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# Exploring Changes in New Teacher Self-Efficacy

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**Abstract**

This action research study focused on first-year teachers who were assigned to teach in grades 6-12 at a suburban school district and were involved in a mandated new teacher mentor program. The researcher evaluated participants' self-efficacy using the Teachers' Sense of Efficacy Scale (TSES) and a series of qualitative questions to determine if a first-year teacher's self-efficacy changes during the first semester of their mentorship experiences and if each domain of a first-year teacher's self-efficacy (student engagement, instructional strategies, or classroom management) changes during the first semester of their mentorship experience. The results provide promising, albeit not conclusive, findings in support of mentorship mitigating the decline of first-year teachers' self-efficacy, and the researcher was able to identify targeted areas of support for the participants within the three domains of self-efficacy. Therefore, the study affirms the need for continued research analyzing correlations between new teacher self-efficacy and mentorship.

*Keywords: self-efficacy, Teachers' Sense of Efficacy Scale (TSES), first-year teacher, mentorship*

## Exploring Changes in New Teacher Self-Efficacy

A new teacher's first year contains a variety of challenging and celebratory experiences, each formative in its own way. New teachers aspire to become effective educators, set positive expectations for students, manage the classroom, design successful lessons, and grow as professionals (Wong & Wong, 2018), and for most, the first year is the first time they attempt those tasks outside a teacher preparation program. So when their pre-service fantasies about what it means to be a teacher come face-to-face with their first-year realities, they must strive — and often struggle — to master their chosen profession (Ryan, 1986). That endeavor then impacts the development of their self-efficacy, which triggers the distinction between teachers knowing certain instructional strategies work and *believing* they possess the skills to put those strategies into action (Bandura, 1977). The results of their first-year experiences and their developing self-efficacy, whether positive or negative, impact not only themselves but also their students and the school community (Bandura, 1994; Ryan, 1986).

Providing first-year teachers with a mentor can facilitate the transition from pre-service to full-time teaching. Daloz (as cited it Zachary, 2012) describes the mentoring relationship like a new tree planted in the midst of an old forest: the roots of the new tangling with the roots of the old and making the entire forest stronger, implying that teachers grow better when they grow together. Furthermore, research has shown induction support and mentor programs have a positive impact on teacher satisfaction and commitment, on student achievement, and on classroom practices like lesson planning, instructional strategies, and management (Ingersoll & Strong, 2011). Mentorship also positively impacts new teacher retention. A longitudinal study reported that the vast majority of first-year teachers assigned a mentor remained in the profession for a second year as compared to teachers not assigned a mentor, a trend that continued through

year five (Gray & Taie, 2015). Additionally, an analysis of ten international studies determined that the provision of a mentor was a factor of effective induction in every single study; none of the other twenty-three factors showed the same widespread support (Kearney, 2014, p. 8). These correlations and others have been the focus of both qualitative and quantitative studies dating back to the 1980s and continuing into the present day.

Research clearly indicates that mentorship matters (Helms-Lorenz et al., 2013; Ingersoll & Smith, 2004; Ingersoll & Strong, 2011), and mentor programs are becoming increasingly prevalent across the United States as a result (Education Commission of the States, 2019). With the passing of SB133, the South Dakota Department of Education (SD DOE) launched a statewide initiative for new teacher mentorship in the fall of 2016, which provided for the creation of a mentor program for beginning teachers during the first two years of their teaching careers (SB. 133, 2016 Leg. § 5). The South Dakota (SD) Statewide Mentoring Program is currently in its fifth year of implementation.

This study focused on first-year teachers who were assigned to teach in grades 6-12 at a suburban SD school district and were involved in the SD Statewide Mentoring Program. The researcher utilized action research to track potential correlations between new teacher self-efficacy and mentorship, a topic notably scarce within existing research (Helms-Lorenz et al., 2013). The researcher evaluated participants' self-efficacy using the Teachers' Sense of Efficacy Scale (TSES) (Tschannen-Moran & Woolfolk Hoy, 2001) and a series of qualitative questions to determine if a first-year teacher's self-efficacy changes during the first semester of their mentorship experiences and if each domain of a first-year teacher's self-efficacy (student engagement, instructional strategies, or classroom management) changes during the first semester of their mentorship experience.

While many factors influence the development of a first-year teacher's self-efficacy, all participants in this study share one in common: the intentional investment of a dedicated mentor. This study seeks to understand correlations specific to that factor, and the following literature review explores the self-efficacy framework, uncovers correlations between teachers' and students' beliefs and behaviors, considers trends related to years of teaching experience, and examines existing correlations between self-efficacy and mentorship.

## Review of the Literature

### Self-Efficacy Framework

Self-efficacy refers to a person's belief in their ability to accomplish a goal, complete a task, or produce a desired outcome (Bandura, 1977, 1994). This concept rests at the core of human agency, and a necessary delineation accompanies Bandura's seminal (1977) framework: the difference between an outcome expectancy and an efficacy expectancy. In the former, a person believes certain actions can or cannot lead to a certain outcome; in the latter, a person believes *their own* actions can or cannot lead to the same outcome (Bandura, 1977). Gibson and Dembo (1984) expanded upon Bandura's work and explored it specifically with teachers. In addition to validating the construct of teacher self-efficacy, their findings support Bandura's: teachers' beliefs and behaviors are influenced by both outcome expectancies and efficacy expectancies. Gibson and Dembo (1984) further clarified that outcome expectancies reflect factors outside a teacher's control – such as home environment and school context – and efficacy expectancies reflect factors within a teacher's control – such as effective teaching strategies.

While the difference between the two expectancies may be subtle, the delineation is significant. A person may believe certain actions can lead to a certain outcome, but if they lack the belief in their own ability to execute those actions, they may not act on the initial belief (Bandura, 1977; Gibson & Dembo, 1984). For example, consider these two statements from Gibson and Dembo's (1984, p. 573) original study: "Even a teacher with good teaching abilities may not reach many students," and "When I really try, I can get through to most difficult students." The first statement refers to an outcome expectancy and the degree to which a teacher believes outside factors overwhelm a teacher's abilities. The second statement refers to an efficacy expectancy and the degree to which a teacher believes outside factors can be overcome

by a teacher's abilities. Together, these two expectancies influence a teacher's behavior (Gibson & Dembo, 1984), which in this example would determine whether or not the teacher chooses to persist in reaching all students. In the decades since the seminal framework was established, researchers have continued to study teacher self-efficacy, and the construct has continued to prove both valid and influential (Guskey & Passaro, 1994; Klassen et al., 2011; Morris et al., 2017; Skaalvik & Skaalvik, 2007; Soodak & Podell, 1996; Tschannen-Moran et al., 1998).

Four sources of information influence the growth, decline, and overall strength of efficacy expectancies, which Bandura called *perceived self-efficacy* (Bandura, 1977, 1994). First, performance accomplishments, also referred to as mastery experiences, concern the pattern and timing of a person's successes and failures; these tend to be the most influential (Bandura, 1977, 1994). Second, vicarious experiences involve a person witnessing a model's success or failure and then comparing it to themselves; the stronger the similarities between the person and the model, the stronger the impact of the comparison (Bandura, 1977, 1994). Third, verbal persuasion, also referred to as social persuasion, pertains to persuasive feedback from an outside source, including both affirmation and denial of a person's capabilities (Bandura, 1977, 1994). Fourth, emotional arousal comprises a person's perception and interpretation of the emotions, moods, and degree of stress experienced during an activity (Bandura, 1977, 1994).

