

An Examination of Educational Non-Verbal Yardsticks Implementation (ENVoY)
and the Impact on Teacher Efficacy

by

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Abstract

Classroom Management has long been recognized as a potential problem in the educational system that deserves serious attention, as the landscape of today's classrooms continue to evolve and change as the students who are served become more culturally, academically, physically, socially, and emotionally diverse. The purpose of this correlational study was to explore the relationship between Educational Non-Verbal Yardsticks (ENVoY) implementation (independent variable) to determine if this innovation has an impact on teacher efficacy in student engagement, classroom management, and instructional strategies (dependent variables). Additionally, the study confirmed whether or not teacher efficacy is viewed the same by all teaching staff across 24 elementary schools or if there are differences based on a teacher's level of ENVoY certification and coaching. Site level ENVoY implementation was also examined to determine if teacher efficacy is impacted by the ENVoY certification level of the elementary school. To determine if a relationship exists between the variables, the district modified Teachers' Sense of Efficacy (TES) survey was administered by the district Research, Evaluation and Testing department to all licensed staff at all 24 elementary schools in the district of study, with the one-way analysis of variance (ANOVA) selected as the statistical test for each research question. The sample size was 1,182 licensed elementary teachers. There was a statistically significant difference in teacher efficacy in the areas of student engagement, instructional strategies, and classroom management for teachers who were highly implementing ENVoY and have achieved advanced certification. The data did not show a statistically significant difference between teacher efficacy in the areas of engagement, instruction, and classroom management and the number of ENVoY coaching visits that teachers participated in.

Finally, there was a statistically significant difference shown between the ENVoY certified and not certified schools. The results of this study specific to ENVoY implementation and teacher efficacy have implications for potential positive change on the individual level and organizational level. ENVoY is aligned to the Every Student Succeeds Act (ESSA) as a provision in this act is aimed at supporting and growing local innovations—including evidence-based and place-based interventions developed by local leaders and educators. Additionally, the data may inform local and national school leaders to incorporate ENVoY as an innovative school reform or improvement strategy by measuring the impact it has on staff, students, and the entire school system.

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Chapter I: Introduction

Statement of the problem

It is commonly understood that classroom management strategies are an essential component to a safe and productive learning environment, and effective implementation of these strategies has been compared to the role of an air traffic controller due to the complexities of communicating expectations for behavior and academic learning (Mundschenk, Miner, & Nastally, 2011). Creating a positive and academically rigorous learning environment requires a teacher who is able to create a strong classroom foundation, which is rooted in the ability to form positive relationships and manage the classroom in a respectful manner that embraces the rich diversity of today's urban and suburban classrooms (Jones, Jones, & Vermette, 2013). Classrooms are increasingly culturally and linguistically diverse and have a wide range of learning abilities in every class, and because most teachers are Caucasian and derive from middle-class backgrounds (Tileston & Darling, 2008), these educators may be unintentionally unaware of the needs that diverse learners require, which include the following: significant relationships, assistance with prioritizing and planning, problem solving, locus of control, ability to trust, and responding to criticism. The Teacher Supply and Demand Report (2017) provides an overview of the percentage of teachers by race/ethnicity in the state where the study was conducted (Table 1).

Table 1

District and State Percentage of Teachers by Race/Ethnicity

| Race/Ethnicity | 2014-2015 | | 2015-2016 | |
|------------------------|-----------|--------|-----------|--------|
| | District | State | District | State |
| American Indian | 0.39% | 0.43% | 0.33% | 0.41% |
| Asian/Pacific Islander | 1.39% | 1.60% | 1.45% | 1.62% |
| Hispanic | 0.54% | 1.01% | 0.68% | 1.05% |
| Black | 0.48% | 1.14% | 0.60% | 1.15% |
| White | 97.20% | 97.95% | 96.94% | 95.58% |

Retrieved from MDE Staff Demographic files and MDE Report of Teacher Supply and Demand

The analysis of peer-reviewed research clearly shows that creating a safe and nurturing classroom environment is critical to meeting the emotional, social and academic learning needs of students and that classroom management training is a key component to supporting both pre-service and in-service teachers (Emmer & Stough, 2001). Similarly, Grinder (2017) stated that, “Teachers who systematically utilize the full range of non-verbal management skills are able to reinforce consistent and fair parameters while preserving their relationship with each student, regardless of unique learning styles or cultural backgrounds” (Grinder, 2017, ¶6). It is imperative that teachers are provided with an effective classroom and behavior management program that is centered on building relationships and trust with students to support high levels of student engagement while building educators’ ability to teach high leverage instructional strategies.

Classroom management refers to an educator’s ability to establish clear classroom and behavioral expectations and routines that students consistently follow and also includes the ability to support struggling or disruptive students in a calm and supportive manner. Marzano, Marzano, and Pickering, (2003) stated that effective teachers are able to make knowledgeable

decisions regarding effective instruction and strategies, understand and implement curricula to support student learning, and utilize effective classroom management methods. Marzano et al.'s research showed that students in the classes of the most effective teachers demonstrated four times the gains of the students in the least effective teacher's classroom. Over the course of one school year, highly effective teachers can expect to see a student achievement gain of 53 percentile points, while a least effective teacher is expected to see an increase of 14 percentile points (Marzano et al. 2003). This meta-analysis conducted by Marzano et al. (2003) demonstrates that optimized learning occurs in the presence of a calm and safe classroom environment which values all students as member of the learning community while fostering risk taking and academic growth.

The ENVoY classroom management framework is centered on building relationships and trust, fostering independence and responsibility, and responding to students using influence instead of power (Grinder, 1993). Developed by Michael Grinder in 1993, ENVoY was created after researching over 5,000 classrooms world-wide in order to establish effective patterns of non-verbal communication. The clear patterns that successful teachers demonstrated became the Seven Gems of ENVoY, which include the following: Freeze Body, Above Pause Whisper, Raise Your Hand vs. Speak Out, Exit Directions, Most Important Twenty Seconds, Off/Neutral/On, and the Influence Approach. Grinder (1993) has also developed a professional development model that is committed to "reversing the trend of over-training and under-implementing" through a coaching model that allows the practitioner to receive refinements and suggestions that can be immediately implemented. Additionally, the ENVoY certification protocols developed by Burns, Brickman, and Grinder (2013) enable staff to clearly understand the verbal and non-verbal communication strategies that support consistent communication

during the four phases of the teaching lesson: getting attention, teaching, transition, and seatwork.

Grinder, Burns and Brickman (2017) have created ENVoY certification requirements that support teachers with clarity around the certification criteria processes aligned to various individual (Tables 2 and 3) and school level certifications (Tables 4 and 5).

Table 2

ENVoY Gems and Requirements for Whole Group Certification

| ENVoY Gem/Strategy | Teacher Requirements |
|-------------------------------|---|
| Freeze Body | <ul style="list-style-type: none"> • Still • Quiet • Demonstrating high expectations • May have attention getting location • Settle before speaking |
| Above Pause Whisper | <ul style="list-style-type: none"> • Able to listen to the collective volume of the group • Use voice or other sound or large non-verbal signal which is above the collective volume (or outside the norm) of the group • Option to use stair step down technique as the above • Wait for the groups' attention • Transition to teaching with a whisper |
| Raise Your Hand | <ul style="list-style-type: none"> • Able to effectively use a non-verbal signal to communicate when and how (mode of interaction) students should respond • Able to respond to students when they are operating outside of the expected mode to non-verbally redirect students in a way that preserves relationship and maintains the momentum of the lesson |
| Exit Directions | <ul style="list-style-type: none"> • Able to display information and directions visually including the directions for the task, where to put the work when finished and what to do when finished to maintain productivity and independence |
| Most Important Twenty Seconds | <ul style="list-style-type: none"> • After reviewing exit directions, the teacher must be able to ask for clarifying questions, record pertinent information and communicate non-verbally or verbally for students to begin • Stand in high expectations and stay still until students are engaged in the work • Use non-verbal signals during Most Important the Twenty Seconds |

| | |
|--|---|
| Influence Approach and Off/Neutral/On | <ul style="list-style-type: none"> • Approach a student slowly when using proximity • Approach from the side • Able to transition to influence after getting attention • Remain with off-task student using influence while they shift from neutral to on-task and momentum • Able to exit slowly to maintain student productivity |
|--|---|

Note. Adapted from “ENVoY: Your Personal Guide to Classroom Management,” by M. Grinder, 2013.

ENVoY whole group certification (Table 3) is a prerequisite to beginning the journey of becoming an ENVoY demonstration teacher. The demonstration certification criteria (Table 3) is more challenging than the standard certification and involves more rigorous levels of implementation which includes advanced coursework, multiple evaluations with groups of observers, the ability to demonstrate specialty skills, the least recommended version of two skills followed by the recommended version, the ability to effectively implement skills on demand and successfully completing one or more gamut goals that are assigned to individuals during this certification continuum.

Table 3

ENVoY Gems and Requirements for Demonstration Whole Group Certification

| Criteria | Teacher Requirements |
|----------------------------|---|
| Pre-requisite | <ul style="list-style-type: none"> • ENVoY Whole Group Certified • At least 4 or more additional adult observers must be present during the certification process |
| Criteria | Teacher Requirements With 4 or more visitors present |
| Consecutive Certifications | <ul style="list-style-type: none"> • Achieve 5 consecutive ENVoY certifications (see Table 1.0) from a certified ENVoY Evaluator |
| Professional Development | <ul style="list-style-type: none"> • Participated in at least one advanced ENVoY class and demonstrate evidence of implementation |
| Decontamination | <ul style="list-style-type: none"> • Successfully demonstrate the ability to connect the location of the teaching and non-verbal communication to the concept that is being discussed or taught, by physically shifting out of the teaching location for any group location in order to separate the two spaces, which allows the positive learning space to be maintained |
| Break and Breathe | <ul style="list-style-type: none"> • Successfully demonstrate the ability to shift one’s state to a more positive demeanor, which is accomplished by physically shifting out of the location in order to separate the two spaces |
| Least Recommended | <ul style="list-style-type: none"> • The ability to demonstrate the least effective way to implement 2 or more ENVoY strategies • Shift from the least recommended version of the ENVoY strategy into the recommended version after the observers have been able to see the impact |
| Specialty Skills | <ul style="list-style-type: none"> • The ability to successfully demonstrate 7 additional ENVoY Trilogy skills and all of the components that are required with each skill |
| On Demand | <ul style="list-style-type: none"> • The ability to make modifications in real time that allow the observers to see specific skills in real time |
| Gamut Goals | <ul style="list-style-type: none"> • One or more individual goals which are established and revisited by the ENVoY evaluator in order to refine their craft • Involves ENVoY session(s) to support goal attainment |

Note. Adapted from “ENVoY Demonstration Certification Binder,” by N. Burns, and J. Brickman, 2013.

Individuals who have successfully completed the ENVoY Demonstration Certification process are consistently able to implement advanced strategies that allow for increased student receptivity and engagement while fostering independence in a collaborative classroom environment. Many ENVoY demonstration teachers also support ongoing professional development for their colleagues through ENVoY Live Site Visits. ENVoY Live Site Visits are a professional development framework that provides thoughtfully planned opportunities for educators to observe high implementing ENVoY teachers in action to deepen understanding of the impact that consistent and systematic ENVoY implementation has on students and staff. ENVoY Live Site Visits simultaneously provide professional development to the educators that host the visits (Brickman & Burns, 2011).

Purpose of the Study

The purpose of this correlational study is to explore the relationship between Educational Non-Verbal Yardsticks (ENVoY) implementation (independent variable) to determine if this innovation has an impact on teacher efficacy in student engagement, classroom management and instructional strategies (dependent variables). Additionally, it will answer whether or not teacher efficacy is viewed the same by all teaching staff across 24 elementary schools or if there are differences based on a teacher's level of ENVoY certification and coaching. Site level ENVoY implementation will also be examined to determine if teacher efficacy is impacted by the ENVoY certification level of the elementary school (Table 4).

Table 4

ENVoY School Level Certification by Year in Participating Elementary Schools

| School Year | Number of ENVoY Certified Schools | Number of ENVoY Demonstration Schools |
|-------------|-----------------------------------|---------------------------------------|
| 2012-2013 | 2 | 0 |
| 2013-2014 | 3 | 0 |
| 2014-2015 | 4 | 1 |
| 2015-2016 | 6 | 1 |
| 2016-2017 | 9 | 2 |

Note. Adapted from “ENVoY Certified Schools” by J. Brickman, 2018.

Grinder, Brickman and Burns (2011) have developed the criteria to designate ENVoY Certified Schools. According to Brickman and Burns (2015), schools “earn ENVoY Certified School Status when at least 80% of the licensed staff earns individual ENVoY certification” (p. 4) with re-certification occurring each year.

Similarly, Brickman and Burns (2012) have also developed a rigorous certification criteria rubric to determine if schools meet the criteria to be classified as an ENVoY Demonstration School (Table 4). In order to meet these criteria, schools have met the criteria as an ENVoY Certified School and have also met additional criteria in the areas certification, leadership, ENVoY Trilogy Training (ENVoY, A Healthy Classroom, and A Cat in the Doghouse courses) ENVoY coaching and common spaces certifications.

