of these students, 50.5% qualified for free or reduced meals, and 11.9% of students qualified for special education services. More than 39 languages were spoken in the district, and 9.6% of students were classified as English language learners.

Repeated measures were used to collect the longitudinal data from participants at two time points: Time 1 (September – November) and Time 2 (March - April). The researcher visited the principal of each school with paper surveys to distribute to the staff.

Principals were responsible for distributing the surveys to interested staff. The study was typically announced at a staff meeting, and interested participants completed the survey. At Time 1, participants completed the consent and paper survey and mailed it to the researcher or completed the consent and surveys online using the link supplied on the survey. At Time 2, all participants who chose to participate in the fall data collection were emailed a link to the spring surveys using Qualtrics survey software.

Incentives were provided for participants who completed the surveys. The Time 1 surveys had a Hershey's Kiss attached to them. All participants who partook in both collection points were automatically entered in a drawing for $50 Kohl's gift card. Teachers in participating school who chose not to participate could email the researcher to enter the drawing. Schools that had 80% teacher participation were offered a lunch provided by the researcher, however only one school had 75% participation and were mailed boxes of chocolates to thank them for their high rate of participation. The study was approved by the UW- Milwaukee Institutional Review Board (IRB #16.098).

**Participants**

A random sample of teachers from a mid-western school district was used to investigate the relationship between self-efficacy, teacher evaluation and accountability systems, and the sources of teacher self-efficacy (Table 1). During the study year, 850 teachers taught in the district. Two samples of teachers were used in the study: The T1 initial sample, and the analytic sample. T1, 173 surveys were returned (20% of the district's total teachers), with 5 participants dropped due to missing data (N=168). Data from individuals who did not participate in both T1 and T2 surveys was excluded in all analyses except collective efficacy, resulting in an analytic sample of n=133 (Table 2). This

number exceeded the target sample of 128. The overall attrition rate of 23% may be explained by distribution method, school type, or other factors. For example, teachers from school 21 were asked to complete the survey during a staff meeting. This could have been a factor in the higher attrition rate (26%) because the lack of choice in initial participation may have influenced likelihood of participation in the Time 2 survey. School type may have influenced attrition, because the participants who taught at the high school level had a 38% attrition rate. Summary year status did not seem to be a reason for attrition, as both on-summary year and off-summary year participants had a similar attrition rate near 23%. Student demographics were correlated with attrition, where schools with lower attrition rates had a higher diversity score, $r(133) = -.467$, $p<.01$. Collective efficacy was also correlated with attrition, where schools with higher collective efficacy had lower attrition rates $r(133) = -.473$, $p<.01$.

Participants in the analytic sample had taught anywhere between 0 (first year teachers) and 34 years, with an average of 15 years teaching experience (Table 1). Females represented 83% of participants, which aligns with the state average of 77% of all teachers being female. The participants represented all grade levels including 53 elementary teachers (4K – 5), 62 middle school teachers (6-8), and 18 high school teachers (9-12). The participants identified themselves as classroom teachers (88), specialists (14) (foreign language, music, art, physical education, etc.), special education teachers (17), and 14 participants held other roles (instructional coaches, dean of students, school psychologist, etc.). Master's degrees or beyond were held by 69% of the participants. 91% of participants identified themselves as white, 4% Hispanic or Latino, 2% Asian, and 3% identified as other or preferred not to answer. 55 participants, 41% were considered on-summary year

in the evaluation system. The sample represented 15% of eligible teachers in the school district.

The sample was tested for group differences depending on summary year status (Table 1). The mean years of teaching experience for on-summary year teachers was approximately 13, while the mean years of teaching experience for off-summary year teachers was 18. While the high standard deviation explains the variance in the mean ages, the means for both groups are relatively high. On-summary year teachers had significantly lower mean years of teaching experience when compared to off-summary year teachers. The difference can be attributed to school district evaluation policies. Most districts require teachers to participate in a formal evaluation process for the first three years. After the three years have been reached, the teacher goes onto a cycle in which he/she is formally evaluated every three years. A chi-square test of independence was performed to examine the relation between years of teaching experience (beginning = 0 – 5 years, intermediate = 6 – 23 years, veteran = 24 or more years) and summary year status. The relation between the variables was significant, ($X^2$ (2, $N$ = 133) = 18.52, $p$ < .001, $\phi$=.37). Beginning teachers were more likely to be on-summary year than intermediate and veteran teachers, with a medium effect size.

Table 1
*Baseline Characteristics of the Sample*

| | On-Summary Year (N=55) | Off-Summary Year (N=78) | | Total Sample (N=133) |
|---|---|---|---|---|
| | % | % | p | % |
| **Gender** | | | | |
| Female | 89 | 79 | .14 | 83 |
| **Educational Attainment** | | | | |
| Masters Degree or Beyond | 60 | 76 | .05 | 69 |
| **Ethnicity** | | | | |
| White | 89 | 92 | .83 | 91 |
| **School Role** | | | | |
| Classroom Teacher | 60 | 71 | .34 | 66 |
| **School Type** | | | | |
| Elementary | 36 | 42 | .53 | 40 |
| Middle | 49 | 45 | | 47 |
| High | 15 | 13 | | 14 |
| **Mean Years of Teaching Experience** | 12.66 (8.70) | 18.03 (8.06) | .000 | 15.81 (8.71) |

In order to obtain a true measure of collective efficacy, the researcher attempted to recruit as many teachers as possible from each participating school. Previous research did not indicate an ideal rate of participation to report a reliable collective efficacy score. Standard deviation for respondents within the school was calculated, in order to understand the variance in the reports of collective efficacy (Table 2). The small standard deviations indicate that most teachers in the school reported similar collective efficacy. No school had a standard deviation greater than .65. School 15 will be removed from analyses in which collective efficacy is a variable due to lack of participation. Although school 14 is only represented by 20% of the school's teachers, the school will be kept in the analyses. The researcher had reviewed studies that reported as low as 20% of participants for collective efficacy reports.

Table 2
*Sample Sizes, Attrition, Diversity, and Collective Efficacy by School.*

| School ID | Number of participants | | Rate of Attrition% | Proportion of Total Teachers in School | Diversity Score | Collective Efficacy Mean (SD) | Years Teaching Mean (SD) |
|---|---|---|---|---|---|---|---|
| | Time 1 | Time 2 | | | | | |
| 11 | 19 | 16 | 16 | 68 | 2 | 4.81 (.26) | 21.19 (9.05) |
| 12 | 10 | 9 | 10 | 46 | 1 | 4.83 (.38) | 17.33 (9.45) |
| 13 | 22 | 22 | 0 | 75 | 1 | 5.14 (.40) | 18.84 (9.44) |
| 14 | 7 | 5 | 29 | 20 | 1 | 5.09 (.42) | 13.80 (5.07) |
| 15 | 1 | 1 | 0 | 4 | 4 | N/A | 2.00 |
| 21 | 50 | 37 | 26 | 83 | 0 | 4.62 (.65) | 15.18 (8.63) |
| 22 | 14 | 10 | 29 | 23 | 1 | 4.71 (.54) | 15.60 (5.62) |
| 23 | 16 | 15 | 6 | 23 | 3 | 4.06 (.42) | 13.07 (7.65) |
| 31 | 29 | 18 | 38 | 32 | 1 | 3.99 (.64) | 11.61 (7.57) |
| Total: | 168 | 133 | 20 | | | | |

*Note.* Diversity score is determined by student demographic factors. Schools receive 1 point for each demographic factor that they are higher than the analytic mean (more diversity, more English language learners, more special education students, more economic disadvantage).

**Measures**

Surveys were administered twice, Time 1 (T1) and Time 2 (T2). There was a span of five to six months between data collection points. The fall survey included demographic questions (Appendix A), the Teacher Sense of Efficacy Scale (TSES) (Appendix D), and the Collective Efficacy Scale (Appendix E). The spring included the Teacher Sense of Efficacy Scale (TSES) and the Efficacy Source Reflection (Appendix F).

**Teacher sense of efficacy scale TSES (T1 and T2).** Teacher self-efficacy was measured using Tschannen-Moran & Hoy (2001) Teacher Sense of Efficacy Scale (24 items; $\alpha$=.946) (Appendix D). The TSES measures participants' perception of their ability to influence student outcomes beyond external variables overall and in three components: engagement, instruction and management with twenty-four items on which individuals rate their teacher self-efficacy beliefs on a nine point Likert scale (1= *nothing to* 9 =*A great*

*deal*). A sample item is, "How much can you do to get students to believe they can do well in school?" The measure includes three subscales: Efficacy in Student Engagement (8 items; $\alpha$=.895), Efficacy in Instructional Practices (8 items; $\alpha$=.866), and Efficacy in Classroom Management (8 items; $\alpha$=.891). The mean score on the overall scale and each subscale are computed for each participant. High scores represent high teacher self-efficacy.

**Efficacy source reflection (T2).** A survey that was adapted from Tschannen-Moran and Woolfolk Hoy's (2007) measures of mastery experiences and social persuasion was designed to measure teachers' reports of experiences of the four sources of self-efficacy included in the Educator Effectiveness System (Appendix F). The evaluation system was critically analyzed and the components were aligned with one of the four sources. For example, the evaluation system requires teachers to create a professional practice goal, and reflect on the goal upon completion. Reflecting on successful experiences is considered a mastery experience. Therefore, one of the questions asked how often the participant used the professional practice goal to reflect on his/her professional practice that year (Often, Sometimes, Seldom, Never). Next, the participant was asked how effective the professional practice goal was in helping him/her to reflect on teaching success and overall effectiveness that year (highly effective, effective, somewhat effective, not very effective, or not effective at all). Together, the two choices indicate a level of mastery experiences reported as a result of the professional practice goal. The survey included a qualitative component in order to add depth the teachers' descriptions of events that positively and negatively impacted their ability to be successful during the school year.

In order to determine the reliability of the Efficacy Source Reflection, the measure was administered to twenty-four participants in a school district different than the main

data collection district. The sample included teachers of all levels and content areas in a kindergarten through eighth grade building. The initial test indicated good internal consistency on all 30 items ($\alpha$=.85). The subscales: social persuasion (3 items; $\alpha$=.82), mastery experiences (3 items; $\alpha$=.87), social persuasion (6 items; $\alpha$=.75), and affective responses (3 items; $\alpha$=.86). A test-retest reliability analysis was run on the two administrations for the overall sources report, as well as each of the subscales (mastery experiences, vicarious experiences, social persuasion, and affective responses). There was a strong, positive correlation between the two administrations ($r$=.827, $p$ <.01). Subscales: Mastery experiences ($r$=.838, $p$<.01), Vicarious Experiences ($r$=.618, $p$<.01), Social Persuasion ($r$=.757, $p$<.01), and Affective Responses ($r$=.714, $p$<.01).

The Efficacy Source Reflection was administered at Time 2 to assess the influence of the four sources of efficacy on participants' perception of their ability to impact student outcomes (30 items; $\alpha$=.86). Each source of efficacy is assessed by a subscale containing items that represent the sources (mastery experiences [6 items; $\alpha$=.88], vicarious experiences [6 items; $\alpha$=.69], social persuasion [12 items; $\alpha$=.80], and affective responses [6 items; $\alpha$=.86]). Participants first rate their experience or use of the source on a four-point Likert scale (1= *Never* to 4 = *Often; e.g., "*How often did you use **student feedback** to reflect on your professional practice this year?") The participants rate the effectiveness of each item in helping them to reflect on the value, or how the of the source helped them feel successful on a 5-point Likert scale (e.g., "How effective was **student feedback** in helping you reflect on your teaching success and overall effectiveness this year?"). To calculate the sources of efficacy reports, the mean was found for each source. The total efficacy report

was indicated by the sum of the subscales. A higher score on the scale indicates more frequent experiences of the sources, which participants find more value in.

*Self-efficacy open ended.* Five open-ended items were used to examine which sources of efficacy were reported as a result of the Educator Effectiveness System that influenced (positively or negatively) overall teacher self-efficacy. The purpose of the following questions was to investigate which experiences participants attributed their feelings of success or struggles to. A content analysis was used to capture the participants' experiences that were a product of the Educator Effectiveness System. The approach led the researcher to create the following questions for participants' to reflect on experiences associated with the Educator Effectiveness System.

1. Thinking back over the past academic year, what were some of the things you felt most good about or most successful at? These can be related to student outcomes, professional responsibilities, or other aspects of the year that you enjoyed or celebrated.
2. What factors do you think contributed to the positive experiences you named above?
3. Thinking back over the past academic year, what were some of the aspects of the year that you felt most negatively about or that you felt were most difficult? These can be related to student outcomes, professional responsibility, or other aspects of the year that you did not enjoy, felt were difficult, or places where you experienced struggle/frustration, etc.
4. What factors do you think contributed to the negative experiences you named above?

5. Did you feel being on your summary year influenced your experience as a teacher this academic year positively, negatively, or neither? What experiences made you feel that way?

Questions 1 and 3 prime the participant to reflect on the positive and negative experiences of the year. Questions 2 and 4 provide information related to the sources of efficacy, while question 5 directly asks the participant about the impact of being on-summary year. The researcher and an assistant completed content coding using an a priori coding scheme based on the four sources of efficacy (Appendix G). The positive experiences open-ended items were coded twice, first according to categories: Mastery Experiences, Vicarious Experiences, Social Persuasion, Affective Responses, and Other and then into subcategories related to that source. For example, the subcategories for mastery experiences included: Student growth or test scores, Goal attainment related to Educator Effectiveness or school goals, and Other. The negative experiences open-ended questions were coded twice. First they were coded according to source as above, and then into subcategories. Responses that mentioned lack of time as a factor that influenced participants' perceptions were flagged.

The coding scheme was developed using key words to indicate the source of efficacy the participant is identifying with in a positive or negative way (Appendix G) (Table 13). Due to the nature of the questions being asked, the researcher anticipated that participants would report having either a positive or a negative experience of one of the four sources of self-efficacy (mastery experiences, social persuasion, vicarious experiences, or affective responses). In the positive coding scheme, mastery experiences were identified as experiences that enhanced the feelings of success in teaching. The researchers looked for

participant reports of events or experiences that are evidence of the teacher's abilities. Vicarious experiences were defined as reports of observing someone succeed in a similar situation. Social persuasion was defined as reports of verbal persuasion that comes from others that improves a teacher's perception of success. Affective responses were defined as reports of positive emotional states that influenced the perception of one's abilities. Finally, if a response did not fit into a category, it was labeled as other positive. The negative coding scheme was very similar, but included the negative experiences of the sources of self-efficacy that were reported by the participants (Table 14). Mastery experiences were defined instead as experiences that diminish feelings of success in teaching. The researchers looked for participant reports of events or experiences that make the teacher feel less success. Vicarious experiences were observing someone struggle in a similar situation. Social persuasion was defined as verbal persuasion that comes from others that worsens a teacher's perception of success. Affective responses included reports of negative emotional states that may influence the perception of one's abilities. All other negative reports that did not fit into a category were coded as other. The sub-categories were developed to add important information detailing where that source was coming from. The sub-categories were aligned with the quantitative questions for consistency. Mastery experiences were broken down into three subcategories: 11. Student growth, test scores, or performance, 12. Goal attainment related to the Educator Effectiveness System or school goals, 13. Other. Each category and subcategory included a description of what would constitute as an experience that would fall into that category.

Next, for each open ended question, the researcher took each discrete item listed by the teacher and coded the response in parts. Questions for each participant associated with

positive experiences were coded together (1 & 2), and questions associated with negative experiences were coded together (3 & 4). The coding scheme was then used to sort the qualitative responses into categories and subcategories. For example, the response, "The emphasis I put on classroom discussion comes straight from the Danielson Model. I don't think I would've realized its importance if I didn't go through EE training." would be coded first as a Mastery Experience (1), related to the Educator Effectiveness System (12). Therefore, this response would be coded as Category 1 and Sub-category 12 (Table 13 & Table 14). The range of unique experiences counted were 0-8 positive experiences (M=2.2) and 0 – 8 negative experiences (M=2.4). The results demonstrated reports of many positive (48%) and negative (52%) experiences related to the sources of self-efficacy experienced by participants during the year of the study. Each response was used as a contribution to the data. A graduate student volunteered to code the data to provide multiple coders. The researcher met with the assistant to explain the coding scheme as it pertains to the four sources of self-efficacy. The initial inter-rater reliability was 60%. The researcher rectified the data by seeking out the insight of the assistant when there were discrepancies in the final code, and by utilizing personal experience with the Educator Effectiveness System. The researcher and the assistant reached consensus. Finally, the researcher calculated and reported the proportion of positive and negative reports corresponding to the four sources of efficacy. Within each of the sources, proportions of total reports were found for each of the subcategories. The qualitative data was used to support the quantitative findings, and add insight into teachers' perceptions of successful and not as successful experiences throughout the year.

**School context.** To measure variables between schools, the school context factors of collective efficacy and student demographics were used.

***Collective efficacy scale (T1 only).*** Collective efficacy for each participating school is measured using the Goddard's (2002) Collective Efficacy Scale (12 items; $\alpha$=.877) (Appendix E). This scale measures the collective belief participants have in their cumulative ability to influence student outcomes beyond external variables. A sample item is "Teachers in this school believe every child can learn." It includes twelve items on which participants rate the collective efficacy of the staff on a six point Likert-scale (1=*strongly disagree* to 6= *strongly agree*). The mean is calculated for participating school individually, resulting in a collective efficacy score between 1 and 6. High scores represent high collective efficacy.

***Student demographics.*** To measure student demographics, four indicators were used (SES, ethnic diversity, special education needs, and English language learners). WISEdash, a public information portal was used to gather information for the year of the study (2015-2016). The website is a Wisconsin Department of Public Instruction resource that supplies information about Wisconsin public schools. Information supplied includes: student demographics, state test data, attendance, graduation rates, and other important information. For the purposes of this study, each school was categorized into more or less for each variable (SES, ethnic diversity, special education, English language learners). The analytic mean was created using the average of the state mean and the district mean (Table 3), and was used to determine schools that had more or less reports for each demographic factor.

Table 3

*Proportion Cutoffs for Student Demographics Determined by State and District Average*

| | Proportion Economic Disadvantage | Proportion Ethnic Diversity (%White) | Proportion Students With Disabilities | Proportion English Language Learners |
|---|---|---|---|---|
| State Mean | 40 | 70 | 13.7 | 5.4 |
| District Mean | 50.5 | 51 | 11.9 | 9.6 |
| Analytic Mean | 45 | 60 | 13 | 7.4 |

*Note.* The analytic mean was created to compare population characteristics at the state and district levels.

WISEdash defined the sub-categories used to further delineate the student characteristics. Ethnicity was reported as either Hispanic/Not Hispanic. Race was reported as one of the 5 categories: Asian, American Indian or Alaskan Native, Black or African American, Native Hawaiian or other Pacific Islander, or White. Socioeconomic status was be determined by the percent of students considered economically disadvantaged by qualifying for free or reduced-priced meals under the National School Lunch Program (NSLP). Students with learning disabilities were reported by the school district as needing special education and/or other related services. The final student characteristic will be ELL. English language learners were any students whose first language, or whose parent or guardian's first language was not English and the level of English proficiency required specially designed instruction.

The analytic mean (Table 3) determined school characteristics according to more economic disadvantage, more diversity of population, more students with disabilities, and more English language learners. Schools with a percentage higher than the analytic mean were considered having more of the characteristic. The analytic mean was used because it represented both the state and district average of student demographic categories. Often

studies compare to the state mean or the district mean. The district used in this study had higher than average populations of students in the demographic categories, therefore, the researcher determined that in order to make the findings more transferable, the analytic mean would provide a better indicator of where the school is while accounting for the district and state mean. The analytic mean allows comparison of demographic factors both statewide, as well as district-wide. Of the nine schools that participated in the study, three schools had more economic disadvantage, four schools had more diversity, two schools had more students with disabilities, and five schools had more English language learners. Schools reporting higher than the analytic mean in each category were considered having more of that characteristic, and were given one point on the diversity indicator. Each school earned a diversity score between 0 and 4. A higher score represented a larger proportion of students with student characteristics that were higher than the analytic mean in the areas of economic disadvantage, diversity of student population, students with disabilities, and English language learners (Table 2). The diversity score was used to test for differences in collective and self-efficacy reports depending on school differences (diversity indicator) (H8).

The table below illustrates the correlations between the student factors used to determine the diversity score (Table 4). Correlations were used to demonstrate that the variables were independent of each other. Significant positive correlations were found between more economic disadvantage and more English language learners and more ethnic diversity. Also, a significant negative correlation was found between more students with disabilities and more English language learners. This suggests that schools with more

economic disadvantage also have more English language learners and more ethnic diversity. Each of the variables is represented in the diversity indicator.

Table 4
*Correlations Among and Descriptive Statistics For Student Demographic Factors*

| | More Econ Dis | More SWD | More ELL | More Eth Div. |
|---|---|---|---|---|
| More Economic Disadvantage | – | | | |
| More Students With Disabilities | -.09 | – | | |
| More English Language Learners | .63** | -.20* | – | |
| More Ethnic Diversity | .20* | -.14 | -.11 | – |
| *M (SD)* N=133 | 1.76 (.43) | 1.92 (.27) | 1.56 (.50) | 1.67 (.47) |

*Notes.* For all categories, 1 = yes (more), 2 = no.
* $p < .05$, ** $p < .01$.