Based on assorted factors and circumstances, all four sources of information have varying degrees of impact on perceived self-efficacy for a given person or in a given situation. For prospective teachers, mastery experiences serve as the predominant influence, which is then informed by their emotional arousal, verbal feedback, and vicarious experiences (Pfitzner-Eden, 2016). Another study echoed this finding, specifically noting the powerful impact of emotional arousal (Arslan, 2019). For novice and experienced teachers, Tschannen-Moran and Hoy (2007)

also validated the predominant influence of mastery experiences, yet for novice teachers who lack mastery experiences, verbal persuasion from colleagues and the community had a significant impact. Snyder and Fisk (2016) discovered positive correlations between self-efficacy and three sources: mastery experiences, verbal persuasion, and physiological arousal, determining that verbal encouragement had the strongest benefit. This trend also appeared in Milner's (2002) case study in which an experienced teacher reported that negative verbal feedback from students and parents undermined her confidence and positive verbal feedback from students and colleagues boosted her confidence. In addition, the feedback was closely interwoven with the teacher's own mastery experiences (Milner, 2002). Another noteworthy influence on self-efficacy is the social persuasion from a principal or administrator. Tschannen-Moran (2007) indicated that neither novice nor experienced teachers' self-efficacy was influenced by an administrator's support or lack thereof. Corkin et. al (2018), however, determined the opposite: support from a principal, specifically in regard to autonomy, had a positive impact on self-efficacy. Clearly, the development of self-efficacy is a complex process, and all four sources interact to inform and influence its growth, decline, and overall strength.

## Impact of Self-Efficacy on Beliefs and Behaviors

### *Stress and Coping Strategies*

Self-efficacy correlates with teacher stress, emotional exhaustion, and job satisfaction, three factors that can affect teacher burnout (Klassen & Chiu, 2010; Skaalvik & Skaalvik, 2007, 2014) and affect teachers' motivation to either continue in or leave the profession (Harmsen et al., 2018; Helms-Lorenz et al., 2013; Skaalvik & Skaalvik, 2011). In a survey of nearly 1,500 teachers spanning grades K-12, Klassen and Chiu (2010) discovered that when classroom-related stress exceeded the group average, self-efficacy for classroom management, instructional

strategies, and student engagement decreased. Their findings also revealed that middle school and high school teachers experienced lower levels of self-efficacy, and novice teachers and female teachers experienced higher levels of stress. For all teachers, increased stress was linked with decreased job satisfaction (Klassen & Chiu, 2010). Skaalvik and Skaalvik (2007, 2014) documented a similar correlation, specifically noting self-efficacy's ability to mitigate stress and burnout, while Helms-Lorenz et al. (2013) found that adequately supporting novice teachers' psychological needs increased their intent to remain in the profession.

Furthermore, self-efficacy impacts teachers' ability to cope with stressors (Bandura, 1994). Chwalisz et al. (1992) reported connections between the types of coping strategies teachers used and their level of self-efficacy. Teachers with low self-efficacy engaged in emotion-focused strategies that centered on regulating the emotions associated with a stressful event. Teachers with high-self efficacy employed problem-focused strategies that centered on controlling the stressful event itself. The former contributed to feelings of burnout; the latter mitigated feelings of burnout (Chwalisz et al., 1992). A negative perception of one's ability to cope with and control stressors can also lead to depression, anxiety, and an impaired immune system, but a positive perception can lead to health-enhancing habits (Bandura, 1994). Furthermore, a person's perceived self-efficacy and their ability to cope with stressors influences their chosen activities, leading them to avoid activities they do not believe they are equipped to handle and to pursue activities they do believe they are equipped to handle (Bandura, 1977).

Along the same lines, self-efficacy influences goal-setting behaviors, effort, perseverance, and resilience (Bandura, 1977). Generally, people with low self-efficacy avoid tasks perceived as too difficult and become weighed down by obstacles, often not recovering well from failure or not fully committing to a goal (Bandura, 1994). People with high self-

efficacy strive toward challenging tasks and view them as opportunities; they commit to a goal and recover well from setbacks (Bandura, 1994). As a result, teachers' perceived self-efficacy impacts the decisions they make for themselves, their students, and their classrooms (Gibson & Dembo, 1984; Tschannen-Moran et. al, 1998).

### *Instructional Decisions*

First, self-efficacy affects the decisions teachers make regarding the use of instructional time (Gibson & Dembo, 1984). This correlation surfaced in Gibson and Dembo's (1984) validation of the construct of teacher self-efficacy, and their study revealed that self-efficacy impacted the amount of time teachers spent in small group instruction and the quality of that instruction. Teachers with low self-efficacy spent more time in small groups, although the time was not managed effectively. The teachers "appeared flustered" when the routine was disrupted, and students outside the small group spent noteworthy time-off-task without teacher redirection (Gibson & Dembo, 1984, p. 578). Teachers with high self-efficacy spent less time in small groups yet managed the time more effectively. They attended to the needs of the students within the small group while simultaneously ensuring students outside the group remained on task, and they managed disruptions without getting flustered. During large group instruction, teachers with high self-efficacy also obtained greater time-on-task, evidenced by increased expectations for widespread student engagement (Gibson & Dembo, 1984).

Second, self-efficacy determines teachers' decisions regarding classroom goal structures, specifically their tendency toward a mastery-based or performance-based approach (Wolters & Daugherty, 2007). Wolters and Daugherty (2007) reported that teachers at the elementary level trended toward a mastery-based structure that emphasized individual learning, and teachers at the middle and high school levels trended toward a performance-based structure that emphasized

outperforming others (Wolters & Daugherty, 2007). Furthermore, middle school and high school teachers exhibited decreased self-efficacy in student engagement, which led Wolters and Daugherty (2007) to conclude that teachers at the higher academic levels not only felt less confident engaging students but also utilized instructional approaches that had been shown to produce maladaptive student outcomes.

Third, self-efficacy influences teachers' decisions regarding classroom management (Wolters & Daugherty, 2007; Woolfolk et al., 1990). Woolfolk et al. (1990) centered their research on two classroom management approaches: custodial and humanistic. As the researchers explained, the custodial approach was grounded in a strict, authoritative structure that emphasized teacher control over the classroom, whereas the humanistic approach viewed the classroom as a cooperative, educational community that valued student self-discipline and individuality. The study revealed two significant findings. First, lower levels of teacher self-efficacy were associated with a more custodial approach, including increased belief in extrinsic rewards and incentives as a form of student motivation (Woolfolk et. al, 1990). Second, higher levels of teacher self-efficacy coincided with a more humanistic approach, including increased teacher optimism and increased encouragement of student autonomy in problem solving (Woolfolk et. al, 1990). In another study, Wolters and Daugherty (2007) focused their research on classroom management patterns in relation to years of experience. Out of approximately 1,000 teachers surveyed, first-year teachers reported the lowest levels of self-efficacy for classroom management and instruction. In contrast, experienced teachers reported greater self-efficacy in these two areas, which researchers described as meeting the needs of all students, maintaining a classroom environment conducive to learning, keeping order, and avoiding disruptions (Wolters & Daugherty, 2007).

### *Perceptions of Instructional Quality*

In addition to influencing instructional decisions, self-efficacy influences short- and long-term perceptions of instructional quality (Holzberger et al., 2013). In a longitudinal study involving 155 math teachers and nearly 3,500 high school students, Holzberger et al. (2013) determined that in three separate dimensions (cognitive activation, classroom management, and individual learning support), teachers with higher self-efficacy were perceived as having higher instructional quality, as indicated both by the teachers themselves and by their students. The researchers also suggested a potential reciprocal relationship between perception and self-efficacy; teachers' perceptions of their instructional quality functioned as mastery experiences that thereby influenced their self-efficacy. This was evidenced by high perceptions of cognitive activation and classroom management positively impacting teacher self-efficacy in these areas one year later (Holzberger et al, 2013).