Table 5

ENVoY Demonstration School Requirements

| ENVoY Focus Area | Standard Certification Criteria |
|------------------------|---|
| Certification | <ul style="list-style-type: none"> • At least 80% of the licensed staff are ENVoY certified • At least 80% of the non-licensed staff are ENVoY certified • At least 20% of the ENVoY licensed staff are demonstration teachers |
| Leadership | <ul style="list-style-type: none"> • Principal is ENVoY certified • Principal is a graduate of ENVoY Internal Coaches' Lab Week (Professional Development) • Principal is a certified ENVoY Internal coach |
| ENVoY Trilogy Training | <ul style="list-style-type: none"> • Site has a plan in place for ongoing training • School has a plan in place for new licensed staff to receive ENVoY training prior to the start of the new school year • School has a plan in place for new non-licensed staff to receive ENVoY training • 7 Gems Training: 95% of the licensed and non-licensed staff have received the ENVoY 7 Gems training |
| ENVoY Coaching | <ul style="list-style-type: none"> • Site has at least two resident ENVoY coaches • Site has at least two certified resident coaches • Resident ENVoY coach has scheduled release time for coaching • School has a plan in place for new licensed staff to be supported by an ENVoY coach • 95% of the licensed staff have participated in at least 2 ENVoY peer coaching sessions using the ENVoY peer forms or a green chair coaching session by a certified coach |
| Common Spaces | <ul style="list-style-type: none"> • Breakfast cafeteria team is certified • Lunch cafeteria team is certified • Recess team is certified |

Note. Adapted from “Demonstration School Rubric” by J. Brickman and N. Burns, 2012.

Research Questions

RQ1: What is the relationship between teacher efficacy specific to student engagement, classroom management, and instructional strategies and the level of individual ENVoY certification in elementary school settings as perceived by teachers?

RQ2: What is the relationship between teacher efficacy specific to student engagement, classroom management, and instructional strategies and teachers who receive ongoing ENVoY coaching and those who do not?

RQ3: What is the relationship between teacher efficacy specific to student engagement, classroom management, and instructional strategies and school level ENVoY implementation?

Research Hypotheses

H1o: ENVOY certified and demonstration teachers will not exhibit significantly greater positive or negative perceptions of teacher efficacy related to student engagement, classroom management, and instructional strategies than the teachers who are not certified.

H1a: ENVOY certified and demonstration teachers will exhibit significantly greater positive or negative perceptions of teacher efficacy related to student engagement, classroom management, and instructional strategies than the teachers who are not certified.

H2o: Teachers who receive ongoing ENVoY coaching will not exhibit significantly greater positive or negative perceptions of teacher efficacy related to student engagement, classroom management, and instructional strategies than the teachers who do not receive ongoing ENVoY coaching.

H2a: Teachers who receive ongoing ENVoY coaching will exhibit significantly greater positive or negative perceptions of teacher efficacy related to student engagement, classroom

management, and instructional strategies than the teachers who do not receive ongoing ENVoy coaching.

H3o: Teachers that work in certified schools and demonstration schools will not exhibit significantly greater positive or negative perceptions of teacher efficacy related to student engagement, classroom management, and instructional strategies than the teachers who work in noncertified schools.

H3a: Teachers that work in certified schools and certified demonstration schools will exhibit significantly greater positive or negative perceptions of teacher efficacy related to student engagement, classroom management, and instructional strategies than the teachers who work in noncertified schools.

Definition of Terms

Classroom Management

A teacher's ability to establish clear classroom and behavioral expectations and routines that students consistently follow while supporting struggling or disruptive students in a calm and supportive manner.

Educational Non-Verbal Yardsticks (ENVoY)

Professional development that details the patterns in classrooms and non-verbal strategies which focus on preservation of relationships while increasing student productivity and independence.

ENVoY Coaching

The process of receiving refinements and suggestions from a trained ENVoY coach with the intention of affirming the staff member's core beliefs, while incorporating specific verbal and non-verbal feedback strategies that allow for increased receptivity to feedback. ENVoY coaching may be delivered as a consultation, observation with feedback, video coaching or shadow coaching.

ENVoY Resident Coach Certification

Occurs when educators meet the certification criteria of successfully delivering specific feedback strategies which focus on increasing receptivity, reflection and increased ENVoY implementation. Coaches can be certified at the following levels: Ruby Internal Coach, Emerald Internal Coach, and Sapphire Internal Coach Advanced Certification. Re-certification is required each school year.

ENVoY Demonstration Teacher Certification

An advanced ENVoY certification process that involves consecutive certifications, successfully demonstrating specialty skills, the ability to demonstrate various skills on demand, completion of an advanced ENVoY class, effectively demonstrate the skills of Break and Breathe and Decontamination and achievement of the gamut goals which are determined by the certified ENVoY evaluator. Re-certification is required each school year.

ENVoY Demonstration School Certification

A highly rigorous and advanced certification process that occurs when the school has met all of the criteria on the ENVoY Demonstration Rubric. At least 80% of the licensed staff and 80% of the non-licensed staff are ENVoY Certified. Additionally, 20% of licensed staff must also be certified as ENVoY demonstration teachers. Common spaces, such as arrival, dismissal, recess, lunchroom and hallways must also meet the ENVoY demonstration rubric criteria. A school-wide behavior plan has been written based on the collective core beliefs that staff have specific to working with children. Building leadership must also hold ENVoY teaching and coaching certifications, attend Resident Coaches' Week Training and have an implementation plan focused on building internal coaching and training capacity at the site level. Re-certification is required each school year.

ENVoY Whole Group Certification

Whole Group ENVoY certification occurs when the teacher demonstrates proficiency of all seven ENVoY Gems including Freeze Body, Above Pause Whisper, Raise Your Hand vs. Speak Out, Exit Directions, Most Important Twenty Seconds, Influence Approach and Off/Neutral/On while being observed during one lesson. Re-certification is required each year by a certified ENVoY evaluator.

ENVoY Small Group Certification

Small Group ENVoY certification occurs when the teacher demonstrates proficiency of all seven ENVoY Gems including Freeze Body, Above Pause Whisper, Raise Your Hand vs. Speak Out, Exit Directions, Most Important Twenty Seconds, Influence Approach and Off/Neutral/On while being observed during one lesson. Additionally, the teacher also displays proficiency with implementing the Opening Visual Instructions strategy. Re-certification is required each year by a certified ENVoY evaluator.

ENVoY School Certification

Occurs when at least 80% of a school's licensed staff achieves ENVoY certification from a trained ENVoY evaluator. Re-certification is required each school year.

Instructional Strategies

A teacher's ability to respond to student questions, assess comprehension, ask questions to deepen learning, provide multiple measures of assessment and differentiate instruction to support students who require remediation and extension activities to further their learning.

Student Engagement

A teacher's ability to support each student in becoming intrinsically motivated to fully participate the learning process during the getting attention, teaching, transition and seatwork phases of each lesson.

Teacher Efficacy

A teacher's belief and ability to promote student success in the areas of student engagement, classroom management and instructional strategies.

Chapter II: Review of Literature

Classroom Management has long been recognized as a potential problem in the educational system that deserves serious attention. The landscape of today's classrooms continues to evolve and change as the students who are served become more culturally, academically, physically, socially and emotionally diverse. An increased reliance on the teacher's ability to effectively manage the classroom while maintaining high levels of instruction and student engagement has intensified the need to recognize and deal with the challenges that impact educators' overall confidence in their ability to promote student success. The following review of the literature confirms that classroom management presents problems that go beyond mere rules and consequences, discusses general solutions, and concludes that specific initiatives are needed to support the efficacy of current and future teachers.

The connection between nonverbal communication and classroom management

The research is clear and consistent in relation to the importance of non-verbal communication. Mehrabian (1980) has been cited in numerous studies related to the significance of verbal and non-verbal (body language) communication, which found that only 7% of messages are exchanged through words, with the remaining 93% exchanged by nonverbal expressions. While there is likely to be much debate about the accuracy of Mehrabian's 93% claim, it is safe to say that non-verbal communication is an essential part of what takes place in the classroom. Proactively supporting the learning environment through clear and consistent non-verbal communication, such as implementing consistent non-verbal messages and using visual supports fosters student relationships, time-on-task and student memory (Grinder, 1993; Marzano et al., 2003; Mundschenk et al., 2011;). Some researchers (Edwards, 1997; Houston, 2007) have found the use of Educational Non-Verbal Yardsticks has significantly contributed to

improved classroom management and improved learning environments. Verbal and non-verbal communication are critical components of effective classroom management strategies (Grinder, 1993; Grubaugh, 1989; Marzano et al., 2003). Recent research related to the social meaning of non-verbal communication has determined that 65% of social messages are exchanged non-verbally (Subramani, 2010). The non-verbal language of the teacher provides students with specific information relating to their individual management and disciplinary strengths and weaknesses. The non-verbal empowerment patterns that teachers employ include proximity, eye contact, silence, and explicit body language (Grubaugh, 1989; Marzano, Marzano, & Pickering, 2003). Effective non-verbal communication that focuses on using influence instead of power is the most successful in preserving relationships and fostering productivity (Grinder, 1993; Zuckerman, 2007). Managing with influence involves the teacher using less eye contact, proximity and voice volume in order to preserve the teacher-student relationship while fostering increased productivity through getting the student on task in a more respectful, calm and indirect manner (Grinder, 1993).

Shrigley (1985) explored the effectiveness of teacher intervention and student disruptions, which found that 40% of the common disruptions could be controlled with systematic non-verbal communication, while most disciplinary incidences involve verbal communication. Seaborn (1985) found that verbal communication was used in 80% of disciplinary incidents, even though non-verbal communication resulted in a more effective outcome. It is imperative that teachers understand how a student's culture may change the meaning of non-verbal messages. For example, eye contact is considered impolite in Vietnamese and American Indian Cultures and touch is unwelcomed by Asian students (Grinder,

1993; Grubaugh,1989). Teachers who are systematic with their non-verbal messages are able to communicate more effectively and efficiently with their students (Grinder, 1993).

Theoretical framework

Carl Rogers is well-known as one of the founding fathers of psychology and among the creators of the humanistic approach or person-centered approach to counseling. The following approach was developed to provide a framework to the counseling process by promoting openness, growth and change to achieve the goals of education that he believed should focus on democratic ideals. Rogers (1951) stated that education should foster students to become individuals:

who are able to take self-initiated action and to be responsible for those actions: who are capable of intelligent choice and self-direction; who are critical learners, able to evaluate the contributions made by others; who have acquired knowledge relevant to the solution of problems; who, even more importantly, are able to adapt flexibly and intelligently to new problem situations; who have internalized an adaptive mode of an approach to problems, utilizing all pertinent experience freely and creatively; who are able to cooperate effectively with others in these various activities; who work, not for the approval of others, but in terms of their own socialized purposes. (p. 387-388)

According to Gatongi (2007), Rogers's (1951) approach should be:

practical and helpful in education because it can solve some of the problems outside the curriculum faced by students. For example, it provides a way of understanding and solving issues of relationships, emotional development and ethical behavior that seem to be at the root of most of the problems and our school society at large. (p. 205)

Grinder (2015) credits his personal training with Carl Rogers in the late 1960's to learning the "non-verbal communication of empathy when we are listening: leaning towards the person, nodding our heads and making sounds when a person says important points" (Grinder, 2015, p. 86). The core components of the Roger's (1951) person-centered approach center on "empathy, congruence and unconditional positive regard" (Gatongi, 2007, p. 206), and these core beliefs align directly to Grinder's (2015) ENVoY framework which is centered on establishing positive rapport, assuming positive intent and building strong relationships. This theoretical alignment between Rogers and Grinder has influenced the design of this study, which is grounded in investigating the relationship between ENVoY implementation at the individual and school level, ENVoY coaching and teacher efficacy. Labovitz and Hagedorn (1971) referred to this alignment as theoretical rationale, which is defined as "specifying how and why the variables and relational statements are interrelated" (p. 17). These combined theoretical frameworks will also provide insight into the interpretation of the results of this study due to the highly aligned theories between Grinder and Rogers.

The importance of teacher efficacy

It is imperative to gain a better understanding of the difference between self-efficacy and teacher efficacy. While self-efficacy is directly related to the belief about personal competence in a given area, teacher efficacy is defined as the belief and the ability as an educator to promote student success (York-Barr, Sommers, Ghore & Monte, 2006). Bandura (1997) defined self-efficacy as the belief in an individual's ability to "organize and execute the courses of action required to produce given attainments" (p. 3), which can be perceived as a more controlling way to reach a particular goal. In contrast to self-efficacy, the construct of teacher efficacy is more humanistic in nature and plays a critical role in relation to effectively implementing classroom

management procedures (Grinder, 2009; Johnson, 2012). Understanding the differences between self-efficacy and teacher efficacy allows the educator to interact with their students in a manner that produces less power and control in the classroom when operating through the lens of teacher efficacy (Thomas & Mucherah, 2014). This distinction directly aligns to the work of Grinder's (2015) belief of operating with the power of influence instead of using power and control to produce a result while managing the classroom. According to Jerald (2007), efficacy beliefs have been found to "exert an indirect influence on student achievement by virtue of the direct effect they have on teachers' classroom behaviors and attitudes" (p. 3). Additionally, Jerald's (2007) review of research highlights the following positive influences that stem from teachers' positive efficacy beliefs: greater levels of planning and organization, a willingness to experiment with new teaching methods to meet the needs of their diverse learners, increased persistence and higher levels of resilience when facing a setback, less critical of students when they make mistakes and less likely to refer a difficult student for a special education evaluation. This research sheds light on the relationship between positive teacher efficacy and the ability to support the diverse needs of their learners. In a 2004 interview with Michael Shaughnessy, Anita Woolfolk (p.154) concurs with these findings by stating:

Teachers who set high goals, who persist, who try another strategy when one approach is found wanting – in other words, teachers who have a high sense of efficacy and act on it – are more likely to have students who learn.

