12-2023

The Examination of a Teacher Mentorship Intervention on Junior Teachers' Stress and Self-Efficacy

Cagla Cobek

THE EXAMINATION OF A TEACHER MENTORSHIP INTERVENTION ON JUNIOR TEACHERS' STRESS AND SELF-EFFICACY

by

Cagla Cobek

A Thesis
Submitted to the Graduate School,
the College of Education and Human Sciences
and the School of Psychology
at The University of Southern Mississippi
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy

Committee:

Dr. Zachary LaBrot, Committee Chair
Dr. Crystal Taylor
Dr. Emily DeFouw

December 2023

Published by the Graduate School

ABSTRACT

This study examined a daily Check-In/Check-Out mentorship intervention for junior teachers. Changes in junior teachers' stress level and a sense of self-efficacy were measured. Researchers collected data from three junior teachers and mentor dyads in a Southeastern school district. A Multiple Baseline Design across three teachers was used in this study to examine the impact of the daily mentorship intervention. The results suggested that daily Check-Ins and Check-Outs with a mentor teacher decreased all three junior teachers' daily stress. The intervention did not impact significantly on teachers' perceived stress and their sense of self-efficacy. Overall, this study supports a promising novel mentorship program for decreasing junior teachers' stress. Limitations, implications for practice, and directions for future research are discussed.

ACKNOWLEDGMENTS

I would like to express my sincere thanks to Dr. Crystal Taylor. I truly appreciate your support and mentorship over the years. Your continued help, encouragement and advice have enabled me to develop as a professional.

Thank you, Dr. Zachary LaBrot, and Dr. Emily DeFouw for your guidance throughout the study. Each of your support, feedback and directions made significant contributions to this project. I am grateful to School Psychology graduate students for their support. Lastly, I would like to thank teachers and administrators who gave their time to help me successfully complete this project.

DEDICATION

With heartfelt gratitude, this work is dedicated to my family. First and foremost, I am grateful for my mother Turkay Kalkandelen who gave me immense love and support from thousands of miles away to continue my journey and achieve my goals. To my brother Cagri Cobek and my father Adnan Cobek, thank you all for the constant encouragement and endless support, you all have been there for me through every phase of this journey.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF ILLUSTRATIONS

CHAPTER I – INTRODUCTION

Improving teachers' wellbeing is key for improving their ability to teach students effectively (Jennings & Greenberg, 2009). Teachers' quality of life is contingent on their professional knowledge and expertise as well as their well-being (The World Bank, n.d.). Teachers make important contributions to desirable classroom environments and directly contribute to their student's social, emotional, and academic needs (Jennings & Greenberg, 2009). However, personal, or job-related factors can contribute to teachers' stress which can negatively impact the classroom environment, teacher-student relationships, and teacher wellbeing (Jennings & Greenberg, 2009).

Impact of Teachers' Stress

Teaching is a high stress profession (Herman et al., 2018). Teachers are isolated from colleagues for most of the school day. In fact, it has been estimated that teachers spend less than 5% of their workday collaborating with colleagues (McCarthy, 2019). Teachers also experience administrative burdens, long hours, classroom management difficulties, and lack of autonomy, all of which potentially contribute to the stress they experience daily (McCarthy, 2019). Unsurprisingly, teachers who experience stress are less likely to demonstrate sympathy toward their students, colleagues, and principals (Collie, 2021). These negative impacts of stress can also be seen in the classroom and impair teachers' ability to implement innovative and effective classroom practices. Additionally, teachers with more stress have been found to be less tolerant of disruptive behavior, which impacts students' emotional, behavioral, and academic outcomes (Reinke et al., 2013).

Teacher stress has been defined as a negative affect (such as anger, anxiety, or depression) by a teacher as a result of demands made in the school setting (Kyriacou & Sutcliffe, 1977; Forman, 1981). Teachers' stress has tremendous effects on students' success. Ramberg et. al. (2020) recently described the extent to which teachers experienced stress, fatigue, and depression and found that stress impacts students' rating of school satisfaction and perceived teacher caring. Researchers also found that teachers' levels of stress and stress-related complaints are important for students' well-being and performance at school. Overall, research suggests that teachers' stress impacts the instructional environment (Ramberg et al., 2020).

Recent research findings highlight the important point that teachers' stress is directly related to teaching quality and student engagement (Wong et al, 2017). The study results show that teachers who are stressed demonstrated poorer teaching quality. As a result, their students tend to show less engagement, resulting in poorer learning outcomes. Wong et al., (2017) indicated that teachers who experience stress should be provided with enough instructional and emotional support. This can be possible by cooperation among teachers such as sharing interests, goals, and experiences (Wolgast & Fischer, 2017). In Wolgast and Fischer's study, they analyzed the extent of the resources that would reduce teacher stress. Secondly, they examined the impact of teacher cooperation on teachers' perceived stress. They found that teachers who had prepared classes in cooperation with colleagues demonstrated lower levels of perceived stress than those who did not cooperatively prepare classes. Therefore, demonstrating that teachers experience less stress when they receive support from their colleagues. Furthermore, high stress among teachers

has an impact on feelings of burnout. Teachers that have too many work-related demands with too few resources, often experience emotional exhaustion and depersonalization (Zhai et al., 2016). As such, teacher stress interventions may be an important first step toward reducing these negative outcomes. From this body of literature, it is clear there is a need to address teacher stress.

Teacher Stress: A Current Issue

Stress has become an important concern in education since the COVID-19 pandemic (Oducado et al., 2021). Teachers feel more stressed now than compared to before the pandemic because of the unpredictability and uncertainty the around their profession. Also, teachers have been faced with extremely challenging conditions (Reimers & Schleicher, 2020). Especially, they have experienced the challenges of increased workloads, had to learn and use new technologies, adapted to changes to daily teaching routines. Also, teachers had to deal with the fear of COVID-19, uncertainty around long-distance learning, and lastly, student-triggered psychological distress, anxiety, and depression (Zadok-Gurman et al., 2021).

Oducado et al. (2021) examined the degree of perceived stress of COVID-19 among Filipino teachers during the COVID pandemic. Researchers administered an online survey to teachers called the COVID19 Perceived Stress Scale (COVID-19 PSS-10) to assess the COVID-19 perceived stress among employed Filipino teachers in August 2020. Results of this study demonstrated that more than half of teachers experienced moderate COVID-19 stress. Also, a positive correlation was found between theperceived risk of getting COVID-19 infection and COVID-19 stress (Oducado et al., 2021). Another study done by Chitra

(2020) examined whether online classes and new commitments due to COVID-19 influence occupational stress of the teachers. Teachers Occupational Stress Scale and Minnesota Satisfaction Questionnaire were used to collect data from 252 second grade teachers in private schools. The researchers found that online classes and other additional commitments during this period have increased the stress level of teachers. Especially, handling online classes has a significant influence on occupational stress and occupational stress has a prominent influence on the job satisfaction of school teachers. Overall, it is obvious that now, more than ever, teachers

need more support to guide them to better manage their stress and obtain an instructional support.

Impact of Teachers' Self-Efficacy

Self-efficacy is defined as one's beliefs of their capability to organize necessary activities to realize specific performance and success (Bandura, 1997). Teacher's self-efficacy is also impacted by teacher's stress and is therefore, another important component in influencing student academic outcomes (Barni et al., 2019). Teachers who have a strong sense of self- efficacy can be more competent and effective at their job, exhibit greater levels of planning and organization, are more open to new ideas, and more willing to experiment with new teaching procedures (Herman & Reinke, 2022). Furthermore, teachers with more self-efficacy exhibit more enthusiasm for teaching and are more likely to work longer with students who are struggling (Herman & Reinke, 2022). With that being said, teachers' beliefs in their ability to effectively handle the tasks, obligations, and challenges related to their professional activity are one of the indicators for students'

motivation, academic outcomes, and teachers' well-being in the working environment (Barni et al., 2019). Significant number of research studies have found that teachers' higher sense of self-efficacy links to higher level of job satisfaction. Those teachers would experience lower levels of job-related stress and face less difficulties in dealing with disruptive students (Barni et al., 2019).