**Analysis**

To determine if teacher self-efficacy reports were significantly different depending if a teacher is on or off summary year in the Educator Effectiveness System, a t-test was conducted (H1). This test was chosen because it compared the mean self-efficacy reports of each group. The analytic sample was used for this analysis. The overall self-efficacy score was obtained by the mean of the Teacher Sense of Efficacy Scale, which was the dependent variable. Other dependent variables that were analyzed were Efficacy in Student Engagement, Efficacy in Instructional Practices and Efficacy in Classroom Management. The independent variable was summary year status. This is whether a teacher was participating in a summary year or not on a summary year in the Educator Effectiveness System. First, the t-test assumptions were tested. Teacher self-efficacy is a scale variable that follows an ordinal scale. Second, there are no significant outliers. Third, the self-

efficacy data formed a normal distribution curve (Appendix H). Fourth, the sample size of 132 participants was large enough for the test. Equal variances could not be assumed for the overall TSES ($F$=5.82, $p$=.02) or the subcategories of engagement ($F$=5.13, $p$=.03) and Instructional practices ($F$=6.70, $p$=.01) therefore the degrees of freedom and t-statistic were adjusted using the Welch-Satterthwaite method and reported accordingly. Homogeneity of variance was assumed for the subscale of management. A correlation analysis indicated no significant relationship between summary year status and TSES T1 or T2 overall or in any of the subcategories (engagement, instructional practices, management). The correlation matrix (Table 5) displays the positive relationship between TSES reports T1 and T2, as well as the positive relationship between the subscales (engagement, instructional practices, and classroom management).

Table 5

*Correlations For TSES Reports T1 & T2 and Diversity Index by Summary Year Status*

| | TSES 1 | T1 Eng. | T1 IP | T1 CM | TSES 2 | T2 Eng. | T2 IP | T2 CM | TSES 1 SM | TSES 2 SM | D I | *M* (*SD*) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TSES T1 | | .92** | .86** | .81** | .77** | .69** | .64** | .68** | .41** | .39** | -.16 | 7.22 (.73) |
| T1 Eng. | .95** | | .75** | .60** | .74** | .76** | .60** | .57** | .32* | .45** | -.09 | 6.92 (.93) |
| T1 IP | .87** | .77** | | .50** | .65** | .58** | .66** | .43** | .34* | .34* | -.09 | 7.38 (.75) |
| T1 CM | .89** | .78** | .62** | | .59** | .42** | .39** | .74** | .41** | .20 | -.24 | 7.36 (.84) |
| TSES T2 | .83** | .78** | .72** | .74** | | .89** | .88** | .85** | .22 | .47** | .14 | 7.21 (.69) |
| T2 Eng. | .78** | .81** | .65** | .64** | .94** | | .70** | .59** | .18 | .51** | .17 | 6.85 (.89) |
| T2 IP | .74** | .65** | .78** | .60** | .89** | .76** | | .64** | .15 | .36** | .18 | 7.36 (.71) |
| T2 CM | .75** | .66** | .57** | .78** | .92** | .80** | .70** | | .25 | .34* | .02 | 7.43 (.78) |
| TSES 1 SM | .21 | .24* | .16 | .17 | .13 | .17 | .12 | .08 | | .39** | -.40** | 7.34 (.22) |
| TSES 2 SM | .22 | .24* | .17 | .18 | .30** | .35** | .27* | .19 | .52** | | .23 | 7.24 (.31) |
| D I | .02 | .01 | .09 | -.04 | .05 | .05 | .07 | .03 | -.16 | .23* | | .92 (.83) |
| *M* *(SD)* | 7.35 (.96) | 7.04 (1.13) | 7.52 (.96) | 7.48 (1.09) | 7.25 (1.01) | 6.82 (1.18) | 7.51 (1.00) | 7.42 (1.14) | 7.34 (.22) | 7.22 (.31) | 1.33 (1.07) | |

*Note.* Correlations for on-summary year participants are above the diagonal. Correlations for off-summary year status are below the diagonal. Eng.= Engagement. CM = classroom management. IP = instructional practices. SM = school mean. DI= Diversity Indicator * $p < .05$, **$p<.01$.

To analyze the change in teacher self-efficacy from the fall to the spring, a 2x2 mixed ANOVA was conducted (H2). This test was chosen because it provided the opportunity to identify a significant change in teacher self-efficacy between fall and spring for teachers on and off summary year in the Educator Effectiveness System, it could show the direction of the change, and most importantly it could help to identify an interaction between summary year status and teacher self-efficacy change over the course of the year. Teacher self-efficacy scores were the dependent variable; summary year status was an independent variable. Finally, the same analysis was conducted for each individual school in order to determine if any of the schools exhibited an interaction between summary year status and change in self-efficacy reports.

To determine the relationship between the sources of self-efficacy, the Educator Effectiveness System and teachers' self-efficacy beliefs (TSES), the researcher took a multi-step approach (H3). First, the Efficacy Source reflection tool was used to calculate reports of experiences of the sources of efficacy (mastery experiences, social persuasion, vicarious experiences, and affective responses). The overall mean was calculated and participants' scores on the scale represented how frequently, and how much meaning was attributed to the experiences of the sources of efficacy. A higher score indicated more frequent experiences of the sources overall, and the participant found the experiences more meaningful. A lower score would represent less overall experiences of the sources, and less meaning attributed to the sources. In this study, meaning is defined as how much the participant felt the experience contributed to the overall successes over the course of the year. Next, an independent samples t-test was conducted to determine if Efficacy Source Reflection scores (DV) differed depending upon summary year status (IV). Next, the

Efficacy Source Reflection scores were broken down independently by reports of frequency and meaning. The mean for each indicator was calculated. A second independent samples t-test tested each of the sources (mastery experiences, vicarious experiences, social persuasion, and affective responses) for a difference between reports between on-summary year status and off-summary year status. Next, a simple linear regression analysis was run to determine if the Efficacy Source Reflection score (IV) predicted teacher self-efficacy (DV).

To test if summary year status mediated the relationship between the sources of efficacy and TSES (H4), the researcher began by using a t-test to investigate group differences between summary year status and teacher self-efficacy (TSES). The results of the t-test indicated no significant difference in TSES T1, TSES T2, Mean TSES T1, Mean TSES T2, or any of the sub-categories depending on summary year status. Therefore, summary year status could not mediate the relationship between the sources of efficacy and TSES reports. To investigate the hypothesis further, two regression analyses were run. The first was a simple regression analysis testing if sources of efficacy according to the Efficacy Source Reflection predicted teacher's self-efficacy TSES. Finally, a multiple regression analysis was conducted with sources of efficacy and summary year status included in the model in order to determine if the two variables in tandem would better predict self-efficacy according to the TSES.

A multiple regression analysis was run to find if reports of the four sources (mastery experiences, vicarious experiences, social persuasion, and affective responses) (IV) predicted teacher self-efficacy according to the TSES (DV) (H5). Control variables included the student factors of SES, ethnic diversity, English language learners, and special

education. The four sources of self-efficacy were reported by the overall weighted mean of the four sources of teacher self-efficacy scale and each source was analyzed individually for its contribution to self-efficacy. Before running the test, the researcher used histograms to test for normal distribution of the variables, which was confirmed. Residual plots were used to confirm the linear relationship between the sources of efficacy and self-efficacy and homoscedasticity. A multiple regression analysis was also run on the 3 subscales of teacher self-efficacy (classroom management, instructional strategies, engagement) to determine if the sources of efficacy predicted teacher self-efficacy in any of the subcategories.

To test the relationship between teachers' self-efficacy beliefs and collective efficacy, the researcher first found the mean TSES T2 report for each individual school. Next, a correlation analysis demonstrated a strong positive correlation between mean self-efficacy beliefs and collective efficacy ($r$=.69, $p$<.001). A simple regression analysis was run to determine if collective efficacy (IV) predicted self-efficacy reports according to the TSES (DV) (H6). In order to find how collective efficacy reports influence the change in TSES from T1 to T2, a simple linear regression analysis was conducted.

In order to determine if student factors predicted school mean self-efficacy beliefs TSES T2 (H7), a multiple regression analysis was chosen. Assumptions for regression analysis were checked, and multicollinearity was not detected (Table 6). Tests for multicollinearity indicated a very low level of multicollinearity was present (*VIF* = 1.92 for economic disadvantage, 1.08 for students with disabilities, 1.95 for English language learners, and 1.20 for ethnic diversity).

Table 6
*Correlations Among and Descriptive Statistics For Student Demographic Factors*

| | TSES T2 | Econ. Dis. | SWD | ELL | Ethnic Diversity |
|---|---|---|---|---|---|
| School Mean TSES T2 | – | | | | |
| Economic Disadvantage | -.15 | – | | | |
| Students with Disabilities | -.34 | -.09 | – | | |
| English Language Learners | -.53 | .63 | -.20 | – | |
| Ethnic Diversity | .45 | .20 | -.14 | -.11 | – |
| *M* (*SD*) N=133 | 7.23 (.89) | 1.76 (.43) | 1.92 (.27) | 1.56 (.50) | 1.67 (.47) |

*Notes.* For economic disadvantage, students with disabilities, English language learners, and diversity, 1 = more than analytic mean, 2 = less than analytic mean.
* $p < .05$.

Finally, a stepwise multiple regression analysis was conducted to determine if student factors (economic disadvantage, students with disabilities, English language learners, ethnic diversity) (IV) predicted school mean self-efficacy beliefs reported by scores on the TSES T2 (DV) (H7). The student factors were loaded stepwise into the model, so that the researcher could investigate individual contributions of each.

School differences in self-efficacy and collective efficacy were found using a few regression analyses (H8). School differences were accounted for by the diversity indicator, which was composed of the number of high proportion a school displayed of four indicators (economic disadvantage, diverse population, special education population, English language learners) (Table 2). The proportion was determined by the mean of the state and district average of the populations (Table 3). A simple linear regression was chosen to determine if school context, as measured by the school diversity score, predicted mean teacher self-efficacy. Next, a simple linear regression was conducted to determine if

school context, as measured by the school diversity score, predicted collective efficacy. The two regression analyses were chosen to determine if self-efficacy or collective efficacy vary by school due to school diversity differences. Furthermore, the analyses would indicate whether or not student factors predict self-efficacy or collective efficacy.

The Efficacy Source Reflection responses were coded according to the four sources of efficacy coding scheme (Appendix G). A descriptive analysis was run on the qualitative findings in order to determine the percent of participants reporting positive and negative experiences of the four sources of self-efficacy. Next, each experience was analyzed according to subcategory, in order to report what each participant attributed the experience to, and this was reported by percentage of each predetermined subcategory. A table was created to show the results, which included examples of responses from each category and subcategory. Also, a content analysis provided information on the prevalence of the four sources of self-efficacy and the relationship with reports of positive or negative summary year experiences. Qualitative analysis focused on reports of meaningfulness of the process and reports of summary year experiences.

# Chapter 4

# Results

## Outcome of WI Educator Effectiveness Impact on Self-Efficacy Beliefs

**Hypothesis 1: Teacher self-efficacy differences by summary year.** An independent samples t-test was used to compare self-efficacy and the subscales (classroom management, instructional practices, and engagement) reported by participants on-summary year and participants off-summary year in the Educator Effectiveness System. There was no significant difference in the overall self-efficacy TSES (T1) reports for on-summary year (*M*=7.21, *SD*=.69) or off-summary year (*M*=7.25, *SD*=1.01) conditions; *t*(131)=-.03 for the overall teacher self-efficacy score, or in any of the subscales: Engagement on-summary year (*M*=6.85, *SD*=.89) or off summary year (*M*=6.82, *SD*=1.18) conditions; *t*(130.2)=.19, instructional practices on-summary year (*M*=7.36, *SD*=.71) or off summary year (*M*=7.51, *SD*=1.00) conditions; *t*(130.99)=-1.06, and management on-summary year (*M*=7.43, *SD*=.78) or off summary year (*M*=7.42, *SD*=1.14) conditions; *t*(131)=.03 (Table 7). The results suggest that there is no significant difference in mean overall TSES (T1) or in the 3 subcategories of engagement, instructional practices, or management depending on summary year status in the Educator Effectiveness System.

Table 7
*Results of t-test and Descriptive Statistics for Self-Efficacy by Summary Year Status*

| | Summary Year Status | | | | 95% CI for Mean Difference | | |
|---|---|---|---|---|---|---|---|
| | On (n=55) | | Off (n=78) | | | | |
| | M | SD | M | SD | | t | df |
| TSES (T1) | 7.21 | 0.69 | 7.25 | 1.01 | -0.33, 0.25 | -0.03 | 130.93 |
| Engagement | 6.85 | 0.89 | 6.82 | 1.18 | -0.32, 0.39 | 0.19 | 130.2 |
| Inst. Practices | 7.36 | 0.71 | 7.51 | 1.00 | -0.45, 0.14 | -1.06 | 130.99 |
| Management | 7.43 | 0.78 | 7.42 | 1.14 | -0.34, 0.36 | 0.03 | 131 |

* $p < .05$.

**Hypothesis 2: Summary year status and changes in teacher self-efficacy.**

A 2 x 2 mixed ANOVA was used to determine the relationship between summary year status and teacher self-efficacy T1 and T2 according to the TSES (Summary year on/off x TSES T1/TSES T2). Homogeneity of Variances could not be assumed for T1 TSES ($p$=.017). There was no significant main effect of change of T1 and T2 teacher self-efficacy ($F$(1, 131)=1.221, $p$>.05). The main effect of summary year status yielded an $F$ ratio of $F$(1, 131) = 0.09, $p$>.05, indicating that the mean change in self-efficacy was not significant depending upon whether they were on-summary year or off-summary year. For the entire sample, the results indicate the effect of summary year status on reports of self-efficacy does not depend on whether or not a participant is on or off summary year in the Educator Effectiveness System, and there is no significant interaction between summary year status and self-efficacy.

To examine school context, an exploratory 2x2 mixed ANOVA was performed for each school. Within school 11, there was no main effect of change in T1 and T2 teacher self-efficacy scores ($F$(1,14)=3.718, $p$=.05). However, there was an interaction effect: participants from school 11 who were on-summary year experienced an increase in teacher self-efficacy scores while self-efficacy scores of participants off-summary year decreased ($F$(1, 14)= 5.356, $p$<.05) (Table 8) (Figure 2). Post-hoc analysis of school context indicates that 68% of the teachers in the school participated in the study. The collective efficacy of the school is 4.8, which is slightly higher than the mean of all participating schools ($M$=4.61). The diversity score of the school was 2, which was higher than the mean of the participating schools ($M$=1.56). The areas of diversity included high economic disadvantage and high English language learners (ELL). Teacher characteristics at this

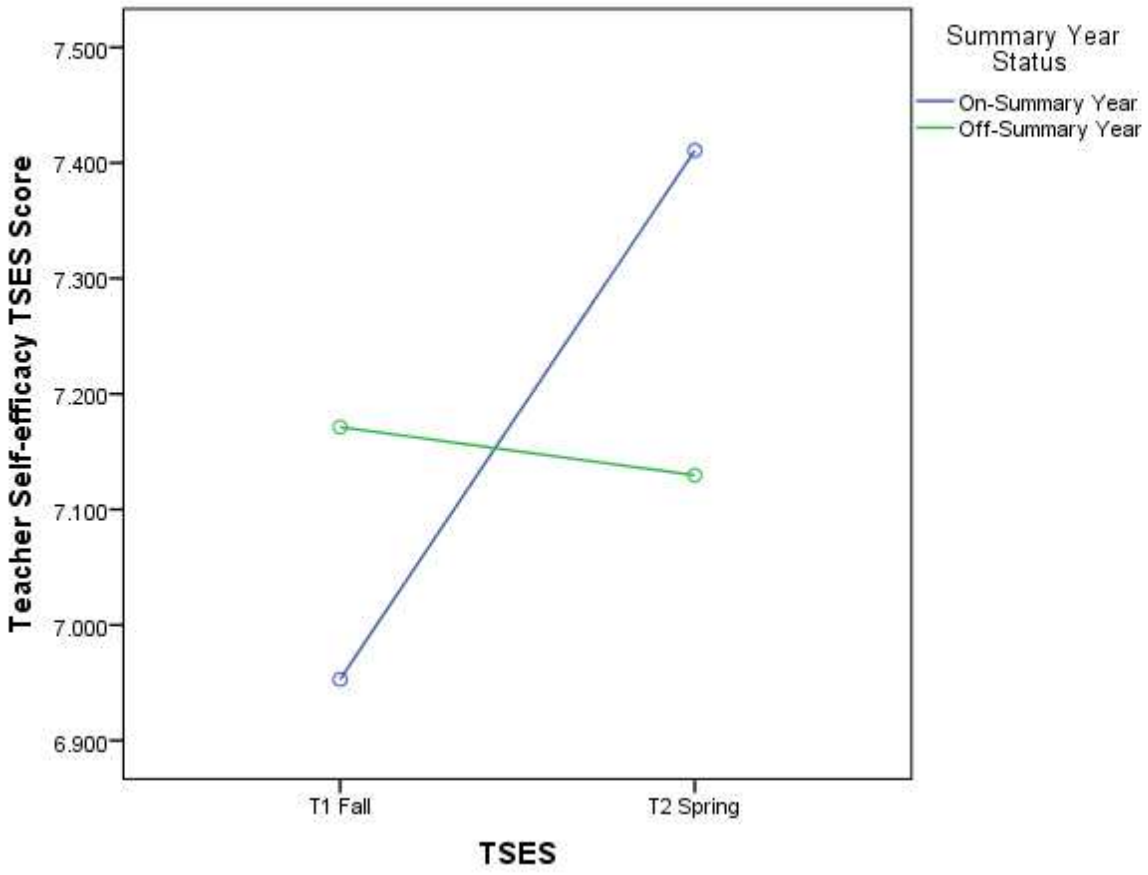
school were also considered to account for the different reports (Table 2). The mean number of years of teaching experience was 21, which was higher than the mean at all other participating schools.

Table 8
*Summary of Mixed ANOVA for School 11*

| | Sum of Squares | df | Mean Square | F |
|---|---|---|---|---|
| T1 T2 TSES | .341 | 1 | .341 | 3.718 |
| TSES*SumYear | .491 | 1 | .491 | *5.356 |
| Error(T1_T2) | 1.284 | 14 | .092 | |

*$p$<0.05, **$p$ < 0.01

*Figure 2.* The 2 x 2 mixed ANOVA results for school 11. This figure illustrates the significant interaction of summary year status on change in self-efficacy as measured by TSES T1 and TSES T2.



**Hypothesis 3: Summary year status and sources of self-efficacy in Educator Effectiveness System**

***Educator effectiveness system sources of efficacy.*** To determine if participants' sources of efficacy in EE System differed by summary year status, an independent t-test was conducted with the Efficacy Source Reflection and subscales (Table 9). Equal variances could be assumed for on-summary year and off-summary year participants. Overall, off-summary year participants ($M$=2.91, $SD$=.51) and on-summary year participants ($M$=2.8, $SD$=.40; $t$(129)=-1.31, $p$=.192) did not report significantly different experiences of the sources of efficacy. Next, an independent samples t-test was run for each of the subscales. Equal variances could not be assumed for mastery experiences. Equal variances were assumed for the three other subscales. The t-test indicated that there is a significant difference in on-summary year ($M$=2.3, $SD$=.73) and off-summary year ($M$=2.76, $SD$=.69) conditions when analyzing experiences of social persuasion; $t$(129)=-3.75, $p$<.001). No significant difference in mean reports of mastery experiences, vicarious experiences or affective responses between on-summary year and off-summary year participants were found (Table 9). The results suggest that off-summary year participants reported significantly more experiences of social persuasion than on-summary year participants.

Table 9
*Results of t-test and Descriptive Statistics for Sources of Efficacy and Summary Year Status*

| | Summary Year Status | | | | 95% CI for Mean | | |
|---|---|---|---|---|---|---|---|
| | On (n=55) | | Off (n=76) | | | | |
| | M | SD | M | SD | Difference | t | df |
| Sources of Efficacy | 2.80 | .40 | 2.91 | .51 | -.27, .06 | -1.31 | 129 |
| *Mastery Experiences* | 2.55 | .65 | 2.64 | .90 | -.37, .19 | -.64 | 128.5 |
| *Vicarious Experiences* | 3.51 | .91 | 3.50 | .82 | -.28, .32 | .12 | 129 |
| *Social Persuasion* | 2.30 | .73 | 2.76 | .69 | -.72, -.22 | -3.75*** | 129 |
| *Affective Responses* | 2.86 | .93 | 2.75 | .92 | -.22, .44 | .68 | 129 |

* $p < .05$. ** $p < .01$ *** $p < .001$. Affective responses value off-summary year (n=74).

**Hypothesis 4: Summary year status mediation of relationship between sources of efficacy and self-efficacy.**

A Pearson Correlation was computed to assess the relationship between summary year status and teachers' self-efficacy (TSES). There was no significant correlation between the two variables, ($r$=.07, $p$>.05). Therefore, summary year status cannot mediate the relationship, due to the fact that a significant relationship does not exist. To explore the hypothesis further, a multiple regression analysis was conducted to determine if summary year status mediated the relationship between reported sources of efficacy in the EE System and teacher self-efficacy. A simple regression analysis was used to test if sources of efficacy reported on the Efficacy Source Reflection predicted teachers' self-efficacy according to the TSES. The results of the regression indicated that the sources of efficacy explained 5.2% of the variance ($R^2$=.052, $F$(1,130)=8.12, $p$<.01). When summary year status was added to the model, the significance of the relationship between sources and TSES did

not rise ($p$=.002), therefore it can be assumed that summary year status does not mediate the relationship between sources of efficacy and teacher self-efficacy.

**Hypothesis 5: Sources of teacher self-efficacy and self-efficacy.** A hierarchical multiple regression analysis was performed to predict self-efficacy according to the TSES based on reported sources of efficacy on the Efficacy Source Reflection, related to the Educator Effectiveness System, while controlling for student factors (economic disadvantage, ethnic diversity, students with disabilities, and English language learners) (Table 10). After running the analysis, the ANOVA table showed that model 1 was significant ($R^2$=.03, $F$(1,128)=4.35, $p$<.05). This suggests that ethnic diversity is a significant predictor of teacher self-efficacy. When the sources of self-efficacy were added to the model, the results showed that the sources of efficacy were significant predictors of self-efficacy ($R^2$=.20, $F$(1,128)=6.32, $p$<.001). When ethnic diversity is held constant, the sources of efficacy significantly predict teacher self-efficacy. The multiple regression results suggest that sources of efficacy account for 22% of the variability in self-efficacy scores when student demographics are controlled. The results suggest that mastery experiences and social persuasion negatively predict teacher self-efficacy.