There are multiple sources of efficacy beliefs (Bandura, 1997), and the numerous variables that are considered have been the primary focus in numerous research studies. Bandura (1997) has developed three main areas that align to efficacy beliefs: mastery experiences, vicarious experiences with modeling, and verbal persuasion. Mastery experiences during teacher

practice have been defined as the “best way of developing a robust belief in one’s own capabilities” (p. 243). A direct connection exists between ENVoY certification and mastery experiences which have yet to be researched. The second area aligned to efficacy beliefs is vicarious experience, or modeling (Bandura, 1997). Christopherson, Elstad, Turmo, and Solhaug (2015) state that “by learning from other teachers’ behaviors, as well as comparing their performance with that of other significant individuals, their sense of efficacy with regard to their own performance may be developed and enhanced” (p. 244). Vicarious experiences can also be connected to ENVoY professional development that allows teachers to observe each other with the support of an ENVoY coach. The third area aligned to efficacy beliefs is verbal persuasion or environmental information (Bandura, 1997). According to Christophersen, Elstad, Turmo, and Solhaug (2015), it is important to recognize that while feedback may be received from any staff member, it will be best received from trusted individuals, such as coaches and administrators. There is a direct connection to Bandura’s verbal persuasion and ENVoY coaching, as these individuals are highly trained in delivering feedback and building positive relationships with the staff that they support through this coaching model (Brickman & Burns, 2012).

Measuring Efficacy

Measuring the elusive construct of teacher efficacy can be challenging due to the many factors that make up an individual’s overall sense of efficacy (Bandura, 1997). The Teachers’ Senses of Efficacy Scale (TSES) developed by Tschannen Moran and Woolfolk Hoy (2001) is a focused instrument that includes the following three dimensions: efficacy for student engagement, efficacy for instructional strategies, and classroom management. Efficacy for student engagement is defined as a teacher’s ability to support each student in becoming

intrinsically motivated to fully participate the learning process during the getting attention, teaching, transition and seatwork phases of each lesson. Efficacy for instructional strategies is defined as a teacher's ability to respond to student questions, assess comprehension, ask questions to deepen learning, provide multiple measures of assessment and differentiate instruction to support students who require remediation and extension activities to further their learning. Efficacy for classroom management is defined as a teacher's ability to establish clear classroom and behavioral expectations and routines that students consistently follow while supporting struggling or disruptive students in a calm and supportive manner (Tschannen-Moran & Woolfolk Hoy, 2001). The TSES has been validated by Tschannen-Moran and Woolfolk Hoy along with additional researchers, such as Klassen et. al (2011) who used "cross-nation samples with six groups of teachers from five countries: Canada, Cyprus, Korea, Singapore and the United States" (Chang & Engelhard, 2015, p. 2) which confirms cross-cultural validation of this survey instrument.

Teacher efficacy is developed when individuals are given situations and challenges that are outside of their comfort zone which supports learning the strategies that help them overcome these experiences (Thomas & Mucherah, 2014). Bandura's (1997) research connects 'mastery' experiences to increased efficacy beliefs. This research was confirmed by Tschannen-Moran and Woolfolk Hoy (2007) who have found mastery experience to be the leading contributor among beginning and experienced teachers to efficacy beliefs. Gibbs and Powell (2012) conducted a study totaling 197 teachers from 31 primary and nursery schools in England to research individual and collective efficacy using the Teacher's Sense of Efficacy Scale which focused on classroom management, children's engagement, and instructional strategies. Analysis of the responses determined classroom management to be the area that teachers expressed their highest

efficacy beliefs. Additionally, Edwards, Green, Lyons, Rogers, and Swords (1998) completed a three-year study funded by the U.S. Department of Education. Part of the study provided ENVoY training and coaching which demonstrated an increase in individual teacher efficacy and their attitude towards school and career, ($F=25.74$, $p < .001$) when compared with a control group ($F=7.16$, $p < .001$). These studies demonstrated the correlation between teacher efficacy and perceived job performance in the areas of classroom management, student engagement, and instructional practices.

Coaching and teacher efficacy

Bandura (1997) determined that professional development and training centered around social encouragement have been identified as alternate factors that align to an increase in teacher efficacy. Increasing individual teacher efficacy can also have an impact on the collective group of educators in a school. Panfilio-Padden (2014) researched the impact that instructional coaching has on teaching and instruction and found that over a 10-week intervention period, teachers reported that coaching supported them in solving instructional problems, applying new ideas to their instructional practice, and implementing new knowledge. According to Gibbs and Powell (2012), this sense of teachers' positive self-efficacy as a collective group showed that their "capacity to motivate and engage children in learning provides endorsement of leadership values and a school ethos supportive of individual teacher's efficacy beliefs" (p. 580). Fostering individual teacher efficacy also impacts collective efficacy, according to York-Barr et. al. (2006) who claim that, "As the internal capacity of teachers to learn and make a positive difference are recognized and harnessed, a collective sense of efficacy and empowerment emerges" (p. 14).

There is a lack of current educational research that explores the potential relationship between coaching and teacher efficacy, especially in relation to classroom management, with the

most current ENVoY research aligned to teacher efficacy taking place twenty years ago. Houston (1997) surveyed teachers to determine the factors that influence successful professional development with the ENVoY Program. The findings determined that teachers who engaged in job-embedded coaching made statistically significant improvements, and non-coached teachers demonstrated decreased ENVoY performance. The ENVoY program research conducted by Edwards (1998) in conjunction with standards-based grading determined that teacher attitudes towards their school increased for individuals who participated in job-embedded staff development in the form of coaching (Edwards et al., 1998).

Brickman and Burns (2011) created an ENVoY coaching menu of options (Table 6) to provide teachers with a differentiated coaching model that supports their individual implementation goals while also providing various experiences aimed at deepening their capacity to observe and label the ENVoY strategies, demonstrate proficiency of the ENVoY gems and introduce new or more advanced strategies into their repertoire.

Table 6

ENVoY Coaching Continuum

| Coaching Options | Components |
|------------------------------------|--|
| Consultation Coaching | Teachers meet with ENVoY coach to discuss a specific classroom management challenge or to gather options that support the physical classroom environment |
| Observation Coaching with Feedback | The ENVoY coach observes the teacher during the getting attention, teaching, transition or independent (seatwork) phase of the lesson and provides feedback to the teacher to support ongoing implementation |
| Video Coaching | Contains all of the components of Observation Coaching with added video footage and feedback |
| Shadow Coaching | Contains all of the components of Observation Coaching with the ENVoY coach providing real time feedback during the lesson that allows the teacher to make refinements during the observation |
| ENVoY Live Site Visit | Teachers receive coaching from an ENVoY trainer and/or coach while observing ENVoY certified teachers and ENVoY certified schools |
| ENVoY Gem Hunt | Teachers observe each other to deepen their understanding of the ENVoY gems |

Note. Adapted from “ENVoY Coaching” by J. Brickman and N. Burns, 2011

Implementation and Efficacy

Successful program implementation is directly linked to the effectiveness of professional development initiatives (Grinder, 1993; Houston, 2007; Johnson, 2012). Gaudreau, Royer, Frenette, Beaumont, and Flanagan (2013) emphasized the importance of effective classroom management by stating:

It is crucial to establish in-service training that develops high self-efficacy attitudes in classroom and behavior management, as these programs will guide teachers to seek out effective education practices that not only directly address the needs of their students but also help to reduce their own stress level. The more teachers believe in their ability to work with their students and to lead them on the path to success, the more open they will be to teaching students with behavioral difficulties. (p. 376)

Implementation of classroom management initiatives must be considered in order to foster coherence and understanding throughout the change process. Fullan (2001) developed a three-phase change model, which consists of the following phases: Initiation, Implementation and Continuation. The initiation phase involves the planning and preparation involved that supports the change process related to the innovation. Implementation requires a balance of pressure and support in order to produce the desired change. Fullan (2001) also notes that innovations must be able to address the implementation dip, which occurs when teachers experience negative feelings or results as they work towards changing their practice with the newly introduced innovation. Grinder (2015) has created a professional development model that “embraces collegial and professional support” (p. 3) through coaching and feedback to support continuous implementation at the individual and site level. Brickman and Burns (2014) created an ENVoY Implementation Continuum to support school districts by developing a

comprehensive plan that fosters the support and resources needed in order to achieve deep levels of school-wide implementation (Table 7).

Table 7

ENVoY Implementation Continuum

| ENVoY Implementation Continuum |
|---|
| <p>Introduce- School schedules sessions for the whole staff, optional sessions, or may have been full sessions that were optional to staff outside of contracted hours. Minimal (or no) follow-up was scheduled.</p> |
| <p>Cohort- An ENVoY Cohort is comprised of a group of teachers who are committed to high implementation. Cohort members will participate in ENVoY Training, receive ENVoY Green-Chair Coaching, and participate in an ENVoY Site Visit. The goal for the members of the Cohort is to achieve ENVoY Certification.</p> |
| <p>Launch- School-wide ENVoY 7 Gems training sessions with follow-up green chair coaching.</p> |
| <p>Maintain- Basic training complete. Goal of the school is to maintain the current level of implementation. Professional coach/trainer support is minimal (3 or less days).</p> |
| <p>Build- Basic training complete. School is building momentum for sustainability through continued professional coaching, certification, and advanced training. Site is working towards increasing the number of staff implementing the 7 gems (evidenced by certification) and may be working towards school wide certification.</p> |
| <p>Sustain- School is currently ENVoY certified. Gradual release from the outside trainer and coach to resident coaches.</p> |
| <p>Dig Deep- School is ENVoY certified and examining strategies for supporting teachers with strategies for working with students they are having a hard time reaching, utilizing group dynamics, and/or developing a core team of Demonstration Teachers.</p> |

Note. Adapted from “ENVoY Implementation Continuum” by J. Brickman and N. Burns, 2014

The data in Table 8 provides longitudinal ENVoY implementation data for each of the 24 elementary schools in the study.

Table 8

ENVoY Implementation Level by School: 2012-2018

| School | Certified | 2011-2012 | 2012-2013 | 2013-2014 | 2014-2015 | 2015-2016 | 2016-2017 | 2017-2018 |
|--------|-----------|-----------|-----------|-----------|-----------|-----------|--------------|-----------|
| 1 | ◆ | | | | Launch | Build | Build | Build◆ |
| 2 | ◆ | | | Launch | Build | Build | Build◆ | Maintain |
| 3 | | | Launch | Maintain | Build | Maintain | Maintain | Maintain |
| 4 | | | | Introduce | Launch | Build | Build | Build |
| 5 | | | Launch | Maintain | Re-launch | Maintain | Maintain | Maintain |
| 6 | ◆ | Launch | Build◆ | Dig Deep | Dig Deep | Dig Deep | Dig Deep | Dig Deep |
| 7 | ◆ | | Launch | Build◆ | Sustain | Sustain | Dig Deep | Dig Deep |
| 8 | ◆ | | | Launch | Build | Build | Sustain ◆ | Sustain |
| 9 | ◆ | | Launch | Build | Build | Build◆ | Sustain | Dig Deep |
| 10 | | | Introduce | | | Launch | Build | Build |
| 11 | ◆ | | | | Launch | Build◆ | Build | Sustain |
| 12 | | | Introduce | | Cohort | Cohort | Maintain | Build |
| 13 | | | Introduce | Launch | Build◆ | Sustain | Build | Build |
| 14 | | | | Launch | Build | Maintain | Maintain | Maintain |
| 15 | | | | Launch | Build | Build | Maintain | Maintain |
| 16 | ◆ | Launch | Build◆ | Dig Deep | Sustain | Sustain | Sustain | Sustain |
| 17 | ◆ | | Introduce | | Launch | Build | Build◆ | Sustain |
| 18 | | | Launch | Build | Build | Build | Maintain | Build |
| 19 | | | Introduce | Introduce | Launch | Maintain | Maintain | Maintain |
| 20 | | | | Launch | Maintain | Maintain | Maintain | Maintain |
| 21 | ◆ | | Launch | Maintain | Re-launch | Build | Build◆ | Sustain |
| 22 | | | Introduce | Maintain | Launch | Build | Build | Build |
| 23 | ◆ | Launch | Build | Build | Build◆ | Dig Deep | Dig Deep | Dig Deep |
| 24 | ◆ | | Introduce | Launch | Build | Build | Build◆ | Sustain |

Note. ◆ = ENVoY Certified School. Adapted from “ENVoY Site Data” by J. Brickman, 2018

A key gap in the literature exists in relation to teacher efficacy and mastery experiences (Bandura,1997) that elevate perceived levels of efficacy. Christophersen, Elstad, Tumo, and Solhaug (2015) argue that “mastery experiences in teaching are the best way to satisfy student teachers’ need for appraisal in their work and are thus the best way to keep good teachers in school” (p. 241), yet the current culture in education does not have a system in place that recognizes goal attainment for educators.

The ENVoY framework provides individuals with the opportunity to pursue multiple levels of certification at the individual and school level (Grinder, Burns & Brickman, 2015), yet there is currently a lack of research related to level of certification attainment and efficacy. Grinder (2016) is highly committed to “reversing the trend of over-training and under-implementing by providing support systems that guarantee increased competencies of communication” (§ 4). Additionally, the direct relationship between teacher efficacy and ongoing ENVoY coaching has yet to be quantified in a peer-reviewed study. Addressing the resulting gap in practice is significant because it addresses the importance of how ongoing professional development impacts teacher efficacy.

The preceding review of the literature confirms that classroom management is an essential component to teaching and has a profound impact on teacher efficacy. In order to support teachers in effectively meeting the needs of their diverse learners, it is imperative that the construct of teacher efficacy is closely examined to determine how educational systems can address and develop this construct to support and develop the educators in their system. The gaps in literature specific to teacher efficacy and Bandura’s (1997) mastery experiences, vicarious experiences and verbal persuasion as they relate to ENVoY will be addressed to determine if coaching and levels of individual and school-wide ENVoY certifications has an

impact on teacher efficacy specific to classroom management, instructional strategies and student engagement.