Teachers' job satisfaction has a strong relationship with teacher's perception of fulfillment which is derived from their higher level of performance (Judge et al., 2001; Klassen & Chiu, 2010). Similarly, Klassen and Chiu (2010) found in their study that teacher self-efficacy is linked with job satisfaction. Teachers with high levels of self-efficacy for classroom management and instructional strategies reported higher levels of job satisfaction, whereas teachers with high levels of overall stress reported lowered job satisfaction and students' academic achievement (Klassen and Chiu, 2010).

Besides the effect of teacher's sense of self-efficacy on job satisfaction, self-efficacy beliefs can also be an indicator for student academic outcomes (Caprara et al., 2006). In Caprara's study, the participants were 2000 teachers, and they were administered self-report questionnaires to assess self-efficacy beliefs and their job satisfaction. The researchers collected students' average final grades in two years. The results indicated that teachers' personal efficacy beliefs affected their job satisfaction and this in turn positively affected students' academic achievement.

Mentorship in Teaching Profession

Teaching can be an isolating profession (Herman & Reinke, 2022). For this reason, it is important for teachers to have a sense of community and have colleagues that they can

reach out to for support (Herman & Reinke, 2022). According to Briscoe (2019), collaboration between and among education professionals is widely supported and it is believed to increase teachers' effective professional learning. In fact, positive interactions, based on emotional and psychological support, between mentor and mentee has been found to be beneficial to boosting the confidence of beginner teachers. These relationships enable junior teachers to put difficult experiences into perspective, which can increase job satisfaction (Hobson et al., 2009). Additional benefits to mentoring programs among teachers include improved decision-making, (Mathur et al., 2013), improved self-esteem, better problem solving, and reduced feelings of isolation (Schwan et al., 2020)

A qualitative research study by Scwan et. al., 2020 examined the perceptions for both mentors and mentees who participated in a statewide mentoring program. Their study examined the relationship between the mentor and the mentee and their self-reported perceptions of the mentorship program. This study included a sample of 147 new teachers and 89 mentor teachers. Results indicated that the mentorship program significantly benefited both the mentor and mentee. Mentee's reported improvements in their instruction ability, collaboration, confidence, and sense of community. Schwan et al. (2020) indicated that mentors also reported positive benefits such as being more reflective and having more positive interactions with others. Similarly, a research study conducted by Marthur et al. (2013) examined the teacher perceptions of classroom decisions and practices following a year-long mentorship experience and found that mentors perceived the greatest benefit of mentoring to be the opportunity to reflect. Furthermore, mentees found mentorship

experiences increase their knowledge of classroom, school, and district assessment practices.

Mentoring is also a promising solution for increasing teachers' sense of self-efficacy. It helps with teacher retention problems and helps junior teachers increase their self-confidence, ability, and development as educators (Lyne, 2013). A study by Guo et al. (2011) examined the perception of teacher collaboration on classroom characteristics (i.e., engagement) that predicted teachers' self-efficacy. The results show that there are higher levels of student engagement were associated with higher levels of teacher self-efficacy when teachers worked in preschools with high levels of collaboration.

Crouch et al. (2012) examined the relationship between junior teachers' self-efficacy and various characteristics of mentors. They found that novice teachers who reported participating in more mentor-facilitated professional development activities outside their individual time with their mentor also reported higher positive changes in feelings of self-efficacy. Similarly, Lyne (2013) examined how a teacher mentoring program improved teachers' sense of self-efficacy and achievement. The research results show that both teachers' self-efficacy and achievement improved.

There is currently no research regarding the direct impact of mentorship on teacher stress, so this is an area of need. Based on the literature reviewed above, there is a wealth of literature describing the links and benefits of addressing teacher stress to improve teachers' self-efficacy among other teacher and student variables. It is, therefore, important to further research ways in which teacher mentorship programs can also support stressed teachers. One research study done by Forman (1982) examined the effect of a cognitive

behavioral stress management program on teacher's stress levels. This study did not use mentor-mentee dyads, but as part of this study, secondary school teachers were asked to identify the time of the day they usually felt the most stress and then rate their stress level on a scale of 1 -10, with 1 being the calmest, least stressed they have ever felt, and 10 being the most stressed they have ever felt. Researchers found that this stress management training program significantly reduced teachers' stress. This program used more resources than a mentorship program might, so an intervention using less resources might prove more beneficial for teachers and schools alike.

Check-In / Check-Out (CICO)

Check-In and Check-Out (CICO) is a common Tier II intervention used to decrease problem behaviors in the classroom (Murphy, 2019). It has been found to be most effective with students who are reinforced by adult attention (Kerr & Nelson, 2010). Components of CICO included meetings with a preferred mentor, daily prompts for appropriate behavior, progress monitoring of behavior, immediate mentor/teacher feedback, and parent involvement. To date, this intervention has been used specifically with children. However, the concepts of CICO might be beneficial when used alongside a teacher mentorship program. Specifically, the components of daily check-ins and check-outs with mentors, progress monitoring their stress, and immediate mentor feedback might be an easy and efficient way for schools to support junior teachers.

This study aimed to develop a novel version of CICO using junior teachers and advanced level mentor teachers in a K-8 setting. In this intervention, mentors checked-in each morning and checked-out each afternoon with junior teachers. Each week the junior

teacher set a goal for self-care strategies they used to reduce stress. Mentor teachers also discussed strategies for classroom management and provided tips for how to make content more engaging in the classroom. Three times throughout the day, the junior teacher completed a daily stress monitoring form. Next, at the end of each day, the mentor and junior teacher checked-out. At check-out, the junior teacher and their mentor discussed challenges and barriers, as well as solutions to challenges or barriers, related to self-care and classroom management/instruction. Additionally, the mentor and junior teacher discussed the junior teacher's daily stress ratings. It was anticipated that these quick, daily interactions provided an efficient way for schools to support junior teachers in their first five years of teaching.

Purpose of the Current Study

The purpose of the current study was to examine a novel teacher mentorship intervention that uses the concepts of CICO. It was hypothesized that this mentorship program improved junior teachers' sense of self-efficacy and reduced their perceived levels of stress. In other words, repeated teacher-mentor check-ins and check-outs, where teachers were provided stress management skills and support for maintaining their classroom, would likely lead junior teachers to feeling more valued and supported while also improving their feeling of self-worth and confidence about their job. Overall, this intervention was anticipated to decrease the level of stress experienced by junior teachers.

A concurrent multiple baseline design across three teachers was used. The dependent variables were teacher's stress and teacher's sense of self-efficacy. The independent variable was the daily mentorship check-ins and check-outs. Daily stress

monitoring occurred for each junior teacher. Mentor teachers and junior teachers rated their perceived stress and sense of self-efficacy using psychometrically sound instruments prior to the intervention and following the intervention. Finally, mentor and junior teachers rated the social validity of the intervention at the end of this study. Post intervention data were also obtained after the two weeks of intervention. This study intended to answer the following research questions:

1. Does daily mentor Check-Ins/Outs decrease teacher's stress level?
2. Does daily mentor Check-Ins/Checks-Outs improve teacher's sense of self-efficacy?
3. Do mentors and junior teachers rate this intervention as socially valid?

CHAPTER II – METHOD

Participants and Settings

The researchers obtained permission from The University of Southern Mississippi's Institutional Review Board (IRB), see appendix L, and approval of the superintendent of the school district prior to the start of the study. The study took place in a rural, Title 1, public school in the Southern United States. The school included enrolled students from pre-kindergarten to six grade. The total number of students in the school was 239 and the total number of teachers was 20, indicating the student-teacher ratio is approximately 12. Within the school population, 63% of students identified as Black and 27% of students identified as White, 2% of students identified as Hispanic or Latino and 8% of students represented two or more races. The female student population was 48% and the male students population was 52%. According to the online reports from the Mississippi Department of Education (MDE) (MDE, n.d.), 99% of the students were eligible for free or reduced lunch. Prior to data collection, researchers contacted school principals to solicit participants. All participants were then asked to sign the consent forms and confidentiality agreement. Consent forms are included in Appendix A and B and the confidentiality agreement can be found in Appendix C. The participants included three junior teachers and three mentor teachers. Inclusion criteria for the junior teachers and mentors were determined by the *Perceived Stress Scale* (Cohen & Williamson, 1988), *Teachers Sense of Self-Efficacy Scale* (Tschannen-Morran & Hoy, 2001) and their years of work in the field. Inclusionary criteria for junior teachers specifically included a) scoring within moderate range on the *Perceived Stress Scale* (14-26), b) scoring in the low or moderate range on *Teachers Sense of Self Efficacy Scale*, and c) having less than 5 years

of teaching experience in Elementary school. The inclusionary criteria for mentor teachers included a) scoring in the low (0-13) or moderate (14-26) range on the *Perceived Stress Scale*, b) Scoring in the moderate to high range on the *Teacher's Sense of Self-Efficacy Scale*, and c) having at least 5 years of teaching experience in Elementary school. Participation was voluntary and mentors and teachers received a $20 gift card at the end of the study. The teachers were allowed to withdraw from the study at any time.