Table 10
*Results of Hierarchical Multiple Regression of Sources on Self-Efficacy*

| | | *b* | *SE b* | ***β*** |
|---|---|---|---|---|
| Step 1 | | | | |
| | Constant | 8.20 | .78 | |
| | Economic Disadvantage | .13 | .24 | .06 |
| | More SwDisabilities | -.49 | .31 | -.14 |
| | More ELL | -.40 | .21 | -.23 |
| | More Ethnic Diversity | .23 | .18 | .12 |
| Step 2 | | | | |
| | Constant | 9.16 | .90 | |
| | Economic Disadvantage | .15 | .23 | .08 |
| | More SwD | -.35 | .29 | -.10 |
| | More ELL | -.22 | .20 | -.13 |
| | More Ethnic Diversity | .12 | .18 | .06 |
| | **Sources of Efficacy** | | | |
| | Mastery Experiences | -.31 | .10 | -.29** |
| | Vicarious Experiences | .04 | .10 | .04 |
| | Social Persuasion | -.24 | .12 | -.21* |
| | Affective Responses | -.03 | .08 | -.03 |

*Note.* $R^2$=.052 for Step 1: $\Delta R^2$=.28 for Step 2 ($p$<.01).
*$p$<.05, **$p$<.01, ***$p$<.001

**Outcome of School Factors and Self-Efficacy**

**Hypothesis 6: Collective efficacy and self-efficacy.** The researcher used a multi-step approach to determine the relationship between self-efficacy and collective efficacy. In order to account for school factors that could influence self-efficacy beliefs, the mean self-efficacy (T2) for each school was calculated (Table 11). Next, a simple linear regression analysis was conducted to determine if mean teacher self-efficacy (T2) predicted collective efficacy. Before the analysis was run, school 15 was removed from the data because of lack of sufficient participation for an accurate collective efficacy score. A significant regression equation was found $F$ (1, 131)=115.69, $p$<.001. The $R^2$ of .47 suggests that 47% of the variance in collective efficacy can be accounted for by the school mean self-efficacy. Participants' predicted collective efficacy is equal to 4.712 + .574 (collective efficacy) TSES

when collective efficacy is measured according to the Collective Efficacy Scale (CES). The findings suggested that an increase in the mean reported self-efficacy would increase the collective efficacy.

A simple linear regression analysis was conducted to determine if collective efficacy predicted the change in mean self-efficacy by school. A significant regression equation was found $F$ (1, 131)=20.30, $p$<.001. The $R^2$ of .13 suggests that 13% of the variance in change in mean self-efficacy can be accounted for by collective efficacy. Participants' predicted change in mean self-efficacy is equal to .268 + -1.36 (change in mean TSES) collective efficacy. The findings suggested that an increase in collective efficacy would predict less change of mean self-efficacy reports.

Table 11
*School context and change in TSES*

| School ID | n | Diversity Score | Collective Efficacy | Mean TSES Time 1 | Mean TSES Time 2 | Change in Mean TSES |
|---|---|---|---|---|---|---|
| 11 | 16 | 2 | 4.808 | 7.08 | 7.25 | .18 |
| 12 | 9 | 1 | 4.825 | 7.56 | 7.69 | .13 |
| 13 | 22 | 1 | 5.14 | 7.75 | 7.57 | -.18 |
| 14 | 5 | 1 | 5.094 | 7.10 | 7.42 | .32 |
| 15 | 1 | 4 | N/A | 6.83 | 6.87 | .04 |
| 21 | 37 | 0 | 4.617 | 7.30 | 7.13 | -.17 |
| 22 | 10 | 1 | 4.708 | 7.55 | 7.26 | -.29 |
| 23 | 15 | 3 | 4.058 | 7.22 | 7.41 | .19 |
| 31 | 18 | 1 | 3.986 | 7.36 | 7.23 | -.69 |

*Note*: A negative value indicates a drop in mean TSES over the year. School 15 was excluded from all analyses including collective efficacy due to the low participation rate.

**Hypothesis 7: Student demographics and self-efficacy.**

A stepwise multiple linear regression was conducted in order to determine if and how the student demographic factors (economic disadvantage, students with disabilities, ethnic diversity, and English language learners) predicted mean teacher self-efficacy T2 (Table 12). The results of the regression indicated the predictors explained 61% of the variance in

mean self-efficacy T2 ($R^2$=.61, $F$(4, 128)=52.37, $p$<.001). When all demographic factors were included in the model, it was found that more English language learners negatively predicated teacher self-efficacy ($\beta$=-.72, $p$<.001). More students with disabilities negatively predicted teacher self-efficacy ($\beta$=-43, $p$<.001). More ethnic diversity positively predicted teacher self-efficacy ($\beta$=-.09, $p$=.003), and more economic disadvantage positively predicted teacher self-efficacy ($\beta$=.21, $p$<.01). Each student demographic factor added a significant contribution to the model.

Table 12

*Results of Stepwise Multiple Linear Regression of Student Demographics on Self-Efficacy*

| | Model 1 | | | Model 2 | | | Model 3 | | | Model 4 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Variable | *B* | *SE B* | ***β*** | *B* | *SE B* | ***β*** | *B* | *SE B* | ***β*** | *B* | *SE B* | ***β*** |
| Constant | 7.75 | .08 | | 8.89 | .18 | | 8.35 | .18 | | 8.33 | .17 | |
| More ELL | -.33 | .05 | -.53*** | -.39 | .04 | -.63*** | -.36 | .04 | -.58*** | -.45 | .05 | -.72*** |
| More SWD | | | | -.54 | .08 | -.64*** | -.48 | .07 | -.41*** | -.50 | .07 | -.43*** |
| More Eth Div. | | | | | | | .22 | .04 | .33*** | .18 | .04 | .27*** |
| More Econ Dis | | | | | | | | | | .15 | .06 | .21** |

*Notes.* For economic disadvantage, students with disabilities, English language learners, and ethnic diversity, 1 = more than analytic mean, 2 = less than analytic mean. ELL= English language learners. SWD = students with disabilities. Eth Div. = ethnic diversity. Econ Dis = economic disadvantage. *$p$<.05, **$p$<.01, ***$p$<.001

**Hypothesis 8: School contextual factors' influence on self-efficacy and collective efficacy.** A simple linear regression analysis was conducted to determine if school context, as measured by the school diversity score, predicted mean teacher self-efficacy. The results of the regression indicated that there was a non-significant correlation between school diversity score and mean self-efficacy T1 ($r$=.10, $p$=.12). However, there was a significant correlation between school diversity score and mean teacher self-efficacy T2 at the .05 level ($r$=.16, $p$=.03). Therefore, the researcher performed a regression analysis in order to

determine of the diversity indicator predicted mean self-efficacy T2. The regression analysis results indicated that school diversity did not explain a significant amount of variance in mean self-efficacy T2($\beta$=.05, $p$=.06). The results suggest that there is a relationship between a school's diversity indicator and TSES T2; however, the diversity indicator does not predict teacher self-efficacy.

A simple linear regression analysis was conducted to determine if school context, as measured by the school diversity score, predicted collective efficacy. The results of the regression analysis indicated that diversity score positively predicted 8% of the variance in collective efficacy. ($R^2$=.08, $F$(1, 131)=11.54, $p$=.001). The results suggest that schools reporting more student diversity factors (more economic disadvantage, more diversity, more English language learners, and more students with disabilities) report higher collective efficacy beliefs.

**Analysis of open-ended questions.** At T2 of the survey, each participant was asked to report his or her positive and negative experiences that contributed to or diminished their feelings of success that year. The researcher completed a content analysis of the questions in order to aid in understanding the reports of experiences of the sources of self-efficacy. Of the 132 participants in the analytic sample, 109 completed the qualitative questions regarding experiences of self-efficacy (Table 13 & Table 14). Participants were encouraged to include any positive or negative experiences related to the questions. The range of unique experiences counted were 0-8 positive experiences (M=2.2) and 0 – 8 negative experiences (M=2.4). The results demonstrated reports of many positive (48%) and negative (52%) experiences related to the sources of self-efficacy experienced by participants during the year of the study.

***Positive experiences.*** Each response for questions 1 and 2 was coded according to the category and subcategory where it fit best (Appendix G). Table 13 displays the frequencies of the reports of positive experiences of the sources of self-efficacy, as well as an example of the type of response coded in that category and subcategory. Of the positive experiences, 48% were considered mastery experiences, 26% were social persuasion, 13% were vicarious experiences, 5% were affective responses, and 25% were other positive experiences that were unrelated to the four sources of efficacy. When reporting positive mastery experiences, 37% of the reports were related to reflection on student achievement or test scores, 10% were related to goals set for the Educator Effectiveness System or school goals, and 52% were other positive mastery experiences. Experiences of positive social persuasion were composed of 33% administrative feedback, 38% peer feedback, 17% student feedback, 11% parent and community feedback, and 1% other feedback. Positive vicarious experiences consisted of 80% peer observation, 0% Teachscape, and 20% were other experiences of observing someone be successful in a similar context.

***Negative experiences.*** Each response for questions 3 and 4 was coded according to the category and subcategory where it fit best (Appendix G). Table 14 displays the frequencies of the reports of the negative sources of self-efficacy. Of the negative experiences, 29% would be identified as mastery experiences, 24% were social persuasion, 4% were vicarious experiences, 11% were affective responses and 31% were considered negative experiences unrelated to the sources of self-efficacy. When reporting negative mastery experiences, 20% were related to student performance or test scores, 33% were related to the Educator Effectiveness System goals or school goals, and 46% of them were other negative mastery experiences. Experiences of negative social persuasion were attributed

to 71% administrative feedback, 2% peer feedback, 6% student feedback, 13% parent and/or community feedback, and 7% other negative social persuasion. Negative vicarious experiences were attributed to 60% Teachscape and 40% peers. 50% of participants mentioned time being a factor that impeded upon their feelings of success that year, and 17% mentioned student behaviors.

Table 13

*What were some of the things you felt most good about or most successful at this year? What factors do you think contributed to the positive experience you named? Frequency of Coded Open-Ended Responses and Examples*

| **Category**<br>*Subcategory* | **Frequency**<br>**(% of n=318)** | **Description**<br>**Example** |
|---|---|---|
| **Mastery Experiences** | **153 (48%)** | **Experiences that enhance the feelings of success in teaching. Participant reports events or experiences that are evidence of the teacher's abilities.** |
| *Student Growth, Test Scores or Performance* | 57 (37%) | Tutoring students in content after school allowed the one-on-one contact some students need for success. It was great to know that I played a small part in a student going from a grade of C to a grade of A- (#105) |
| *Goal Attainment Related to Educator Effectiveness System or School Goals* | 16 (10%) | The responsibility of creating a PPG and an SLO is great and did help me focus on those objectives and goals. (#184) |
| *Other* | 80 (52%) | I have worked at expanding the role of PE in the educational process in our building with the intention of improving in the district and community. This has brought me a great deal of satisfaction (#175) |
| **Social Persuasion** | **82 (26%)** | **Verbal persuasion that comes from others that improves a teacher's perception of successes. Reports of learning from others' modeling** |
| *Administration* | 27 (33%) | My current administrator for my educator effectiveness evaluation this year didn't stress over much of the process. My current evaluator seems to work from the position that I am a "3" in most areas unless there is specific evidence for |

| | | |
|---|---|---|
| | | moving that score down to a 2 or up to a 4. I can focus on finding a few choice artifacts where I want to earn a 4 because I was especially proud of my efforts in a given area (#188) |
| *Peers* | 31 (38%) | I worked closely with other content teachers in developing the curriculum. We also have been meeting several times throughout the school year to discuss the curriculum and share lesson ideas with each other (#109) |
| *Students* | 14 (17%) | First, I only had 18 students this school year allowing me to get to know my students on a more deeper level both academically and personally (#113) |
| *Parents/Community* | 9 (11%) | Breakthroughs in communicating with difficult parents (#154) |
| *Other* | 1 (1%) | Having extra adults in the classroom to help (#170) |
| **Vicarious Experiences** | **41 (13%)** | **Observing someone succeed in a similar situation. Reports of learning from others' modeling** |
| *Peers* | 33 (80%) | Professional development with peers who teach what I teach is the MOST beneficial, yet it's like pulling teeth to meet with them (#179). |
| *Teachscape* | 0 (0%) | N/A |
| *Other* | 8 (20%) | Attending the Shape America conference has really been a great deal of excitement and a renewed desire to expand the PE role in our community (#175) |
| **Affective Responses** | **17 (5%)** | **Reports of emotional states that may influence the perception of one's abilities** |
| | | Also when testing schedules or the district calendar provided me with time to catch up, I was able to feel slightly more relaxed (#118) |
| **Other** | **25 (8%)** | **Positive reports that do not reflect any of the above four sources of self-efficacy** |
| | | I decided I would change my professional persona to one of more socially engage-able teacher (#146) |

Table 14

*What were some of the aspects of the year that you felt most negatively about or that you felt were most difficult? What factors do you think contributed to the negative experiences you named above? Frequency of Coded Open-Ended Responses and Examples*

| **Category**<br>*Subcategory* | **Frequency**<br>**(% of n=339)** | **Description**<br>**Example** |
|---|---|---|
| **Mastery Experiences** | **99 (29%)** | **Experiences that diminish feelings of success in teaching. Participant reports events or experiences that make the teacher feel less successful.** |
| *Student Growth, Test Scores or Performance* | 20 (20%) | I feel we formally assess our students too much; 3 MAPS assessments, STAR reader 5 times, 5 sessions of WI Forward test. Students seem to get burned out from all the testing (#183) |
| *Goal Attainment Related to Educator Effectiveness System or School Goals* | 33 (33%) | I find the new program is hard for me to navigate and as a result I wasted a lot of time where I could be doing planning and prep (#199) |
| *Other* | 46 (46%) | I struggled with the fact that my building does not have an outlined talented and gifted program, or an accelerated math option for sixth graders (and they do for 7th and 8th graders). It's as important to meet the needs of high learners as it is to meet the needs of struggling learners (#116) |
| **Social Persuasion** | **83 (24%)** | **Verbal persuasion that comes from others that worsens a teacher's perception of successes. Reports of feedback from others** |
| *Administration* | 59 (71%) | Administrative lack of understanding and respect for time (#189) |
| *Peers* | 2 (2%) | Also, since I'm the only teacher in the building for my subject, it is difficult to observe or work with peers in the same subject area (#225) |
| *Students* | 5 (6%) | Students who don't care (#140) |
| *Parents/Community* | 11 (13%) | Poverty, rough family life, lack of parental support (#233) |
| *Other* | 6 (7%) | I think the only reason I received complaints was because the students here haven't had their abilities pushed for the past 1-3 years (#220) |
| **Vicarious Experiences** | **15 (4%)** | **Observing someone struggle in a similar situation, or lack of the opportunity to** |

| | | |
|---|---|---|
| | | **observe.** |
| *Peers* | 6 (40%) | Lack of communication and skills of people who also work in the classroom (#121) |
| *Teachscape* | 9 (60%) | I feel that Teachscape is just "another thing" to spend time on instead of focusing on my student learning (#101) |
| *Other* | 0 (0%) | N/A |
| **Affective Responses** | **37 (11%)** | **Reports of negative emotional states that may influence the perception of one's abilities** |
| **Other** | **105 (31%)** | Feeling overwhelmed by the amount of professional responsibilities (#189)<br>**Negative reports that do not reflect any of the above four sources of self-efficacy**<br>Lack of time provided for all our responsibilities (#123) |
| ***Time*** | **170 (50%)** | |
| ***Student Behaviors*** | **58 (17%)** | |

# Chapter 5

## Discussion

The value of the research presented is the timeliness and relevance to addressing new challenges that are being undertaken by teachers across the nation resulting from the changing face of education, including a shift toward evaluation systems that incorporate teacher accountability. The shift is a result of national, state and district initiatives attempting to quantify the effectiveness of educators, in order to meet national standards and qualify for federal funding programs. The implications of these systems, both positive and negative, have been studied with regards to limited student and teacher outcomes. However, there is little research addressing the implications of the system on the important construct of teacher self-efficacy. Countless positive teacher and student outcomes have been associated with self-efficacy including more engaged teachers and higher student achievement to only name a few (eg., Tschannen-Moran & Hoy, 2001; Wolters & Daugherty, 2007). The impacts of teacher evaluation and accountability systems on teacher self-efficacy must be investigated further because self-efficacy has the potential to impact so many teacher and student outcomes.

The research presented was born from my own unique set of experiences with the Educator Effectiveness System, including my role as a teacher in the pilot program and my later role as an effectiveness coach in the implementation year and beyond. The intimate involvement with the pilot, taught me the intentions and value of the proposed evaluation system. When participating in the pilot, I was able to do so in an informal environment, without the rigidity of focus on the end product, or fear of disciplinary repercussions. District-provided conferences helped me become more familiar with the components of the

system. There I learned that the purpose of the evaluation system was to "improve the education of all students in the state of Wisconsin by supporting guided, individualized, self-determined professional growth and development of educators" (State of WI DPI, 2014). Following a training in which Charlotte Danielson thoroughly explained the benefits of using her Framework for Teaching rubric to reflect on professional practice, I hung it on the wall of my classroom so I could use it as a quick reference to improve my practice. The pilot provided me with the opportunity to become acquainted with the Educator Effectiveness system in an informal environment, on my own accord, and without fear of failure. A minority of teachers in each pilot school were involved in the initial program pilot, and the majority of teachers in the state were introduced to the system when it was introduced as the new state mandated evaluation system during the 2014-2015 school year, the year prior to this study. Therefore, participants in this study were involved in the second year of full implementation of a new evaluation system.

During the implementation phase of the Educator Effectiveness System, I served as an Educator Effectiveness Coach in the school district in which I was employed. In my role as coach, I was responsible for assisting the staff in becoming familiar with the new system, helping teachers evaluate their practice, and collect evidence to provide substantiation for progress related to goals set within the evaluation system. During this time, I witnessed many challenges and successes resulting from the Educator Effectiveness System. The purpose of the system is to provide a platform for positive teacher growth (Ujifusa, 2014). I witnessed teachers both reaping the benefits, and struggling with the complexity of the system. The research that resulted from the experience delineated an apparent overlap between the four sources of self-efficacy and the components of the evaluation system.

Consequently, the direction of the relationship between the sources of self-efficacy ingrained in the system and teacher self-efficacy needed to be examined further.

The discussion will present an overview of the findings of the study, and posit how the findings demonstrate the relationship between the sources of self-efficacy and the Educator Effectiveness System. Next, I will provide insight based on the current research into how summary year status, or being on or off-summary year in the evaluation system, influences teacher self-efficacy. Teacher reports regarding their experiences with the Educator Effectiveness System will be provided to add contextual information to the study results. Moreover, teachers' experiences as they pertain to the four sources of self-efficacy, as they are a part of the system will be presented. Themes in teacher responses were used to develop recommendations for administrative implementation of evaluation systems and ideas for future evaluation systems. Finally, limitations and future directions will be discussed.

**The Study and Research Questions**

The current study focused on how teacher evaluation and accountability measures influenced teacher self-efficacy. One hundred thirty-two teachers participated in two surveys, one in the beginning of the school year, and one at the end of a the school year. The participants reported self-efficacy and collective efficacy at the beginning of the year, and reported self-efficacy and experiences of the sources of self-efficacy at the end of the school year. The four sources of self-efficacy (mastery experiences, vicarious experiences, social persuasion, and affective responses) were also examined, and the research demonstrated the impact of the sources, as they were included in the evaluation system, on teacher self-efficacy. School context was also analyzed, as the research reviewed the relationship

between teacher self-efficacy and collective efficacy, as well as furthering the study of how student factors such as economic disadvantage, student with disabilities, English language learners, and ethnic diversity influenced teacher self-efficacy and collective efficacy.

The initial research question probed if and how the Educator Effectiveness System impacted teacher self-efficacy; results were mixed. Contrary to the hypothesis, summary year status did not result in differences in reports of self-efficacy or significant change in self-efficacy over the course of the year. However, reports of experiences of the four sources of teacher self-efficacy did vary depending on summary year status, however in the opposite direction hypothesized. Off-summary year participants reported more frequent and valuable experiences of the sources of self-efficacy, particularly in the area of social persuasion. Overall, higher teacher self-efficacy was predicted by more frequent and valuable experiences of the four sources of self-efficacy. These findings, and their implications will be discussed in-depth later in the discussion.

Finally, the study investigated how school context influenced self-efficacy and collective efficacy. School context was composed of collective efficacy and student demographics (economic disadvantage, English language learners, ethnic diversity, and students with disabilities). The hypothesis that self-efficacy predicted collective efficacy was confirmed. Collective efficacy also predicted less change in teacher self-efficacy over the course of the year. Student demographic factors predicted self-efficacy, but in varying directions. More economic disadvantage and more ethnic diversity positively predicted teacher self-efficacy, while more English language learners, and more students with disabilities negatively predicted self-efficacy. Schools that displayed a higher diversity indicator, having more students from each of the named groups, impacted both self-efficacy

and collective efficacy. Higher diversity (more students with disabilities, more ethnic diversity, more English language learners, and more economic disadvantage) in schools positively predicted collective efficacy. Higher diversity indicators also predicted self-efficacy in time 2 of the survey (spring).