Chapter III: Methodology

There are 24 elementary schools in the school district that will be considered as a sample population (Table 9). To provide a broader view of student enrollment, the fall 2014 percentages of students enrolled in public elementary and secondary schools by race/ethnicity at the district, state and national levels are also provided (Table 10). Each of the 24 sites is currently implementing ENVoY at varying levels. All licensed teachers in the district will be given the opportunity to participate in completing the modified Teacher's Sense of Efficacy Scale (TES) Survey by Tschannen-Moran and Woolfolk Hoy (2007) in the areas of student engagement, classroom management, and instructional strategies, which will be administered by the district's Research Evaluation and Testing (RET) department. The TES survey has been slightly modified from a 9-point Likert scale to a 4-point Likert scale with Strongly disagree, Disagree, Agree, and Strongly agree as options, and authors Tschannen-Moran and Woolfolk Hoy were given credit as the authors of the TES survey. This survey was conducted for district purposes to support continued ENVoY implementation and programming, with the researcher requesting access to the data for further analysis to support this research study.

The statement below was provided by email from the director of RET, Dr. Johnna Rohmer-Hirt, who describes the district rationale for modifying the District ENVoY Survey Likert Scale:

By lessening the choices, we are likely reducing measurement error. Based on a number of prominent sources (Dillman, Smyth, & Christian, 2009), scales should be long enough to represent the full range of possible answers but without so many categories that it becomes burdensome to the respondent to try to distinguish between them. In addition, if there are too many choices, the difference between choice options is too small to be

meaningful. Moreover, without having verbal labels on the options, each "number" is up to the respondents' interpretation to a much greater extent and different respondents are more likely to interpret the points differently. Lastly, Dillman, et al. (2009) citing Krosnick and Fabringer (1997), state that "fully labelled scales rate higher on reliability, validity and respondent preference and are less susceptible to context effects" (p.143). In this case, we went with a four-point scale to have a forced choice because the data would be more meaningful to determine what "side" of agreement the respondent chose than if they had the option to choose a middle point (which is a likely tendency when given the choice). In other words, there was no meaningful reason to provide the "neither agree or disagree" option as this choice would not have been as informative as having the respondent choose a level of agreement or disagreement. (Rohmer-Hirt, personal communication, March 28, 2018)

Additionally, RET has modified the TES questionnaire to reflect consistent wording for every item. An example of this is shifting the wording in Item 1 from "How much can you do to get through to the most difficult students?" to "I can get through to the most difficult students." Shifting the language on all 24 items to "I can" provides a uniform survey and also adds clarity for the survey participants. According to Dr. Johnna Rohmer-Hirt, (personal communication, March 28, 2018), these modifications were also put in place "To lessen the respondent burden, the agreement scale was used as it is familiar to our district populator used across the majority of instruments with closed-ended items administered in the district"

Setting

The setting consists of all 24 elementary schools in a large school district in the Midwest region. Teachers will self-select the current school that they work in, which will allow for student demographics to be included in the study. To preserve confidentiality, all schools will be assigned a pseudonym. All licensed teachers at the 24 elementary sites will have the opportunity to participate in the Teacher's Sense of Efficacy (TES) survey focusing on the areas of student engagement, classroom management and instructional strategies.

The sample size for the teacher population is approximately 1,200 licensed teachers across all 24 elementary schools. The following groups of full- and part-time teachers are included in the survey: kindergarten through fifth grade classroom teachers, English language and special education teachers, specialists (art, explorations, media, music, and physical education) academic support (core support, literacy intervention teachers, supplemental teachers, talent development and staff support [engagement coaches, literacy specialists, math specialists]).

In addition to completing the TES survey, teachers will self-select their level of ENVoY certification and will be able to select their level of ENVoY certifications. Participants will also identify if they have received ENVoY coaching, the number of coaching visits per year, and the type of coaching and feedback that is preferred. Additionally, participants will select the elementary school they currently work in, primary role and years of service. According to Dr. Johnna Rohmer-Hirt (personal communication, March 28, 2018) "This information was added by the district's elementary leadership team to guide additional decision making related to ENVoY implementation and impact, some by RET to disaggregate and analyze the data on a deeper level of comparison related to experience, location and primary role."

Table 9

Student Demographics at Participating Elementary Schools

| Elementary Schools | % Minority Students | % Free or Reduced Lunch | % Special Education | % English as a Second Language | Total Number Students |
|--------------------|---------------------|-------------------------|---------------------|--------------------------------|-----------------------|
| 1 | 29.8 | 61.8 | 15.3 | 13.1 | 518 |
| 2 | 10.6 | 16.5 | 10.9 | 4.4 | 1339 |
| 3 | 27.3 | 34.2 | 12.1 | 7.7 | 881 |
| 4 | 8.7 | 21.1 | 14.1 | 0.6 | 489 |
| 5 | 23.4 | 30.5 | 16.4 | 12.6 | 469 |
| 6 | 29.1 | 49.4 | 14.7 | 12.4 | 716 |
| 7 | 83.4 | 78.5 | 14.7 | 38.9 | 475 |
| 8 | 29.9 | 56.3 | 20.4 | 10.3 | 378 |
| 9 | 34.1 | 65.2 | 18.7 | 18.2 | 466 |
| 10 | 27.8 | 48.9 | 16.2 | 9.2 | 487 |
| 11 | 25.3 | 44.0 | 9.3 | 9.3 | 741 |
| 12 | 13.5 | 18.5 | 11.2 | 3.6 | 813 |
| 13 | 21.2 | 54.4 | 20.3 | 6.2 | 454 |
| 14 | 24.6 | 39.5 | 16.0 | 11.4 | 463 |
| 15 | 6.7 | 18.6 | 9.3 | 1.6 | 749 |
| 16 | 25.3 | 49.4 | 17.8 | 10.0 | 422 |
| 17 | 57.0 | 50.3 | 17.5 | 24.5 | 664 |
| 18 | 25.3 | 45.1 | 19.1 | 8.1 | 419 |
| 19 | 20.8 | 23.6 | 11.7 | 5.0 | 1211 |
| 20 | 14.8 | 28.3 | 15.0 | 6.1 | 1274 |
| 21 | 7.3 | 18.8 | 15.5 | 2.2 | 1018 |
| 22 | 22.6 | 32.9 | 16.3 | 8.9 | 784 |
| 23 | 33.3 | 55.5 | 13.3 | 13.1 | 595 |
| 24 | 15.5 | 48.4 | 17.4 | 6.5 | 644 |

Note. Minority students represent the following groups: Black, Hispanic, Asian, American Indian and Native Hawaiian/Pacific Islander. Retrieved from Minnesota Department of Education Website on October 21, 2017.

Table 10

Percentage of Students Enrolled in Public Elementary and Secondary Schools by

Race/Ethnicity: Fall 2014

| | District | State | Nation |
|----------------------------------|----------|-------|--------|
| Native American / Alaskan Native | 1% | 2% | 1% |
| Asian/Pacific Islander | 7% | 7% | 5% |
| Black/African American | 10% | 11% | 16% |
| Hispanic / Latino | 5% | 8% | 25% |
| White/Caucasian | 75% | 71% | 50% |
| Two or More Races | 3% | 4% | 3% |

Note. District data retrieved from district Research, Evaluation and Testing Department. State data retrieved from the Minnesota Department of Education and Nation Data retrieved from the National Center for Educational Statistics. All data was retrieved on April 2, 2018.

The purpose of this correlational study was to explore the relationship between Educational Non-Verbal Yardsticks (ENVoY) implementation based on teacher certification levels, school certification levels and coaching (independent variables) to determine if this innovation has an impact on teacher efficacy in student engagement, classroom management and instructional strategies (dependent variables).

Research Questions

RQ1: What is the relationship between teacher efficacy specific to student engagement, classroom management, and instructional strategies and the level of individual ENVoY certification in elementary school settings as perceived by teachers?

RQ2: What is the relationship between teacher efficacy specific to student engagement, classroom management, and instructional strategies and teachers who receive ongoing ENVoY coaching and those who do not?

RQ3: What is the relationship between teacher efficacy specific to student engagement, classroom management, and instructional strategies and school level ENVoY certification?

Research Hypotheses

H1o: ENVOY certified and demonstration teachers will not exhibit significantly greater positive or negative perceptions of teacher efficacy related to student engagement, classroom management, and instructional strategies than the teachers who are not certified.

H1a: ENVOY certified and demonstration teachers will exhibit significantly greater positive or negative perceptions of teacher efficacy related to student engagement, classroom management, and instructional strategies than the teachers who are not certified.

H2o: Teachers who receive ongoing ENVoY coaching will not exhibit significantly greater positive or negative perceptions of teacher efficacy related to student engagement, classroom management, and instructional strategies than the teachers who do not receive ongoing ENVoY coaching.

H2a: Teachers who receive ongoing ENVoY coaching will exhibit significantly greater positive or negative perceptions of teacher efficacy related to student engagement, classroom management, and instructional strategies than the teachers who do not receive ongoing ENVoY coaching.

H3o: Teachers that work in certified schools and demonstration schools will not exhibit significantly greater positive or negative perceptions of teacher efficacy related to student

engagement, classroom management, and instructional strategies than the teachers who work in noncertified schools.

H3a: Teachers that work in certified schools and certified demonstration schools will exhibit significantly greater positive or negative perceptions of teacher efficacy related to student engagement, classroom management, and instructional strategies than the teachers who work in noncertified schools.

Research Information

To determine if a relationship exists between the variables, the district modified Teachers’ Sense of Efficacy (TES) survey was administered by the district Research, Evaluation and Testing department to all licensed staff at all 24 elementary schools on December 4, 2017.

Each test item is aligned to the following dependent variables in Table 11.

Table 11

Alignment of Test Instrument with Variables and Test Number Items

| Research Question | Independent Variable | Dependent Variable | Related Survey Items |
|--------------------------|--------------------------------|--------------------------------------|-------------------------------|
| <i>RQ1</i> | Individual ENVoY Certification | Efficacy in Student Engagement | 1, 2, 4, 6 ,9 ,12, 14, 22 |
| <i>RQ1</i> | Individual ENVoY Certification | Efficacy in Instructional Strategies | 7, 10, 11, 17, 18, 20, 23, 24 |
| <i>RQ1</i> | Individual ENVoY Certification | Efficacy in Classroom Management | 3, 5, 8, 13, 15, 16, 19, 21 |
| <i>RQ2</i> | Individual ENVoY Coaching | Efficacy in Student Engagement | 1, 2, 4, 6 ,9 ,12, 14, 22 |
| <i>RQ2</i> | Individual ENVoY Coaching | Efficacy in Instructional Strategies | 7, 10, 11, 17, 18, 20, 23, 24 |
| <i>RQ2</i> | Individual ENVoY Coaching | Efficacy in Classroom Management | 3, 5, 8, 13, 15, 16, 19, 21 |
| <i>RQ3</i> | School ENVoY Certification | Efficacy in Student Engagement | 1, 2, 4, 6 ,9 ,12, 14, 22 |
| <i>RQ3</i> | School ENVoY Certification | Efficacy in Instructional Strategies | 7, 10, 11, 17, 18, 20, 23, 24 |
| <i>RQ3</i> | School ENVoY Certification | Efficacy in Classroom Management | 3, 5, 8, 13, 15, 16, 19, 21 |

Data collection procedures

The district 2017-18 Elementary Licensed Staff ENVoY Survey was administered to all licensed staff on December 4, 2017. All survey participants were anonymous in that no personally identifiable information other than individual ENVoY certifications, years of ENVoY implementation, years of teaching experience, current school of employment and primary role. Staff were provided with time during their work day to complete the 33 item survey, which was administered by the Research, Evaluation and Testing Department via email. The data are not identifiable by individual and will be used to support the district by identifying patterns and trends specific to district and school level ENVoY implementation. The district survey data will be released after the proposal has been successfully defended and the Institutional Review Board (IRB) application has been approved.

Data analysis procedures

The modified Teachers' Sense of Efficacy (TES) scale survey was administered by the Research, Evaluation and Testing Department to assess the relationship between teacher efficacy specific to student engagement, instruction and classroom management and ENVoY coaching and certification level(s) at the individual and building level.

To answer Research Question 1, a one-way analysis of variance (ANOVA) will be selected to determine if there is a relationship between teacher efficacy specific to student engagement, instruction, and classroom management and individual ENVoY certification levels. To answer Research Question 2, a one-way analysis of variance (ANOVA) will be selected to determine if there is a relationship between teacher efficacy specific to student engagement, instruction, and classroom management and ENVoY coaching. To answer Research Question 3, a one-way analysis of variance (ANOVA) will be selected to determine if there is a relationship

between teacher efficacy specific to student engagement, instruction, and classroom management and ENVoY certification levels at the school level. The Statistical Package for the Social Sciences (SPSS) software will be used to analyze the district survey data and run analysis of variance tests for research questions 1, 2 and 3 to determine whether or not a statistically significant relationship exists between groups. Additional post hoc tests may be used to determine where the differences occurred between groups if there is a significant difference in group means.

Limitations and Delimitations

Inherent limitations exist in any research study. The primary limitation of this study relates to the survey, which was administered once to all licensed staff on December 4, 2017. This limits the opportunity to analyze longitudinal patterns over time specific to ENVoY implementation and will allow for a snapshot in time in relation to this research study, which was conducted in a large Midwestern suburban school district, with relatively low diversity and poverty. The results from the district may not be representative of schools elsewhere in the nation or with different student and staff demographics. Also, other ENVoY districts may be at very different stages of ENVoY implementation, which will limit the ability to apply the research results to other ENVoY districts. The extent to which the ENVoY implementation involved administrative support and fidelity to the training and implementation goals, may well be different than what is experienced in other ENVoY districts. Additionally, the study participants were limited to licensed staff, which excludes non-licensed staff, such as paraprofessionals who implement ENVoY in various settings including classrooms, cafeteria, hallways, and the playground. The final limitation relates to the survey instrument, which was slightly adjusted by the district specific to the wording and reduction of the Likert Scale from 9

points to 4 points. The district chose to modify the wording on the survey for consistency and adjusted the Likert Scale to reduce the range of options when considering the survey items, which will limit how the results of this survey are generalized to other studies which implemented the Teachers' Sense of Efficacy Scale with the original wording and 9 point Likert Scale.