Along similar lines, Miller et al. (2017) researched the relationships between self-efficacy, instructional quality, teacher perceptions, and student perceptions; however, they framed it within the context of specific class types: remedial, typical, and advanced. In remedial classes, students generally viewed their teachers as less competent and less respectful, and teachers with low self-efficacy perceived their students as having lower effort and lower ability. Furthermore, teachers with low self-efficacy rated their students' achievement, effort, and attitude as decreasing over the course of the year, but teachers with high self-efficacy rated their students as increasing in all three dimensions. No such patterns existed in either typical or advanced courses (Miller et al., 2017). The researchers reported another important correlation within remedial classes: when teacher self-efficacy increased, both the students' perceptions of teacher competence and the teachers' perception of student competence increased as well. Miller

et al. (2017) concluded that teachers' confidence instills confidence in their students, suggesting a reciprocal relationship between teacher self-efficacy and student self-efficacy.

### *Students' Attitudes, Motivation, and Achievement*

Not only does teachers' self-efficacy impact their own beliefs and behaviors, but it also impacts their students' beliefs and behavior. One study reported a relationship between teachers' self-efficacy and students' attitudes toward schoolal, and another determined that high student motivation correlated with high teacher self-efficacy (Al-Alwan and Mahasneh, 2014; Mojavezi & Tamiz, 2012). Midgley et al. (1989) discovered that students' beliefs regarding their own abilities to be successful in math were directly related to their teachers' self-efficacy beliefs – a pattern that displayed longitudinal impact. Similarly, Bolshakova et al. (2011) uncovered connections between teacher self-efficacy and student self-efficacy specifically within the context of middle school science classrooms. Multiple studies have also indicated that teacher self-efficacy impacts students' academic achievement (Caprara et al., 2006; Mojavezi & Tamiz, 2012; Shahzad & Naureen, 2017).

## Self-Efficacy Patterns in First-Year Teachers

Just as researchers have studied self-efficacy's impact on teachers and their classrooms, they have also studied how it changes over the course of a teacher's career. When looking just at the first 10-weeks of a school year, Knobloch and Whittington (2003) noted a decline in self-efficacy for first-year teachers but no decline for student teachers or teachers in their second and third years. Similarly, in a longitudinal study that followed a group of teachers from the beginning of their teacher certification program to the end of their first year teaching, Woolfolk Hoy and Spero (2005) reported a more significant pattern: self-efficacy increased throughout teacher preparation and student teaching, but then it decreased during the first year as an

employed teacher.

Swan et al. (2011) reported similar findings after gathering data at the end of student teaching and then again at the end of years one, two, and three. For overall self-efficacy, the highest level appeared at the end of student teaching and the lowest level appeared at the end of the teachers' first-year. This same pattern manifested in all three self-efficacy domains: student engagement, instructional strategies, and classroom management, with student engagement emerging as the lowest of the three (Swan et al., 2011).

In a five-year longitudinal study, George et al. (2018) looked for changes in teacher self-efficacy from year one through the end of year six. Findings indicated a positive change over that time frame in all three domains. Demographic variables (academic level, public vs. private school, full time vs. part time employment, and gender) showed no correlations with the change. These results led George et al. (2018) to conclude that teachers may recover from the dip in self-efficacy that other researchers had reported as occurring at the end of the first-year of teaching. Furthermore, George et al. (2018) noted a significant gap in research – specifically longitudinal data – relating to changes in self-efficacy during the beginning phases of a teacher's career.

Looking even more long-term, Klassen and Chiu (2010) reported a noteworthy curve in self-efficacy patterns over the entire course of a teachers' career. Based upon the results from a one-time survey, they reported a steady rise during the early years, a peak at twenty-three years, and then a steady decline from that point forward. Again, this pattern held true in all three self-efficacy domains: classroom management, instructional strategies, and student engagement (Klassen & Chiu, 2010).

**Self-Efficacy and Mentorship**

Even though research shows self-efficacy declines during a teacher's first-year,

additional research suggests involvement in a mentoring or induction program may mitigate that decline. In a multi-faceted examination of 39 induction programs that involved over 2,600 teachers, Wechsler et al. (2012) reported high levels of self-efficacy for the vast majority of teachers involved. Factors contributing to these high levels included a focus on instruction, work with a strong mentor, and participation in a variety of induction activities. Teachers also indicated a positive impact on their instructional techniques and their learning environments, both of which showed increased growth when the teachers received support from a strong mentor. No apparent impact on student achievement or teacher retention was reported when comparing teachers who participated in induction and those who did not. When making recommendations for future induction programs, Wechsler et al. (2012) emphasized the importance of mentor selection, mentor training, mentor accountability, and intensity of mentorship.

Feng et al. (2019) also reported on the significance of a mentor after conducting a latent class analysis of approximately 1,300 teachers. The teachers fell into three categories: high self-efficacy, moderate self-efficacy, and low self-efficacy, and the researchers compared the three groups based upon their responses to eight self-efficacy perspectives: classroom management, instructional methods, subject-matter teaching, technology usage, assessment, differentiated instruction, adjusted instruction, and state content standards (Feng et al., 2019, p. 90). Comparisons between the groups revealed teachers in the high group felt the most prepared across all eight perspectives, and teachers who worked with a discipline-specific mentor were 1.575 times more likely to belong to the high group (Feng et al., 2019).

Progressing one step further, Haigh and Anthony's (2012) research investigated correlations specifically between mentorship and *changes* in teacher self-efficacy. Researchers

collected both quantitative and qualitative data from a small group of secondary science teachers who were participating in a mandated mentor program. After analyzing data collected three times over an 18-month period, the researchers reported relatively constant self-efficacy ratings, and the ratings were consistent with those reported upon graduation. The teachers did not experience the decline expressed in Woolfolk Hoy and Spero's (2005) research (Haigh & Anthony, 2012). Additionally, all four sources of self-efficacy proposed by Bandura (1977) – mastery experiences, vicarious experiences, social persuasion, and emotional arousal – had a noted impact on the teachers' self-efficacy beliefs (Haigh & Anthony, 2012).

In a small, exclusively qualitative study, Hobbs and Putnam (2016) examined teachers' experiences working with a district mentor, known as a Teaching and Learning Coach (TLC). Their analysis revealed several themes consistent with self-efficacy, including increased teacher confidence and competency in the following areas: overcoming challenges, planning curriculum, managing the classroom, and implementing instructional strategies. In contrast, teachers reported negative associations with TLC's being assigned to multiple buildings and having duties in addition to mentoring, both of which impacted the TLCs' availability. This led some teachers to value the mentoring experience more than others, especially when considered alongside the quality of support provided by in-house colleagues. Yet considering all the teachers' experiences collectively, Hobbs and Putnam (2016) determined that the mentors effectively met the beginning teachers' cognitive needs, emotional needs, and social needs.

A study conducted by Helms-Lorenz et al. (2013) focused on beginning teachers' psychological well-being in connection with self-efficacy and induction. The researchers randomly assigned participants to two groups. Teachers in the control group worked in schools who carried out their typical induction programs while teachers in the experimental group

worked in schools that received intensive guidance in the development and implementation of their induction programs. These programs aligned with specific criteria and received ongoing support from an experienced school-based educator. At the start of the school year, teachers in both groups reported similar perceptions of their self-efficacy, stress levels, and job satisfaction. At the end of the school year, however, teachers in the experimental group reported feeling more supported, less stressed, and more confident in their abilities. Helms-Lorenz et al. (2013) specified three components that impacted the teachers' feelings: reduction in teacher workload, intentional professional development support, and mandatory participation in all induction activities. Furthermore, the schools in the experimental groups reported higher retention rates. The researchers ultimately affirmed the importance of supporting beginning teachers (Helms-Lorenz et al., 2013).