**Summary of the Results**

No significant difference in teacher self-efficacy reports were found depending upon whether an individual was on-summary year or off-summary year in the Educator Effectiveness System. The lack of difference could be considered strength of the design of the system. By design, similar experiences are shared no matter summary year status. Each year, all teachers are responsible for goal creation, evidence collection, and reflection. Formal evaluations and regular meeting with an evaluator are the activities that are required of on-summary year teachers that are not required of others. The initial hypothesis, posited that these teachers would demonstrate higher self-efficacy as a product of constant, required reflection on mastery experiences leading to higher self-efficacy (Carlton, et al., 2008), which was proven false. Teachers on and off-summary year report similar teacher self-efficacy.

Reports of the sources of self-efficacy depending on summary year status were different, but in a direction contrary to the initial hypothesis. Off-summary year teachers in the Educator Effectiveness System reported more frequent, valuable experiences of the sources of self-efficacy, particularly in the area of social persuasion. The initial hypothesis stated that on-summary year teachers would report more frequent and valuable experiences of the sources of self-efficacy due to the extra demands in the evaluation system including required meetings and reflection conversations. The differences in

reported experiences could be due to the time constraints and pressures of being involved in an evaluation year. Over 50% of all participating teachers reported time being a factor that negatively impacted their experiences that year. The possibility also exists that the social persuasion that was experienced by on-summary year participants was negative, or not perceived as meaningful. Approximately 70% of reports of negative social persuasion were attributed to administrator feedback, whereas most positive reports were attributed to peer feedback. Due to the fact that on-summary year participation focuses on observations by and feedback from an administrator, the possibility exists that this result is influenced by the required administrative interaction. On-summary year participation in the evaluation system requires more interaction with the administrator than peers, therefore potentially contributing negatively to experiences of social persuasion.

The results of the study indicated that frequent, valuable experiences of the sources of self-efficacy positively predict teacher self-efficacy. The evaluation system was analyzed for reports of positive and negative experiences of the sources of self-efficacy ingrained in the system. Participant reports confirmed that positive experiences, related to feelings of a successful year, were attributed to sources of efficacy experienced as a result of the Educator Effectiveness System 92% of the time. Negative experiences were attributed to experiences related to the Educator Effectiveness System in 69% of the responses. Within the positive and negative experiences is a breakdown of reports of each of the sources of self-efficacy being experienced. It can be concluded that the sources of self-efficacy are incorporated into the Educator Effectiveness System. The reports of positive and negative experiences can aid in understanding how to build on the positive experiences, and how to

rectify the negative experiences to fulfill the purpose of the system, aiding all teachers to grow professionally.

School contextual factors play a role in teacher self-efficacy within schools. The current study examined the relationship between student factors (economic disadvantage, English language learners, students with disabilities, and ethnic diversity), collective efficacy and teacher self-efficacy. The results support some previous findings and contradict others. The research confirms the previous findings that teacher self-efficacy predicts collective efficacy. Higher collective efficacy also predicted smaller changes in teacher self-efficacy over the course of the year. The results of the study show that high economic disadvantage and high ethnic diversity predicts high teacher self-efficacy. However, high English language learner population and high student with disabilities populations negatively predict teacher self-efficacy. More diversity factors predict higher self-efficacy and higher collective efficacy. Contextual factors should be continually explored and should inform pre-service education programs. There is a need to investigate how various student factors influence self-efficacy and collective efficacy.

**Summary Year Status**

**No differences in self-efficacy depending on summary year status.** Self-efficacy does not vary depending upon summary year status in the WI Educator Effectiveness System. Contrary to the hypothesis that on-summary year teachers would report higher self-efficacy than off-summary year teachers due to required participation in a formal evaluation process that includes observations, meetings and reflections, both groups reported similar self-efficacy. It was also predicted that on-summary year teachers' self-efficacy would grow over the course of the year. The process of reflection on experiences of

the sources of self-efficacy is related to higher self-efficacy beliefs (Bandura, 1989). The individualized goal setting and reflective process allows for teacher autonomy, which is related to an increase in effectiveness behaviors (Noormohammadi, 2014) and has a positive relationship with teacher self-efficacy (Skaalvik & Skaalvik, 2014). Contrary to expectations, no significant difference in teacher self-efficacy was found between teachers who are on-summary year and teachers who are off-summary year in the Educator Effectiveness System overall, or in the subcategories of classroom management, instructional practices, and engagement. No significant difference in changes in self-efficacy was reported over the course of the year.

The lack of a difference in self-efficacy reports depending on summary year status may be due to the design of the system. All teachers are required to complete goals (SLOs and PPGs) and provide evidence of practice associated with the Framework for Teaching (Danielson, 2007). The major difference in summary year status is the formal evaluation component, which requires on-summary year teachers to meet with an evaluator to discuss the progress on the goals. The open-ended questions in the research provide evidence that teachers on and off-summary year in the system report many of the same benefits and challenges related to the system. A teacher considered off-summary year in the EE System reported that one thing that made them feel successful that year was the goal they created. The teacher stated, "The students responded well to the SLO which was the assessment of their oral fluencies weekly. They wanted to improve and were enthusiastic. Any time students are excited about learning and their own progress it is an especially positive experience." The quote demonstrates a positive experience with the system, even though the participant was not on-summary year. However, the participants' responses suggest

that the system can have negative implications for teachers on and off-summary year in the system. One participant off-summary year reported, "The school year started out with far too many new initiatives and responsibilities. The most challenging was the online Educators Effectiveness Plan, (which) was overwhelming, as it was challenging to input things online. The time it took to input things into the computer took away valuable time that could have been better spent." All teachers are responsible for creating an Educator Effectiveness Plan each year. Therefore, positive and negative sources of self-efficacy are experienced similarly on and off-summary year, and this may explain the lack of significant differences in reports of self-efficacy depending on summary year status.

**Difference in experiences of sources depending on summary year status.** There were, however, surprising differences in the reports of the experiences of self-efficacy depending on summary year status. Off-summary year teachers reported more frequent and meaningful experiences of the sources of self-efficacy, particularly in the area of social persuasion. It was hypothesized that teachers on-summary year would report more experiences of the sources of self-efficacy due to the extra demands of being on an evaluation year including, meeting with an evaluator, regular observations, and a formal review process. When reflecting on experiences that impeded on success over the course of the year, one teacher stated, "Summary year of observation was the most difficult." The open-ended responses may aid in understanding how the differences in experiences of on and off-summary year teachers influence the outcome.

Lack of time, increased anxiety related to on-summary year experiences; alongside a lack of meaningful follow-up may all have contributed to less frequent and meaningful mastery experiences and social persuasion experiences for on-summary year participants.

According to the responses to the open-ended questions, over fifty percent of all participants cited lack of time as a negative impact to being involved in the new evaluation system. One on-summary year participant writes, “Having too much responsibility to complete in the amount of time given and for the amount of pay given is the most stressful thing I encounter. It is in me to want to do a good job but I feel bound by lack of time to complete all my job expectations every single day. I have been teaching since the 80s. There are more and more requirements piled on every year. It has to stop sometime or pretty soon all the good teachers will quit.” It is possible that the lack of time, along with the pressures of an evaluation year contribute to less frequent and meaningful positive experiences of the sources of efficacy.

Social persuasion was reported to be less frequent and meaningful by on-summary year teachers. It was hypothesized that teachers on-summary year would report more frequent, meaningful experiences of social persuasion than those off-summary year due to mandated meetings with evaluators, often in administrative roles. However, the opposite was true. When reviewing the survey responses, 71% of negative experiences of social persuasion were attributed to administrative feedback. One on-summary year teacher refers to administration as being disconnected from the classroom. “People who are not educators telling educators what to do. Often they don't realize what it is really like in the classroom.” On the other hand, 31% of positive social persuasion is reported to come from peers. When reflecting on positive experiences that attributed to success, one teacher writes, “Colleagues pushed me to try new things and as a result (I) have some of these positive experiences.” The derivatives of social persuasion for teachers suggest that peer encouragement may be more beneficial than administrative feedback, which may

contribute to the lack of social persuasion experiences reported for on-summary year teachers. Off-summary year teachers reporting more frequent and meaningful experiences of social persuasion leads to new research questions. Is the source of the feedback impacting how teachers perceive their abilities? Future research should examine how social persuasion from key players in school impacts self-efficacy.

### The Four Sources of Self-Efficacy Interwoven in the Educator Effectiveness System

The results of the study provide more information on the sources of self-efficacy in the Educator Effectiveness System. First, there is no significant difference in overall teacher self-efficacy depending on summary year status. However, the frequency and value of social persuasion does vary significantly depending on summary year status, whereas off-summary year teachers report more frequent and valuable experiences of the source of self-efficacy than on-summary year teachers. Finally, the results confirm that more frequent and valuable experiences of the sources of self-efficacy predict overall teacher self-efficacy. Therefore, an in-depth analysis of participant responses as they relate to the four sources of self-efficacy within the Educator Effectiveness System will provide insight into the perceived benefits and drawbacks of the system by the people using it. The evidence can be utilized to improve structure and implementation of evaluation and accountability systems.

**Positive experiences of the sources of self-efficacy.** Bandura's (1989) Social Cognitive Theory posits that mastery experiences are the strongest, most prevalent of the four sources of self-efficacy. The results support this theory because mastery experiences comprised the majority of the positive experiences reported. However, all four sources of efficacy work in tandem, and the responses need to be examined in order to understand

positive experiences of the four sources related to the Educator Effectiveness System. Moreover, this will aid schools in the implementation of successful systems that support teacher self-efficacy.

***Mastery experiences.*** Of all four sources, mastery experiences, and reflection upon them are most closely aligned with increased self-efficacy (Carlton, et al., 2008). It can be considered strength of the system that 48% of experiences that contributed to teacher success can be considered mastery experiences. The high percentage of positive mastery experiences reported by teachers indicates that mastery experiences are a large component of the Educator Effectiveness System. The following teacher's reflection on the experience of demonstrates the relationship between feelings of success and the evaluation system. "Integrating technology into the writing workshop, fostering peer collaboration, and finding joy in the classroom through student relationships." All of the facets of teaching mentioned can be included in the Educator Effectiveness Plan, and demonstrate the growth of the teacher through the year. Other teachers reported using student growth disclosed by assessments as a reflection of mastery experiences. One teacher expresses the ability to use explicit instruction, "Although their writing scores on ACCESS didn't show as much growth as I would have liked, their overall scores improved greatly, as well as their MAP scores. I think that their overall literacy improved because of explicit instruction." Using assessments, as student growth indicators are a large component of goals set by educators in the Educator Effectiveness System. The system encourages reflection on student gains. Other teachers viewed meeting their Personal Professional Goal (PPG) or Student Learning Objective (SLO) as a mastery experience. "I felt good about meeting my SLO goal by mid-year." The SLO and PPG are the main components of the plan created by the educator at the

beginning of the cycle. The examples provide evidence that several opportunities for positive mastery experiences are built into the Educator Effectiveness System, therefore the experiences should positively influence self-efficacy.

***Social persuasion.*** The mixed results on social persuasion can be seen within the teachers' responses. Two main findings are demonstrated. First, social persuasion, present in the Educator Effectiveness System does influence self-efficacy. Second, off-summary year teachers report more frequent and valuable reports of social persuasion than their on-summary year peers. The second finding could be contributed to the main source of social persuasion. While on-summary year teachers spend much of their time reflecting with evaluators and administrators, off-summary year teachers utilize peer social persuasion. The findings indicate that the most common form of positive social persuasion (38%) is from peers. Previous research suggests that individuals internalize social persuasion more when it comes from a trusted source. One teacher attributed her ability to be successful over the course of the year to simply, "Great support from fellow teachers." Others expanded on their feelings of the importance of peer feedback. "Their feedback and help has been invaluable!!! It has been more highly effective that any Educator Effectiveness components!!!" This finding from an on-summary year participant demonstrates the value that particular individual places in peer feedback, rather than the Educator Effectiveness System.

Although, some teachers indicated frustration with the system, positive administrative feedback accounted for 33% of the positive responses regarding social persuasion. Administrative feedback is built into the Educator Effectiveness System, particularly for on-summary year teachers. One teacher reflects on the value of meaningful

interactions. “I also think that it was nice to have the feedback from an evaluator this year to help me grow as an individual.” Another teacher reflects, “I was also able to have very helpful, insightful, thought-provoking, encouraging conversations with my administrators about my work - both in class and elsewhere in the school.” Teachers who experience positive administrative social persuasion, as a result of the Educator Effectiveness System, are able to use the reflection upon them to strengthen self-efficacy.

Student feedback also plays a role in building teacher self-efficacy. Danielson’s (2007) Framework for Teaching included in the Educator Effectiveness System encourages teachers to reflect on student feedback. The reports of positive experiences of social persuasion due to student feedback represented 17% of the participants’ responses. “I am proud of the relationships that I build with students. This is even more apparent when I see former students who comment on what they have learned in my class or are eager to share their current progress with me. The connections that I make with the students is what makes them more likely to succeed in my class.” This teacher reflects on the meaning of the feedback provided by students. Feedback from parents and the community is important because positive partnerships lead to higher self-efficacy (Skaalvik &Skaalvik, 2010). One teacher highlights a “Breakthroughs in communicating with difficult parents” as a major contributor to feelings of success that year. Parent and community relationships also play a role in the Framework for Teaching, as a part of the Educator Effectiveness System. The examples highlight the importance of social persuasion to self-efficacy and their inclusion in the evaluation system.

***Vicarious experiences.*** Vicarious experiences are also present within the Educator Effectiveness System, as teachers on-summary year are required to reflect on the

interactions they have with peers. The Danielson (2007) Framework for Teaching rubric includes a component regarding participating in a professional community and demonstrating professionalism, which involves peer learning and interaction. Both of the components allow the teacher to reflect on peer interactions and set goals related to the domain if necessary. Although vicarious experiences comprised a smaller proportion of the total reported positive experiences that contributed to successful experiences over the course of the year, they work in tandem with the other sources to contribute to increased self-efficacy. The majority of vicarious experiences were attributed to peer interaction. Vicarious experiences impact self-efficacy the most when an individual identifies with the person they are observing (Tschannen-Moran & Hoy, 2007). Many of the participants cited situations in which working with peers, or observing them, made them feel successful. One participant wrote, "I feel that by planning and working together, I didn't feel alone. I always had others to bounce ideas around with." This teacher identifies the experiences of working with and observing peers as helping contribute to feelings of success. Vicarious experiences defined as "other" contributed to a smaller portion of the total. For example, "I also was fortunate to work with a weekly meeting with one of our tech professionals. As I was able to feel more competent in regards to technology, I was able to relax a bit." Although some of the interactions noted may happen with our without the Educator Effectiveness System, the reflection component of the system allows educators to reflect on, internalize and make meaning of the experiences, therefore strengthening self-efficacy.

***Affective responses.*** Positive affective responses accounted for only a small portion of total positive source experiences, however, they are reflected in responses related to experiences with the Educator Effectiveness System within the other sources. Whenever a

teacher expresses a feeling of confidence, excitement, or calmness, they are demonstrating an affective response associated with the experiences. One teacher reports, "I also believe it is impacted by my confidence as a teacher." These emotional states help individuals judge their self-efficacy in a certain context (Bandura, 2012). As teachers experience positive emotions associated with the Educator Effectiveness System, self-efficacy is being strengthened. Positive affective responses are often a product of previous experiences in certain teaching contexts, and the Educator Effectiveness System presents teachers with a formal opportunity to reflect on successes.

**Negative experiences of the sources of self-efficacy.** Negative experiences of social persuasion and mastery experiences were reported most frequently as a product of the evaluation system. Vicarious experiences and affective responses also contributed to teacher self-efficacy when analyzing the reports of teachers. According to Bandura's (1989) theory negative experiences of the sources of self-efficacy can decrease an individual's self-efficacy beliefs. Therefore, it is important to explore teacher reports of negative experiences of the sources of efficacy associated with the Educator Effectiveness System. Through teacher dialogue, recommendations can be made to improve implementation of systems, as well as design of future evaluation systems.

***Mastery experiences.*** Mastery experiences have more of an impact on self-efficacy than any of the other sources (Carlton, et al., 2008). Therefore, negative mastery experiences can be especially harmful to an individual's sense of efficacy. Reported negative mastery experiences included a variety of responses associated with the Educator Effectiveness System and other constraints. One teacher states, "Students and teachers have so many demands placed on them, that the "fun" of learning is often second to the

standards required to teach, learn and assess." Negative experiences directly related to school goals or Professional Practice Goals (PPGs) and Student Learning Objectives (SLOs) accounted for nearly one-third of the reports of negative mastery experiences. One teacher states that the goal process may be unnecessary. "Honestly, I do not like the time I have to spend, not just doing EE (Educator Effectiveness), but thinking about EE (Educator Effectiveness). I am a good teacher, who reflects on her teaching and student outcomes." Reflection on student test scores or progress made up 20% of the negative mastery experiences. Most of the responses incorporated the amount of testing students are exposed to. "I get frustrated with all of the standardized testing that students have to endure. The test is given to every student at the same level where my classroom instruction is based on their ability and their need to learn. So, when I have a student that is doing well in school but bombs the test which then reflects on me....is frustrating. Why not differentiate the test, like we differentiate their learning?" A copious amount of testing often accompanies evaluation and accountability systems because teachers are required proof of student gains. Many districts require several standardized tests to monitor student progress. The teacher responses add insight into the frustrations of time, testing, and the struggle to find meaning or value in the system.

***Social persuasion.*** Working with administration is a large part of the Educator Effectiveness System, particularly for on-summary year teachers. Off-summary year teachers report more frequent and meaningful experiences of social persuasion than on-summary year teachers, even though summary year involves meetings and conferences with administrators. This outcome may be partially explained because of the source of the social persuasion involved. Of all of the reports of negative social persuasion, 71% of them

had to do with administration. Often, the comments were in regard to lack of communication. Said simply, “Admin / ESC just doesn't listen.” Many echoed the sentiment that lack of communication from administration negatively impacts how successful a year has been, or how the new evaluation system and its expectations have not been clearly explained. A smaller portion of negative social persuasion was attributed to parents and/or the community, which has a place for both positive and negative reflection in Danielson’s (2007) Framework for Teaching. One teacher states both simultaneously, as a cause for impeding on successes that year, “Poverty, rough family life, lack of parental support.” Although the comment doesn’t speak directly to the Educator Effectiveness System, the Framework for Teaching allows for reflection on this challenge, which may negatively impact self-efficacy. Students accounted for a very small proportion of negative social persuasion. Of all respondents, almost one-fifth mentioned student behaviors as a variable that hindered their feelings of success. When reflecting on these experiences, one teacher writes, “I also struggled to decide whether it was better to keep highly disruptive students in the classroom or send them out. The educator in me wants them to stay so they can learn, but when they're acting out, they're not learning and neither is anyone else.” Negative social persuasion can impede upon an individual’s feelings of success, and impact self-efficacy. The Educator Effectiveness System requires teachers to reflect on the negative experiences in order to inform future student and professional goals.

***Vicarious experiences.*** Negative vicarious experiences accounted for only 4% of total negative experiences of the sources of efficacy. A shocking 60% of them related to frustrations with the software platform of Teachscape. Many teachers consider the software a waste of time. “I feel that Teachscape is just "another thing" to spend time on

instead of focusing on my student learning." The other 40% of negative vicarious experiences were attributed to peer interactions. This educator reflects on an experience with an opportunity for a vicarious experience gone wrong. "Friday professional development has been a waste of my time. Meeting with other electives to just meet and try and help each other when I could have been working on my own lesson plans or working with other peers that teach my course." It is important for teachers to be able to have meaningful experiences observing peers. Self-efficacy will increase when individuals observe someone with whom they identify being successful, and decrease when the person perform poorly (Goddard, Hoy, & Hoy, 2004). Teachers do not seem to find value in Teachscape, and professional development must be meaningful to teachers in order for it to positively impact self-efficacy.

***Affective responses.*** Affective responses accounted for 11% of the reports of experiences that hindered feelings of success over the course of the year. Many of the responses reported were related to the stress of the new evaluation system. Prior research indicates that stress can have a negative impact on teacher self-efficacy (Klassen & Chiu, 2010). Frustration was a common emotion expressed. "The most frustrating thing was knowing my abilities as an educator and the responsibilities that are unique to our profession can not be summed up in a program to see how effective a teacher is." Another frustrated teacher stated, "I am frustrated with the time it takes to complete progress reports, the amount of grades, pieces of evidence, that it expected." Anxiety was also expressed. "I've also been anxious about being evaluated this year." These are just a few examples of negative emotions teachers associated with the Educator Effectiveness System that may negatively contribute to teacher self-efficacy.

**Danielson's Framework for Teaching provides experiences of sources.** This study confirms that there is value of including the Danielson (2007) Framework for Teaching in an evaluation or accountability system due to the presence of the four sources of efficacy within. Experiences of the four sources of efficacy predict self-efficacy, where teachers who report more frequent and valuable experiences of the sources report higher self-efficacy. The rubric includes four domains: Planning and Preparation, The Classroom Environment, Instructional Practices, and Professional Responsibilities (Danielson, 2007) (Appendix 2 & 3). The framework encourages teachers to participate in and reflect on all four sources of teacher self-efficacy. Mastery experiences are found throughout all four domains when teachers have a successful experience and acknowledge it through reflection. Social persuasion is encouraged in the rubric in many ways, including Domain 4, Professional Responsibilities. This domain allows for reflection on parent communication and community support, which are both related to high teacher self-efficacy (Skaalvik &Skaalvik, 2010; Tschannen-Moran & Woolfolk Hoy, in press). It should be noted that social persuasion differs for on-summary year teachers and off-summary year teachers, whereas off-summary year teachers report more frequent and meaningful experiences of the four sources of efficacy. Vicarious experiences are also present in Domain 4 with Participating in a Learning Community and Growing and Developing Professionally. Participating in professional development or observing teaching peers are vicarious experiences, which are positively related to self-efficacy (Goddard, et al., 2004). Participants in the study that reported more experiences of the four sources of self-efficacy reported higher teacher self-efficacy. This study confirms that Danielson's (2007) Framework for Teaching is a positive addition to any teacher accountability or evaluation

system because it encourages reflection on the experiences of the sources of self-efficacy, which positively impacts teacher self-efficacy.