To increase the rate of return specific to the district survey, all licensed staff were provided with time during their staff development day by their administrator to complete the survey. This delimitation provided by the district superintendent and implemented by the twenty-four elementary principals supported an improved survey response rate.

Ethical considerations

The role of the researcher is to remain neutral when conducting research and it is important to note that the researcher has been supporting individual and building level ENVoY as a teacher, coach and principal in four of the 24 elementary schools in the school district that is being researched for six consecutive years. Additionally, the researcher is whole group ENVoY certified, certified as an ENVoY coach and recently became a certified ENVoY Demonstration Teacher. These researcher biases have been controlled due to the fact that the researcher was not involved in conducting or administering the district survey and will not see the results of the survey until the proposal defense has been successfully completed.

Additionally, the researcher has adhered to all of the Institutional Review Board for Research with Humans components to ensure that the survey data that is released from the district is securely stored and that all survey participants remain anonymous. The researcher has also received permission from the district to conduct research and has signed a non-disclosure and confidentiality agreement, which is listed in Appendix B.

Theoretical Framework

The combined perspectives and theories by Carl Rogers and Michael Grinder provide this study with a comprehensive framework which aligns directly to the Teacher's Sense of Efficacy Scale (TES) Survey by Tschannen-Moran and Woolfolk Hoy in the areas of student engagement, classroom management and instructional strategies. As noted in Chapter II, Grinder was trained by Rogers, which supports the strong connection between Rogers's humanistic or person-centered approach and Grinder's (2015) ENVoY framework. These combined theoretical frameworks have influenced the study as they are grounded in relationships, empathy and assuming positive intent while interacting with others while aligning to teacher efficacy, which is defined in this study as a teacher's belief and ability to promote student success in the areas of student engagement, classroom management and instructional strategies.

Summary

In this chapter, the quantitative methodological framework of this study was reviewed in order to provide a comprehensive overview of the research questions specific to individual ENVoY implementation and coaching, building level ENVoY implementation and teacher efficacy related to classroom management, instruction and student engagement are aligned to the Teacher's Sense of Efficacy Scale (TES) survey. The one-way analysis of variance (ANOVA) has been selected to determine if there is a relationship between teacher efficacy specific to student engagement, instruction and classroom management and individual ENVoY certification levels, ENVoY Coaching, and building ENVoY coaching. District survey protocols and administration were aligned to support the outcome of a higher rate of response by the licensed staff who participated. Limitations and researcher bias were addressed, which contributed to this research study being conducted quantitatively. Finally, the connection between the theoretical

perspectives of Rogers (1951) and Grinder (1995) supported the framework of this study, which is closely aligned to teacher efficacy.

Chapter IV: Results

This chapter presents the results of the data collected from the District ENVoY survey, which evaluated the relationship between ENVoY coaching, individual and building level ENVoY implementation with the construct of teacher efficacy specific to classroom management, instruction, and student engagement. This district-administered survey was distributed to all elementary licensed teaching staff on December 4, 2017.

The study sample consisted of 1,182 licensed teachers from 24 elementary schools within a suburban school district. The independent variables in the study included individual ENVoY certification, individual ENVoY coaching, and school level of ENVoY certification. The dependent variables were efficacy in student engagement, efficacy in instructional strategies and efficacy in classroom management. To determine if the means of these groups differ, a one-way analysis of variance (ANOVA) had been selected as the primary statistical test as it meets the criteria specific to sample size meeting the minimum criteria of 15 to 20 responses while also having one categorical independent variable and a normally distributed interval dependent variable. The Tukey's Honest Significant Difference (HSD) post hoc test was completed when a statistically significant difference in group means from the one-way ANOVA was calculated to determine which mean among the set of means differ from the rest. The confidence level has been calculated at 95% with a 3% confidence interval, which indicates that there was only a 5% likelihood that these results could occur by chance. With an overall population of 1,182 licensed teachers, the sample size needed was 561 total survey responses in order to determine a confidence level of 95%. The District ENVoY Survey responses range from 889 to 930 total responses, which exceeds the required sample size to provide the research results with 95% certainty.

Analysis of Research

RQ1: What is the relationship between teacher efficacy specific to student engagement, classroom management, and instructional strategies and the level of individual ENVoY certification in elementary school settings as perceived by teachers?

H1o: ENVOY certified and demonstration teachers will not exhibit significantly greater positive or negative perceptions of teacher efficacy related to student engagement, classroom management, and instructional strategies than the teachers who are not certified.

H1a: ENVOY certified and demonstration teachers will exhibit significantly greater positive or negative perceptions of teacher efficacy related to student engagement, classroom management, and instructional strategies than the teachers who are not certified.

Research Question One Findings

To analyze the first research question and related hypotheses, the District ENVoY survey scores were evaluated using a one-way analysis of variance (ANOVA). The Tukey's HSD post hoc test was also completed to confirm where the differences occurred between the whole group Demonstration, Certified and Non-Certified groups when an overall statistically significant difference occurred in the group means. The ENVoY survey mean and standard deviation scores are displayed in Table 12.

Table 12

Teacher Efficacy by Whole Group ENVoY Certification: SPSS Output Window

| | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Minimum | Maximum | |
|-------------|---------------|------|----------------|------------|----------------------------------|-------------|---------|---------|-------|
| | | | | | Lower Bound | Upper Bound | | | |
| ENGAGEMENT | Demonstration | 49 | 26.1020 | 2.83758 | .40537 | 25.2870 | 26.9171 | 21.00 | 32.00 |
| | Certified | 414 | 24.8019 | 3.48214 | .17114 | 24.4655 | 25.1383 | 8.00 | 32.00 |
| | Not Certified | 444 | 24.5068 | 3.39532 | .16113 | 24.1901 | 24.8234 | 8.00 | 32.00 |
| | Total | 907 | 24.7277 | 3.42335 | .11367 | 24.5046 | 24.9508 | 8.00 | 32.00 |
| INSTRUCTION | Demonstration | 47 | 27.5745 | 3.02701 | .44154 | 26.6857 | 28.4632 | 21.00 | 32.00 |
| | Certified | 407 | 25.8452 | 3.75521 | .18614 | 25.4793 | 26.2111 | 8.00 | 32.00 |
| | Not Certified | 435 | 25.8713 | 3.50010 | .16782 | 25.5414 | 26.2011 | 8.00 | 32.00 |
| | Total | 889 | 25.9494 | 3.61346 | .12119 | 25.7115 | 26.1872 | 8.00 | 32.00 |
| MANAGEMENT | Demonstration | 50 | 29.1400 | 2.80677 | .39694 | 28.3423 | 29.9377 | 22.00 | 32.00 |
| | Certified | 409 | 26.3105 | 3.43981 | .17009 | 25.9762 | 26.6449 | 8.00 | 32.00 |
| | Not Certified | 446 | 25.3901 | 3.50156 | .16580 | 25.0643 | 25.7160 | 11.00 | 32.00 |
| | Total | 905 | 26.0133 | 3.54613 | .11788 | 25.7819 | 26.2446 | 8.00 | 32.00 |

For each dependent variable (efficacy in student engagement, instructional strategies and classroom management), the descriptive output in Table 8 provides the sample size (N), mean, standard deviation, standard error, confidence interval for each level of each independent variable, and minimum, maximum, which is specific to the level of ENVoY certification (demonstration, certified, or not certified). It is important to note that the total responses between the areas of student engagement, instructional strategies, and classroom management varies between 889 and 907 total responses. The Demonstration Teachers group scored a higher mean than the certified and not certified groups in the areas of student engagement (26.1020), instructional strategies (27.5745) and classroom management (29.1400), which showed that the

certified ENVoY demonstration teachers expressed greater efficacy than the certified and not certified groups.

Table 13 contains a one-way ANOVA, which was conducted to further examine whether the set of differences was statistically significant overall, which is determined when the probability between groups is .05 or less ($p < .05$).

Table 13

Teacher Efficacy by Whole Group ENVoY Certification: One-Way ANOVA Output Summary

| | | Sum of Squares | df | Mean Square | F | Sig. |
|-------------|----------------|----------------|-----|-------------|--------|-------|
| ENGAGEMENT | Between Groups | 116.507 | 2 | 58.254 | 5.015 | .007* |
| | Within Groups | 10501.228 | 904 | 11.616 | | |
| | Total | 10617.735 | 906 | | | |
| INSTRUCTION | Between Groups | 131.194 | 2 | 65.597 | 5.070 | .006* |
| | Within Groups | 11463.528 | 886 | 12.939 | | |
| | Total | 11594.722 | 888 | | | |
| MANAGEMENT | Between Groups | 698.139 | 2 | 349.070 | 29.510 | .000* |
| | Within Groups | 10669.701 | 902 | 11.829 | | |
| | Total | 11367.841 | 904 | | | |

* $p < .05$

The first row in the ANOVA output summary in Table 13 shows the between groups estimates of variance, which forms the numerator of the F ratio. The second row corresponds to the within-groups estimate of variance and forms the denominator of the F ratio. The between group differences show how two or more groups are different, and the within group differences show differences for subjects who are in the same group. The final row calculates the total variability in the data. The second column gives the sum of squares for each of the estimates of variance, which corresponds to the numerator of the variance ratio. The degrees of freedom column calculated the degrees of freedom for each estimate of variance. The degrees of freedom for the between groups estimate of variance is given by subtracting one from the number of

levels of the independent variable (IV). As there are three levels of ENVoY Certification (Demonstration, Certified, and Non Certified), the degrees of freedom is 2 for the between groups estimate of variance.

The degrees of freedom for the within groups estimate of variance is calculated by subtracting one from the number of people from each of the ENVoY certification categories. For example, the degrees of freedom for within groups specific to engagement show 49 people in the demonstration category, so there are 48 degrees of freedom (49-1). For the certified category there are 413 total people in this category, which equals 412 degrees of freedom (413-1). The not certified category degrees of freedom equals 443 being that there were originally 444 people in this category (444-1). Summing the degrees of freedom together shows 904 degrees of freedom for the within groups estimate of variance. The final row gives the total degrees of freedom, which is produced by subtracting one from the total number of people who participated in the ENVoY survey. There are 907 total participants, so there are 906 total degrees of freedom. The mean square column gives the estimates of variance (the mean square), which is calculated by dividing the sum of the square by its degrees of freedom. For example, in the category of instruction, the mean square between groups is calculated by dividing the sum of squares (131.194) by the degrees of freedom (2), which equals overall the mean square of 65.597. The F ratio is calculated by dividing the mean square between groups by the mean square within groups. In the area of management, the mean square was calculated by dividing the mean between groups (349.070) by the mean square within groups (11.829) which equals the F ratio of 29.510.

The significance column gives the significance of the F ratio, which is the probability value or p-value. For example, there was a significant difference between groups in the areas of

student engagement ($p < .007$), instructional strategies ($p < .006$), and classroom management ($p < .000$). In the area of student engagement, the p-value was .007, which means there is a .7% chance that these differences could occur by chance. These statistically significant differences found in the one-way ANOVA required further post hoc investigation. To identify the source of this variation, the Tukey's Honest Significant Difference (HSD) post hoc test was conducted and the results of this statistical analysis are represented in Table 14.

Table 14

Tukey HSD Comparisons: Teacher Efficacy by Whole Group Certification

| Dependent Variable | (I) Q26_S1: 26. Whole Group | (J) Q26_S1: 26. Whole Group | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|--------------------|-----------------------------------|-----------------------------------|-----------------------------|---------------|--------------|----------------------------|----------------|
| | | | | | | Lower Bound | Upper Bound |
| ENGAGEMENT | Demonstration | Certified | 1.30011 [*] | .51491 | .031* | .0913 | 2.5089 |
| | | Not Certified | 1.59528 [*] | .51306 | .005* | .3908 | 2.7997 |
| | Certified | Demonstration | -1.30011 [*] | .51491 | .031* | -2.5089 | -.0913 |
| | | Not Certified | .29518 | .23286 | .414 | -.2515 | .8418 |
| | Not Certified | Demonstration | -1.59528 [*] | .51306 | .005* | -2.7997 | -.3908 |
| | | Certified | -.29518 | .23286 | .414 | -.8418 | .2515 |
| INSTRUCTION | Demonstration | Certified | 1.72926 [*] | .55415 | .005* | .4283 | 3.0302 |
| | | Not Certified | 1.70320 [*] | .55230 | .006* | .4066 | 2.9998 |
| | Certified | Demonstration | -1.72926 [*] | .55415 | .005* | -3.0302 | -.4283 |
| | | Not Certified | -.02606 | .24806 | .994 | -.6084 | .5563 |
| | Not Certified | Demonstration | -1.70320 [*] | .55230 | .006* | -2.9998 | -.4066 |
| | | Certified | .02606 | .24806 | .994 | -.5563 | .6084 |
| MANAGEMENT | Demonstration | Certified | 2.82949 [*] | .51527 | .000* | 1.6199 | 4.0391 |
| | | Not Certified | 3.74987 [*] | .51293 | .000* | 2.5457 | 4.9540 |
| | Certified | Demonstration | -2.82949 [*] | .51527 | .000* | -4.0391 | -1.6199 |
| | | Not Certified | .92038 [*] | .23547 | .000* | .3676 | 1.4732 |
| | Not Certified | Demonstration | -3.74987 [*] | .51293 | .000* | -4.9540 | -2.5457 |
| | | Certified | -.92038 [*] | .23547 | .000* | -1.4732 | -.3676 |

* $p < .05$

The Tukey HSD post-hoc test in Table 10, the first column shows each dependent variable related to Teacher Efficacy (Engagement, Instruction, and Classroom Management) with the output including a separate row for each level of the independent variables (Demonstration, Certified, and Not Certified), which shows that there are three comparisons described with each dependent variable. The second column in the output gives the difference between the means. For example, in the area of engagement, the mean for demonstration certified teachers is 26.1020 and the mean for the certified teachers is 24.8019, with a difference of 1.30011. The third column gives standard error of the mean and the fourth column is the significance level, which gives the significance of the F ratio. The null hypothesis is rejected if the p-value is less than or equal to .05, which means that there is a 5% chance (or less) that any differences between groups could occur by chance and a 95% chance that the differences are due the relationship between teacher efficacy and ENVoY coaching and certification at the individual and site level. The final column shows the 95% confidence interval.