**Need for Further Research**

Current research indicates the importance of teachers developing a secure sense of self-efficacy and supports the practice of new teacher mentorship. Suggestions for further research include exploring the impact of mentorship on new teacher retention (Feng et al., 2019) and on student achievement (Helms-Lorenz et al., 2013); repeating studies with a larger sample size (Helms-Lorenz et al, 2013) or with a different methodology (Hobbs & Putnam, 2016); gathering more longitudinal data (George et al, 2018; Swan et al, 2011); and determining if and how mentorship supports, protects, and builds new teacher self-efficacy (Woolfolk Hoy & Spero, 2005). In light of the existing research and suggestions for further research, this action research study explores potential correlations between the development of first-year teachers' self-efficacy and involvement in a mandated mentorship experience.

# Methods

## Participants

This action research study was conducted in the Harrisburg School District (HSD), a suburban district located in Harrisburg, SD and in Sioux Falls, SD. In the fall of 2020, the HSD enrolled 5,427 students and employed 407 teachers (2020-2021 Harrisburg, 2019, p. 6, 35).

Research data was collected from nine first-year teachers at the middle school and high school levels. Participants included five female teachers and four male teachers, all of whom identified themselves as White. They ranged in age from 22 to 46 with seven being between the ages of 22 to 25. Five teachers worked at the middle school level (grades 6-8), and four teachers worked at the high school level (grades 9-12). Their teaching assignments included English, world language, science, fine arts, career and technical education, and social science. Eight teachers completed their student teaching experiences in 2019 and/or 2020; however, due to the COVID-19 pandemic, not all teachers completed the experience as was originally intended by their university programs. One teacher did not complete a student teaching experience.

## Mentoring Framework

In conjunction with the enactment of the SD DOE's Statewide Mentoring Program, the HSD began a New Teacher Mentor Program in the 2016-2017 academic year. The following year, the researcher – a full-time instructional coach – joined the mentor team and assumed mentorship responsibilities for first- and second-year teachers in grades 6-12. The New Teacher Mentor Program is currently in its fifth year of implementation, and the researcher is in her fourth year of serving as a mentor for beginning teachers.

In the HSD, beginning teachers are required to participate in the New Teacher Mentor Program for the first two years of their careers. As a district-run mentor program, the mentor

must meet with each mentee for a minimum of 40 hours over the course of each academic year (South Dakota Department of Education, n.d.). Those hours may be accumulated through one-on-one meetings, group meetings, district-mandated professional development, and classroom observations. At a minimum, all first-year teachers must engage in a two-day orientation in August, attend monthly whole group meetings, and meet weekly with their mentor one-on-one during the first semester, with the option to transition to every other week in the second semester.

Mentees experience a high degree of autonomy regarding discussion topics at weekly meetings. Topics often relate to self-efficacy, such as student engagement, instructional strategies, and classroom management, as well as to the teaching profession as a whole, such as teaching philosophy, school climate and culture, and work/life balance. Mentees have the option to indicate topics prior to the meeting or at the time of the meeting itself. Occasionally, the mentor ensures specific topics are covered – such as formal evaluation requirements associated with the Danielson Framework – to be in compliance with the district's expectations.

The mentor draws upon a variety of resources to support mentees, including training provided by the state and by the district. The mentor periodically utilizes resources from *Mentoring in Action* by Radford (2016), which is the book provided and endorsed by the SD DOE's Statewide Mentoring Program. The mentor is guided by the coaching philosophies outlined in Knight's (2007) *Instructional Coaching: A Partnership Approach to Improving Instruction* and completed Knight's eight-week virtual instructional coaching course in August/September 2020. The mentor attended a one-day mentor training sponsored by the SD DOE during the previous three summers and completed the training virtually during the summer of 2020. The mentor also participated in three mandatory webinars led by a SD DOE representative each year during the previous three academic years and will participate again

during the 2020-2021 school year. The school district's mentor program is guided by the philosophies presented in Killion and Harrison's (2017) *Taking the Lead: New Roles for Teachers and School-Based Coaches* and is rooted in a mission statement that reads: "Engaging with teachers to build professional capacity, to nurture best practice, and to strengthen a passion for teaching." The 6-12 Curriculum Director oversees the New Teacher Mentor Program at the secondary level and provides guidance, support, and feedback to the mentor throughout the year.

**Ethical Considerations**

Because this action research study involves human participants, the researcher sought IRB approval prior to beginning the study. The study posed minimal risk to participants, was conducted within a public school, involved only adults, and did not involve data from secondary sources (i.e. personnel files, formal evaluations, university records, etc.). However, the data collected from participants was unique to this research study and outside the traditional scope of the New Teacher Mentor Program, making IRB approval a necessary step.

In addition, the researcher made "adequate provisions to protect the privacy of subjects and to maintain the confidentiality of data" (Criteria for IRB Approval of Research, 2018) to ensure involvement did not favorably or adversely impact the participants' employment with the school district or future employment in other districts. First, the researcher sought participants' informed consent. Even though participation in the mentor program is mandatory in the HSD, participation in this research study was voluntary. The scope and purpose of the study were clearly outlined, and participants were informed of any additional responsibilities and time commitments incurred by their involvement in the study. Participants also had the freedom to opt-out of the study at any point in time, and they were informed of the process by which to do so. See Appendix A for a copy of the Informed Consent form. Second, the information

participants shared through the study was in no way connected with their formal teacher evaluations. The researcher safeguarded participants' identities, and their building administrators did not have access to any identifying information regarding who chose to participate or any identifying information regarding participants' responses. All data was stored in a secure Google Drive. Third, the researcher utilized a double-blind procedure to protect participant anonymity. The 6-12 Curriculum Director assigned each participant a letter to use as an identifier on the survey. The researcher did not know which participant was assigned to each letter, and the Curriculum Director did not have access to the raw data to know how each participant responded to the survey. Therefore, participants could contact the Curriculum Director if they forgot their identifier, and the researcher could compare pretest and posttest data while maintaining participant anonymity. With these safeguards in place, the researcher aimed to protect participants' anonymity and ensure the confidentiality of their responses.

Even with these protections in place, the study may be subject to potential bias because the researcher served as the formal mentor for all participants. The first potential bias is the Hawthorne Effect, which refers to a change in participants' behavior due to the researcher's observation (Sackett Catalogue of Bias Collaboration, 2017). Participants' responses may be intentionally or unintentionally impacted by their relationship with the researcher because they already know what the researcher is looking for, may want to please the researcher, or may desire to influence the results of the study. In these cases, the participants' responses would not be an accurate representation of their actual self-efficacy. The Hawthorne Effect was minimized by indicating on the informed consent form both the purpose of the study (to learn how first-year teachers' self-efficacy changes) and the confidentiality of their responses (will not impact their employment or be a part of any formal or informal evaluation). In addition, the researcher

reiterated the anonymity safeguards before the pretest and before the posttest to minimize participants' fear of their responses being positively or negatively judged by their mentor, and the researcher refrained from discussing or referencing self-efficacy during mentorship meetings with the participants. While these measures may reduce the potential for the Hawthorne Effect, the researcher cannot be positive that it was eliminated.