## School Context

When studying any concept, it is important to consider the role of school contextual factors. This study examined collective efficacy and student demographic factors in order to identify how each uniquely contributed to teacher self-efficacy.

**The relationship between self-efficacy and collective efficacy.** Implementing a new evaluation or accountability system can be considered a challenge, and organizational effort is necessary to persist in this challenge. Schools with high collective efficacy exhibit group acceptance of challenging goals and more organizational effort (Goddard, et al., 2000). School climate is the best indicator of successful implementation of new systems. The relationship between collective efficacy and self-efficacy was confirmed in this study. When student demographic factors were controlled, teacher self-efficacy explained almost half of the variance in collective efficacy reports. As reports of teacher self-efficacy increased in a school, the collective efficacy of that school also increased. Past research supports the idea of a reciprocal relationship between the two constructs (Calik, 2012). Higher collective efficacy is indicative of many teachers with higher self-efficacy, and as the number of teachers with high self-efficacy increases, so does the collective efficacy. This finding suggests that implementation of an evaluation or accountability system that focuses on building self-efficacy can also have positive impacts on collective efficacy.

This study also examined how collective efficacy influenced the change in self-efficacy over the course of the year. In order for schools and students to reap the benefits of teachers with high collective efficacy, it would be beneficial for self-efficacy to remain

stable, or increase over the course of a school year. High collective efficacy reports predicted less change in teacher self-efficacy. The results suggested that high collective efficacy leads to more stable self-efficacy over the course of a school year. This contributes to the existing literature on the relationship between self-efficacy and collective efficacy. It can be seen as yet, another benefit to high collective efficacy in schools.

**Student demographics influence teacher self-efficacy.** The findings of this study support some of the current research, and offer new insight into relationships between student demographics and teacher self-efficacy. More economic disadvantage and more ethnic diversity positively predicted teacher self-efficacy in this study. This finding aligns with Bandura's (1993) finding that economic disadvantage positively predicted self-efficacy in schools. However, Settlage and Colleagues (2009) found no relationship between student factors like ethnicity, language, gender or socioeconomic status and teacher self-efficacy (Settlage, Southerland, Smith, & Ceglie, 2009). A high proportion of economically disadvantaged students in a school presents a set of unique challenges to teachers in that environment. Bandura (2012) suggested that self-efficacy is built through accepting challenges, and being faced with more challenges allows individuals to develop a more resilient sense of self-efficacy. The current research provides new insight into the relationship between economic disadvantage and teacher self-efficacy.

More ethnic diversity positively predicted teacher self-efficacy, and more English language learners and more special education students negatively predicted teacher self-efficacy. This finding confirms previous findings that race and ethnicity have no relationship to, or positively predicts teacher self-efficacy when socioeconomic factors are controlled (Tschannen-Moran & Woolfolk Hoy, in press; Stipek, 2012). Many teachers feel

unprepared to teach students from different cultural backgrounds (Pang & Sablan, 1998). Therefore, teaching in a school with a great deal of diversity may be considered a challenge. A higher, more resilient sense of self-efficacy is built when individuals are faced with challenges (Bandura, 2012). Lack of education or experience with students from a variety of ethnic backgrounds could negatively impact self-efficacy when teachers are working with students from a diverse population. School diversity continues to increase, so it is imperative that teachers come into the profession with knowledge of other backgrounds (Causey, et al., 2000). It is important for pre-service programs to incorporate classes that inform teachers of cultural differences in learning and development so that teachers are prepared to teach students from all ethnic backgrounds.

Higher diversity scores in schools positively predicts collective efficacy. The diversity score is composed of four student factors: more economic disadvantage, more English language learners, more ethnic diversity, and more special education students. Each school received a score between 0 and 4, depending upon how many of the diversity factors they met. The findings suggest that when a school population is composed of students with more risk factors, the collective efficacy of the staff is higher.

**Making it Meaningful: Recommendations for Implementation**

The WI Educator Effectiveness System is now in its third year of full implementation. The system is continually evolving in order to reach its intended purpose: To provide an evaluation system that has a teacher growth component, in order to allow teachers to reflect on practice, set personal goals, and work toward increasing student learning and optimizing professional practice (WI DPI, 2012). Staff education and implementation can influence how the system is received and utilized by teachers. The

following recommendations for successful implementation of new evaluation and accountability systems are based on teacher responses, as well as the study findings.

**Provide intensive training for all educators.** Individual districts were responsible for implementation of the Educator Effectiveness System. Training varied among schools, as well as among individuals. Those involved in the pilot programs experienced a much more in-depth view of the system prior to implementation. The survey responses echoed a common sentiment. One participant reports, "Teacher Effectiveness had absolutely nothing to do with our successes. It has been only one more thing to do before we can get back to actually teaching." A distinct minority of teachers felt the opposite way about the system. One teacher states, "The emphasis I put on classroom discussion comes straight from the Danielson Model. I don't think I would've realized its importance if I didn't go through EE training." One valuable takeaway is found within the contrast of responses, and the researcher experienced something very similar. When an individual is trained on how to use the Educator Effectiveness System as a platform for growth, it may become very meaningful and influence every aspect of the teaching task. The Educator Effectiveness System is extensive, and comprehensive. Therefore, teachers who have not been formally trained may feel overwhelmed and use it more as a check-off system than as a growth tool. Lack of time to complete the necessary components of the system was mentioned by over half of the participants. On-summary year teachers experienced less frequent and valuable social persuasion than off-summary year participants. Perhaps, meaningful training could streamline the evaluation system so that educators use the system as a part of their practice, rather than viewing it as an unrelated component. Time to train educators may be scarce, however, the research provides evidence that if the time is taken to help teachers

understand and utilize the system, it can become meaningful and encourage positive teacher behaviors and build teacher self-efficacy.

**Redefine the role of the coach.** Effectiveness coaches are not required, but highly recommended as a component of the Educator Effectiveness System. WI Department of Public Instruction (2013) defines the role of a coach as an individual providing local support for the EE System. Effectiveness Coaches are to support ongoing formative feedback to both evaluators and those being evaluated. If utilized correctly, the coach can provide positive social persuasion, vicarious experiences, and aid teachers as they reflect on mastery experiences. In the current study, off-summary year participants reported more frequent and valuable social persuasion. Effectiveness coaches may have contributed positively to this finding because coaches generally work with teachers considered off-summary year to support them through the system. However, open-ended responses suggest that coaches could help teachers even more by taking a more active role in the classroom. One teacher states, “Coach doesn't work with kids and could make a difference if she helped the students causing disruptions and could help the ones that are disengaged since she has many ideas.” Since the study already suggests that coaches may be positively impacting social persuasion, it could benefit all stakeholders to extend the role and involve them in the classrooms in which they are coaching. When coaches are observing teachers, encourage them to take an active role in student learning. If a coach demonstrates the behaviors that they are expecting of the teachers, they could also influence teacher self-efficacy through vicarious experiences. Districts should also select coaches that teachers have a good working relationship with. The more a teacher identifies with a coach, the more likely that person will positively impact teacher self-efficacy (Goddard, Hoy, & Hoy,

2004). By removing the evaluative component and creating a schedule that allows the coach to engage in classroom activities both students and teachers will benefit. Beyond classroom integration, providing time for teachers and coaches to meet and discuss student progress would continue to support the positive social persuasion that helps lead to higher teacher self-efficacy. If the coach is involved throughout the year, it will make conversations about teaching and student achievement more meaningful, as well as incorporate another individual, who is trained in the Educator Effectiveness System, into the learning process. As teachers work with coaches in this capacity, the demands of the system may not seem as overwhelming because they are working with an individual that can help them integrate the system into their daily practice.

**Time.** District administrators and teachers indicate that time and resource burdens are the largest barriers to successful implementation of new evaluation systems (Jones, 2015). This study confirms the need for a different approach regarding time. Over half of the participants identified lack of time as an inhibitor to feelings of success. Responses continually reflected the frustration and exhaustion experienced because of lack of time. One teacher communicates that lack of time for multiple responsibilities also impacts the students, "The amount of time spent on Educator Effectiveness and on Teachscape, and the fact that it took away from time to do things for my students (was my biggest challenge)." Lack of time due to the extensive demands of the Educator Effectiveness System may provoke stress, and greater classroom stress is related to lower self-efficacy beliefs (Klassen & Chiu, 2010). Based on the data, and the self-efficacy research, two possible approaches are recommended.

The first approach entails allotting more time within school hours for teachers' completion of Educator Effectiveness tasks. First, it is valuable to provide time for educators that is built into professional development or staff meetings to complete tasks related to the system so that it doesn't take away from teachers prep time, which is commonly used to focus on student needs. Second, it is difficult for an individual to use the Educator Effectiveness System with fidelity when they are feeling overwhelmed. It is not through experiences in isolation, but self-efficacy is built through the reflection on those experiences (Carleton, et al., 2008). Providing specific time dedicated to completion of Educator Effectiveness tasks and training on the system will benefit all. It can reduce the number of negative affective responses related to the system, and help teachers use the system in a meaningful way, which should increase positive experiences of the sources of self-efficacy.

The second recommended approach is to comprehensively train teachers on how to use the Educator Effectiveness System as a compliment to their own instructional practices, rather than as an extra task. If the evaluation system were taught to the point that it is recognized as a part of practice, there would be a true chance that teachers internalize the components and utilize it as a reflection tool to improve practice. Allotted time would still be necessary for goal setting and reflection, however much of the system could be completed as teachers participate in regular activities throughout the year. For example, teachers could set Professional Practice Goals and Student Learning Objectives after reviewing data in PLC's at the beginning of the year. Next, evidence and artifact collection becomes a part of teaching practice. With the goal in mind, teachers participate in an activity related to his or her goal and add it to their artifacts immediately. This approach

would save hours at the end of an evaluation cycle that is often spent uploading evidence, and it would be more relevant. Finally, time would be given at the end of the year to reflect on goal completion. Frontloading the system by comprehensively training teachers on how to use the system as a part of professional practice can same time, energy and frustration in the long run.

**Test less.** Frequent standardized testing is a consequence of the new evaluation and accountability systems. In order for teachers to prove that student and professional goals have been met, they often use a common district or state assessment. Therefore, students are exposed to multiple levels of testing regularly. These include classroom assessments, grade level assessments, district assessments, and state assessments. One way to add time for teaching and reflecting is through the reduction of the amount of time spent on testing. When it comes to testing students, less may be more. Teachers and students alike are overwhelmed with the amount of testing that is occurring in schools. One teacher comments, "I feel we formally assess our students too much; 3 MAPS assessments, STAR reader 5 times, 5 sessions of WI Forward test. Students seem to get burned out from all the testing." Although it is important to be able to demonstrate student growth, it is often difficult using broad, non-specific, district-level assessments. Allowing teachers to choose the tests that they feel are necessary to monitor student progress, and the frequency with which they are administered could benefit teachers and students.

The time has come to reevaluate the use of tests and streamline the process for the benefit of students. Although there is value in using multiple measures to assess student needs and progress, testing too often can burden students and teachers alike. The standardized tests are often a broad overview of content, which add little insight into

specific skill needs for remediation purposes. As a result, instead of receiving remedial instruction in a specific skill, a student is often placed in "math" help. Common grade level assessments that are analyzed with team members may provide the most pertinent information for educators. If the students are exposed to less testing, they may also find more meaning in it, and take it more seriously and teachers will have more time for creating and analyzing meaningful common assessments. Testing less can add time to classroom instruction, as well as time to evaluate student work on the classroom level. The assessments analyzed can be used within the Educator Effectiveness System as evidence of student and professional growth. Added time can also reduce negative affective responses due to stress caused by time lost to testing.

**Communicate.** Administrative leadership and communication is especially crucial to the successful implementation of new evaluation and accountability systems. Principals' instructional leadership behaviors can have positive effects on self-efficacy (Calik, Sezgin, Kavgaci, & Kilinc, 2012). This study confirms that social persuasion does impact teacher self-efficacy, however it presents differently for on-summary year teachers than off-summary year teachers. Teachers considered off-summary year reported more frequent and valuable experiences of social persuasion, even though they are required by the system to regularly meet and reflect with administrators. It is important for principals to thoroughly communicate district expectations and provide teachers with timely, meaningful feedback. One of the frustrations with the new system is that teachers aren't sure what to expect. "I think the major factor was miscommunication and misunderstanding within administration and between administration and staff. There is also a substantial difference in philosophies that hasn't been addressed." Administrators

need to be clear and concise in order for staff to understand, and be comfortable with changes. Communication of philosophies behind initiatives may aid in positive social persuasion. Also, providing timely meaningful feedback on observations will help build trust, and improve social persuasion as well. High teacher self-efficacy is associated with principals being responsive to needs, pointing out skills, and offering ways to improve (Brissie, Hoover-Dempsey & Bassler, 1988), and social persuasion from a trusted source is more likely to positively impact self-efficacy. Building relationships, providing clear expectations and feedback, and communicating with the staff regularly will positively impact implementation and teacher self-efficacy.

**Limitations**

When reviewing the results of the study, several limitations should be considered. Problematic areas may include studying a system in its early phases of implementation, a yearlong timeline looking for change in self-efficacy, sampling issues, researcher bias and the definition of school context. Each limitation, the reasoning, and any possible implications will be discussed below.

The timeliness of this study is a significant strength, as well as a limitation. When the study was conducted, the Educator Effectiveness System was in its infancy, only in the second year of full implementation statewide. Study of new accountability and evaluation systems is a moving target. Significant changes have been made to several components of the original system since the study was conducted. The changes are a product of surveys and studies such as this, which have revealed strengths and weaknesses of the system. The structure of the system remained fairly intact, with the exception of the Teachscape technology component. This presents a significant limitation to the interpretation of the

results of this study because Teachscape was studied as a source of vicarious experiences. The deletion of Teachscape demonstrates that it was deemed insufficient by the state. Therefore, it is understandable that many teachers reported negative vicarious experiences and affective responses associated with the tool. Modifications in mandates and implementation are continually evolving at the state level. Therefore, when interpreting the results of the study, it is important to consider how the evaluation system has changed over time. However, the main structure of evaluation and accountability systems being implemented across the country share many similarities to the system presented in the study.

The restricted timeline of the study presents another limitation. The study was conducted over the course of one school year. Participants were involved in the evaluation system throughout the entirety of the study in the form of on-summary year or off-summary year. It is important to note that factors outside the Educator Effectiveness System may also contribute to variations in self-efficacy. Factors such as teachers' home situations are not accounted for in the system. However, the Danielson (2007) Framework for Teaching comprehensively captures the many dimensions of the school environment and teaching task. There is also a possibility that there may be a lagged effect of summary-year participation. After participating in the summary year and having time to reflect on the sources of efficacy experienced over the summer, a teacher may have a higher sense of efficacy heading into the next school year. A crossed-lagged design is recommended for future research, in order to explore this possibility further.

Inadvertent sampling issues may have played a role in the results. Beginning teachers (0-5 years) were overrepresented in the on-summary year sample possibly due to

common district requirements. Many districts require teachers to participate in the formal evaluation process (on-summary year) for the first three years teaching. Thereafter, teachers are required to be formally evaluated only every three years. Results may have been influenced in a few ways. Previous research has shown that self-efficacy increases the most in the first few years in the teaching profession (Hoy & Spero, 2005). Also, perceptions of administrative support positively impact self-efficacy for beginning teachers, whereas veteran teachers report this support being less critical of a source of efficacy (Tschannen-Moran & Hoy, 2007). When interpreting the results, the over-representation of beginning teachers should be considered.

Possible researcher bias should be considered in this study. The researcher was involved in the Educator Effectiveness System from the very beginning within the pilot programs. Roles changed from teacher to Effectiveness Coach, and the researcher experienced the system from several vantage points. As a teacher involved in the pilot, the researcher was able to view the benefits of the system without any worry of negative repercussions. As an Effectiveness Coach, the researcher observed colleagues struggling to navigate the components of the new, time intensive system. The experiences led the researcher to explore the impacts of the new evaluation system in the second year of implementation. Although the researcher attempted to be deliberate in keeping her own experiences separate from the study, her intimate involvement with the subject matter may have influenced some of the questions and interpretations. The researcher's involvement with the Educator Effectiveness System can also be considered a considerable strength of the study. The researcher was involved in trainings from the early pilot programs that

defined the purpose of the system and allowed her to develop distinct expertise within the many facets of the evaluation system.

School context was narrowly defined in this study and included only collective efficacy and some student factors (more economic disadvantage, more English language learners, more special education students, and more ethnic diversity). These factors were chosen because prior research had investigated how they impacted teacher self-efficacy (Stipek, 2012). Within a school setting, there are a variety of factors that could be considered part of school context. School performance, staff morale, and resource availability are a just a few examples of other school contextual factors that could be explored further in order to determine variables that could influence self-efficacy. Prior research demonstrates that all of these unaccounted for factors may have a relationship with collective efficacy (Goddard & Hoy, 2004). Previous research also suggests a reciprocal relationship between self-efficacy and collective efficacy where as the number of teachers with high self-efficacy increases, so does collective efficacy, and schools with higher collective efficacy are composed of teachers with higher self-efficacy beliefs. It has been suggested that this relationship is due to the positive influence each has on the other.

**Future Research**

The findings of this study lead to more questions for examination in future research. First, the difference in reported experiences of social persuasion varying depending on summary year status merits further investigation. Second, school contextual factors, and their relationship to teacher self-efficacy and collective efficacy should continue to be studied. Details of each proposed topic will be explained further.

Off-summary year teachers in this group reported more frequent and valuable experiences of the social persuasion than on-summary year teachers. The Educator Effectiveness System is created with many experiences of social persuasion built into the on-summary year requirements, particularly with administration. Teachers cited their teaching peers as the most meaningful source of positive social persuasion, and attributed the largest percentage of negative social persuasion to administration. Future research should examine the types of social persuasion reported by peers and administration. Is the difference due to the type of feedback received, or the relationships with the people providing the feedback? Previous research suggests that when social persuasion is received from a trusted source, it is more likely to positively impact self-efficacy (Bandura, 2012). Understanding if the feedback itself, or the relationships behind the feedback impact self-efficacy more would benefit the field.

For the purposes of this study, the relationship between school factors and self-efficacy and collective efficacy were limited. School factors included only the student factors of ethnic diversity, economic disadvantage, students with disabilities, and English language learners. The factors studied confirmed that economic disadvantage and ethnic diversity positively predict self-efficacy. There are several other factors that should be examined when considering school context including school performance on state assessments, school climate, family involvement, and others. These factors may influence the way self-efficacy is reported in relation to the implementation of teacher evaluation and accountability systems. Further examination of the role of school contextual factors, and the possible influence on teacher self-efficacy within the framework of the new systems is necessary.

## Conclusion

The timeliness of this study provides a unique perspective into implications of new evaluation and accountability systems on teachers. Impacts on teacher self-efficacy are of special interest due to the extensive body of research of its positive influence on both teacher and student outcomes (eg., Caprara et al., 2006; Ashton & Webb, 1986; Moore & Esselman, 1992). The study contributes to the field of education in several ways. First, it examines the implications of new evaluation and accountability systems on teacher self-efficacy. Next, the research examines the sources of self-efficacy as they are experienced, positively and negatively, within a sample evaluation system. Finally, school context, and the relationship with teacher self-efficacy are examined and important conclusions are confirmed.

The insight into the relationship between evaluation and accountability systems and teacher self-efficacy provides meaningful implementation suggestions for school administrative teams. If systems have already been established, it is not too late to consider utilizing some of the following suggestions. Provide intensive training for all staff. Teachers not involved in the pilot process express frustration, and lack of value in the Educator Effectiveness System. The process is extensive, and it is difficult to find value in the system if an individual is attempting to learn the components while navigating the system. Providing education for all educators about the system, and how to use it will help negate frustration, and aid teachers in using the system with fidelity. Second, redefining the role of Effectiveness Coaches will better serve students and staff. Allowing coaches to demonstrate positive teaching behaviors, while team teaching with colleagues, can provide vicarious experiences and social persuasion, while simultaneously meeting student needs. Third,

provide teachers with professional development or other dedicated work time allocated only to satisfying the requirements of the Educator Effectiveness System. Negative experiences reported were often related to time constraints that impeded upon time otherwise used for improving student learning. Time dedicated only to the evaluation system will also provide educator with the opportunity to reflect on successful experiences, and improve self-efficacy. The fourth recommendation is to test less. Review the purpose of the tests that are required of students, and the frequency of their administration. Consider using common grade-level assessments as a part of the evaluation system to attain more relevant student data that can be applied into instruction immediately. Finally, communicate with teachers about the intentions of the evaluation system, and provide them with meaningful and timely feedback. Through the implementation of the recommendations, teachers will begin to create meaning out of the Educator Effectiveness System, and teacher self-efficacy will benefit.

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**Appendix A: Teacher Characteristic Survey**

# Part I: Teacher Characteristic Survey

**Directions:** Please choose the best choice or provide a response for each question. Your responses will not be shared with school administration and will be kept confidential.