In the area of engagement, the p value for comparing demonstration teachers to certified teachers is .031 and the p-value for comparing the demonstration teachers to not certified teachers is .005. Both of the probability values between these groups are statistically significant as all of these p-values are equal to or less than .05. The only comparison that was not significant was between the certified and not certified groups, which measured a p-value of .414. These results show that becoming a certified ENVoY demonstration teacher has a positive impact on teacher efficacy in the area of student engagement.

A statistically significant difference also exists in the area of teacher efficacy specific to instruction between demonstration teachers and certified teachers, with a p-value calculation of

.005. Additionally, an equally strong correlation between demonstration and not certified teachers has been determined by the calculated p-value of .006, which indicates that becoming certified as a demonstration teacher positively impacts teacher efficacy specific to implementing instructional strategies. All comparisons in the area of instruction were statistically significant with the exception of comparing certified teachers to not certified teachers which correlated to a p-value of .994.

Finally, the area of management showed the strongest statistical difference between all three groups, with a p-value of .000 when comparing demonstration, certified, and not certified groups. These results are highly significant and indicate that there is a notable difference between the three levels of ENVoY certification and efficacy in classroom management, with a 0% chance that these differences between groups could occur by chance. The null hypothesis for research question one is rejected being that the probability is .05 or less in 14 of the 18 comparisons between ENVoY demonstration, certified, and not certified teachers in the areas of student engagement, instruction, and classroom management. These low probability values confirm that the level of ENVoY certification is directly correlated to teacher efficacy in the areas of student engagement, instructional strategies, and classroom management.

Research Question Two Findings

RQ2: What is the relationship between teacher efficacy specific to student engagement, classroom management, and instructional strategies and teachers who receive ongoing ENVoY coaching and those who do not?

H2o: Teachers who receive ongoing ENVoY coaching will not exhibit significantly greater positive or negative perceptions of teacher efficacy related to student engagement,

classroom management, and instructional strategies than the teachers who do not receive ongoing ENVoY coaching.

H2a: Teachers who receive ongoing ENVoY coaching will exhibit significantly greater positive or negative perceptions of teacher efficacy related to student engagement, classroom management, and instructional strategies than the teachers who do not receive ongoing ENVoY coaching.

To analyze the second research question and related hypotheses, the District ENVoY survey scores were evaluated using a one-way analysis of variance (ANOVA) to determine if there is a difference between the number of individual coaching visits (independent variable) and efficacy in student engagement, instructional strategies, and classroom management (dependent variables). The ENVoY survey mean and standard deviation scores specific to school level certification are displayed in Table 15.

Table 15

Teacher Efficacy by Number of ENVoY Coaching Visits: SPSS Output Window

| | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Minimum | Maximum | |
|------------|------------|------|----------------|------------|----------------------------------|-------------|---------|---------|-------|
| | | | | | Lower Bound | Upper Bound | | | |
| ENGAGEMENT | 0 | 121 | 25.3554 | 3.99345 | .36304 | 24.6366 | 26.0742 | 9.00 | 32.00 |
| Number of | 1-10 | 623 | 24.6164 | 3.36124 | .13467 | 24.3519 | 24.8808 | 8.00 | 32.00 |
| Coaching | 11 or more | 175 | 24.7086 | 3.18414 | .24070 | 24.2335 | 25.1836 | 12.00 | 32.00 |
| Sessions | Total | 919 | 24.7312 | 3.42371 | .11294 | 24.5096 | 24.9529 | 8.00 | 32.00 |
| STRATEGIES | 0 | 114 | 26.4737 | 4.07281 | .38145 | 25.7180 | 27.2294 | 8.00 | 32.00 |
| Number of | 1-10 | 613 | 25.9233 | 3.59679 | .14527 | 25.6380 | 26.2086 | 8.00 | 32.00 |
| Coaching | 11 or more | 174 | 25.7184 | 3.33418 | .25276 | 25.2195 | 26.2173 | 12.00 | 32.00 |
| Sessions | Total | 901 | 25.9534 | 3.61418 | .12041 | 25.7171 | 26.1897 | 8.00 | 32.00 |
| MANAGEMENT | 0 | 121 | 26.3388 | 4.08157 | .37105 | 25.6042 | 27.0735 | 11.00 | 32.00 |
| Number of | 1-10 | 620 | 26.0274 | 3.50595 | .14080 | 25.7509 | 26.3039 | 8.00 | 32.00 |

| | | | | | | | | | |
|----------|------------|-----|---------|---------|--------|---------|---------|-------|-------|
| Coaching | 11 or more | 176 | 25.7727 | 3.21151 | .24208 | 25.2950 | 26.2505 | 16.00 | 32.00 |
| Sessions | Total | 917 | 26.0196 | 3.53332 | .11668 | 25.7906 | 26.2486 | 8.00 | 32.00 |

The descriptive output in Table 15 provides the response rate varies for each dependent variable, which ranges from 901 to 917 responses. The data from Table 11 show that the category of 1 to 10 coaching visits received the highest number of responses in all areas of teacher efficacy (student engagement, instruction and classroom management) with slightly higher means in the no coaching visits category.

Table 16

Teacher Efficacy by Number of ENVoY Coaching Visits: One-Way ANOVA Output Summary

| | | Sum of Squares | df | Mean Square | F | Sig. |
|-------------|----------------|----------------|-----|-------------|-------|------|
| ENGAGEMENT | Between Groups | 55.445 | 2 | 27.722 | 2.372 | .094 |
| | Within Groups | 10705.169 | 916 | 11.687 | | |
| | Total | 10760.614 | 918 | | | |
| INSTRUCTION | Between Groups | 41.024 | 2 | 20.512 | 1.572 | .208 |
| | Within Groups | 11715.019 | 898 | 13.046 | | |
| | Total | 11756.042 | 900 | | | |
| MANAGEMENT | Between Groups | 23.096 | 2 | 11.548 | .925 | .397 |
| | Within Groups | 11412.550 | 914 | 12.486 | | |
| | Total | 11435.647 | 916 | | | |

* $p < .05$

The data from the one-way ANOVA output summary in Table 16 shows non-significant results between teacher efficacy in the areas of engagement, instruction, and management when compared with the number of ENVoY coaching visits, with the between group differences showing how two or more groups are different, and the within group differences showing the differences for subjects who are in the same group. Since all probability values have a p-value

greater than .05, the outcome was to fail to reject the null hypothesis aligned to research question two.

Research Question Three Findings

RQ3: What is the relationship between teacher efficacy specific to student engagement, classroom management and instructional strategies and school level ENVoY implementation?

H3o: Teachers that work in certified schools and demonstration schools will not exhibit significantly greater positive or negative perceptions of teacher efficacy related to student engagement, classroom management, and instructional strategies than the teachers who work in noncertified schools.

H3a: Teachers that work in certified schools and certified demonstration schools will exhibit significantly greater positive or negative perceptions of teacher efficacy related to student engagement, classroom management, and instructional strategies than the teachers who work in noncertified schools.

To analyze the third research question and related hypotheses, the District ENVoY survey scores were evaluated using a one-way analysis of variance (ANOVA). The Tukey Honestly Significant Difference (HSD) post hoc tests were completed to confirm where the differences occurred between the school level Demonstration, Certified and Non-Certified groups when an overall statistically significant difference occurred in the group means. The ENVoY survey mean and standard deviation scores specific to school level certification are displayed in Table 14, with a calculated overall confidence level of 95% for each comparison.

Table 17

Teacher Efficacy by ENVoY School Level Certification: SPSS Output Window

| | | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Minimum | Maximum |
|-------------|-------------------------|-----|---------|-------------------|---------------|-------------------------------------|----------------|---------|---------|
| | | | | | | Lower Bound | Upper Bound | | |
| | | | | | | | | | |
| ENGAGEMENT | Certified School | 356 | 24.9270 | 3.20567 | .16990 | 24.5928 | 25.2611 | 12.00 | 32.00 |
| | Demonstration School | 88 | 24.6023 | 3.20395 | .34154 | 23.9234 | 25.2811 | 12.00 | 32.00 |
| | Not Certified School | 486 | 24.5864 | 3.61722 | .16408 | 24.2640 | 24.9088 | 8.00 | 32.00 |
| | Total | 930 | 24.7183 | 3.42727 | .11238 | 24.4977 | 24.9388 | 8.00 | 32.00 |
| INSTRUCTION | Certified School | 346 | 26.1127 | 3.42142 | .18394 | 25.7509 | 26.4745 | 11.00 | 32.00 |
| | Demonstration School | 85 | 25.5294 | 3.52740 | .38260 | 24.7686 | 26.2903 | 12.00 | 32.00 |
| | Not certified School | 480 | 25.8771 | 3.76218 | .17172 | 25.5397 | 26.2145 | 8.00 | 32.00 |
| | Total | 911 | 25.9341 | 3.61469 | .11976 | 25.6991 | 26.1692 | 8.00 | 32.00 |
| MANAGEMENT | Certified School | 355 | 26.4958 | 3.33647 | .17708 | 26.1475 | 26.8440 | 16.00 | 32.00 |
| | Demonstration School | 91 | 25.8681 | 3.60003 | .37739 | 25.1184 | 26.6179 | 16.00 | 32.00 |
| | Not Certified School | 481 | 25.6632 | 3.66385 | .16706 | 25.3349 | 25.9915 | 8.00 | 32.00 |
| | Total | 927 | 26.0022 | 3.55366 | .11672 | 25.7731 | 26.2312 | 8.00 | 32.00 |

The survey response rates in Table 17 vary from 911 to 930 total responses between the areas of student engagement, instructional strategies, and classroom management. The certified ENVoY school group scored a slightly higher mean than demonstration school and the not certified school group in the areas of student engagement (24.9270), instructional strategies (26.1127) and classroom management (26.4958), which showed that the certified ENVoY schools expressed greater efficacy than demonstration schools and not school certified school groups. It is important to note that this output table is not comparing individual level ENVoY

certification and is only analyzing whether or not teacher perceptions of efficacy is related to the school level ENVoY certification that is earned when comparing the 9 certified schools, 2 demonstration schools and 13 not certified schools.

Table 18
Teacher Efficacy by School Level ENVoY Certification: One-Way ANOVA

Output Summary

| | | Sum of Squares | df | Mean Square | F | Sig. |
|-------------|----------------|----------------|-----|-------------|-------|--------------|
| ENGAGEMENT | Between Groups | 25.138 | 2 | 12.569 | 1.070 | .343 |
| | Within Groups | 10887.051 | 927 | 11.744 | | |
| | Total | 10912.189 | 929 | | | |
| INSTRUCTION | Between Groups | 26.520 | 2 | 13.260 | 1.015 | .363 |
| | Within Groups | 11863.528 | 908 | 13.066 | | |
| | Total | 11890.048 | 910 | | | |
| MANAGEMENT | Between Groups | 143.396 | 2 | 71.698 | 5.736 | .003* |
| | Within Groups | 11550.600 | 924 | 12.501 | | |
| | Total | 11693.996 | 926 | | | |

* $p < .05$

Table 18 shows the between groups comparisons in the areas of engagement, instruction and management by ENVoY site level certification. The between group differences show how two or more groups are different, and the within group differences show differences for subjects who are in the same group. While the probability levels in the areas of engagement and instruction were greater than .05 and produced non-significant results, it is important to note that the p-value in the area of management is .003, which means that there is a .3% chance that the differences between groups could happen by chance. The statistically significant difference found in this ANOVA output summary required further post hoc investigation, and the results of this statistical analysis are represented in Table 19.

Table 19

Tukey HSD Comparisons for ENVoY District Survey by School Level Certification

| Dependent Variable | (I) SCHOOL_LEVEL | (J) SCHOOL_LEVEL | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|--------------------|----------------------|----------------------|-----------------------|------------|-------|-------------------------|-------------|
| | | | | | | Lower Bound | Upper Bound |
| ENGAGEMENT | Certified School | Demonstration School | .32469 | .40798 | .426 | -.4760 | 1.1254 |
| | | Not Certified School | .34055 | .23907 | .155 | -.1286 | .8097 |
| | Demonstration School | Certified School | -.32469 | .40798 | .426 | -1.1254 | .4760 |
| | | Not Certified School | .01585 | .39702 | .968 | -.7633 | .7950 |
| | Not certified School | Certified School | -.34055 | .23907 | .155 | -.8097 | .1286 |
| | | Demonstration School | -.01585 | .39702 | .968 | -.7950 | .7633 |
| INSTRUCTION | Certified School | Demonstration School | .58330 | .43758 | .183 | -.2755 | 1.4421 |
| | | Not Certified School | .23563 | .25491 | .356 | -.2647 | .7359 |
| | Demonstration School | Certified School | -.58330 | .43758 | .183 | -1.4421 | .2755 |
| | | Not Certified School | -.34767 | .42536 | .414 | -1.1825 | .4871 |
| | Not Certified School | Certified School | -.23563 | .25491 | .356 | -.7359 | .2647 |
| | | Demonstration School | .34767 | .42536 | .414 | -.4871 | 1.1825 |
| MANAGEMENT | Certified School | Demonstration School | .62764 | .41543 | .131 | -.1877 | 1.4429 |
| | | Not Certified School | .83257 [*] | .24739 | .001* | .3471 | 1.3181 |
| | Demonstration School | Certified School | -.62764 | .41543 | .131 | -1.4429 | .1877 |
| | | Not Certified School | .20493 | .40418 | .612 | -.5883 | .9981 |
| | Not Certified School | Certified School | -.83257 [*] | .24739 | .001* | -1.3181 | -.3471 |
| | | Demonstration School | -.20493 | .40418 | .612 | -.9981 | .5883 |

* $p < .05$

The Tukey HSD test was conducted to specifically analyze the statistical significance between the ENVoY certified schools, demonstration schools and not certified schools in the area of classroom management. The probability value between the ENVoY certified schools and not certified schools was .001, which calculates to a .1% chance that these differences between these two school certification levels could occur by chance. These significant statistical findings show strong evidence that ENVoY school certification has a positive impact on teacher efficacy in the area of classroom management.