Another potential bias is confirmation bias, which occurs when the researcher favors information that supports their ideas and dismisses information that does not support their ideas (Sackett Catalogue of Bias Collaboration, 2018). Again, because the researcher served as the mentor, an inclination to look for data that confirms a positive correlation between mentoring and increased self-efficacy and downplay data to the contrary naturally exists. The researcher recognizes, however, that this would not only be an inaccurate representation of participants' experiences, but it would also negatively impact actions taken as a result of the findings and on future research on the topic. To help mitigate this bias, the researcher requested support from the school's 6-12 Curriculum Director, who provided accountability throughout the data gathering process and offered an objective perspective on data analysis and interpretation. These actions minimized the potential threat to internal validity posed by confirmation bias.

**Measures**

The researcher opted for a mixed-methods approach to data collection because recent research indicates that a robust understanding of teachers' self-efficacy is limited when using only quantitative data (Glackin and Hohenstein, 2018). Likert-scale questions, in particular, can be problematic because of specificity, reliability, and validity issues and because they depend upon the teachers' truthfulness thereby running the risk of pretend teacher efficacy and social desirability bias (Glackin & Hohenstein, 2018, p.6). The study determined that triangulating

quantitative and qualitative data led to a rich, dynamic, complex, and nuanced understanding of teachers' self-efficacy (Glackin & Hohenstein, 2018). This action research study will impact the future of the school district's mentor program and could potentially lead to additional studies on the same topic; therefore, a rich understanding of new teachers' self-efficacy would be a significant benefit in both the short and the long term.

All participants were involved in the same mentor program with no separate control group, so the research consisted of a one-group pretest-posttest design. The independent variable was the mentorship the first-year teachers received through the New Teacher Mentor Program. No data was collected for the independent variable. The dependent variable for the first research hypothesis was teachers' overall perceived self-efficacy, and the three dependent variables for the second research hypothesis were teachers' perceived self-efficacy in each separate domain: student engagement, instructional strategies, and classroom management. For all dependent variables, data collection utilized the same measurement instruments.

The researcher utilized the Teachers' Sense of Efficacy Scale (TSES) as the measurement instrument for quantitative data collection for the dependent variables in both research hypotheses. The TSES was developed by Megan Tschannen-Moran and Anita Woolfolk Hoy (2001) at Ohio State University, and they tested the TSES's validity and reliability in three consecutive studies, comparing their findings to several other teacher efficacy scales commonly used in research. After each study, the TSES was refined, and the final iteration was determined to be the most valid of the three (Tschannen-Moran & Woolfolk Hoy, 2001, p. 802). This final version is the one readily available for use directly from the developers' websites (Tschannen-Moran, n.d.; Woolfolk Hoy, n.d.).

This action research study utilized the long form of the TSES, which contains twenty-four questions that use a 1-9 Likert scale (Woolfolk Hoy, n.d., p. 1). The questions cover three domains with eight questions each. Items 1, 2, 4, 6, 9, 12, 14, 22 relate to Efficacy in Student Engagement; Items 7, 10, 11, 17, 18, 20, 23, 24 relate to Efficacy in Instructional Strategies; and Items 3, 5, 8, 13, 15, 16, 19, 21 relate to Efficacy in Classroom Management (Woolfolk Hoy, n.d., p. 3). The TSES is considered a reliable test with the long-form having an overall standard deviation of 0.94, and each domain has a standard deviation of 1.1 (Tschannen-Moran & Woolfolk Hoy, 2001, p. 800). The long form of the TSES was used for both the pretest and the posttest.

Four open-ended survey questions served as the measurement instrument for qualitative data collection for the dependent variables in both research hypotheses. The questions coordinated with the three domains of self-efficacy on the TSES, and the same questions were used for both the pretest and the posttest. The researcher created the questions, so no data regarding reliability or validity is available. The researcher also included seven demographic questions and one optional question at the end of the survey. Both the qualitative data and the demographic data served to support and to enrich the researcher's understanding, analysis, and application of the quantitative findings. See Appendix B for the TSES, open-ended questions, and demographic questions utilized for data collection.

**Procedures**

Following university, district, and IRB approval, the formal research process began in mid-August 2020. First, the researcher introduced the grades 6-12 first-year teachers to the New Teacher Mentor Program during the first day of new teacher orientation. The presentation included personal introductions, community building activities, and information about the

history, the purpose, and the logistics of the mentor program. Second, the researcher introduced the teachers to the action research project during the second day of new teacher orientation. The presentation included an explanation of the action research project, the process for providing informed consent, safeguards for protecting anonymity and confidentiality, opt-out procedures, and a research timeline. The first-year teachers had the opportunity to ask clarifying questions throughout the presentation. Informed consent forms were distributed at the meeting, and for those who opted to participate, signed forms were collected within one week.

The first round of data collection took place the last week of August 2020, which was the first full week of school. The Curriculum Director emailed participants their personal identifiers, and then the researcher emailed participants the link to complete the pretest survey. Additionally, the email reiterated information provided on the informed consent form, specifically the nature of the survey and estimated time for completion. The survey was administered electronically as a Google form, and participants had a five-day window to complete it. The same week, the researcher began meeting with participants for one-on-one mentoring meetings.

The second round of data collection took place the first full week of October 2020, which was the eighth week of school. The researcher emailed participants the link to complete the posttest survey, and the email included instructions for contacting the Curriculum Director if they needed to know their personal identifier. The survey was again administered electronically via Google form, and participants had a five-day window to complete it.

In the eight-week period between the pretest and the posttest, the researcher mentored all nine participants. She met one-on-one with each participant seven times, with the exception of one with whom she met six times. Discussion topics varied by week and by participant, and they

included student engagement, instructional strategies, classroom management, teaching philosophy, school climate and culture, work/life balance, and teaching within the context of the COVID-19 pandemic. The first group meeting took place in early September 2020, and eight of the nine participants attended. Prior to the meeting, participants were asked to read the introduction and chapter one in *The Beginning Teacher's Field Guide* by Boogren (2018) – a book that discusses a teacher's first year through the lens of Moir's (1999) stages of a teacher's first year – and complete a series of associated reflection questions about classroom management strategies and self-care strategies. The reading, the questions, and their responses then served as the catalyst for small and large group discussion. The second group meeting took place in early October 2020, and all nine participants attended. Similar to the first meeting, participants came prepared to discuss chapter two in Boogren's (2018) book as well as their responses to the associated reflection questions. The New Teacher Mentor Program will continue for the duration of the school year, and the researcher will continue to meet with participants individually and in a whole group to provide mentorship.

## Results

The researcher evaluated participants' self-efficacy using the Teachers' Sense of Efficacy Scale (TSES) (Tschannen-Moran & Woolfolk Hoy, 2001) to determine if a first-year teacher's self-efficacy changes during the first semester of their mentorship experience and if each domain of a first-year teacher's self-efficacy (student engagement, instructional strategies, or classroom management) changes during the first semester of their mentorship experience.

### Hypothesis One

The researcher used a dependent samples t-test to compare the pretest mean and the posttest mean for all twenty-four TSES questions combined. This provided an average self-efficacy rating for each participant and an average self-efficacy rating for the entire group. For four participants (1, 2, 5, 7), average overall self-efficacy increased. For four participants (4, 6, 8, 9), average overall self-efficacy decreased. For one participant (3), average overall self-efficacy did not change. For the entire group, results indicated no statistically significant difference between the pretest average ($M$ = 6.06, $SD$ = 0.76, $n$ = 9) and the posttest average ($M$ = 6.15, $SD$ = 0.42, $n$ = 9) with a small effect size, $t(8) = 0.43$, $p < .05$ , $d = 0.15$. On average, there was a 0.09 increase between the pretest and the posttest, and the variance in individual change ranged from -0.83 to 1.25. See Table 1 in Appendix C.