Participants

The participants were randomly matched with their dyads. Lindsey was an African American, 31-year-old-female in her first-year as a teacher. She obtained her bachelor's degree in Biology (B.S.) and her master's degree (M.A.) in Elementary Education. She taught science to fifth and sixth grades. Lindsey's mentor was Charlotte, a 49 year-old African American female with 22 years of teaching experience. She earned her Master's degree (M.A.) in Elementary Education. She was teaching science to third graders. Lindsey's perceived stress score was a 10 (low) and her overall self-efficacy score was 6.50 (moderate) at screening. Linsey had low stress, but was still included in the study because she had the highest level of stress compared to others screened to participate.

Melanie was a 25-year-old, White/Caucasian female with four years of teaching experience. She was teaching second grade math. She obtained her Bachelor's Degree (B.A.) in Elementary Education. Her mentor, Brenda, was a 29-year-old white Caucasian female with six years of teaching experience. She earned her Bachelor's degree (B.A.) in Elementary Education. She was teaching science to first grade students. Melanie's perceived stress score was a 14 (moderate) and her overall self-efficacy score was 7.16 (moderate) at screening.

Oscar was a 26-year-old African American male with 4 years of teaching experience. He earned his Bachelor's Degree (B.A.) in Music Education and he was teaching music classes to first to sixth grade students. His mentor was Jane, a 48 year-old African American female with 25 years of teaching experience. She was teaching math and science to 3rd grade. She earned her Bachelor's degree (B.A.) and Master's degree (M.A.) in Elementary Education. Oscar's perceived stress score was a 22 (moderate) and her overall self-efficacy score was 7.33 (moderate) at screening.

Measures and Materials

Several measures were used during the study, including the *Check-in and check-out protocol (treatment integrity),* the *Daily Stress Monitoring Form, the Self-care Activities and Goal Setting sheet, the Perceived Stress Scale*, the *Teachers Sense of Self-Efficacy scale*, a modified *Usage Rating Profile* (URP), and the *Procedural Integrity Form*. The materials are described below and available in the appendices.

Check-in Check-Out Protocol Treatment Integrity Form

Each mentor and junior dyad checked-in with each other every morning and checked-out with each other every afternoon during the school week. A treatment integrity form, see Appendix D, includes a checklist of multiple components essential for mentors to accurately complete each check-in and check-out session. This measure was used by mentor teachers to self-monitor their implementation of CICO and was used by researchers to monitor treatment fidelity. Items in the check-in component of this study include a) a positive interaction and greeting, b) a review of the junior teacher's daily stress rating (1-10), c) a discussion regarding ways to maintain or reduce stress (including self-care and classroom management or instructional support), d) a reminder regarding self-care goals,

and e) a positive farewell. The check-out component consists of a) a positive greeting, b) a review of the junior teacher's daily stress rating, c) a discussion about how they handled stress during the day with constructive feedback or praise regarding the use of stress management skills throughout day, d) a reminder of the junior teachers' weekly self-care goal, and e) a positive farewell.

Self-care Activities and Goal Setting Form

The self-care activities and goal-setting form included a variety of self-care activities (see appendix E) and open-ended goal-setting questions. The junior teacher filled out the open-ended questions every Monday morning during the check-in session with their mentor. This form asks teachers to describe the activities they would engage in that week, how often would they engage in the activity, and what they need to do to make sure they would do it more often. Junior teachers also completed open-ended questions on the form to set their weekly goals. The goal-setting part of the form includes open-ended questions and one rating scale question. Open-ended questions include, "My overall goal doing this activity is to… the goal is important to me because… to achieve this goal I need to commit to follow…" Junior teachers also rated how important it was to meet their goal from 1 to 10 (e.g., 1 = not confident and 10 = confident). Also, junior teachers answered, "What could I do to become more confident?" (Herman & Reinke, 2015, p.60).

Each Friday at check out, the junior teachers completed the check-out chart on the same form to state which self-care activities they did and how often they did them. During the week, their mentor checked in and asked them how these self-care activities are being practiced and they discussed the challenges and barriers each day. Mentor and junior

teachers received reminders to complete forms or the check-in/out process each Monday morning.

Dependent Measures

Daily Stress Monitoring Form

Junior teachers completed the daily stress monitoring form, see appendix F, three times in a school day before check-out. Junior teachers rated their stress on a 1 to 10 scale, with 1 being the least stressed they have felt and 10 is the being the most stressed they have ever felt. During their third rating (the last rating of the day) teachers identified positive thoughts and activities that made them happy that day (Herman & Reinke, 2015, p. 58). Teachers were expected to rate their stress three times a day so as to clarify what part of the day they typically are more stressed. Rating their stress three times a day gives a better picture of the teacher's stress throughout multiple periods (i.e., morning, noon and afternoon) of the day.

Perceived Stress Scale (PSS)

The *Perceived Stress Scale* (PSS) is a self-reported questionnaire (see appendix G) that measures the degree to which individuals rate situations in their lives as stressful (Lee, 2012). This rating scale consists of 10 items that include questions that ask about one's thoughts and feelings in the last month. It is a Likert scale measurement using scores from 0-4 with (0=never, 1=almost never, 2=sometimes, 3=fairly often, 4=very often). Scores were calculated by reverse scoring for questions 4, 5, 7 and 8. Scores were then summed to get the total score. It is indicated in PSS Manual (Lee, 2012) that individual scores on the PSS can range from 0 to 40 with higher scores indicating higher perceived stress. The scores ranging from 0-13 would be considered low stress, 14-26 would be considered

moderate stress and the scores ranging from 27-40 would be considered high perceived stress.

Previous studies have suggested that the PSS shows adequate internal consistency, test–retest reliability, and validity across different populations (Lee, 2012). Baik et al. (2019) indicated that the psychometric properties of the PSS were originally evaluated in a large sample of 2,387 adults from the U.S. It has been reported that scores on the PSS have adequate internal consistency and reliability ($\alpha = .78$; Cohen and Williamson, 1988). Lee (2012) indicated that Cronbach's alpha of the PSS was evaluated at >.70 in all 12 studies in which it was used. Also, the test-retest reliability of the PSS was assessed in four studies and met the criterion of >.70 in all cases.

Teacher's Sense of Efficacy Scale (short form)

The *Teacher's Sense of Self-Efficacy Scale* asks teachers to rate their beliefs regarding their capabilities to bring about desired outcomes for student engagement and learning, even for students who are unmotivated (Tschannen-Morran & Hoy, 2001). This scale (see Appendix H) is a self-assessment designed to create a better understanding of the difficulties for the teachers. The scale consists of a long form (24 items) and short form (12 items) and includes three teacher efficacy subscales; instructional strategies, classroom management, and student engagement. In this study, we used the short form (12 items). Scores were averagaged for each of the subscales and the overall total score was used in decision making and analyses. Researchers have found three moderately correlated factors including (1) efficacy in student engagement, (2) efficacy in instructional practices and (3) efficacy in classroom management. They found acceptable reliability for the short form for each subscale including self-efficacy for engagement ($\alpha = .81$), for instruction ($\alpha = .86$)

and for classroom management (α = .86) and, overall (α = .94; Tschannen-Moran & Hoy, 2011).