1. Are you currently participating in your summary year in the WI Educator Effectiveness System? (Please circle one).

   Yes No

2. How many years have you been teaching? _____

3. Gender Identity (Circle one).

   Male Female Another

4. What is your current role in the building?

   Classroom Teacher Specialist Special Education Teacher

   Other_____

5. If you answered **Classroom Teacher**, which grade or grade levels do you currently teach?

   _____

6. If you answered **Specialist**, please select your area of specialty. (Circle one).

   Foreign Language Band/Choir/Music Art

   Physical Education Other:_____

7. Please select your highest degree attainment. (Circle one).

   Bachelor's Degree Master's Degree Doctoral Degree

8. Which race or ethnicity do you identify with? (Circle one).

   Hispanic or Latino American Indian or Alaskan Native Asian

   Black or African American Native Hawaiian or Pacific Islander White

   Other or Prefer Not to Answer

## Appendix B: Danielson Framework for Teaching Rubric Sample
## Domain 1: Planning & Preparation
### Component 1a: Demonstrating Knowledge of Content and Pedagogy
### Critical Attributes:

1.3 - The teacher can identify important concepts of the discipline and their relationships to one another.
2.3 - The teacher answers students` questions accurately and provides feedback that furthers their learning.
3.4 - The teacher`s plans demonstrate awareness of possible student misconceptions and how they can be addressed.

| Elements | 1 - Unsatisfactory | 2 - Basic | 3 - Proficient | 4 - Distinguished |
|---|---|---|---|---|
| • Knowledge of content and the structure of the discipline;<br>• Knowledge of prerequisite relationships;<br>• Knowledge of content-related pedagogy | In planning and practice, the teacher makes content errors or does not correct errors made by students. The teacher displays little understanding of prerequisite knowledge important to student learning of the content. The teacher displays little or no understanding of the range of pedagogical approaches suitable to student learning of the content. | The teacher is familiar with the important concepts in the discipline but displays a lack of awareness of how these concepts relate to one another. The teacher indicates some awareness of prerequisite learning, although such knowledge may be inaccurate or incomplete. The teacher's plans and practice reflect a limited range of pedagogical approaches to the discipline or to the students. | The teacher displays solid knowledge of the important concepts in the discipline and how these relate to one another. The teacher demonstrates accurate understanding of prerequisite relationships among topics. The teacher's plans and practice reflect familiarity with a wide range of effective pedagogical approaches in the subject. | The teacher displays extensive knowledge of the important concepts in the discipline and how these relate both to one another and to other disciplines. The teacher demonstrates understanding of prerequisite relationships among topics and concepts and understands the link to necessary cognitive structures that ensure student understanding. The teacher's plans and practice reflect familiarity with a wide range of effective pedagogical approaches in the discipline and the ability to anticipate student misconceptions. |

**Component 1b: Demonstrating Knowledge of Students**
**Critical Attributes:**

- 3 - The teacher knows, for groups of students, their levels of cognitive development.
- 3 - The teacher has a good idea of the range of interests of students in the class.
- 3 - The teacher has identified "high," "medium," and "low" groups of students within the class.
- 3 - The teacher is well informed about students` cultural heritages and incorporates this knowledge in lesson planning.
- 3 - The teacher is aware of the special needs represented by students in the class.
- 4 - The teacher seeks out information from all students about their cultural heritages.
- 4 - The teacher maintains a system of updated student records and incorporates medical and/or learning needs into lesson plans.

| Elements | 1 - Unsatisfactory | 2 - Basic | 3 - Proficient | 4 - Distinguished |
|---|---|---|---|---|
| • Knowledge of child and adolescent development;<br>• Knowledge of the learning process;<br>• Knowledge of students' skills, knowledge, and language proficiency;<br>• Knowledge of students' interests and cultural heritage;<br>• Knowledge of students' special needs | The teacher displays minimal understanding of how students learn - and little knowledge of their varied approaches to learning, knowledge and skills, special needs, and interests and cultural heritages - and does not indicate that such knowledge is valuable. | The teacher displays generally accurate knowledge of how students learn and of their varied approaches to learning, knowledge and skills, special needs, and interests and cultural heritages, yet may apply this knowledge not to individual students but to the class as a whole. | The teacher understands the active nature of student learning and attains information about levels of development for groups of students. The teacher also purposefully acquires knowledge from several sources about groups of students' varied approaches to learning, knowledge and skills, special needs, and interests and cultural heritages. | The teacher understands the active nature of student learning and acquires information about levels of development for individual students. The teacher also systematically acquires knowledge from several sources about individual students' varied approaches to learning, knowledge and skills, special needs, and interests and cultural heritages. |

**Component 1c: Setting Instructional Outcomes**

**Critical Attributes:**

- 3 - Outcomes represent high expectations and rigor.
- 3 - Outcomes are related to "big ideas" of the discipline.
- 3 - Outcomes are written in terms of what students will learn rather than do.
- 3 - Outcomes represent a range of types: factual knowledge, conceptual understanding, reasoning, social interaction, management, and communication.
- 3 - Outcomes, differentiated where necessary, are suitable to groups of students in the class.

| Elements | 1 - Unsatisfactory | 2 - Basic | 3 - Proficient | 4 - Distinguished |
|---|---|---|---|---|
| • Value, sequence, and alignment;<br>• Clarity;<br>• Balance;<br>• Suitability for diverse students | The outcomes represent low expectations for students and lack of rigor, and not all of these outcomes reflect important learning in the discipline. They are stated as student activities, rather than as outcomes for learning. Outcomes reflect only one type of learning and only one discipline or strand and are suitable for only some students. | Outcomes represent moderately high expectations and rigor. Some reflect important learning in the discipline and consist of a combination of outcomes and activities. Outcomes reflect several types of learning, but the teacher has made no effort at coordination or integration. Outcomes, based on global assessments of student learning, are suitable for most of the students in the class. | Most outcomes represent rigorous and important learning in the discipline and are clear, are written in the form of student learning, and suggest viable methods of assessment. Outcomes reflect several different types of learning and opportunities for coordination, and they are differentiated, in whatever way is needed, for different groups of students. | All outcomes represent high-level learning in the discipline. They are clear, are written in the form of student learning, and permit viable methods of assessment. Outcomes reflect several different types of learning and, where appropriate, represent both coordination and integration. Outcomes are differentiated, in whatever way is needed, for individual students. |

**Component 1d: Demonstrating Knowledge Resources**
**Critical Attributes:**

- 3 - Texts are at varied levels.
- 3 - Texts are supplemented by guest speakers and field experiences.
- 3 - The teacher facilitates the use of Internet resources.
- 3 - Resources are multidisciplinary.
- 3 - The teacher expands her knowledge through professional learning groups and organizations.
- 3 - The teacher pursues options offered by universities.
- 3 - The teacher provides lists of resources outside the classroom for students to draw on.
- 4 - The teacher facilitates student contact with resources outside the classroom.

| Elements | 1 - Unsatisfactory | 2 - Basic | 3 - Proficient | 4 - Distinguished |
|---|---|---|---|---|
| • Resources for classroom use;<br>• Resources to extend content knowledge and pedagogy;<br>• Resources for students | The teacher is unaware of resources to assist student learning beyond materials provided by the school or district, nor is the teacher aware of resources for expanding one's own professional skill. | The teacher displays some awareness of resources beyond those provided by the school or district for classroom use and for extending one's professional skill but does not seek to expand this knowledge. | The teacher displays awareness of resources beyond those provided by the school or district, including those on the Internet, for classroom use and for extending one's professional skill, and seeks out such resources. | The teacher's knowledge of resources for classroom use and for extending one's professional skill is extensive, including those available through the school or district, in the community, through professional organizations and universities, and on the Internet. |

**Component 1e: Designing Coherent Instruction**
**Critical Attributes:**

- 3 - The plan for the lesson or unit is well structured, with reasonable time allocations.
- 4 - Activities permit student choice.

| Elements | 1 - Unsatisfactory | 2 - Basic | 3 - Proficient | 4 - Distinguished |
|---|---|---|---|---|
| • Learning activities;<br>• Instructional materials and resources;<br>• Instructional groups;<br>• Lesson and unit structure | Learning activities are poorly aligned with the instructional outcomes, do not follow an organized progression, are not designed to engage students in active intellectual activity, and have unrealistic time allocations. Instructional groups are not suitable to the activities and offer no variety. | Some of the learning activities and materials are aligned with the instructional outcomes and represent moderate cognitive challenge, but with no differentiation for different students. Instructional groups partially support the activities, with some variety. The lesson or unit has a recognizable structure; but the progression of activities is uneven, with only some reasonable time allocations. | Most of the learning activities are aligned with the instructional outcomes and follow an organized progression suitable to groups of students. The learning activities have reasonable time allocations; they represent significant cognitive challenge, with some differentiation for different groups of students and varied use of instructional groups. | The sequence of learning activities follows a coherent sequence, is aligned to instructional goals, and is designed to engage students in high level cognitive activity. These are appropriately differentiated for individual learners. Instructional groups are varied appropriately, with some opportunity for student choice. |

**Component 1f: Designing Student Assessments**
**Critical Attributes:**
- 3 - All the learning outcomes have a method for assessment.
- 3 - Assessment types match learning expectations.
- 3 - Plans include formative assessments to use during instruction.

- 3 - Lesson plans indicate possible adjustments based on formative assessment data.
- 4 - Assessments provide opportunities for student choice.
- 4 - Students are actively involved in collecting information from formative assessments and provide input.

| Elements | 1 - Unsatisfactory | 2 - Basic | 3 - Proficient | 4 - Distinguished |
|---|---|---|---|---|
| • Congruence with instructional outcomes;<br>• Criteria and standards;<br>• Design of formative assessments;<br>• Use for planning | Assessment procedures are not congruent with instructional outcomes and lack criteria by which student performance will be assessed. The teacher has no plan to incorporate formative assessment in the lesson or unit. | Assessment procedures are partially congruent with instructional outcomes. Assessment criteria and standards have been developed, but they are not clear. The teacher's approach to using formative assessment is rudimentary, including only some of the instructional outcomes. | All the instructional outcomes may be assessed by the proposed assessment plan; assessment methodologies may have been adapted for groups of students. Assessment criteria and standards are clear. The teacher has a welldeveloped strategy for using formative assessment and has designed particular approaches to be used. | All the instructional outcomes may be assessed by the proposed assessment plan, with clear criteria for assessing student work. The plan contains evidence of student contribution to its development. Assessment methodologies have been adapted for individual students as the need has arisen. The approach to using formative assessment is well designed and includes student as well as teacher use of the assessment information. |

## Domain 2: The Classroom Environment

### Component 2a: Creating an Environment of Respect and Rapport

**Critical Attributes:**

3 - Talk between the teacher and students and among students is uniformly respectful.
3 - The teacher successfully responds to disrespectful behavior among students.
3 - Students participate willingly, but may be somewhat hesitant to offer their ideas in front of classmates.
3 - Students exhibit respect for the teacher.

| Elements | 1 - Unsatisfactory | 2 - Basic | 3 - Proficient | 4 - Distinguished |
|---|---|---|---|---|
| • Teacher interactions with students, including both words and actions;<br>• Student interactions with other students, including both words and actions | Patterns of classroom interactions, both between teacher and students and among students, are mostly negative, inappropriate, or insensitive to students' ages, cultural backgrounds, and developmental levels. Student interactions are characterized by sarcasm, put-downs, or conflict. The teacher does not deal with disrespectful behavior. | Patterns of classroom interactions, both between teacher and students and among students, are generally appropriate but may reflect occasional inconsistencies, favoritism, and disregard for students' ages, cultures, and developmental levels. Students rarely demonstrate disrespect for one another. The teacher attempts to respond to disrespectful behavior, with uneven results. The net result of the interactions is neutral, conveying neither warmth nor conflict. | Teacher-student interactions are friendly and demonstrate general caring and respect. Such interactions are appropriate to the ages, cultures, and developmental levels of the students. Interactions among students are generally polite and respectful, and students exhibit respect for the teacher. The teacher responds successfully to disrespectful behavior among students. The net result of the interactions is polite, respectful, and business-like, though students may be somewhat cautious about taking intellectual risks. | Classroom interactions between the teacher and students and among students are highly respectful, reflecting genuine warmth, caring, and sensitivity to students as individuals. Students exhibit respect for the teacher and contribute to high levels of civility among all members of the class. The net result is an environment where all students feel valued and are comfortable taking intellectual risks. |

**Component 2b: Establishing a Culture for Learning**
**Critical Attributes:**

- 3 - Students expend good effort to complete work of high quality.
- 3 - The teacher insists on precise use of language by students.
- 4 - The teacher communicates passion for the subject.
- 4 - The teacher conveys the satisfaction that accompanies a deep understanding of complex content.
- 4 - Students indicate through their questions and comments a desire to understand the content.
- 4 - Students assist their classmates in understanding the content.

| Elements | 1 - Unsatisfactory | 2 - Basic | 3 - Proficient | 4 - Distinguished |
|---|---|---|---|---|
| • Importance of the content and of learning;<br>• Expectations for learning and achievement;<br>• Student pride in work | The classroom culture is characterized by a lack of teacher or student commitment to learning, and/or little or no investment of student energy in the task at hand. Hard work and the precise use of language are not expected or valued. Medium to low expectations for student achievement are the norm, with high expectations for learning reserved for only one or two students. | The classroom culture is characterized by little commitment to learning by the teacher or students. The teacher appears to be only "going through the motions," and students indicate that they are interested in the completion of a task rather than the quality of the work. The teacher conveys that student success is the result of natural ability rather than hard work, and refers only in passing to the precise use of language. High expectations for learning are reserved for those students thought to have a natural aptitude for the subject. | The classroom culture is a place where learning is valued by all; high expectations for both learning and hard work are the norm for most students. Students understand their role as learners and consistently expend effort to learn. Classroom interactions support learning, hard work, and the precise use of language. | The classroom culture is a cognitively busy place, characterized by a shared belief in the importance of learning. The teacher conveys high expectations for learning for all students and insists on hard work; students assume responsibility for high quality by initiating improvements, making revisions, adding detail, and/or assisting peers in their precise use of language. |

**Component 2c: Managing Classroom Procedures**
**Critical Attributes:**

- 3 - Students are productively engaged during small-group or independent work.
- 3 - Transitions between large- and small-group activities are smooth.
- 3 - Routines for distribution and collection of materials and supplies work efficiently.
- 3 - Classroom routines function smoothly.
- 3 - Volunteers and paraprofessionals work with minimal supervision.

| Elements | 1 - Unsatisfactory | 2 - Basic | 3 - Proficient | 4 - Distinguished |
|---|---|---|---|---|
| • Management of instructional groups;<br>• Management of transitions;<br>• Management of materials and supplies;<br>• Performance of classroom routines | Much instructional time is lost due to inefficient classroom routines and procedures. There is little or no evidence of the teacher's management of instructional groups and transitions and/or handling of materials and supplies effectively. There is little evidence that students know or follow established routines, or that volunteers and paraprofessionals have clearly defined tasks. | Some instructional time is lost due to partially effective classroom routines and procedures. The teacher's management of instructional groups and transitions, or handling of materials and supplies, or both, are inconsistent, leading to some disruption of learning. With regular guidance and prompting, students follow established routines, and volunteers and paraprofessionals perform their duties. | There is little loss of instructional time due to effective classroom routines and procedures. The teacher's management of instructional groups and transitions, or handling of materials and supplies, or both, are consistently successful. With minimal guidance and prompting, students follow established classroom routines, and volunteers and paraprofessionals contribute to the class. | Instructional time is maximized due to efficient and seamless classroom routines and procedures. Students take initiative in the management of instructional groups and transitions, and/or the handling of materials and supplies. Routines are well understood and may be initiated by students. Volunteers and paraprofessionals make an independent contribution to the class. |

**Component 2d: Managing Student Behavior**
**Critical Attributes:**

- 3 - Standards of conduct appear to have been established and implemented successfully.
- 3 - The teacher`s response to student misbehavior is effective.
- 4 - The teacher silently and subtly monitors student behavior.
- 4 - Students respectfully intervene with classmates at appropriate moments to ensure compliance with standards of conduct.

| Elements | 1 - Unsatisfactory | 2 - Basic | 3 - Proficient | 4 - Distinguished |
|---|---|---|---|---|
| • Expectations;<br>• Monitoring student behavior;<br>• Response to student misbehavior | There appear to be no established standards of conduct, or students challenge them. There is little or no teacher monitoring of student behavior, and response to students' misbehavior is repressive or disrespectful of student dignity. | Standards of conduct appear to have been established, but their implementation is inconsistent. The teacher tries, with uneven results, to monitor student behavior and respond to student misbehavior. | Student behavior is generally appropriate. The teacher monitors student behavior against established standards of conduct. Teacher response to student misbehavior is consistent, proportionate, and respectful to students and is effective. | Student behavior is entirely appropriate. Students take an active role in monitoring their own behavior and/or that of other students against standards of conduct. Teacher monitoring of student behavior is subtle and preventive. The teacher's response to student misbehavior is sensitive to individual student needs and respects students' dignity. |

**Component 2e: Organizing Physical Space**
**Critical Attributes:**

- 3 - The classroom is safe, and all students are able to see and hear the teacher or see the board.
- 3 - The classroom is arranged to support the instructional goals and learning activities.
- 3 - The teacher makes appropriate use of available technology.
- 4 - Modifications are made to the physical environment to accommodate students with special needs.
- 4 - There is total alignment between the learning activities and the physical environment.

| Elements | 1 - Unsatisfactory | 2 - Basic | 3 - Proficient | 4 - Distinguished |
|---|---|---|---|---|
| • Safety and accessibility;<br>• Arrangement of furniture and resources | The classroom environment is unsafe, or learning is not accessible to many. There is poor alignment between the arrangement of furniture and resources, including computer technology, and the lesson activities. | The classroom is safe, and essential learning is accessible to most students. The teacher makes modest use of physical resources, including computer technology. The teacher attempts to adjust the classroom furniture for a lesson or, if necessary, to adjust the lesson to the furniture, but with limited effectiveness. | The classroom is safe, and students have equal access to learning activities; the teacher ensures that the furniture arrangement is appropriate to the learning activities and uses physical resources, including computer technology, effectively. | The classroom environment is safe, and learning is accessible to all students, including those with special needs. The teacher makes effective use of physical resources, including computer technology. The teacher ensures that the physical arrangement is appropriate to the learning activities. Students contribute to the use or adaptation of the physical environment to advance learning. |

## Domain 3: Instruction

### Component 3a: Communicating with Students

**Critical Attributes:**

- 3 - The teacher states clearly, at some point during the lesson, what the students will be learning.
- 3 - The teacher`s explanation of content is clear and invites student participation and thinking.
- 3 - The teacher`s vocabulary and usage are correct and entirely suited to the lesson, including, where appropriate, explanations of academic vocabulary.
- 3 - The teacher`s vocabulary is appropriate to students` ages and levels of development.
- 4 - The teacher explains content clearly and imaginatively, using metaphors and analogies to bring content to life.
- 4 - The teacher points out possible areas for misunderstanding.

| Elements | 1 - Unsatisfactory | 2 - Basic | 3 - Proficient | 4 - Distinguished |
|---|---|---|---|---|
| • Expectations for learning;<br>• Directions for activities;<br>• Explanations of content;<br>Use of oral and written language | The instructional purpose of the lesson is unclear to students, and the directions and procedures are confusing. The teacher's explanation of the content contains major errors and does not include any explanation of strategies students might use. The teacher's spoken or written language contains errors of grammar or syntax. The teacher's academic vocabulary is inappropriate, vague, or used incorrectly, leaving students confused. | The teacher's attempt to explain the instructional purpose has only limited success, and/or directions and procedures must be clarified after initial student confusion. The teacher's explanation of the content may contain minor errors; some portions are clear, others difficult to follow. The teacher's explanation does not invite students to engage intellectually or to understand strategies they might use when working independently. The teacher's spoken language is correct but | The instructional purpose of the lesson is clearly communicated to students, including where it is situated within broader learning; directions and procedures are explained clearly and may be modeled. The teacher's explanation of content is scaffolded, clear, and accurate and connects with students' knowledge and experience. During the explanation of content, the teacher focuses, as appropriate, on strategies students can use when working independently and | The teacher links the instructional purpose of the lesson to the larger curriculum; the directions and procedures are clear and anticipate possible student misunderstanding. The teacher's explanation of content is thorough and clear, developing conceptual understanding through clear scaffolding and connecting with students' interests. Students contribute to extending the content by explaining concepts to their classmates and suggesting strategies |

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|---|---|---|---|---|
| | | uses vocabulary that is either limited or not fully appropriate to the students' ages or backgrounds. The teacher rarely takes opportunities to explain academic vocabulary. | invites student intellectual engagement. The teacher's spoken and written language is clear and correct and is suitable to students' ages and interests. The teacher's use of academic vocabulary is precise and serves to extend student understanding. | that might be used. The teacher's spoken and written language is expressive, and the teacher finds opportunities to extend students' vocabularies, both within the discipline and for more general use. Students contribute to the correct use of academic vocabulary. |



**Component 3b: Using Questioning and Discussion Techniques**
**Critical Attributes:**

- 3 - The teacher uses open-ended questions, inviting students to think and/or offer multiple possible answers.
- 3 - The teacher makes effective use of wait time.
- 3 - Discussions enable students to talk to one another without ongoing mediation by teacher.
- 3 - The teacher calls on most students, even those who don’t initially volunteer.
- 3 - Many students actively engage in the discussion.

| Elements | 1 - Unsatisfactory | 2 - Basic | 3 - Proficient | 4 - Distinguished |
|---|---|---|---|---|
| • Quality of questions/prompts;<br>• Discussion techniques;<br>• Student participation | The teacher's questions are of low cognitive challenge, with single correct responses, and are asked in rapid succession. Interaction between the teacher and students is predominantly recitation style, with the teacher mediating all questions and answers; the teacher accepts all contributions without asking students to explain their reasoning. Only a few students participate in the discussion. | The teacher's questions lead students through a single path of inquiry, with answers seemingly determined in advance. Alternatively, the teacher attempts to ask some questions designed to engage students in thinking, but only a few students are involved. The teacher attempts to engage all students in the discussion, to encourage them to respond to one another, and to explain their thinking, with uneven results. | While the teacher may use some low-level questions, he poses questions designed to promote student thinking and understanding. The teacher creates a genuine discussion among students, providing adequate time for students to respond and stepping aside when doing so is appropriate. The teacher challenges students to justify their thinking and successfully engages most students in the discussion, employing a range of strategies to ensure that most students are heard. | The teacher uses a variety or series of questions or prompts to challenge students cognitively, advance high-level thinking and discourse, and promote metacognition. Students formulate many questions, initiate topics, challenge one another's thinking, and make unsolicited contributions. Students themselves ensure that all voices are heard in the discussion. |