### Hypothesis Two

The researcher used a dependent samples t-test to compare the pretest mean and the posttest mean for each domain on the TSES: Student Engagement, Instructional Strategies, and Classroom Management. This provided an average self-efficacy rating for each participant and an average self-efficacy rating for the entire group within each domain.

***Student Engagement***

For four participants (1, 2, 5, 7), Efficacy in Student Engagement increased. For five participants (3, 4, 6, 8, 9), Efficacy in Student Engagement decreased. For the entire group, results indicated no statistically significant difference between the pretest average ($M$ = 6.14, $SD$ = 0.94, $n$ = 9) and posttest average ($M$ = 6.14, $SD$ = 0.62, $n$ = 9) with a small effect size, $t(8)$ = -0.01, $p$ <.05 , $d$ = 0. On average, there was 0 change between the pretest and the posttest, and the variance in individual change ranged from -1.25 to 1.38. See Table 2 in Appendix C.

***Instructional Strategies***

For four participants (1, 2, 5, 7), Efficacy in Instructional Strategies increased. For five participants (3, 4, 6, 8, 9), Efficacy in Instructional Strategies decreased. For the entire group, results indicated no statistically significant difference between the pretest average ($M$ = 5.94, $SD$ = 0.58, $n$ = 9) and posttest average ($M$ = 6.13, $SD$ = 0.64 $n$ = 9) with a small effect size, $t(8)$ = 0.78, $p$ <.05 , $d$ = 0.31. On average, there was 0.18 increase between the pretest and the posttest, and the variance in individual change ranged from -0.63 to 1.25. See Table 3 in Appendix C.

***Classroom Management***

For six participants (1, 3, 5, 6, 7, 9), Efficacy in Classroom Management increased. For three participants (2, 4, 8), Efficacy in Classroom Management decreased. For the entire group, results indicated no statistically significant difference between the pretest average ($M$ = 6.10, $SD$ = 0.99, $n$ = 9) and posttest average ($M$ = 6.19, $SD$ = 0.44, $n$ = 9) with a small effect size, $t(8)$ = 0.43, $p$ <.05 , $d$ = 0.12. On average, there was 0.10 increase between the pretest and the posttest, and the variance in individual change ranged from -0.88 to 1.13. See Table 4 in Appendix C.

# Discussion

## Summary of Major Findings

### *Hypothesis One*

Regarding the average ratings of all twenty-four TSES questions combined, four participants experienced an increase in overall self-efficacy, four participants experienced a decrease in overall self-efficacy, and one participant experienced no change in overall self-efficacy. The results were not statistically significant, and the average self-efficacy rating for the entire group increased slightly.

These results suggest that participants' self-efficacy remained relatively constant over the 8-week period. Such a suggestion counters Knobloch and Whittingon's (2003) study, which reported a decrease in teachers' self-efficacy over the first 10-weeks of their first year teaching, and Woolfolk Hoy and Spero's (2005) study, which reported a statistically significant decrease in teachers' self-efficacy over the course of their entire first year teaching. However, this suggestion aligns with Haigh and Anthony's (2010) study, which reported relatively constant self-efficacy ratings for teachers over the first 18 months teaching, and aligns with the context of their study: formal induction support. It also aligns with Swan et al.'s (2011) implication that a decrease in teachers' self-efficacy during the first year may be attributed to the lack of a supporting mentor. Therefore, results from this action research study are promising but not conclusive regarding the positive impact of mentorship on mitigating the decline of self-efficacy.

As Glackin & Hohenstein contended (2018), considering qualitative responses alongside quantitative data can lead to a more nuanced understanding of changes in teachers' overall self-efficacy ratings. Participants responses to the first open-ended survey question – *How would you describe your current confidence level for meeting the challenges of being a first-year teacher? –*

can provide such a perspective. One participant who experienced a decrease in overall self-efficacy stated on the posttest: "I think my confidence level took a hit because I'm used to being good at things right away, and being a first-year teacher is even more difficult and grueling than I thought it would be." This echoes a point of discussion from Woolfolk Hoy and Spero (2005) who noted the tendency of novice teachers to underestimate the difficulty of the teaching profession, especially as they navigate self-imposed standards of performance. This theme also appeared in the qualitative findings of Haigh and Anthony's (2012) study, specifically in connection with a teacher who expressed a lack of confidence.

Two additional themes surfaced throughout participants' responses and seemed unrelated to either an increase or a decrease in overall self-efficacy. First, several responses indicated the tendency to be confident in certain aspects of teaching and less confident in others; one participant stated that "confidence comes in waves and is dependent on which 'challenge' we're talking about." Second, several responses referred to the potential for continued growth, and participants commented on being "a work in progress," on being "confident in my potential," and on having "a lot to learn." These qualitative responses lead the researcher to agree with Knobloch and Whittington's (2003) determination: the goal of the beginning weeks of school should be on maintaining teacher self-efficacy and minimizing decline by targeting each teacher's area of greatest need.

***Hypothesis Two***

To help determine those areas of greatest need, the researcher analyzed participants' self-efficacy ratings and open-ended responses for each domain individually. First, regarding Efficacy in Student Engagement, four participants experienced an increase in self-efficacy, and five participants experienced a decrease in self-efficacy. The results were not statistically

significant, and the average self-efficacy rating for the entire group neither increased nor decreased.

The second open-ended question correlated with Efficacy in Student Engagement: *How would you describe your current ability, resources, and opportunity to engage students?* When analyzing participants' responses, no patterns emerged in connection with either an increase or a decrease in self-efficacy. In fact, eight of the nine participants indicated confidence in their ability and/or the available resources, and even the two participants who experienced the greatest self-efficacy decline commented, "my ability is continuing to grow" and "I am highly effective at engaging the vast majority of learners." These findings could suggest that student engagement is not an area of greatest need for this group of first-year teachers, or the findings could suggest that teachers are already receiving adequate support in this area.

Second, regarding Efficacy in Instructional Strategies, four participants experienced an increase in self-efficacy, and five participants experienced a decrease in self-efficacy. The results were not statistically significant, and the average self-efficacy rating for the entire group increased slightly.

The third open-ended question correlated with Efficacy in Instructional Strategies: *How would you describe your current ability, resources, and opportunity to utilize instructional strategies?* When analyzing participants' responses, two noteworthy patterns emerged. Three participants who experienced a decrease in self-efficacy pointed out the negative impact of the COVID-19 pandemic on their ability to utilize a variety of instructional strategies. Three participants who experienced an increase in self-efficacy noted the high number of instructional resources available to them. These findings could suggest that supporting teachers in utilizing

the available resources and then adapting those resources for a variety of circumstances is a targeted need for this group of first-year teachers.

Third, regarding Efficacy in Classroom Management, six participants experienced an increase in self-efficacy, and three participants experienced a decrease in self-efficacy. The results were not statistically significant, and the average self-efficacy rating for the entire group increased slightly.

The fourth open-ended question correlated with Efficacy in Classroom Management: *How would you describe your current ability, resources, and opportunity to manage your classroom?* When analyzing participants' responses, three themes emerged, although they were unrelated to an increase or decrease in self-efficacy. Seven participants noted their own growth and improvement from the pretest to the posttest. Four participants noted that classroom management was an area of struggle. Three participants noted the importance of having established routines and procedures. In addition to these themes, participants remarked on the reality of "limited experiences to use as a reference," of finding balance between being approachable and garnering respect, and of applying new strategies amidst overwhelm. These findings suggest that support while developing and implementing a clear classroom management structure is a targeted need for this group of first-year teachers, particularly in the beginning weeks of the school year.