Modified Usage Rating Profile (URP) for Mentors and Teachers

The *Usage Rating Profile* (URP) (Chafouleas et al., 2011) was developed to used for evaluating the social validity of school interventions and treatments (see Appendix I). The purpose of this measure is to conceptualize the treatment usage. The measure consists of 29 items using a 6-point Likert scale (*strongly disagree, disagree, slightly disagree, slightly agree, agree, strongly agree;* Chafouleas et al., 2011). Scores on this measure are calculated by first reverse coding necessary items and then taking an average score for each of the 6 subscales.

Reliability analyses were conducted with 1005 elementary teachers who completed the instrument in response to a vignette depicting a common behavior intervention (Briesch et al., 2013). Results of exploratory and confirmatory factor analyses, as well as reliability analyses, supported a measure containing 29 items and yielding 6 subscales: Acceptability, Understanding, Feasibility, Family–School Collaboration, System Climate, and System Support. Collectively, these items provide information about potential facilitators and barriers to usage that exist at the level of the individual, intervention, and environment. Acceptable levels of internal consistency reliability (i.e. α ≥ .70) were identified for five of the six subscales by Chafouleas et al., (2013). Subscale I (Acceptability) has the highest reliability (α =.95), Subscale II (Understanding) has an acceptable level of reliability (α =.79), Subscale III (Family–School Collaboration) demonstrated acceptable reliability (α =.78). Subscale IV (Feasibility) has a high reliability (α =.88). Subscale V (System

Climate) has a high reliability (α =.91), Subscale VI (System Support) exhibited lower reliability than other subscales (α =.67).

According to the results of another study done by Chafouleas et al., (2009), all four subscales demonstrated acceptable levels of internal consistency reliability with this sample. Each subscale demonstrated a high level of internal consistency (α =.84 – .96). The psychometrics for this measure are not applicable for this study since the measure will be modified, but the measure has been show to be an effective way to measure social validity and will provide some information regarding the acceptability of this novel mentorship intervention.

This questionnaire was designed for children's interventions, so researchers have slightly modified it to fit this adult population. 7 out of 29 items have been modified to adjust the study for mentor and junior teacher intervention.The first modified item (question 1) stated, "This intervention is an effective choice for addressing a variety of problems" and was modified as "This intervention is an effective choice for addressing teacher's stress and feeling of self-efficacy." Next, item 5 was " A positive home school relationship is needed to implement this intervention" and was modified as " A positive mentor-mentee relationship is needed to implement this intervention." Item number 7 was "The intervention is a fair way to handle child's problem behavior" and was modified as "The intervention is a fair way to decrease teacher's stress." Item 12 was "This intervention is a good way to handle the child's behavioral problem." We changed it to "This intervention is a good way to increase teacher's sense of self-efficacy." Item 15 was changed from "Parental collaboration is required in order to use this intervention" to "Mentor-mentee collaboration is required in order to use this intervention." Item 19 was

changed from “This intervention is too complex to carry out accurately” to “This intervention would not interrupt mentor and mentee’s lessons.” Item 21 was modified from “This intervention would not be disruptive to other students” to “This intervention would not interrupt mentor and mentee’s lessons.” Lastly, Item 28 was “Regular home school communication is needed to implement this intervention” and was modified as “Regular mentor-mentee communication is needed to implement this intervention.”

Experimental Design

A concurrent Multiple Baseline Design across three teachers was used to evaluate the effects of the novel mentorship intervention on teachers’ ratings of stress and self-efficacy. The baseline phase has at least 5 data points that are relevant to single case design standards (Kratochwill et al, 2021). All subsequent phases include at least 5 or more data points per phase. Treatment was sequentially applied to each subject as a minimum of two baseline data points was staggered across phases. Three replications of intervention effect are required to demonstrate experimental control. This study used a minimum of 3 teachers which means that there was at least 3 replications of intervention effect. agreement data was collected for at least 40% of each junior dyads check in and 15% of check out sessions. Fruther all measures, including the *Perceived Stress Scale, Teacher’s Sense of Self-efficacy Scale* and *Modified Usage Rating Profile* (URP)’s reliability has previously been shown to have psychometric support. Also, a second observer reviewed the calculation of all scores for all rating scales and agreement was achieved for our dependent variables. These specifications meet the WWC standards for single case design without reservation (Kratochwill et. al, 2021).

At the beginning of the study, junior teachers completed the *Perceived Stress Scale* and *Teacher's Sense of Self-efficacy Scale* by using the universities Qualtrics platform. During the baseline and intervention phases, junior teachers were asked to report their stress three times a day on a daily stress monitoring paper form. Each day teachers received three forms one for morning, noon, and afternoon. During the intervention, the first author observed mentor check-ins with junior teachers during 45% of the check-in sessions and 15% of check-out sessions. Interobserver agreement observations occurred during 44% of the check in sessions and 15% of the check-out session overall. Observers marked each component on a treatment integrity paper forms if the step of the check-in and check-out administration was yes (Y), no (N) or not applicable (NA). Following intervention, junior teachers completed the Perceived Stress Scale and the Sense of Self-Efficacy Scale using Qualtrics. These measures were also completed after the two-week follow up phase. The social validity form, the modified *User Rating Profile*, was sent to junior teachers and mentors using the Qualtrics survey link after the intervention phase.

Procedures

The researchers obtained permission from The University of Southern Mississippi's Institutional Review Board (IRB) and also received approval of the superintendent of the school district to conduct the study prior to recruitment. Once approval was obtained, the researcher participated in a staff meeting and introduced the study to the whole Elementary school. Teachers who volunteered signed the consent forms and confidentiality forms. Following consent, a screening took place.

Screening

During the screening session, teachers and mentors rated their stress using the *Perceived Stress Scale* and their self-efficacy using the *Teachers Sense of Self-Efficacy Scale* on Qualtrics. The researcher assigned a unique teacher ID and password for each individual teacher to maintain security and confidentiality. The Qualtrics survey platform automatically scored their results and accounted for reverse scored items when necessary. Participation was dependent on each teacher's scores on the *Perceived Stress Scale* and the *Teachers Sense of Self-Efficacy Scale.* Junior teachers with less than 5 years of teaching experience, whose stress score ranged from 14-26, considered moderate, and whose self-efficacy score was low to moderate participated in the study. Mentor teachers with more than 5 years of teaching experience that also had scores in the low stress (1-13) or moderate stress (14-27) range, with moderate or high self- efficacy ratings participated in this study. Once the junior teachers and mentors were selected, researchers randomly matched each junior teacher with a mentor teacher. Finally, the researcher met with participants to notify them of the study process, timeline, and intervention procedure.

Baseline

During the baseline condition, junior teachers did not meet with their mentors or receive feedback or support related to stress, self-care, or classroom management. In baseline, junior teachers rated their daily stress three times per day using the *Daily Stress Monitoring Form*. Mentors received a 30-minute training before baseline, but the mentorship check-in / check-out did not begin until teachers were out of baseline.

Another doctoral-level graduate student observer was present for the mentor training sessions and scored yes (Y), if the researcher implemented mentor training

correctly and scored no (N), if the trainer did not implement the steps correctly (see Appendix J). Treatment integrity was 100% for all mentors training sessions. The mentor training included the following steps using Behavioral Skills Training:

1. Researcher reviewed the definitions of stress and self-efficacy.

2. Researcher provided instructions to train the mentors on how to complete each step of the check-in and check-out process.

3. Mentors were instructed on how to complete rating scale forms and how to review junior teacher's stress related worksheets.

4. Mentors were given an overview of self-care and classroom management strategies that they might suggest to their mentees.

5. Researcher modeled how to do brief check-in and check-out sessions with the second researcher.

6. After Modeling, rehearsal was done by the mentor to perform the desired skills.

7. Researcher provided feedback to mentors.

Intervention – Mentor Check-in/Check-out

The intervention lasted four weeks for each dyad. At the start of each week during morning check-ins (i.e., Mondays), mentors gave junior teachers the weekly self-care activity and goal-setting sheet. Mentors introduced self-care activities on the forms and requested the junior teachers select one of the self-care activities that he/she would practice during the week. Once the junior teacher determined the activity, then the junior teacher completed the questions and set their goals on the self-care worksheet. Each day (Monday – Friday) during check-in, the mentor reminded the teacher to complete their daily stress monitoring form.