**Component 3c: Engaging Students in Learning**
**Critical Attributes:**

- 3 - Most learning tasks have multiple correct responses or approaches and/or encourage higher-order thinking.
- 3 - Students are invited to explain their thinking as part of completing tasks.
- 3 - Materials and resources support the learning goals and require intellectual engagement, as appropriate.

| Elements | 1 - Unsatisfactory | 2 - Basic | 3 - Proficient | 4 - Distinguished |
|---|---|---|---|---|
| • Activities and assignments;<br>• Grouping of students;<br>• Instructional materials and resources;<br>• Structure and pacing | The learning tasks/activities, materials, and resources are poorly aligned with the instructional outcomes, or require only rote responses, with only one approach possible. The groupings of students are unsuitable to the activities. The lesson has no clearly defined structure, or the pace of the lesson is too slow or rushed. | The learning tasks and activities are partially aligned with the instructional outcomes but require only minimal thinking by students and little opportunity for them to explain their thinking, allowing most students to be passive or merely compliant. The groupings of students are moderately suitable to the activities. The lesson has a recognizable structure; however, the pacing of the lesson may not provide students the time needed to be intellectually engaged or may be so slow that many students have a considerable amount of "downtime." | The learning tasks and activities are fully aligned with the instructional outcomes and are designed to challenge student thinking, inviting students to make their thinking visible. This technique results in active intellectual engagement by most students with important and challenging content, and with teacher scaffolding to support that engagement. The groupings of students are suitable to the activities. The lesson has a clearly defined structure, and the pacing of the lesson is appropriate, providing most students the time needed to be intellectually engaged. | Virtually all students are intellectually engaged in challenging content through well-designed learning tasks and activities that require complex thinking by students. The teacher provides suitable scaffolding and challenges students to explain their thinking. There is evidence of some student initiation of inquiry and student contributions to the exploration of important content; students may serve as resources for one another. The lesson has a clearly defined structure, and the pacing of the lesson provides students the time needed not only to intellectually engage with and reflect upon their learning but also to consolidate their understanding. |

**Component 3d: Using Assessment in Instruction**
**Critical Attributes:**

- 3 - The teacher makes the standards of high-quality work clear to students.
- 3 - The teacher elicits evidence of student understanding.
- 3 - Students are invited to assess their own work and make improvements; most of them do so.
- 3 - Feedback includes specific and timely guidance, at least for groups of students.

| Elements | 1 - Unsatisfactory | 2 - Basic | 3 - Proficient | 4 - Distinguished |
|---|---|---|---|---|
| • Assessment criteria;<br>• Monitoring of student learning;<br>• Feedback to students;<br>• Student self-assessment and monitoring of progress;<br>Lesson adjustment | Students do not appear to be aware of the assessment criteria, and there is little or no monitoring of student learning; feedback is absent or of poor quality. Students do not engage in self- or peer assessment. | Students appear to be only partially aware of the assessment criteria, and the teacher monitors student learning for the class as a whole. Questions and assessments are rarely used to diagnose evidence of learning. Feedback to students is general, and few students assess their own work. | Students appear to be aware of the assessment criteria, and the teacher monitors student learning for groups of students. Questions and assessments are regularly used to diagnose evidence of learning. Teacher feedback to groups of students is accurate and specific; some students engage in selfassessment. | Assessment is fully integrated into instruction, through extensive use of formative assessment. Students appear to be aware of, and there is some evidence that they have contributed to, the assessment criteria. Questions and assessments are used regularly to diagnose evidence of learning by individual students. A variety of forms of feedback, from both teacher and peers, is accurate and specific and advances learning. Students self-assess and monitor their own progress. The teacher successfully differentiates instruction |

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| | | | | to address individual students' misunderstandings. |

**Component 3e: Demonstrating Flexibility and Responsive**
**Critical Attributes:**

- 3 - The teacher incorporates students` interests and questions into the heart of the lesson.
- 3 - The teacher conveys to students that she has other approaches to try when the students experience difficulty.
- 3 - In reflecting on practice, the teacher cites multiple approaches undertaken to reach students having difficulty.
- 3 - When improvising becomes necessary, the teacher makes adjustments to the lesson.
- 4 - The teacher`s adjustments to the lesson, when they are needed, are designed to assist individual students.

| Elements | 1 - Unsatisfactory | 2 - Basic | 3 - Proficient | 4 - Distinguished |
|---|---|---|---|---|
| • Lesson adjustment;<br>• Response to students;<br>• Persistence | The teacher ignores students' questions; when students have difficulty learning, the teacher blames them or their home environment for their lack of success. The teacher makes no attempt to adjust the lesson even when students don't understand the content. | The teacher accepts responsibility for the success of all students but has only a limited repertoire of strategies to use. Adjustment of the lesson in response to assessment is minimal or ineffective. | The teacher successfully accommodates students' questions and interests. Drawing on a broad repertoire of strategies, the teacher persists in seeking approaches for students who have difficulty learning. If impromptu measures are needed, the teacher makes a minor adjustment to the lesson and does so smoothly. | The teacher seizes an opportunity to enhance learning, building on a spontaneous event or students' interests, or successfully adjusts and differentiates instruction to address individual student misunderstandings. Using an extensive repertoire of instructional strategies and soliciting additional resources from the school or community, the teacher persists in seeking effective approaches for students who need help. |

## Domain 4: Professional Responsibilities

### Component 4a: Reflecting on Teaching
**Critical Attributes:**

- 3 - The teacher accurately assesses the effectiveness of instructional activities used.
- 3 - The teacher identifies specific ways in which a lesson might be improved.

| Elements | 1 - Unsatisfactory | 2 - Basic | 3 - Proficient | 4 - Distinguished |
|---|---|---|---|---|
| • Accuracy;<br>• Use in future teaching | The teacher does not know whether a lesson was effective or achieved its instructional outcomes, or the teacher profoundly misjudges the success of a lesson. The teacher has no suggestions for how a lesson could be improved. | The teacher has a generally accurate impression of a lesson's effectiveness and the extent to which instructional outcomes were met. The teacher makes general suggestions about how a lesson could be improved. | The teacher makes an accurate assessment of a lesson's effectiveness and the extent to which it achieved its instructional outcomes and can cite general references to support the judgment. The teacher makes a few specific suggestions of what could be tried another time the lesson is taught. | The teacher makes a thoughtful and accurate assessment of a lesson's effectiveness and the extent to which it achieved its instructional outcomes, citing many specific examples from the lesson and weighing the relative strengths of each. Drawing on an extensive repertoire of skills, the teacher offers specific alternative actions, complete with the probable success of different courses of action. |

**Component 4b: Maintaining Accurate Records**
**Critical Attributes:**

- 3 - The teacher`s process for recording completion of student work is efficient and effective; students have access to information about completed and/or missing assignments.
- 3 - The teacher has an efficient and effective process for recording student attainment of learning goals; students are able to see how they`re progressing.
- 3 - The teacher`s process for recording non-instructional information is both efficient and effective.

| Elements | 1 - Understanding | 2 - Basic | 3 - Proficient | 4 - Distinguished |
|---|---|---|---|---|
| • Student completion of assignments;<br>• Student progress in learning;<br>• Noninstructional records | The teacher's system for maintaining information on student completion of assignments and student progress in learning is nonexistent or in disarray. The teacher's records for noninstructional activities are in disarray, the result being errors and confusion. | The teacher's system for maintaining information on student completion of assignments and student progress in learning is rudimentary and only partially effective. The teacher's records for noninstructional activities are adequate but inefficient and, unless given frequent oversight by the teacher, prone to errors. | The teacher's system for maintaining information on student completion of assignments, student progress in learning, and noninstructional records is fully effective. | The teacher's system for maintaining information on student completion of assignments, student progress in learning, and noninstructional records is fully effective. Students contribute information and participate in maintaining the records. |

**Component 4c: Communicating with Families**
**Critical Attributes:**

- 3 - The teacher regularly makes information about the instructional program available.
- 3 - The teacher regularly sends home information about student progress.
- 3 - The teacher develops activities designed to engage families successfully and appropriately in their children`s learning.

| Elements | 1 - Unsatisfactory | 2 - Basic | 3 - Proficient | 4 - Distinguished |
|---|---|---|---|---|
| • Information about the instructional program;<br>• Information about individual students;<br>• Engagement of families in the instructional program | The teacher provides little information about the instructional program to families; the teacher's communication about students' progress is minimal. The teacher does not respond, or responds insensitively, to parental concerns. | The teacher makes sporadic attempts to communicate with families about the instructional program and about the progress of individual students but does not attempt to engage families in the instructional program. Moreover, the communication that does take place may not be culturally sensitive to those families. | The teacher provides frequent and appropriate information to families about the instructional program and conveys information about individual student progress in a culturally sensitive manner. The teacher makes some attempts to engage families in the instructional program. | The teacher communicates frequently with families in a culturally sensitive manner, with students contributing to the communication. The teacher responds to family concerns with professional and cultural sensitivity. The teacher's efforts to engage families in the instructional program are frequent and successful. |

**Component 4d: Participating in the Professional Community**
**Critical Attributes:**

- 2 - When asked, the teacher participates in school activities, as well as district and community projects.
- 4 - The teacher takes a leadership role in promoting activities related to professional inquiry.
- 4 - The teacher regularly contributes to and leads events that positively impact school life.

| Elements | 1 - Unsatisfactory | 2 - Basic | 3 - Proficient | 4 - Distinguished |
|---|---|---|---|---|
| • Relationships with colleagues;<br>• Involvement in a culture of professional inquiry;<br>• Service to the school;<br>• Participation in school and district projects | The teacher's relationships with colleagues are negative or selfserving. The teacher avoids participation in a professional culture of inquiry, resisting opportunities to become involved. The teacher avoids becoming involved in school events or school and district projects. | The teacher maintains cordial relationships with colleagues to fulfill duties that the school or district requires. The teacher participates in the school's culture of professional inquiry when invited to do so. The teacher participates in school events and school and district projects when specifically asked. | The teacher's relationships with colleagues are characterized by mutual support and cooperation; the teacher actively participates in a culture of professional inquiry. The teacher volunteers to participate in school events and in school and district projects, making a substantial contribution. | The teacher's relationships with colleagues are characterized by mutual support and cooperation, with the teacher taking initiative in assuming leadership among the faculty. The teacher takes a leadership role in promoting a culture of professional inquiry. The teacher volunteers to participate in school events and district projects, making a substantial contribution and assuming a leadership role in at least one aspect of school or district life. |

**Component 4e: Growing and Developing Professionally**
**Critical Attributes:**

- 3 - The teacher welcomes colleagues and supervisors into the classroom for the purposes of gaining insight from their feedback.
- 3 - The teacher actively participates in organizations designed to contribute to the profession.
- 4 - The teacher seeks regular opportunities for continued professional development, including initiating action research.

| Elements | 1 - Unsatisfactory | 2 - Basic | 3 - Proficient | 4 - Distinguished |
|---|---|---|---|---|
| • Enhancement of content knowledge and pedagogical skill;<br>• Receptivity to feedback from colleagues;<br>• Service to the profession | The teacher engages in no professional development activities to enhance knowledge or skill. The teacher resists feedback on teaching performance from either supervisors or more experienced colleagues. The teacher makes no effort to share knowledge with others or to assume professional responsibilities. | The teacher participates to a limited extent in professional activities when they are convenient. The teacher engages in a limited way with colleagues and supervisors in professional conversation about practice, including some feedback on teaching performance. The teacher finds limited ways to assist other teachers and contribute to the profession. | The teacher seeks out opportunities for professional development to enhance content knowledge and pedagogical skill. The teacher actively engages with colleagues and supervisors in professional conversation about practice, including feedback about practice. The teacher participates actively in assisting other educators and looks for ways to contribute to the profession. | The teacher seeks out opportunities for professional development and makes a systematic effort to conduct action research. The teacher solicits feedback on practice from both supervisors and colleagues. The teacher initiates important activities to contribute to the profession. |

**Component 4f: Showing Professionalism**
**Critical Attributes:**

- 3 - The teacher is honest and known for having high standards of integrity.
- 3 - The teacher actively addresses student needs.
- 3 - The teacher actively works to provide opportunities for student success.
- 3 - The teacher complies completely with district regulations.

| Elements | 1 - Unsatisfactory | 2 - Basic | 3 - Proficient | 4 - Distinguished |
|---|---|---|---|---|
| • Integrity and ethical conduct;<br>• Service to students; Advocacy;<br>• Decision making;<br>• Compliance with school and district regulations | The teacher displays dishonesty in interactions with colleagues, students, and the public. The teacher is not alert to students' needs and contributes to school practices that result in some students being ill served by the school. The teacher makes decisions and recommendations that are based on self-serving interests. The teacher does not comply with school and district regulations. | The teacher is honest in interactions with colleagues, students, and the public. The teacher's attempts to serve students are inconsistent, and unknowingly contribute to some students being ill served by the school. The teacher's decisions and recommendations are based on limited though genuinely professional considerations. The teacher must be reminded by supervisors about complying with school and district regulations. | The teacher displays high standards of honesty, integrity, and confidentiality in interactions with colleagues, students, and the public. The teacher is active in serving students, working to ensure that all students receive a fair opportunity to succeed. The teacher maintains an open mind in team or departmental decision making. The teacher complies fully with school and district regulations. | The teacher can be counted on to hold the highest standards of honesty, integrity, and confidentiality and takes a leadership role with colleagues. The teacher is highly proactive in serving students, seeking out resources when needed. The teacher makes a concerted effort to challenge negative attitudes or practices to ensure that all students, particularly those traditionally underserved, are honored in the school. The teacher takes a leadership role in team or departmental decision making and helps ensure that such decisions are based on the highest professional standards. The teacher complies fully with school and district regulations, taking a leadership role with colleagues. |

**Appendix C: The Four Sources of Self-Efficacy within Danielson's Framework for Teaching**

| | **DOMAIN 1: PLANNING AND PREPARATION** | | **DOMAIN 2: CLASSROOM ENVIRONMENT** |
|---|---|---|---|
| ME | 1a Demonstrating Knowledge of Content and Pedagogy | ME, SP, AR | 2a Creating an Environment of Respect and Rapport |
| ME | 1b Demonstrating Knowledge of Students | ME, AR | 2b Establishing a Culture for Learning |
| ME | 1c Setting Instructional Outcomes | ME, AR | 2c Managing Classroom Procedures |
| ME | 1d Demonstrating Knowledge of Resources | ME, AR | 2d Managing Student Behavior |
| ME | 1e Designing Coherent Instruction | ME | 2e Organizing Physical Space |
| ME | 1f Designing Student Assessments | | |
| | **DOMAIN 3: INSTRUCTION** | | **DOMAIN 4: PROFESSIONAL RESPONSIBILITIES** |
| ME, SP, AR | 3a Communicating with Students | ME, SP, AR | 4a Reflecting on Teaching |
| ME, AR | 3b Using Questioning and Discussion Techniques | ME | 4b Maintaining Accurate Records |
| ME, SP, AR | 3c Engaging Students in Learning | ME, SP, AR | 4c Communicating with Families |
| ME, AR | 3d Using Assessment in Instruction | ME, SP, VE, AR | 4d Participating in the Professional Community |
| ME, AR | 3e Demonstrating Flexibility and Responsiveness | ME, SP, VE, AR | 4e Growing and Developing Professionally |
| | | ME, SP, VE, AR | 4f Showing Professionalism |

ME= Mastery Experiences, SP= Social Persuasion, VE= Vicarious Experiences, AR= Affective Responses

- Each experience was crafted by matching the definition of the source of efficacy with the tasks involved on the rubric.
- Mastery Experiences occur when an individual reflects on success in any given task (Bandura, 2012). This warrants possible inclusion within all domains.
- Affective Responses are composed of anxiety, excitement or ease experienced, when faced with a particular task (Bandura, 2012).

**Appendix D: Teacher Sense of Efficacy Scale**

## Part II

Directions: Please indicate your opinion about each of the statements below.

| | Teacher Beliefs | How much can you do? | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Nothing | | Very Little | | Some | | Quite a Bit | | A Great Deal |
| 1. | How much can you do to get through to the most difficult students? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 2. | How much can you do to help your students think critically? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 3. | How much can you do to control disruptive behavior in the classroom? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 4. | How much can you do to motivate students who show low interest in school work? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 5. | To what extent can you make your expectations clear about student behavior? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 6. | How much can you do to get students to believe they can do well in school work? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 7. | How well can you respond to difficult questions from your students? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 8. | How well can you establish routines to keep activities running smoothly? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 9. | How much can you do to help your students value learning? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10. | How much can you gauge student comprehension of what you have taught? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 11. | To what extent can you craft good questions for your students? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 12. | How much can you do to foster student creativity? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 13. | How much can you do to get children to follow classroom rules? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 14. | How much can you do to improve the understanding of a student who is failing? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 15. | How much can you do to calm a student who is disruptive or noisy? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 16. | How well can you establish a classroom management system with each group of students? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 17. | How much can you do to adjust your lessons to the proper level for individual students? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 18. | How much can you use a variety of assessment strategies? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 19. | How well can you keep a few problem students form ruining an entire lesson? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 20. | To what extent can you provide an alternative explanation or example when students are confused? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 21. | How well can you respond to defiant students? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 22. | How much can you assist families in helping their children do well in school? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 23. | How well can you implement alternative strategies in your classroom? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 24. | How well can you provide appropriate challenges for very capable students? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

The overall self-efficacy score was obtained by the mean of the TSES. To determine the Efficacy in Student Engagement, Efficacy in Instructional Practices and Efficacy in Classroom Management subscale scores, the unweighted means of the items that load each factor were computed (Engagement: 1, 2, 4, 6, 9, 12, 14, 22; Instructional Strategies: 7, 10, 11, 17, 18, 20, 23, 24; Classroom Management: 3, 5, 8, 13, 15, 16, 19, 21

**Appendix E: Collective Efficacy Scale**

## Part III

**Directions**: Please indicate your level of agreement with each of the following statements about your school from strongly disagree to strongly agree.

| | | Strongly Disagree | Disagree | Somewhat Disagree | Somewhat Agree | Agree | Strongly Agree |
|---|---|---|---|---|---|---|---|
| 1. | Teachers in the school are able to get through to the most difficult students. | 1 | 2 | 3 | 4 | 5 | 6 |
| 2. | Teachers here are confident that they will be able to motivate their students. | 1 | 2 | 3 | 4 | 5 | 6 |
| 3. | If a child doesn't want to learn, teachers here give up. | 1 | 2 | 3 | 4 | 5 | 6 |
| 4. | Teachers here don't have the skills needed to produce meaningful student learning | 1 | 2 | 3 | 4 | 5 | 6 |
| 5. | Teachers in this school believe that every child can learn. | 1 | 2 | 3 | 4 | 5 | 6 |
| 6. | These students come to school ready to learn | 1 | 2 | 3 | 4 | 5 | 6 |
| 7. | Home life provides so many advantages that students are bound to learn. | 1 | 2 | 3 | 4 | 5 | 6 |
| 8. | Students here just aren't motivated to learn. | 1 | 2 | 3 | 4 | 5 | 6 |
| 9. | Teachers in this school do not have the skills to deal with student disciplinary problems. | 1 | 2 | 3 | 4 | 5 | 6 |
| 10. | The opportunities in this community help ensure that students will learn. | 1 | 2 | 3 | 4 | 5 | 6 |
| 11. | Learning is more difficult at this school because students are worried about their safety. | 1 | 2 | 3 | 4 | 5 | 6 |
| 12. | Drug and alcohol abuse in the community make learning difficult for students here. | 1 | 2 | 3 | 4 | 5 | 6 |

Reverse scoring was used for items 3, 4, 8, 9, 11, 12. Next, the mean score was computed for each of the twelve items, where the individual scores for all teachers in that school was summed and divided by the number of participating teachers in that school. This will produce the mean score for each item. Finally, the average scores for each of the 12 items

will be summed and divided by 12. The resulting school collective efficacy score will be between 1 and 6.