**Limitations and Further Study**

The small number of participants and the absence of separate control and treatment groups is the greatest limiting factor to this action research study. As a result, findings cannot be generalized to mentees not participating in the study or to mentees in other mentorship programs. The findings are only representative of this specific group within this specific context. To reduce

the limitations posed by the small number of participants, a follow-up study with a much larger group would allow for a deeper analysis of trends. This would lend greater internal validity to any correlation between mentorship and self-efficacy and greater statistical significance regarding any changes in self-efficacy. In addition, conducting a study involving all first-year teachers in the South Dakota Statewide Mentoring Program would allow for external validity, especially if the study included a control group of first-year teachers who chose not to participate in the program.

The findings are also limited by the short 8-week time frame that represented approximately one quarter of the participants' first year, and therefore, findings cannot be generalized to predict or to represent change during the complete mentorship experience. For future studies, the time frame should be extended to include participants' entire first year of teaching, which would allow the researcher to administer the TSES at the beginning of the year, midway through the year, and at the end of the year. Tracking changes in self-efficacy over an extended time frame would result in deeper comparisons between the study's findings and those of Woolfolk Hoy and Spero (2005) and Haigh and Anthony (2012). Continuing the study into the participants' second and third years would also allow for deeper comparison to the results of other researchers who also conducted a longitudinal analysis of teacher self-efficacy, such as Swan et al. (2011), George et al. (2018), and Klassen and Chiu (2010).

Because all participants served as full-time classroom teachers, their day-to-day experiences could pose a threat to internal validity, especially if notably positive or negative experiences coincided with the timing of data collection. The impact of these experiences could have been heightened during the time frame of this study because of the COVID-19 pandemic. The participants were subject to expectations that were atypical for a first-year teacher, including

simultaneously teaching students in-person and via video conferencing, allowing for increased social distancing in classrooms, wearing facial coverings, adapting instruction for students moving into and out of quarantine, and teaching remotely while experiencing periods of quarantine themselves. Not only could these experiences contribute to higher stress levels, but notably positive or negative experiences could also lead participants to rate themselves higher or lower on the TSES or respond differently to the open-ended questions than on a typical day. Contextual limitations and the impact of uncontrollable, unforeseen circumstances would be very difficult to eliminate in future studies because teaching does not occur in a vacuum. However, further studies could compare changes in first-year teachers' self-efficacy to Moir's (1999) Stages of a Teacher's First Year to track correlations between each typical stage (Anticipation, Survival, Disillusionment, Rejuvenation, Reflection) and changes in self-efficacy.

Furthermore, all participants were subject to outside variables – like the quality of undergraduate or graduate education, the presence of an external support system, the health of the school climate, teacher and student demographics, inherent personality traits, predetermined beliefs regarding mentorship, etc. – which could threaten internal validity. These variables were outside the study's control yet able to impact the increase or decrease of self-efficacy. Rather than attempt to reduce these potential limitations, further studies could include them as variables and track correlations between the variables and self-efficacy. Correlations would be particularly informative if the study included a control group who did not receive mentorship and a treatment group who did receive mentorship. Comparing the data from these two groups in light of the chosen variable(s) could provide a richer understanding of the role mentorship played in developing self-efficacy.

Finally, the natural maturation of a first-year teacher's skills is a limiting factor.

Participants could show a change in self-efficacy because of their personal and professional growth over time, completely unrelated to mentorship. To reduce the limitations posed by maturation, further studies would need a control group and a treatment group. If the treatment group experienced greater growth in self-efficacy, the correlation between it and mentorship would be stronger. If both groups experienced similar growth in self-efficacy, the correlation would be weaker.

## Conclusion

This action research study was conducted to track potential correlations between new teacher self-efficacy and a mandated mentorship experience. Self-efficacy refers to a person's belief in their ability to accomplish a goal, complete a task, or produce a desired outcome (Bandura 1977, 1994). For teachers, self-efficacy then forms the distinction between them knowing certain instructional strategies work and *believing* they possess the skills to put those strategies into action (Bandura, 1977). Previous research affirms the impact self-efficacy has on many aspects of teacher behavior (Chwalisz et al., 1992; Gibson & Dembo, 1984; Klassen & Chiu, 2010; Miller et al., 2017; Wolters & Daugherty, 2007; Woolfolk et al., 1990) and affirms the importance of induction and mentoring programs (Gray & Taie, 2015; Ingersoll & Smith, 2004; Ingersoll & Strong, 2011; Kearney, 2014). A handful of studies have also documented a clear decline in new teacher self-efficacy over the course of their first year teaching (Knobloch & Whittington, 2003; Swan et al., 2011; Woolfolk Hoy & Spero, 2005) while others have documented positive correlations between new teacher self-efficacy and mentorship (Feng et al., 2019; Haigh & Anthony, 2012; Helms-Lorenz et al., 2013).

However, a clear gap still exists between understanding changes in new teacher self-efficacy and understanding how changes may be impacted by new teacher mentorship – a gap this action research study sought to address. The results provide promising, albeit not conclusive, findings in support of mentorship mitigating the decline of first-year teachers' self-efficacy, and the researcher was able to identify targeted areas of support for the participants within the three domains of self-efficacy (student engagement, instructional strategies, and classroom management).

Therefore, further research that analyzes self-efficacy through the lens of mentorship is a strong next step in better understanding how to help new teachers transition between pre-service fantasies and first-year realities, strengthen their perceptions of their own abilities, foster healthy motivation for persisting in the midst of stress, and ultimately move towards mastery of their chosen profession.

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## Appendix A

## CONSENT TO PARTICIPATE IN ACTION RESEARCH

You are invited to participate in an action research study conducted by Stefanie Gross, who is a graduate student at Northwestern College. Mrs. Gross is conducting this study in partial fulfillment of the requirements for the Degree of Master of Education in Teacher Leadership.

While participation in the New Teacher Mentor Program is mandatory, participation in this study is completely voluntary. You should read the information below and ask questions about anything you do not understand before deciding whether or not to participate. You are being asked to participate because you are a first-year teacher in the district.

**TITLE OF STUDY**
Exploring Changes in New Teacher Self-Efficacy

**PURPOSE OF STUDY**
Self-efficacy is a person's belief in their own abilities to handle various situations or to execute certain behaviors. The purpose of this study is to learn how first-year teachers' self-efficacy changes during their first semester in the New Teacher Mentor Program. Mrs. Gross and the school district mentor team hope to use this information to inform the design of the mentor program and to better support new teachers during their first-year teaching.

**PROCEDURES**
If you volunteer to participate in this study, Mrs. Gross will ask you to do the following:

1. respond to a questionnaire at the beginning of the study and then again at the end of the study. The questionnaire has twenty-four scaled questions. It should take approximately 15-20 minutes to complete each time.

2. respond to an open-ended survey at the beginning of the study and then again at the end of the study. The survey has four short-answer questions, seven demographic questions, and one optional question. It should take approximately 15-20 minutes to complete each time.

Both the questionnaire and the open-ended survey will be sent to you via email and will be completed on a single Google form. You will have a five-day window to respond at the beginning of the study and a five-day window to respond at the end of the study.

**POTENTIAL RISKS**

There are minimal risks and inconveniences to participating in this study. You may experience a range of emotions when responding to the questionnaire or open-ended survey. Also, the time spent responding might be considered an inconvenience. Mrs. Gross will minimize this inconvenience by providing a five-day window in which to respond.

**POTENTIAL BENEFITS**

It is not likely that you will benefit directly from participation in this study. However, the research may help Mrs. Gross and the district mentor team learn how to improve the New Teacher Mentor Program.