Check-in sessions were held in the junior teacher's classroom. Check-in sessions included greeting junior teachers, reviewing their previous score on the daily stress measures, and discussing ways to maintain a lower stress level, including self-care and instructional support. Check-in session ended with a positive farewell.

Check-out was held in the junior teacher's classroom at the end of each school day (Monday – Friday). During check-out, the mentor teacher reviewed the daily stress scores and discussed how the junior teacher maintained their stress during the day. Mentor and junior teachers discussed successes, challenges, and barriers. The mentor provided feedback and praise regarding the use of skills and reminded the junior teacher of their weekly self-care goal. The session ended with a positive farewell. Check-in and check-out sessions lasted four weeks for each participant.

Follow Up

Follow-up data were collected two weeks later after the termination of the program. During the follow-up condition, the mentorship intervention was not implemented. In this condition, teachers rated their daily stress three times a day for five days. A final *Perceived Stress Scale* and *Teacher's Sense of Self Efficacy Scale* was completed by teachers using a Qualtrics survey with their unique teacher ID and password. Junior teacher, Oscar, did not complete the survey requirement.

Treatment Integrity

Intervention lasted four weeks for each participant. During the intervention, check-in for each mentor-junior dyad was scheduled each morning before students arrived and check-out scheduled after the students left the school. Lindsey's mentor, Charlotte, completed the check-in and check-out part of the treatment integrity form (Appendix D)

100% of the time during the intervention. Similarly, Melanie's mentor teacher, Brenda completed check-in and check-out part of the treatment integrity 100% of the time. Oscar's mentor, Jane, completed the treatment integrity form for check-in and check-out 90% of the time. During the last two days of intervention, Oscar's mentor, Jane, was away at a conference, and she did not complete daily check-in and check-outs. Treatment integrity was also observed by the primary researcher during 45% of the check-in sessions and 15% of the check-out sessions. Overall, the dyads completed 100% of the steps during check-in and 100% of the steps during check-out steps while being observed by the primary researcher.

Interobserver Agreement (IOA)

According to single case design standards indicated by Kratochwill et. al (2021), each outcome variable must be measured consistently over time by more than one assessor. A common interobserver agreement technique includes percentage agreement. The minimum acceptable values of inter-assessor agreement range from 80 to 90 percent (on average) if measured by percentage agreement and at least 0.60 if measured by Cohen's kappa. A summary of inter-assessor agreement for a variable must be based on at least 20% of the data points within each condition (e.g., baseline, intervention) (Kratochwill et. al., 2021).

Inter-Scorer Reliability: Dependent Variables

For the dependent variables, scores from the *Perceived Stress Scale* and *Teacher's Sense of Self Efficacy Scale* were reviewed by secondary observer. The second observer received a 15-minute training from primary researcher in university's school psychology suit about how to score all measures. Next, second observer reviewed the scores on

Qualtrics which automatically calculated to the *Perceived Stress Scale*, *Teacher's Sense of Self-Efficacy Scale* and *Modified Usage Rating Profile*. The second observer also reviewed the scores on the *Daily Stress Monitoring Form* and confirmed the median scores of each daily score. Inter-scorer reliability calculation depended on the accuracy of the rating scales' scores agreed by primary researcher and second scorer, and the scores were checked for 100% each of these measures for each condition (baseline, intervention, follow up) and the agreement was 100% across all conditions for all measures.

IOA Treatment Integrity

Intervention lasted four weeks for each participant. During the intervention, check-in for each mentor-junior dyad was scheduled each morning before students arrived and check-out was scheduled after school. Interobserver agreement was collected by the primary researcher and second observer during 45% of the check-in sessions with Lindsey and Charlotte, 50% of the check-in sessions with Melanie and Brenda and 40% of the check-in sessions with Oscar and Jane. The primary researcher and a second observer used treatment integrity form during check-in and check-out sessions (Appendix D). Overall agreement of primary researcher and a second observer was 100% for each three mentor-junior participants. Interobserver agreement for the check-out was 15% for all three mentor-junior dyads. Overall agreement for primary researcher and second observer was 100% for each of three junior-mentor dyads for the check-out session.

Procedural Integrity

The procedural integrity checklist consists of all the necessary steps to accurately complete the study procedures (appendix K). Procedural integrity observations were completed for every phase of the study process. A doctoral level graduate student observer

received a 15-min training about the procedures of the study and to review the checklist. During baseline, intervention, and follow-up phases, a primary researcher and another doctoral-level graduate student observer completed the procedural integrity form. Procedural integrity was calculated by dividing the number of steps completed accurately by the total number of steps on the checklist and multiplying the quotient by 100. An independent observer was present for 100% of trainings. Procedural integrity was 100% for all phases.

Data Analysis

Data analysis was conducted using visual analysis, effect size calculations and paired samples t-test. The current study used a Concurrent Multiple Baseline Design across three teachers. Changes in the teacher's stress rating were assessed through the examination of trend, level, variability, overlap of phases, immediacy of effect, and consistency among similar phases. The stress score of the teachers were collected by the daily stress monitoring form three times a day phase change decision was made by calculating median scores for each day. Verification of predictions based on the baseline data for each subject can be understood by looking at unchanging baseline measures of other subjects who are still in baseline. Replication can be possible by how other subjects react to the treatment. After steady state responses were achieved under baseline conditions, the intervention was applied to one subject while baseline conditions will remain in effect for other subjects.

Effect sizes were calculated using Baseline Corrected Tau (BCT) to quantify the intervention effect. BCT is an improved nonparametric approach for evaluating effect size measurement within single-case design research (Tarlow, 2017). BCT allows for more interpretation to graphically "in bounds" between -1 and +1 effect sizes and controls for

baseline trend more effectively. BCT effect sizes scores that range below 0.20 are considered small, 0.20 to 0.60 are considered moderate, 0.60 to 0.80 are considered large, and above 0.80 are considered a very large change (Vannest & Ninci, 2015). For the purpose of this study, BCT will be calculated across all phases to evaluate the effect sizes of each individual phase and to evaluate the overall effect. Furthermore, a paired samples t-test was used to assess pre-post intervention changes from the *Perceived Stress Scale*. Lastly, descriptive statistics were provided for the *Teacher's Sense of Self-Efficacy Scale,* the modified *Usage Rating Profile* (URP), and teacher's daily stress scores.

CHAPTER III – RESULTS

The present study assessed the impact of a teacher mentorship intervention on junior teachers' stress and self-efficacy. Guiding research questions specifically sought to determine (1) Does daily mentor check-ins /outs decrease teacher's stress level? (2) Does daily mentor check-ins and check-outs improve teacher's sense of self-efficacy? and (3) Do the mentors and juniors teachers rate this intervention as socially valid?

Research question 1: Teachers' Stress Level

Research question 1 examined if the daily mentor check-in and check-out intervention decreased teachers' stress. Stress level was measured in two ways. First by collecting junior teachers' stress ratings three times per day (morning, noon, and afternoon) on the *daily stress monitoring form* and then by using pre and post-scores on the *Perceived Stress Scale.*

Daily Stress Score

The junior teachers scored their stress each morning, noon, and afternoon during the baseline, intervention, and follow-up phases using a paper version of the *daily stress monitoring form* which was given junior teachers by the primary researcher. Median scores were calculated by taking middle score each day from the teachers' scores in the morning, noon, and afternoon. See Figure 1 for an illustration of the teacher's median scores and Figure 2 for their scores for morning, noon, and afternoon.

Lindsey

During baseline, Lindsey's mean daily stress score was 3.2 (range, 3-5) with some initial variability early in baseline. When a steady baseline score was achieved, the intervention was applied, and there was an immediacy effect on her stress. Lindsey's stress

was reduced from 3 to 2.4 in the intervention condition (range = 2-3). This represents a 0.8 point decrease in her stress level in the intervention condition. Her follow-up phase shows the mean of Lindsey's daily stress score was 1.6 (range 1-2) which is 0.8 less than intervention. These results may illustrate that she maintained low stress level after two weeks of intervention.