Summary of Results

This chapter presented the results of the study that align to the three primary research questions in this study. Table 20 provides an overview of the three null hypotheses and corresponding outcome based on the findings. Chapter five will provide a comprehensive analysis of the findings along with recommendations for future research specific to ENVoY implementation and teacher efficacy.

Table 20

Summary Hypotheses Testing Outcomes Measuring Teacher Efficacy and ENVoY

| Null Hypothesis | Outcome |
|---|---|
| <p>H1o: ENVoY certified and demonstration teachers will not exhibit greater positive or negative perceptions of teacher efficacy related to student engagement, classroom management, and instructional strategies than the teachers who are not certified.</p> | <p>Reject the Null Hypothesis</p> |
| <p>H2o: Teachers who receive ongoing ENVoY coaching will not exhibit significantly greater positive or negative perceptions of teacher efficacy related to student engagement, classroom management, and instructional strategies than the teachers who do not receive ongoing ENVoY coaching.</p> | <p>Fail to Reject the Null Hypothesis</p> |
| <p>H3o: Teachers that work in certified schools and demonstration schools will not exhibit significantly greater positive or negative perceptions of teacher efficacy related to student engagement, classroom management, and instructional strategies than the teachers who work in noncertified schools.</p> | <p>Reject the Null Hypothesis</p> |

Chapter V: Discussions, Implications and Recommendations

This chapter presents a summary of this research study and conclusions from data presented in chapter four. The discussion of the findings provides implications for action, recommendations for further research, and concluding remarks.

Purpose of the study

The purpose of this correlational study was to explore the implementation of Educational Non-Verbal Yardsticks (ENVoY) to determine if this innovation has an impact on teacher efficacy in student engagement, classroom management, and instructional strategies. Additionally, the study answered whether or not teacher efficacy was viewed the same by all teaching staff across 24 elementary schools or if there were differences based on a teacher's level of ENVoY certification and number of ongoing coaching visits. Site level ENVoY implementation was also examined to determine if teacher efficacy is impacted by the ENVoY certification level of the elementary school.

The study sample consisted of 1,182 licensed teachers from 24 elementary schools within a suburban school district. The independent variables in the study included individual ENVoY certification, individual ENVoY coaching, and school level of ENVoY certification. ENVoY was introduced to the district of study during the 2011-2012 school year. Currently, there are nine ENVoY certified schools and two ENVoY demonstration schools. Additionally, all 13 remaining schools have introduced and launched ENVoY at their sites. The district coaching model currently includes six district level engagement coaches who support all 24 schools with ENVoY coaching. Additionally, two of the six engagement coaches are also trained to re-certify individuals who currently work in certified schools. Schools also have the option to send additional internal staff to a week-long advanced training called ENVoY Coaches' Week that is

entirely focused on implementing the ENVoY coaching strategies, with the option for these staff to seek certification as a certified ENVoY coach. A standard Green Chair coaching session lasts about 30 minutes and consists of an observation followed by immediate feedback. As the focus of the lesson is management, the educator may be in any phase of the lesson: getting attention, teaching, transition or seatwork. A typical school-wide ENVoY launch consists of ENVoY 7 Gems training, several ENVoY Green Chair coaching days and multiple ENVoY Live Site Visits, which includes teachers receiving coaching from an ENVoY trainer or coach while observing ENVoY certified teachers and ENVoY certified schools. (Table 7)

The dependent variables were efficacy in student engagement, efficacy in instructional strategies, and efficacy in classroom management. To determine if the means of these groups differ, a one-way analysis of variance (ANOVA) was selected as the primary statistical test as it meets the criteria specific to sample size meeting the minimum criteria of 15 to 20 responses while also having one categorical independent variable and a normally distributed interval dependent variable. The Tukey's Honest Significant Difference (HSD) post hoc test was completed when a statistically significant difference in group means from the one-way ANOVA was calculated to determine which mean among the set of means differ from the rest.

Research Questions

RQ1: What is the relationship between teacher efficacy specific to student engagement, classroom management, and instructional strategies and the level of individual ENVoY certification in elementary school settings as perceived by teachers?

RQ2: What is the relationship between teacher efficacy specific to student engagement, classroom management, and instructional strategies and teachers who receive ongoing ENVoY coaching and those who do not?

RQ3: What is the relationship between teacher efficacy specific to student engagement, classroom management, and instructional strategies and school level ENVoY implementation?

The information in Table 20 summarizes the outcome for each null hypothesis based on the one-way ANOVA and Tukey HSD statistical tests.

Table 20

Summary Hypotheses Testing Outcomes Measuring Teacher Efficacy and ENVoY

| Null Hypothesis | Outcome |
|--|------------------------------------|
| H1o: ENVoY certified and demonstration teachers will not exhibit greater positive or negative perceptions of teacher efficacy related to student engagement, classroom management, and instructional strategies than the teachers who are not certified. | Reject the Null Hypothesis |
| H2o: Teachers who receive ongoing ENVoY coaching will not exhibit significantly greater positive or negative perceptions of teacher efficacy related to student engagement, classroom management, and instructional strategies than the teachers who do not receive ongoing ENVoY coaching. | Fail to Reject the Null Hypothesis |
| H3o: Teachers that work in certified schools and demonstration schools will not exhibit significantly greater positive or negative perceptions of teacher efficacy related to student engagement, classroom management, and instructional strategies than the teachers who work in noncertified schools. | Reject the Null Hypothesis |

Summary of Findings

The findings for Research Question 1 are addressed in this section. The One-way ANOVA Output Summary (Table 13) determined the following outcomes when analyzing the between-group differences:

- In the area of teacher efficacy specific to student engagement, there is a statistically significant difference between the demonstration, certified, and not certified groups, with a p-value of .007.
- In the area of teacher efficacy specific to instructional strategies, there is a statistically significant difference between the demonstration, certified, and not certified groups, with a p-value of .006.
- In the area of teacher efficacy specific to classroom management, there is a statistically significant difference between the demonstration, certified, and not certified groups, with a p-value of .000.
- The Tukey Honestly Significant Difference Comparisons focused on Teacher Efficacy by ENVoY Whole Group Certification, (Table 14) determined the following:
 - In the area of teacher efficacy specific to student engagement, a statistically significant difference exists between ENVoY demonstration certified teachers and certified teachers, with a p-value of .031. Additionally, the difference between demonstration certified teachers and not certified teachers is significant, with a p-value of .005.
 - In the area of teacher efficacy specific to student engagement, there was not a statistical difference between ENVoY certified teachers and not certified teachers, with a p-value of .414.
 - In the area of teacher efficacy specific to instructional strategies, a statistically significant difference exists between ENVoY demonstration certified teachers and certified teachers, with a p-value of .005. Additionally, the difference between

demonstration certified teachers and not certified teachers is significant, with a p value of .006.

- In the area of teacher efficacy specific to instructional strategies, there was not a statistical difference between ENVoY certified teachers and not certified teachers, with a p-value of .994.
- In the area of teacher efficacy specific to classroom management, a statistically significant difference exists between ENVoY demonstration teachers and certified teachers, with a significant p-value of .000. Additionally, the difference between demonstration and not certified teachers also showed a p-value of .000 and the difference between certified teachers and not certified teachers also showed an equally strong statistical significance with a p-value of .000.

There is sufficient evidence to reject the null hypothesis aligned to Research Question 1. The strongest impact of ENVoY was felt in the area of classroom management between the demonstration, certified and not certified teachers. It is also important to note that the difference between ENVoY demonstration teachers and certified teachers is significant in the areas of engagement, instruction and management. Additionally, there is a statistically significant difference between the ENVoY demonstration teachers and not certified teachers in the areas of engagement, instruction, and classroom management.

RQ2: What is the relationship between teacher efficacy specific to student engagement, classroom management, and instructional strategies and teachers who receive ongoing ENVoY coaching and those who do not? The One-way ANOVA Output Summary (Table 16) determined the following outcome when analyzing the between-group differences:

- In the area of teacher efficacy specific to student engagement, there was not a statistically significant difference when compared to the number of ongoing ENVoY coaching visits, with a p-value of .094.
- In the area of teacher efficacy specific to instructional strategies, there was not a statistically significant difference when compared to the number of ongoing ENVoY coaching visits, with a p-value of .208.
- In the area of teacher efficacy specific to classroom management, there was not a statistically significant difference when compared to the number of ongoing ENVoY coaching visits, with a p-value of .397.

There was not sufficient evidence to reject the null hypothesis related Research Question 2. The data did not show a statistically significant difference between teacher efficacy in the areas of engagement, instruction, and classroom management and the number of ENVoY coaching visits that teachers participated in.

RQ3: What is the relationship between teacher efficacy specific to student engagement, classroom management, and instructional strategies and school level ENVoY implementation? The One-way ANOVA Output Summary (Table 18) determined the following outcome when analyzing the between-group differences:

- In the area of teacher efficacy specific to student engagement, there was not a statistically significant difference when compared to level of ENVoY school certification, with a p-value of .343.
- In the area of teacher efficacy specific to instructional strategies, there was not a statistically significant difference when compared to level of ENVoY school certification, with a p-value of .365.

- In the area of teacher efficacy specific to classroom management, there was a statistically significant difference when compared to level of ENVoY school certification, with a strong p-value of .003.

There is sufficient evidence to reject the null hypothesis aligned to Research Question 3 in the area of classroom management, with statistically significant differences shown between the ENVoY certified and not certified schools.

Discussions and Conclusions

The statistically significant data specific to Research Question 1 shows the impact that ENVoY training has on teacher efficacy in the areas of engagement, instruction, and classroom management, with the data showing the strongest difference between demonstration teachers and not certified teachers. These data show that ENVoY training and certification levels definitely changed how teachers felt about their practice. It is important to note that the more advanced levels of ENVoY training and certification occur with the demonstration group, and the data supports that this group of teachers has the highest perceptions of teacher efficacy in engagement, instruction, and classroom management. Bandura (1997) specified three main areas of efficacy that align to efficacy beliefs, which are mastery experiences, vicarious experiences with modeling, and verbal persuasion, all of which are part of the rigorous certification process that demonstration teachers participate in and confirm the impact that advanced certification has in the areas of student engagement, instructional strategies, and classroom management. The data specific to teacher efficacy and classroom management was highly significant with a probability value of .000 between demonstration, certified, and not certified teachers. These data also correlate to the research conducted by Edwards, Green, Lyons, Rogers, and Swords (1998),

which confirmed an increase in individual teacher efficacy and attitude towards school in the group that received ENVoY training and coaching when compared to the control group.

The data related to Research Question 2 does not align to the literature specific to the role that coaching has on ENVoY implementation and efficacy, specifically when referencing the research conducted by Panfilio-Padden (2014), who found that, over a 10-week period, coaching supported teachers in solving instructional problems, applying new ideas to their instructional practice, and implementing new knowledge. Additionally, Houston (1997) found that teachers who engaged in job-embedded coaching specific to ENVoY made statistically significant improvements, and non-coached teachers demonstrated decreased ENVoY performance. This research was confirmed by Edwards et al. (1998) who also found that teacher attitudes towards their school increased for individuals who participated in job-embedded staff development in the form of coaching. Finally, Grinder (2015) has created a professional development model that “embraces collegial and professional support” through coaching and feedback to support implementation at the individual and site level (p. 3) which embeds coaching as an integral component to ENVoY implementation. There are a few possible reasons that the data from this survey does not align with the research specific to ENVoY coaching:

- The district had an instructional coaching model in place prior to implementing ENVoY engagement coaches. The roles of the instructional coaches were to provide job-embedded professional development in the core content areas and ENVoY. Many of the gains related to coaching and ENVoY may have taken place prior to the 2014-2015 school year, which was the first year that the engagement coach positions started in this district.

- The district requires two ENVoY coaching visits each month for teachers who are in years one through three of their teaching years of service. This is also a one-year requirement for teachers who have transferred into the district. There may be a correlation between this new teacher group and overall lower efficacy despite the high number of coaching visits.
- Many teachers participate in informal coaching with the ENVoY engagement coach, which may include support with one specific strategy, meeting to discuss how to reach individual students, organizing the classroom environment to foster increased student engagement and independence, creating visuals to support students during the teaching, instruction, transition, and seatwork phases of the lesson, or talking through a plan to reach their certification goals.
- Teachers also participate in coaching visits with staff who are not engagement coaches. These staff have participated in ENVoY coaches' week training and are either certified to coach or are working towards this certification. This group of staff includes teachers, reading and math specialists, administrative interns, assistant principals, and principals. This group of building-based internal coaches provides continuous support to staff who are looking to maintain or increase their level of ENVoY implementation. It is important to note that these informal coaching visits are not included in the survey.
- Teachers also participate in formal and informal coaching conversations with their colleagues during collaboration times, during team meetings, and collegial conversations.
- Teachers participate in formal and informal coaching conversations with principals during informal observations and formal evaluations. The principals of all 24 schools in

the study have participated in ENVoY training and have graduated from ENVoY Coaches' Week

- Some teachers participate in formal coaching conversations as a part of their district evaluation process with either a peer evaluator or a district evaluator.

The data specific to Research Question 3 confirms the relationship between teacher efficacy in the area of classroom management and school certification, which aligns to the research that supports the ENVoY implementation continuum (Table 6) created by Brickman and Grinder (2014). Gibbs and Powell (2012), also align with the research results of this study by stating that the “sense of teacher’s positive self-efficacy as a collective group provides endorsement of leadership values and a school ethos supportive of individual teacher’s efficacy beliefs” (p.580).