**COMPENSATION FOR PARTICIPATION**

You will not receive any payment or other compensation for participation in this study. There is also no cost to you for participation.

**CONFIDENTIALITY**

Any information obtained from this study that can be identified with you will remain confidential. However, the results of this study may be used in reports, presentations, or publications. Any information used for these purposes will not identify you individually.

The information you share in this study is in no way connected with your formal teacher evaluation. Mrs. Gross will safeguard your identity to ensure your involvement does not favorably or adversely affect your employment with this school district or any potential future employment with any other school district. Your administrators will not have access to any identifying information regarding your participation or any identifying information regarding your responses.

**VOLUNTARY PARTICIPATION**

Your participation in this study is voluntary. If you choose to participate in this study, you will be asked to sign a consent form. After you sign the consent form, you are still free to withdraw at any time without giving a reason and without consequence. Simply inform Mrs. Gross via email ([redacted]) that you would like to withdraw. Withdrawing from this study will not affect the mentor relationship you have with Mrs. Gross, and neither participation nor refusal to participate will impact the quality or quantity of mentoring you experience in the New Teacher Mentor Program.

**IDENTIFICATION OF PRINCIPAL RESEARCHER**

If you have any questions or concerns about this research, please feel free to contact:

Stefanie Gross
[redacted]

**RIGHTS OF RESEARCH PARTICIPANTS**

The Northwestern College Institutional Review Board has reviewed Mrs. Gross's request to conduct this action research study. If you have any concerns about your rights in this study, please contact Dr. Karissa Carlson from the Institutional Review Board (IRB) at [redacted].

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**CONSENT**

I have read and understand the information provided above. My questions have been answered to my satisfaction, and I agree to participate in this study. I understand that I will be given a copy of this consent form.

_____

Printed Name of Participant

_____ _____

Participant's Signature Date

_____ _____

Researcher's Signature Date

# Appendix B

## Teachers' Sense of Efficacy

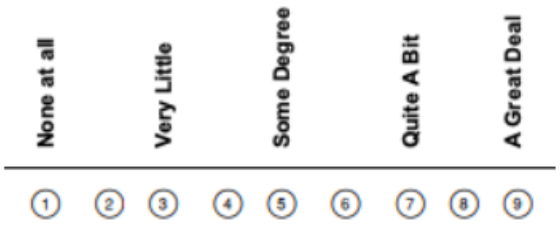
This survey is designed to help us gain a better understanding of the kinds of things that create challenges for teachers. There will be 24 close-ended questions, 4 open-ended questions, 7 demographic questions, and 1 optional question. Your answers are confidential.

Participant Identifier

Choose

Questionnaire

Directions: Please indicate your opinion about each of the statements below by marking any one of the nine responses, ranging from (1) "None at all" to (9) "A Great Deal" as each represents a degree on the continuum. Please respond to each of the questions by considering the combination of your current ability, resources, and opportunity to do each of the following in your present position.




1.) How much can you do to get through to the most difficult students?

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | |
|---|---|---|---|---|---|---|---|---|---|---|
| None At All | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | A Great Deal |

Only the first question from the TSES has been included in Appendix B. Visit the developers' websites directly to access the entire long form of the Teachers' Sense of Efficacy Scale (Tschannen-Moran, n.d.; Woolfolk Hoy, n.d.).

Open-Ended Survey

Directions: Indicate your opinion about each of the statements below by providing a response in your own words.

25. How would you describe your current confidence level for meeting the challenges of being a first-year teacher?

26. How would you describe your current ability, resources, and opportunity to engage students?

27. How would you describe your current ability, resources, and opportunity to utilize instructional strategies?

28. How would you describe your current ability, resources, and opportunity to manage your classroom?

Demographic Questions

29. Age

30. Gender

- ○ Female
- ○ Male
- ○ Prefer not to say
- ○ Other...

31. Race or Origin

- ○ White
- ○ Hispanic, Latino, or Spanish
- ○ Black or African American
- ○ Asian
- ○ American Indian or Alaska Native
- ○ Native Hawaiian or Pacific Islander
- ○ Prefer not to say
- ○ Other...

32. Grade Level(s) You Teach -- select all that apply

- [ ] 6th grade
- [ ] 7th grade
- [ ] 8th grade
- [ ] 9th grade
- [ ] 10th grade
- [ ] 11th grade
- [ ] 12th grade

33. Subject(s) You Teach -- select all that apply

- [ ] Encore or Elective
- [ ] English
- [ ] Fine Arts
- [ ] Math
- [ ] Science
- [ ] Social Science
- [ ] Special Education
- [ ] World Language
- [ ] Other...

34. When did you participate in a student teaching experience?

- ○ Fall 2019
- ○ Spring 2020
- ○ Fall 2019 AND Spring 2020
- ○ I did not participate in a student teaching experience.
- ○ Other...

35. Were you able to complete the student teaching experience as it was originally intended by your undergraduate or graduate program?

- ○ Yes
- ○ No
- ○ I did not participate in a student teaching experience.
- ○ Other...

36. (OPTIONAL) If desired, provide additional explanation regarding your student teaching experience.

## Appendix C

### Table 1

*Change in Mean for Overall Teacher Self-Efficacy*

| | Individual Participants | | | | | | | | | Group |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | |
| Pretest | 6.38 | 6.63 | 5.88 | 7.08 | 4.92 | 5.42 | 4.96 | 6.88 | 6.42 | 6.06 |
| Posttest | 6.63 | 6.71 | 5.88 | 6.25 | 6.17 | 5.29 | 5.79 | 6.46 | 6.21 | 6.15 |
| Change | 0.25 | 0.08 | 0 | - 0.83 | 1.25 | - 0.13 | 0.83 | - 0.42 | - 0.21 | 0.09 |

### Table 2

*Change in Mean for Efficacy in Student Engagement*

| | Individual Participants | | | | | | | | | Group |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | |
| Pretest | 6.88 | 6.63 | 5.88 | 7.38 | 4.88 | 5.13 | 4.75 | 6.88 | 6.88 | 6.14 |
| Posttest | 7.00 | 7.00 | 5.75 | 6.13 | 6.25 | 5.00 | 5.75 | 6.63 | 5.75 | 6.14 |
| Change | 0.13 | 0.38 | - 0.13 | - 1.25 | 1.38 | - 0.13 | 1.00 | - 0.25 | - 1.13 | 0 |

### Table 3

*Change in Mean for Efficacy in Instructional Strategies*

| | Individual Participants | | | | | | | | | Group |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | |
| Pretest | 6.00 | 6.00 | 6.13 | 6.38 | 5.38 | 5.00 | 5.25 | 6.63 | 6.75 | 5.94 |
| Posttest | 6.38 | 6.75 | 6.00 | 6.00 | 6.63 | 4.50 | 6.25 | 6.00 | 6.63 | 6.13 |
| Change | 0.38 | 0.75 | - 0.13 | - 0.38 | 1.25 | - 0.50 | 1.00 | - 0.63 | - 0.13 | 0.18 |

**Table 4**

*Change in Mean for Efficacy in Classroom Management*

| | Individual Participants | | | | | | | | | Group |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | |
| Pretest | 6.25 | 7.25 | 5.63 | 7.50 | 4.50 | 6.13 | 4.88 | 7.13 | 5.63 | 6.10 |
| Posttest | 6.50 | 6.38 | 5.88 | 6.63 | 5.63 | 6.38 | 5.38 | 6.75 | 6.25 | 6.19 |
| Change | 0.25 | - 0.88 | 0.25 | - 0.88 | 1.13 | 0.25 | 0.50 | - 0.38 | 0.63 | 0.10 |