Melanie

During the baseline phase, Melanie's mean daily stress score was 5 (range, 3-7) with high variability in the baseline condition. When the intervention was applied, immediacy of effect was observed on the first day of intervention. Her overall mean of daily stress score decreased from 5 to 3.9 (range, 2-10) with a high variability. This represents a 1.1-point decrease in stress level. Her follow up phase shows that mean daily stress score of 2.1 (range, 1-2) which is 1.8 points lower than intervention. These results may illustrate that the mentorship intervention decreased her stress and after the intervention phase, she maintained low stress.

Oscar

During baseline, Oscar's mean daily stress score was 4.7 (range, 2- 8) with high variability. When intervention was applied, the median of Oscar's daily stress decreased to 3.5 (range= 1-5) with a moderate variability. This represents a 1.2-point decrease in his stress level in overall intervention phase. In the follow up phase, the median of Oscar's daily stress score was 4.8, (range=2-6) which is 1.3 higher than intervention with a moderate variability. These results may illustrate that mentorship intervention was effective in decreasing Oscar's stress during the intervention but was not maintained two weeks later.

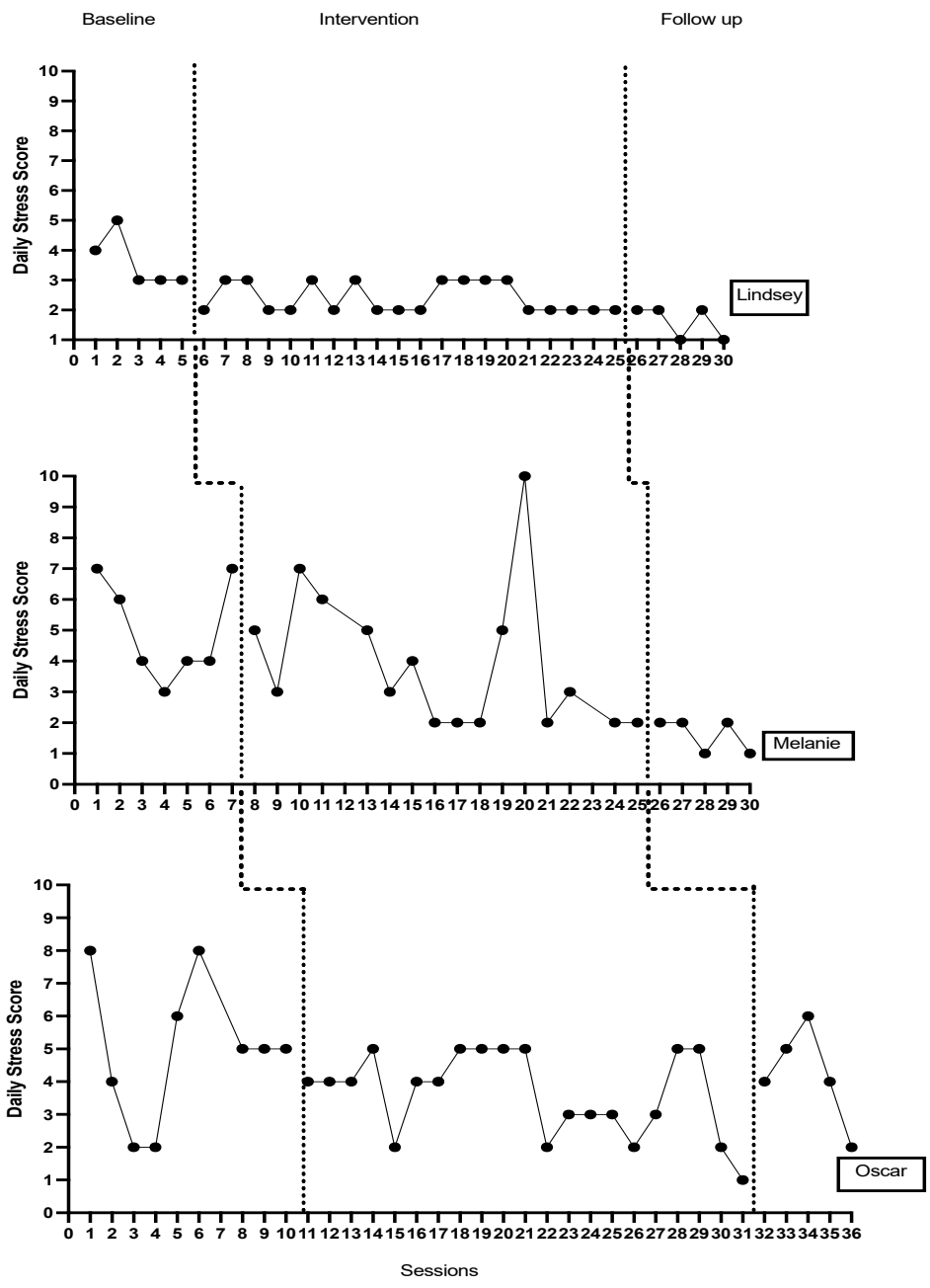

Figure 1. This graph reflects the median score of junior teacher's daily stress scores from 1 to 10 (1, least stressed, 10, most stressed).

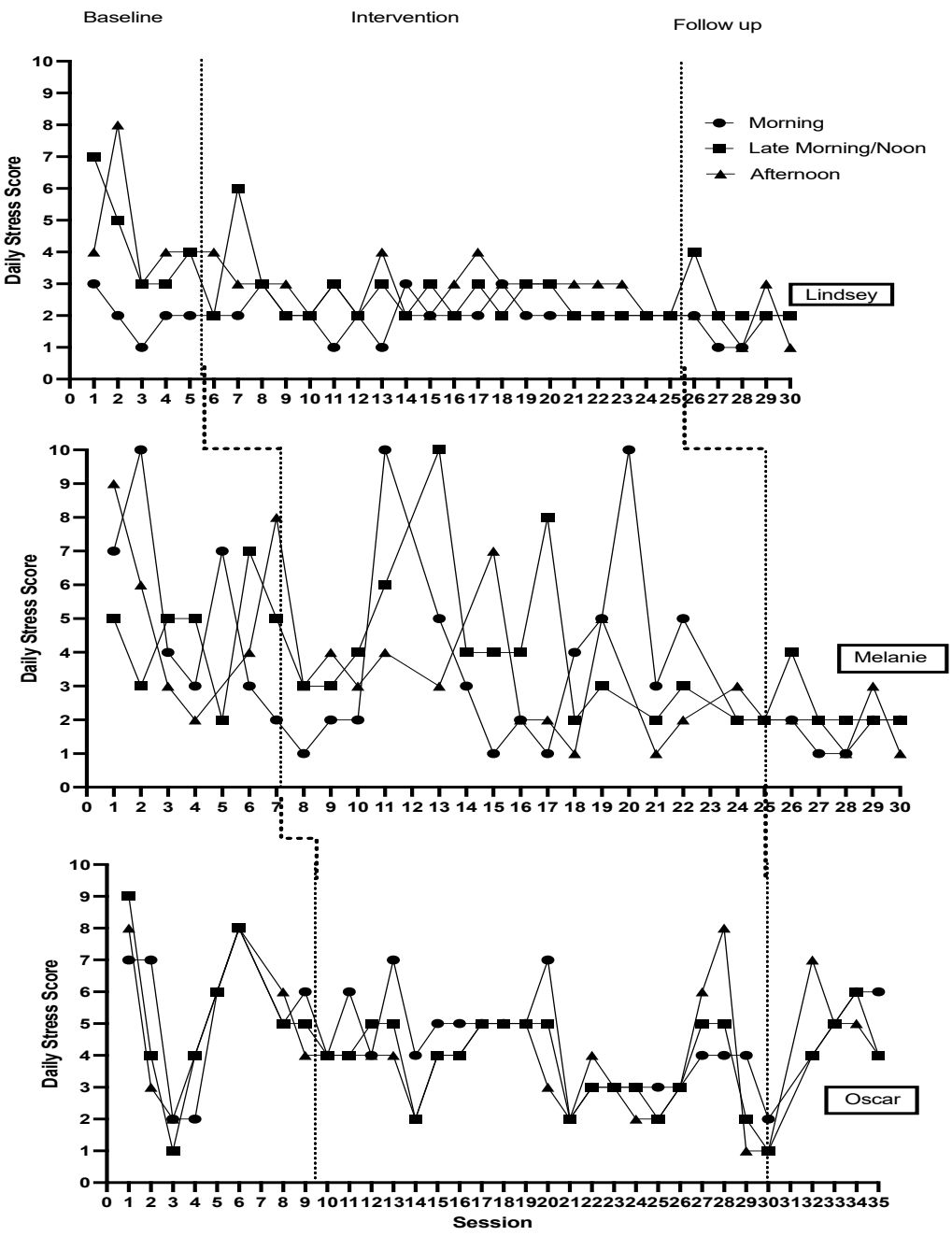

Figure 2. This graph shows junior teacher's morning, late morning/noon, and afternoon stress scores ranging from 1 to 10 (1, least stressed, 10, most stressed).