Implications of Research Findings for Practitioners

The results of this study specific to ENVoY implementation and teacher efficacy have implications for potential positive change on the individual level and organizational level. ENVoY is aligned to the Every Student Succeeds Act (ESSA) as a provision in this act “helps to support and grow local innovations- including evidence-based and place-based interventions developed by local leaders and educators” (para. 8). Dan Domenech, the Executive Director of the School Superintendents Association (AASA) stated the following after visiting an ENVoY certified school:

As I was observing, what occurred to me is one of the things we are trying to do nationally, and one of the things that our new education law, ESSA, attempts to do is to introduce into the classroom, all of the social emotional factors that are so critical to learning. That’s what I saw this morning, I saw a classroom where the social emotional

needs are being met by the teacher at the same time that they are teaching, so that has to have a major impact, if not immediate, on achievement. (National Joint Powers Alliance, 2017)

At the individual level of change, the data from this study supports the following:

- Individual teachers would benefit from becoming ENVoY certified, as this is the beginning benchmark to further their implementation of ENVoY.
- Teachers would highly benefit from becoming demonstration level teachers, as the data from this study shows an increase in their perception of teacher efficacy in the areas of student engagement, instruction, and classroom management. A strong statistical difference exists between certified ENVoY demonstration teachers, certified teachers, and not certified teachers, which indicates that earning demonstration certification elevates the level of efficacy in this group of educators and is the pathway to increased student engagement, instructional strategies, and classroom management.

At the organizational level, the results of this study may inform leaders at the school, district, and national level to implement the following:

- Encourage ENVoY demonstration certification, create systems and structures for training and support to achieve this rigorous level of certification through ongoing training and support to implement the advanced strategies and certifications aligned to the demonstration certification process.
- Increase the efficacy or ability to promote student success in the areas of student engagement, instructional strategies, and classroom management in all staff who work directly with students by providing systemic ENVoY training and support.

- Incorporate ENVoY as an innovative school reform or improvement strategy by measuring the impact it has on staff, students, and the entire school system.
- Encourage undergraduate and graduate teacher preparation programs to incorporate ENVoY training, implementation, and certification into their required coursework in order to effectively prepare pre-service educators for success in the areas of classroom management, student engagement, and instructional strategies.
- ENVoY consultants may consider creating an advanced demonstration certification for those teachers who have obtained certification and are looking to continually advance their implementation.
- ENVoY consultants may find benefit in publishing an implementation and sustainability plan that would support educational systems that are beginning their work with this program.

Recommendations for Further Research

Based on the findings of the study, the following are recommendations for further research regarding ENVoY implementation. The findings reveal that teachers who are certified ENVoY demonstration teachers demonstrate a statistically significant difference in the area of teacher efficacy specific to student engagement, instructional practices, and classroom management. The following research recommendations may provide an even stronger understanding of the impact that ENVoY has on the following areas specific to the educational field:

- Knowing that teacher burnout and retention are a significant concern, it would be of value to conduct a case study specific to this subgroup to research how ENVoY has impacted them, both professionally and personally.

- Research the connection between teacher efficacy and/or ENVoY certification levels and student behavior referral discipline rates.
- Analyze the correlation between ENVoY implementation and/or teacher efficacy specific to achievement outcomes aligned to overall proficiency and growth scores on state accountability and nationally normed tests.
- Research the relationship between ENVoY and marginalized student populations to determine if these strategies have an impact on their efficacy and achievement abilities.
- Research student perceptions of ENVoY, specifically related to how it has impacted their learning, engagement, independence, and relationships with staff.
- Research the relationship between ENVoY implementation and pre-service teachers' ability to support students in the areas of student engagement, instruction, and classroom management.
- Analyze the relationship between a building leader's efficacy with ENVoY implementation and overall success of the school.
- Research the ENVoY coaching model in a qualitative manner to support further program evaluation and provide options for continued implementation.
- Analyze the relationship between the collective efficacy and ENVoY implementation between the demonstration certified subgroup, entire certified teams and certified or demonstration schools.
- Evaluate existing ENVoY coaching models to comprehensively examine the how the engagement coach and internal coaches can best support each individual in reaching their goals specific to ENVoY implementation.

Limitations

The primary purpose of this study was to investigate the relationship between teacher efficacy specific to student engagement, instructional strategies, and classroom management and ENVoY implementation at the individual and building level while also researching the relationship between teacher efficacy and ongoing ENVoY coaching. The limitations of the study include the following:

- The survey was administered to all licensed staff on Dec. 4, 2017, which limits the opportunity to analyze longitudinal patterns over time specific to ENVoY implementation.
- The survey was conducted in a large Midwestern school district with relatively low diversity and poverty. The results from this study may not be representative of schools elsewhere in the nation or with different student and staff demographics.
- Other ENVoY districts may be very different stages of implementation, which will limit the ability to apply the research results to other districts.
- The study participants were limited to licensed staff, which excludes non-licensed staff, such as paraprofessionals who implement ENVoY in various settings.
- The survey instrument was slightly adjusted by the district specific to the wording and reduction of the Likert scale from 9 points to 4 points. This will limit how the results of this study are generalized to other studies which implemented the Teachers' Sense of Efficacy Scale with the original wording and Likert Scale.

Concluding Remarks

It is imperative to consider the findings of this study to determine how innovative programs, such as ENVoY, are related to ESSA and could impact teachers and leaders at the

school, district and national level. Research clearly shows that creating a safe and nurturing classroom environment is critical to meeting the emotional, social and academic learning needs of students. Classroom management training is critical to supporting both pre-service and in-service teachers in creating the ideal classroom environment (Emmer & Stough, 2001).

The findings of this study have determined a statistically significant difference related to teacher efficacy in the areas of student engagement, instructional strategies, and classroom management in relation to the individual level of ENVoY certification, with demonstration teachers earning the most advanced level of certification and showing the highest levels of efficacy. The current study revealed that there was not a significant difference in the relationship between teacher efficacy and the number of ongoing ENVoY coaching visits. In the area of school level certification and teacher efficacy, the study revealed a statistically significant difference in the area of classroom management.

Educational systems must continue to research innovative school reform strategies, such as ENVoY, to create implementation plans that are aimed at comprehensive school improvement. Further research is needed to determine if a relationship exists between ENVoY and discipline rates, achievement results, student perceptions, and pre-service teacher success. Additionally, classrooms are increasingly culturally and linguistically diverse and have a wide range of learning abilities. Because most teachers are Caucasian and derive from middle-class backgrounds, these educators may be unintentionally unaware of the needs the diverse learners require (Tileston & Darling, 2008). As an educational system, it is imperative that proactive classroom management frameworks, such as ENVoY, are considered in order to shift the focus from suspension and dismissal rates to providing comprehensive professional development that fosters the ability of educators to build positive relationships with students, increase student

engagement and implement instructional strategies that enhance collaboration and independence. Education and innovation often do not go hand-in-hand, and the results from this study highlight the need to implement proactive management systems, such as ENVoY, which positively impacts the school environment at a systems level due to the focus on deep implementation, continuous professional development, and building teacher efficacy.

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Appendix A

2017-18 Elementary Licensed Staff ENVoY Survey

This ENVoY (Educational Non-Verbal Yardsticks) survey is being administered to all licensed elementary teachers in our district. This research based survey is a modified version of the Teacher's Sense of Efficacy Scale, which was developed by Megan Tschannen-Moran and Anita Woolfolk Hoy. The information gathered will be used to analyze overall perceptions of teacher efficacy, which is defined as having confidence in your ability to promote student success in the areas of classroom management, instructional strategies and student engagement. The results will be used to identify patterns in perception and areas of concern or themes to address.

By completing this ENVoY survey, you are providing your consent to participate. This survey will take approximately 20 minutes of your time and your responses will be confidential. Please also note that responses will not be identified by individual. Your thoughts and opinions related to ENVoY implementation are valuable in helping our district to promote safe and welcoming learning environments which aligns to our [REDACTED] mission of effectively educating each of our students for success. We appreciate your support.

For questions 1-24, please rate your level of agreement with each statement
Items in matrix with Strongly disagree, Disagree, Agree, and Strongly agree as options

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

- 22. I can assist families in helping their children do well in school.
- 23. I can implement alternative strategies in my classroom or small group.
- 24. I can provide appropriate challenges for very capable students.

Demographics

- 25. How many complete school years have you implemented ENVoY?
 - a. Less than 1 year
 - b. 1 year
 - c. 2 years
 - d. 3 years
 - e. 4 years
 - f. 5 or more years

- 26. Please select your level of certification for each grouping option.

| Grouping | Not certified | Certified teacher | Demonstration teacher |
|--------------------|-----------------------|-----------------------|-----------------------|
| Whole group | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Small group | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| One-on-one | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

- 29. What is your level of ENVoY certification as a coach?
 - a. Not a certified coach
 - b. Ruby
 - c. Emerald
 - d. Sapphire

- 30. On average, how many ENVoY coaching visits have you received within a single year or do you anticipate for the full year if this is your first year receiving coaching?
 - a. 0 - I have not received ENVoY coaching
 - b. 1-2
 - c. 3-5
 - d. 6-10
 - e. 11-15
 - f. Greater than 15

- 31. Which model(s) of ENVoY coaching do you find beneficial? (Check all that apply.)
 - a. I have not received ENVoY coaching
 - b. Consultation coaching
 - c. Observation coaching with feedback
 - d. Video coaching
 - e. Shadow coaching
 - f. Visited and observed another ENVoY site (live site visit)
 - g. ENVoY gem hunt

32. What type(s) of ENVoY coaching feedback do you find beneficial? (Check all that apply.)
- a. I have not received ENVoY coaching
 - b. Labels that reinforce the strategies I am implementing
 - c. Refinements to increase my level of implementation
 - d. Learning about new skills/strategies to implement
 - e. Other, please specify. _____
33. What school do you currently work at?
- a. List all 24 elementary schools
34. How many years have you worked as a licensed teacher?
- a. 0-3 years
 - b. 4-9 years
 - c. 10-15 years
 - d. Greater than 15 years
35. What is your current primary role? (Please choose the role with highest FTE if serving in multiple roles.)
- a. K-5 classroom teacher
 - b. English language or special education teacher
 - c. Specialist (art, explorations, media, music, physical education)
 - d. Academic support (core support, literacy intervention teacher, supplemental teacher, talent development)
 - e. Staff support (engagement coach, literacy specialist, math specialist)

Appendix B

CONFIDENTIALITY, NON-DISCLOSURE AND NON-USE AGREEMENT

WHEREAS, [REDACTED] (hereinafter referred to as "District") owns and/or is responsible for certain "Not Public" student and school data that it has generated, collected, or otherwise obtained in paper or electronic form, hereafter called "DATA"; and

WHEREAS, [REDACTED] (hereinafter referred to as "Vendor") is being provided with data for purposes of *a doctorate degree from Bethel University*, and

WHEREAS, pursuant to the Mailing, the District will share private educational data *with regard to her study, concerning Educational Nonverbal Yardsticks (ENVoY), using the results of the Staff Efficacy Survey (conducted by RET) to analyze the relationship between the degree of ENVoY training and teacher efficacy* and

NOW, THEREFORE, in consideration of the following promises by Vendor, the District agrees to provide certain data:

1. Vendor acknowledges that DATA provided by the District are considered "not public" (confidential and/or private) by federal law and/or state statute.
2. The Vendor promises to maintain DATA, received from the District, according to the statutory provisions applicable to the DATA.
 - a. The Vendor promises that DATA supplied by the District will not be used in any other way or for any other purpose than expressly stated herein.
 - b. The Vendor promises not to convey, copy, transfer, or otherwise disclose in any manner, DATA to any individual or entity without proper prior written authorization from the District.
 - c. The Vendor promises that it will be bound by and will follow the terms and conditions of this Agreement after completion of the task for which the Contractor has acquired access to DATA.
 - d. The Vendor promises that the original and all copies of DATA will be returned to the District or destroyed in such a manner that they cannot be read, executed, viewed or in anyway accessed when 1) the Vendor has completed the task as defined herein for which the Vendor has acquired access to DATA, or 2) at any time upon written request by the District; whichever event occurs first. If the Vendor destroys the DATA, the Vendor promises to promptly provide a written statement certifying to the District the complete and proper destruction of DATA.
 - e. Vendor agrees to indemnify and hold harmless the District from any and all claims relating to state and federal data practices violations or claims of breach of privacy resulting from Vendors breach of its covenants and promises set forth in this agreement.

3. The laws of the State of Minnesota shall govern as to the interpretation and effect of this Agreement.
4. It is understood and agreed that the entire Agreement of the parties is contained herein (and as amended as provided herein) and this Agreement supersedes all oral agreements and negotiations between the parties relating to the subject matter hereof, as well as any previous agreements presently in effect between the parties or any third parties relating to the subject matter hereof. Any alterations, amendments, deletions or waivers of the provisions of this Agreement shall be valid only when expressed in writing and duly signed by the authorized representatives of the parties.
5. The Vendor and the District acknowledge that they have read this Agreement, understand it and agree to be bound by all of the terms and conditions contained herein; and further agree that this Agreement is the complete and exclusive agreement between the Vendor and District in this matter.
6. By signing this agreement, the signers are representing and warranting to both organizations that they have the authority to enter into this Agreement on behalf of their organizations. Both parties have obtained all authorizations and consents necessary. This signed agreement represents a valid and binding obligation of the Vendor and the District.

Identifying information about the district as a whole or individuals within the district will not be disclosed. _____ (Initials)

A copy of research findings will be supplied to the district upon completion of the study.
_____ (Initials)

By: _____
Director of Research, Evaluation and Testing

Date 11/27/17

Date 11/27/17