**Appendix F: Efficacy Source Reflection**

Sources of Teacher Self-Efficacy Scale – Administered on Qualtrics
The following questions ask you to first identify how much you used certain components of the educator effectiveness system this year, then rate the effectiveness of that component in promoting your teaching success this year.

| | How much did you use _____ to reflect on your professional practice this year? | | | | How effective was _____ in helping you reflect on your teaching success and overall effectiveness this year? | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Often | Sometimes | Seldom | Never | Highly Effective | Effective | Somewhat effective | Not Very Effective | Not at all Effective | N/A |
| 1. Student feedback | 4 | 3 | 2 | 1 | 5 | 4 | 3 | 2 | 1 | |
| 2. Daniels on Framework for Teaching | 4 | 3 | 2 | 1 | 5 | 4 | 3 | 2 | 1 | |
| 3. PPG | 4 | 3 | 2 | 1 | 5 | 4 | 3 | 2 | 1 | |
| 4. SLO | 4 | 3 | 2 | 1 | 5 | 4 | 3 | 2 | 1 | |
| 5. Feedback from observations or walk-throughs | 4 | 3 | 2 | 1 | 5 | 4 | 3 | 2 | 1 | |
| 6. Professional development conducted by a teaching peer | 4 | 3 | 2 | 1 | 5 | 4 | 3 | 2 | 1 | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 7. Meetings with coach | 4 | 3 | 2 | 1 | 5 | 4 | 3 | 2 | 1 | |
| 8. Meetings with evaluator (If on summary year) | 4 | 3 | 2 | 1 | 5 | 4 | 3 | 2 | 1 | |
| 9. The "Learn" section of Teachscape | 4 | 3 | 2 | 1 | 5 | 4 | 3 | 2 | 1 | |
| 10. Meetings or conversations with teaching colleagues | 4 | 3 | 2 | 1 | 5 | 4 | 3 | 2 | 1 | |
| 11. Professional development opportunities | 4 | 3 | 2 | 1 | 5 | 4 | 3 | 2 | 1 | |
| 12. Observing your teaching peers | 4 | 3 | 2 | 1 | 5 | 4 | 3 | 2 | 1 | |
| | How often did _____ impact your professional practice this year? | | | | How did _____ impact your perception of your teaching success and overall effectiveness this year? | | | | | |
| | Often | Sometimes | Seldom | Never | Highly Impactful | Impactful | Somewhat Impactful | Not Very Impactful | Not at all Impactful | N/A |
| 13. Stress related to the Educator | 4 | 3 | 2 | 1 | 5 | 4 | 3 | 2 | 1 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Effectiveness system | | | | | | | | | |
| 14. Lack of time due to added Educator Effectiveness responsibilities | 4 | 3 | 2 | 1 | 5 | 4 | 3 | 2 | 1 |
| 15. Anxiety provoked by observations involved with the Educator Effectiveness system | 4 | 3 | 2 | 1 | 5 | 4 | 3 | 2 | 1 |

For the final questions, please reflect on your experiences during the past year. Include as many specific details as possible.

1) Thinking back over the past academic year, what were some of the things you felt most good about or most successful at? These can be related to student outcomes, professional responsibilities, or other aspects of the year that you enjoyed or celebrated.
2) What factors do you think contributed to the positive experiences you named above?
3) Thinking back over the past academic year, what were some of the aspects of the year that you felt most negatively about or that you felt were most difficult? These can be related to student outcomes, professional responsibility, or other aspects of the year that you did not enjoy, felt were difficult, or places where you experienced struggle/frustration, etc.
4) What factors do you think contributed to the negative experiences you named above?

Summary Year Participants Only:

5) Did you feel being on your summary year influenced your experience as a teacher this academic year positively, negatively, or neither? What experiences made you feel that way?

| | Part of Evaluation Model | Traditional Methods |
|---|---|---|
| Mastery Experiences | 2, 3, 4 | |
| Vicarious Experiences | 6, 9, 12 | |
| Social Persuasion | 5, 7, 8 | 1, 10, 11 |
| Affective Responses | 13, 14, 15 (Reverse Code) | |

## Appendix G: Coding for Open-Ended Questions

**Efficacy Source Reflection Coding Scheme (Positive Experiences)**

| CATEGORIES | SUBCATEGORIES | CHARACTERISTICS |
|---|---|---|
| **1. Mastery Experiences**<br><br>*Experiences that enhance the feelings of success in teaching. Participant reports events or experiences that are evidence of the teacher's abilities.* | 11. Student growth, test scores or performance | Reports involving increased student test scores or cite increased student performance |
| | 12. Goal attainment related to Educator Effectiveness System or School Goals | Reports involving positive review/score in evaluation system, successful ppg (professional practice goal) completion, successful slo (student learning objective) completion, met goals related to EE system, met school/district level goals, Danielson Model, etc. |
| | 13. Other | Other reports of experiences that enhance feelings of success |
| **2. Vicarious Experiences (modeling)**<br><br>*Observing someone succeed in a similar situation. Reports of learning from others' modeling* | 21. Peers | Reports of observing peer's class, collaboration with peers, team teaching, professional development taught by peers, etc. |
| | 22. Evaluation Component (Teachscape) | Watching the "learn" section of Teachscape, other reports directly related to EE system, etc. |
| | 23. Other | Other reports of observations that improved teacher's sense of success, not included with peers or evaluation model. Professional development sought by educator – continuing education, etc. |
| **3. Social Persuasion**<br><br>*Verbal persuasion that comes from others that* | 31. Administration | Administrative support, evaluator feedback, positive feedback from observations, positive coach feedback or support, positive training or professional development experiences, etc. |
| | 32. Peers | Peer support, teachers giving encouragement or positive feedback, etc. |
| | 33. Students | Students reported positive experiences in teacher's class, etc. |

| | | |
|---|---|---|
| *improves a teacher's perception of successes. Reports of feedback from others.* | 34. Parents/Community | Positive feedback or encouragement from parents/community, etc. |
| | 35. Other | Other encouragement or feedback |
| **4. Affective Responses (physiological factors)**<br><br>*Reports of positive emotional states that may influence the perception of one's abilities* | 41. All Positive Affective | Excitement about observations, enthusiasm about the feedback system, etc. |
| **5. Other** | 51. | Positive reports that do not reflect any of the above four sources of self-efficacy |

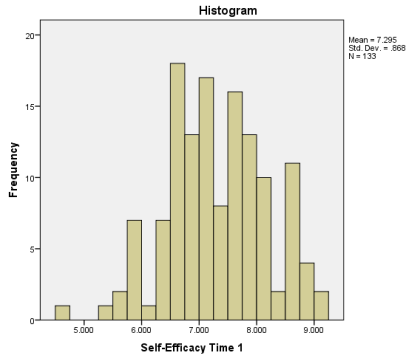


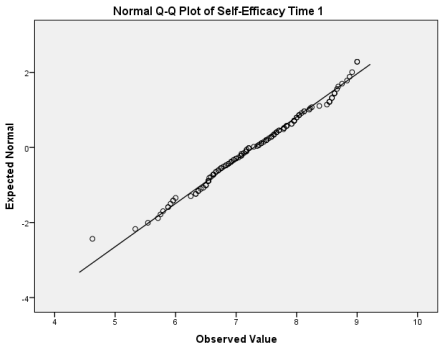
**Efficacy Source Reflection Coding Scheme (Negative Experiences)**

| CATEGORIES | SUBCATEGORIES | CHARACTERISTICS |
|---|---|---|
| **901. Mastery Experiences**<br><br>*Experiences that diminish feelings of success in teaching. Participant reports events or experiences that make the teacher feel less success* | 911. Student test scores or performance | Reports involving decreased student test scores or cite decreased student performance |
| | 912. Goal attainment related to Educator Effectiveness System or School Goals | Reports involving negative review/score in evaluation system, failure to meet goals, unsuccessful ppg (professional practice goal) completion, unsuccessful slo (student learning objective) completion, did not meet goals related to EE system or school/district level goals, etc. |
| | 913. Other | Other reports of experiences that diminish feelings of success |
| **902. Vicarious** | 921. Peers | Reports of lacking opportunity to observe peer's class, unsuccessful |

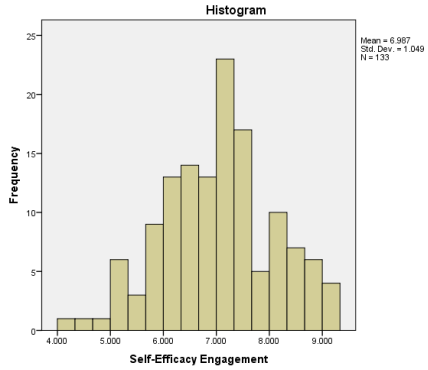
| | | |
|---|---|---|
| **Experiences (modeling)**<br><br>*Observing someone struggle in a similar situation, or lack of opportunity to observe.* | | collaboration with peers, negative team teaching, professional development taught by peers not found meaningful, etc. |
| | 923. Evaluation Component (Teachscape) | Negative experience with watching the "learn" section of Teachscape, other negative reports directly related to EE system, etc. |
| | 924. Other | Other reports of observations that diminished teacher's sense of success, not included with peers or evaluation model. |
| **903. Social Persuasion**<br><br>*Verbal persuasion that comes from others that worsens a teacher's perception of successes. Reports of feedback from others.* | 931. Administration | Lack of administrative support, negative evaluator feedback, negative feedback from observations, negative coach feedback or lack of support, lack of training or professional development experiences related to EE system, etc. |
| | 932. Peers | Lack of peer support, teachers discouraging or giving negative feedback, etc. |
| | 933. Students | Students reported negative experiences in teacher's class, etc. |
| | 934. Parents/Community | Negative parent feedback or parents/community complaints, etc. |
| | 935. Other | Other discouragement or negative feedback |
| **904. Affective Responses (physiological factors)**<br><br>*Reports of negative emotional states that may influence the perception of one's abilities* | 914. All Negative Affective | Stress, fatigue, anxiety etc. associated with evaluation or EE system. |
| **905. Other** | 915. | Negative reports that do not reflect any of the above four sources of self-efficacy |

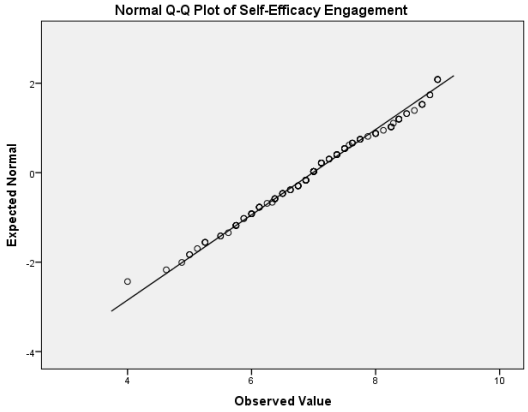
Appendix H
Histograms and Normal Q-Q Plots for TSES (H1)
Self-Efficacy Time 1



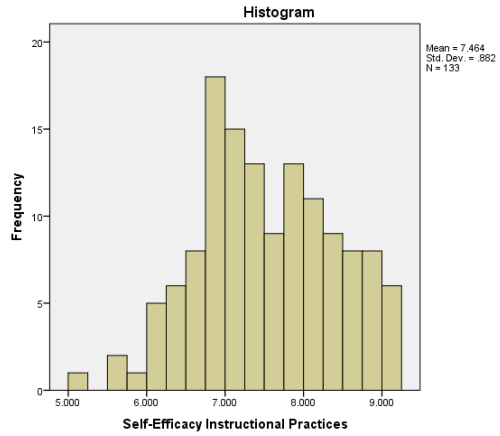



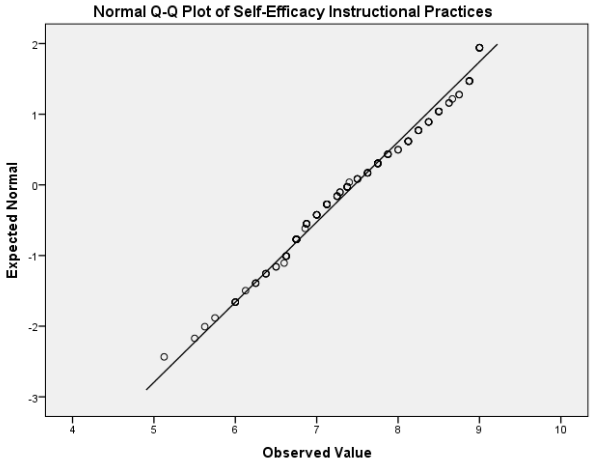

T1 Engagement



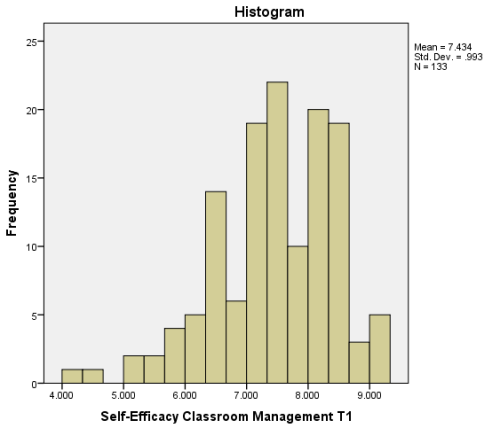



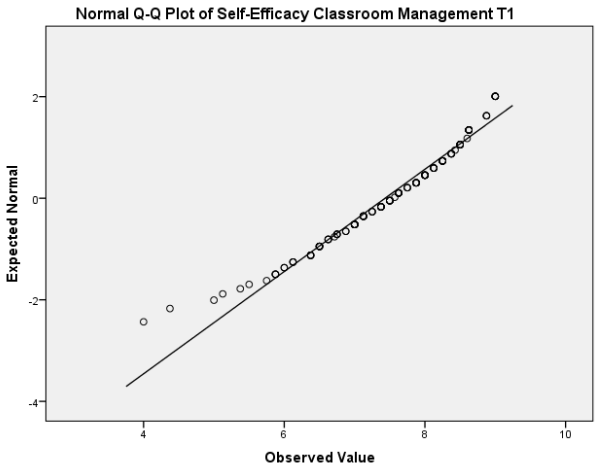

T1 Instructional Practices



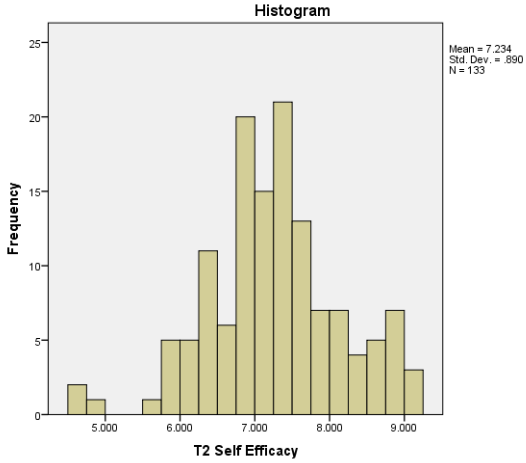



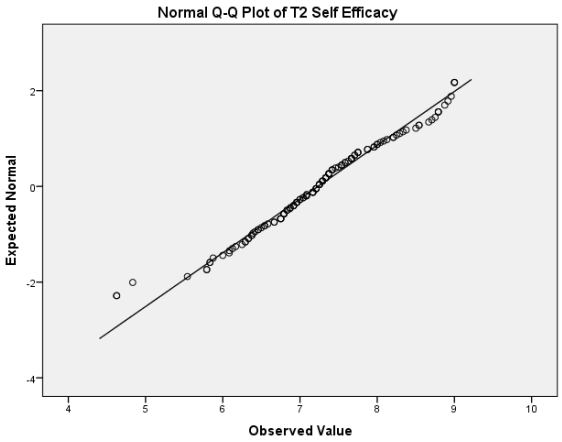

T1 Classroom Management



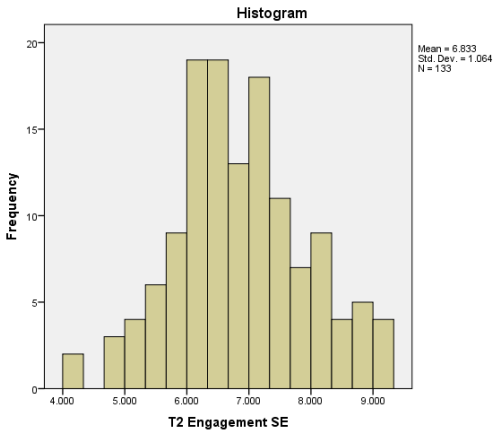



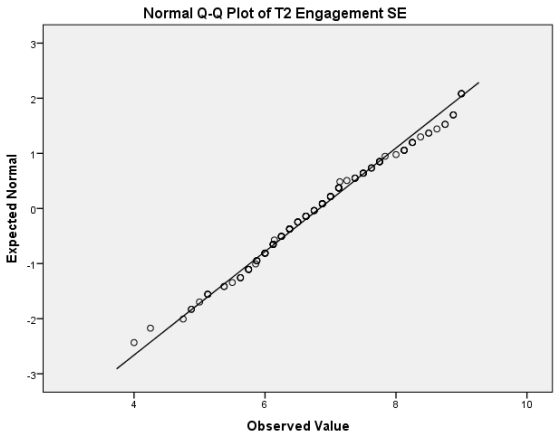

T2 TSES



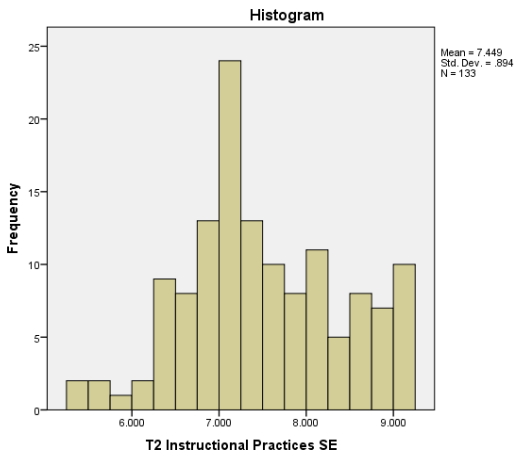



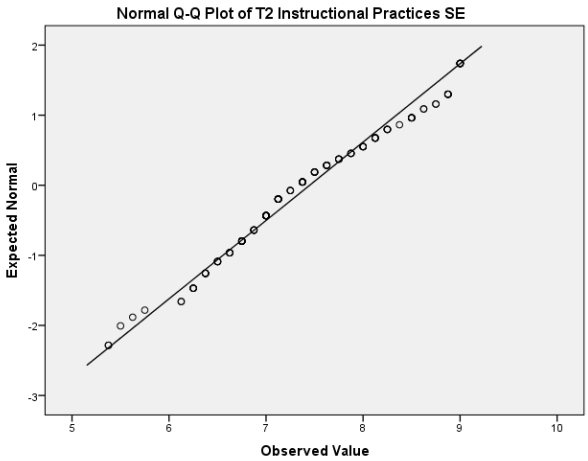

T2 Engagement



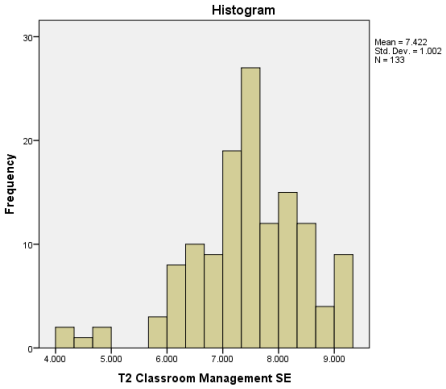



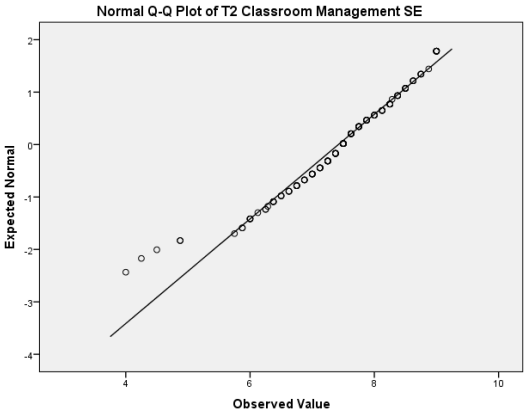

T2 Instructional Practices




## T2 Classroom Management



CURRICULUM VITAE

**Charisse Ann Hoffman Kroner**

## Education

**PhD. Educational Psychology – Learning and Development** **Expected 05/2017**
University of Wisconsin – Milwaukee, Milwaukee, WI
*Dissertation Title*: "The Relationship between teacher accountability measures and self-efficacy."
*Advisor*: Jacquelyn Nguyen

**M.A. Master of Education** **08/2007**
Cardinal Stritch University, Milwaukee, WI

**B.S. Elementary Education 1-9, Minor: Social Sciences** **12/2003**
University of Wisconsin – Platteville, Platteville, WI

## Research Interests

- Investigations to improve teacher effectiveness through support of self-efficacy and positive implementation of teacher accountability measures.

## Research Experience

**Graduate Research Assistant** **Fall 2013 – Present**
*Department of Educational Psychology, University of Wisconsin – Milwaukee*

- Use coding techniques to categorize qualitative data for a longitudinal study about ethnic identity and college transition
- Performed statistical operations on the data in SPSS and SAS including multiple regression models
- Collaborate and coordinate with faculty and fellow graduate students across departments

## Teaching and Mentoring Experience

**Guest Lecturer, Introduction to Learning and Development** **Spring 2015 – Present**
*University of Wisconsin – Milwaukee*

- Prepared and administered engaging lectures to 15 – 20 undergraduate students

**Educator Effectiveness Coach** **Fall 2014 – Present**
*Swallow School District, Hartland, WI*

- Supported teachers in the implementation of the new WI DPI teacher evaluation system.
- Developed and administered staff training while creating resources to help staff become familiar with new procedures

**Sixth Grade Teacher** **Fall 2008 – Present**
*Swallow School District, Hartland, WI*

- Worked with a team to review and design curriculum for literacy, math, and social studies.
- Created and administered engaging curriculum with sixth grade students in the areas of literacy, math, and social studies.
- Integrated STEM into the core subject areas.

- Structured student-created personalized learning goals while providing research-based interventions to students with needs identified according to school and classroom assessments.

## Teaching and Mentoring Experience Continued

**First/Fifth Grade Teacher** **08/07 – 08/08**

*Swallow School District, Hartland, WI*

- Demonstrated flexibility by focusing on balanced literacy instruction mornings with first grade and implementing an interactive science program with fifth grade in the afternoon.

**First Grade Teacher** **08/06 – 08/07**

*Swallow School District, Hartland, WI*

- Provided students with a differentiated classroom environment to administer an engaging curriculum individualized for all students.

**First Grade Teacher** **08/04 – 08/06**

*Richfield Joint School District #1, Richfield, WI*

- Led a highly structured, student-centered classroom. Used a balanced literacy approach to develop reading skills. Administered an engaging curriculum to all students, including those with special needs.

## Committees/Activities

Lead Union Negotiator, Educator Effectiveness Coach, PDP Team Member, Employee Relations Committee, FLL Robotics Coach, Volleyball Coach, Human Growth and Development Committee, Humanities Committee, Summer School Instructor.