Effect Sizes

The mentorship intervention demonstrated a moderate effect size for Lindsey (Table 1) with a value of 0.57. The intervention has a moderate effect on Melanie's stress with a value of 0.29 and for Oscar a moderate effect with a value of 0.27. These results suggest that the mentorship intervention decreased junior teachers' stress from baseline to the intervention phases with a moderate effect for Lindsey, Melanie, and Oscar (Table 1). Table 2 illustrates each teacher's daily stresss score for morning, noon, and afternoon. The mentorship intervention had moderate effects for all teachers regardless of time of day.

Table 1 *Tau-U values for junior teacher's median score of daily stress comparing selected experimental conditions*

Participants	Baseline to Intervention	
	Tau-U value	Effect
Lindsey	0.57	Moderate
Melanie	0.29	Moderate
Oscar	0.27	Moderate

Note: Tau-U effect size values are interpreted as small (0.0–0.20), moderate (0.21–0.60), large (0.61–0.80), and large to very large depending on the context (0.81–1.00; Vannest & Ninci, 2015)

Table 2 *Tau-U values for junior teacher's morning, noon and afternoon scores of daily stress comparing selected experimental conditions*

	Baseline to Intervention					
Participants	Morning		Noon		Afternoon	
	Tau-U Value	Effect	Tau-U Value	Effect	Tau-U Value	Effect
Lindsey	0.359	Moderate	0.527	Moderate	0.447	Moderate
Melanie	0.251	Moderate	0.260	Moderate	0.259	Moderate
Oscar	0.236	Moderate	0.234	Moderate	0.243	Moderate

Note: Tau-U effect size values are interpreted as small (0.0–0.20), moderate (0.21–0.60), large (0.61–0.80), and large to very large depending on the context (0.81–1.00; Vannest & Ninci, 2015)

Perceived Stress Level

Besides examining junior teacher's daily stress scores, The *Perceived Stress Scale* was administered before baseline data collection, the last day of the intervention, and at follow-up to evaluate the change of their perceived stress level (see Table 2).

Table 3 *Perceived Stress Scores (PSS) obtained from teachers before baseline, last day of intervention and follow up phase*

Participants	Baseline	Intervention	Follow up
Lindsey	10	13	8
Melanie	14	12	15
Oscar	22	12	--

Note: Scores ranging from 0-13 would be considered low stress., 14-26 would be considered moderate stress and scores ranging from 27-40 would be considered high perceived stress.

At baseline, Lindsey's perceived stress score was 10, which is considered within the low stress range. After the mentorship intervention was completed, her perceived stress score increased to 13, moderate. This represents a 3-point increase in stress following the intervention. At baseline, Melanie's perceived stress score was 14, moderate. After the mentorship intervention was completed, Melanie's perceived stress score was 12 moderate. This represents a 2-point decrease; remaining in the moderate-stress bracket. Oscar's perceived stress score at baseline was 22, moderate. After the mentorship intervention was completed, Oscar's perceived stress score was 12, moderate. This represents a 10-point decrease; remaining in the moderate stress bracket.

The mean of all three junior teachers' perceived stress was 15.33 before the intervention and after the intervention, their perceived stress decreased to 12.33. A paired-samples t-test was conducted to compare the means before and after intervention. The t-statistic was 0.79, with df=2 (p=0.51). These results indicate there was not a statistically significant difference between pre and posttests. It can be concluded from these results that this mentorship intervention didn't decrease junior teacher's perceived stress score when evaluated using the *Perceived Stress Scale*, but the intervention did seem to impact daily stress to some degree for all participants.

Table 4 *t-Test: Paired Two Sample for Means – Perceived Stress Scale*

		Pre intervention	*After Intervention*
Mean		15.33	12.33
Variance		37.33	0.33
Observations		3	3
Pearson Correlation		-0.76	
Hypothesized	Mean		
Difference		0	
df		2	
t Stat		0.79	
P(T<=t) one-tail		0.26	
t Critical one-tail		2.92	
P(T<=t) two-tail		0.51	
t Critical two-tail		4.30	

Research question 2: Teachers' Sense of Self-efficacy

Research question 2 examined whether the daily mentor check-in and check-out with junior teachers would improve junior teacher's sense of self-efficacy. Teacher scores on student engagement, instructional strategies and classroom management subscales was calculated.

Lindsey's overall average self-efficacy score was 6.50 at baseline, 5.83 during intervention, and 6.42 at follow-up. Melanie's oveall average scores were 7.17 at baseline,

6.42 during intervention, and 9.00 at follow-up. Oscar did not complete the self-efficacy scale at follow-up but his score at baseline was 7.33 and during intervention was 7.67. Tables 4-6 display each teacher's average score for each subscale of the *Teacher's Sense of Self-Efficacy Scale.* Overall, there was not a large difference in scores between baseline and intervention for all three participants. See Tables 4-6 for each teacher's subscale scores on the *Teacher's Sense of Self-Efficacy Scale.*

Table 5 *Teacher's overall sense of self-efficacy score obtained from teachers before baseline, last day of intervention and follow up*

Participants	Baseline	Intervention	Follow up
Lindsey	6.50	5.83	6.42
Melanie	7.17	7.00	9.00
Oscar	7.33	7.67	--

Table 6 *Teacher's sense of self-efficacy average scores for student engagement*

	Student Engagement		
Participants	Baseline	Intervention	Follow up
Lindsey	7.00	6.25	6.25
Melanie	6.75	7.00	9.00
Oscar	6.75	7.00	--

Table 7 *Teacher's sense of self-efficacy average scores for instructional strategies*

	Instructional Strategies		
Participants	Baseline	Intervention	Follow up
Lindsey	6.25	6.50	7.00
Melanie	6.50	7.00	9.00
Oscar	8.00	8.75	--

Table 8 *Teacher's sense of self-efficacy average scores for classroom management*

	Classroom Management		
Participants	Baseline	Intervention	Follow up
Lindsey	6.25	4.75	6.00
Melanie	8.25	7.00	9.00
Oscar	7.25	7.25	--

Research question 3: Social Validity

The third research question examines whether mentors and junior teachers rate this intervention as socially valid.

Modified Usage Rating profile (HURP)

To assess social validity, each teacher was asked to complete the modified URP at the end of the intervention condition. Three mentor teachers and their three junior dyads rated the social validyt of the intervention using the *Usage Rating Profile* by using Qualtrics. All three mentors found the teacher mentorship intervention as a socially

acceptable procedure. Lindsey's mean acceptability score was 4.83, her understanding score was 4.50, and her feasibility score was 4.25. Lindsey's mentor, Charlotte rated the intervention similarly. Charlotte's mean acceptability rating was 4.83, her score for understanding was 5.00, and feasibility was 4.25. Melanie's mean acceptability score was 4.17, understanding was 5.00, and feasibility was 4.00. Her mentor, Brenda rated the intervention slightly higher with a mean acceptability score of 5.33, understanding score of 6.00, and a feasibility score of 4.50. Oscar rated the intervention lower than all junior teachers. His mean acceptability score was 2.00, his understanding score was 4.00, and his feasibility score was 4.00. His mentor, Jane, rated the intervention higer than most mentor teachers. Her mean acceptability score was 5.17, understanding score was 5.5, and her feasibility score was 4.00. Scores are shown in Table 7. Overall, five teachers scored "agree" for the statement "the intervention was an effective choice for addressing a variety of teacher's stress and self-efficacy". Secondly, five teachers agreed with the statement "this intervention is a fair way to decrease teacher's stress". One junior participant disagreed with both statements.

It should be noted that URP consists of 29 items and the cluster of certain items reflect acceptability, understanding, home school collaboration, feasibility, system climate and system support. Unfortunately, due to researcher error, were not asked all 29 questions. The following questions were accidentally left off the Qualtrics survey completed by teachers. Item 13 "Preparation of materials needed for this intervention would be minimal.", Item 14, "Use of this intervention would be consistent with the mission of my school", Item 21 "This intervention would not be disruptive to students", Item 22, "I would be committed to carry out this intervention", Item 23, "This intervention procedure is easily

fit in my current practices." Item 25, "I understand the procedures of this intervention." Item 27, "The amount of time required for record keeping would be reasonable." For inter-scorer reliability purposes, the primary researcher calculated average scores of acceptability, feasibility and understanding with a second observer and they came to an agreement of 100% of all teachers' scores.

Table 9 *Below reflects the teachers' average scores for the feasibility, acceptability, and understand subscales of the Usage Rating Profile of the intervention*

Junior Participants	Feasibility Average	Acceptability Average	Understanding Average
Lindsey	4.25	4.83	4.50
Melanie	3.50	4.17	5.00
Oscar	4.00	2.00	4.00
Mentor Participants	**Feasibility Average**	**Acceptability Average**	**Understanding Average**
Brenda	4.50	5.33	6.00
Jane	4.00	5.17	5.50
Charlotte	4.25	4.83	5.00

Based on these scores, as well as positive verbal reports of the five teachers, evidence for the social validity as rated by teachers might suggest that teachers might be interested in participating in a mentorship intervention such as this one.

CHAPTER IV – DISCUSSION

The purpose of this study was to examine a teacher mentorship intervention and its impact on junior teacher's stress and self-efficacy. This intervention required mentors to Check-In and Check-Out daily with junior teachers. It was anticipated that this intervention would have a positive impact on junior teachers' stress level and self-efficacy. Previous literature summarized by Scwan et al. (2020) found that teacher mentorship interventions have several benefits for mentors and mentees. These studies reported positive benefits such as being more reflective and having more positive interactions with others. Similarly, Marthur et al., (2013) found that mentees found mentorship experiences increase their knowledge of the classroom and schools. Likewise, mentors also perceived great benefit from mentoring.

The current study establishes a new research line within the mentorship literature because it examines a novel intervention approach to mentorship with teachers. Currently, there is no known research examining the direct impact of a modified CICO mentorship program on teacher stress and self-efficacy. An intervention using similar methods to CICO provides schools with a cost-efficient and manageable program. Teachers participating in the current study reported that they were able to easily incorporate this intervention in their daily routines due to the time effective nature. Also, the structured mentor protocols were easy to implement in each morning and afternoon.

This research study attempted to answer these three research questions:

1. Does daily mentor Check-Ins/Check-Outs decrease teacher's stress level?
2. Does daily mentor Check-Ins and Check-Outs improve teacher's sense of self-efficacy?
3. Do mentors and junior teachers rate this intervention as socially valid?

Impact on Teacher Stress

The results indicated that all three participants' daily stress decreased while implementing the check-in and check-out intervention each day for four weeks. Results showed that the intervention had a moderate effect on all participating teachers' stress. There was some variation in the intervention phase for some participants. This variation can be considered by multiple factors such as their willingness to cooperate, their relationship with mentors, meeting times, and unpredicted stressful school or home circumstances. There were also examples of some mentors providing extra supports to their mentees. For example, during the intervention Lindsey's mentor Charlotte provided a positive phrase jar for Lindsey to keep on her table and pull the phrases once she felt stressed. Hobson et al. (2009) noted that one of the most commonly identified benefits for new teachers was the positive interactions during the mentoring experiences which were described as, "the provision of emotional and psychological support, which has been shown to be helpful in boosting the confidence of beginner teachers, enabling them to put difficult experiences into perspective, and increasing their morale and job satisfaction," (p.209). This seems to be displayed in the relationship between Lindsey and her mentor Charlotte.

Even though this mentorship intervention decreased teachers' daily stress, it didn't impact their self-perceived stress at a significant level. Oscar's stress decreased 10 points

between baseline and intervention and Melanie's stress decreased 2 points, but Lindsey's stress increased 2 points. Overall, they all remained in the moderate stress level during intervention. Given that Check-In and Check-Out was provided to junior teachers each morning and afternoon for four weeks, their daily stress were sesnsitive to change. Although four weeks of intervention was sufficient for changes to teachers' perceived stress, the duration may not had been long enough to impact on teachers' perception of their stress. This is because self-perceived stress scale asks question to consider teachers' stress in the past month. The four weeks of intervention was not sufficient to fully capture a decline in their perceived stress.

Teachers' Sense of Self-Efficacy

The results of the current study indicated that check-in check-out mentorship intervention may be more beneficial to teachers' stress rather than self-efficacy. First, it must be noted that self-efficacy is not a single disposition, but rather multidimensional in form and differs on the basis of domain of functioning (Zimmerman, 2000). Teacher's sense of self-efficacy should be tied to multiple components such as how teachers use new approaches in teaching, use management techniques to enhance students' autonomy, provide special assistance to low-achieving students, build self-perception of their academic skills (Hoy, 2009). In this study, mentors' primarily progress monitored teacher's daily stress, provided them support to maintain healthy stress during the day and engaged juniors to self-care activities. There was not a structured specific activity that focused on improvement on their self- efficacy such as classroom management strategies, instructional supports, or giving feedback to the juniors for their teaching. The mentor protocol did not explicitly address these domains.

Social Validity

All mentor teachers and two of the three junior teachers rated this intervention as acceptable and all three junior teachers rated the intervention as easy to understand and feasable. All mentor teachers rated the intervention as acceptable, understandable, and feasible. Indicating that this intervention has potential as a mentorship strategy for junior teachers.

Oscar, a junior teacher, did not rate this intervention as acceptable. He indicated that he had multiple tasks during the morning time and that he was not fully motivated for this intervention. He indicated in sessions that he felt overwhelmed, so he reported that he did not invest fully in the CICO meetings, even though he participated in each of the session with his mentor. Secondly, Oscar's low motivation to join in CICO sessions might be linked to lack of his belief of need a mentor to support him since he had already four years of experience in the school.

Limitations

While these results are promising, this study is not without limitations. First, the sample size in this study was relatively small and restricted to elementary school. Replications with larger, more diverse samples would be helpful. A larger sample size would increase accuracy in evaluating the relative impact of CICO mentorship program and improve the power for t-test analysis. Second, given that we didn't observe the teacher's stress, our results depend on the scores of the rating scales which clarifies the subjective nature of our dependent variables, and it is also vulnerable to overrates the minor stressors. Third, this study looked at the impact of the CICO mentorship intervention on teacher's stress and self-efficacy. However, the protocol did not explicitly address

strategies related to classroom management and instructional support for junior teachers. This might have resulted in a lack of improvement with regard to the teachers' sense of self-efficacy. Future research should consider adding a classroom management or instructional support component to this intervention. Fourth, the Hawthorn Effect (Cook, 1962) could pose a threat to the validity of the data in the current study. The primary researcher and another graduate observer were present during multiple check in and check out sessions. The junior teachers may not have felt comfortable discussing their stress in the presence of the researchers. Lastly, one participant reported unwillingness to invest in the intervention which resulted in less intervention effects. This is a real-world problem because it is possible that teachers may not fully invest in a mentorship relationship. However, it is important to consider ways in which future researchers might better support teachers that are not interested in a mentorship relationship.

School Implications

The positive effects of mentorship interventions are well documented in the literature and teacher stress is a standing issue in the field. Increased stress in teachers has been shown to impact teachers' mental health and student outcomes. Therefore, this study sought to identify a way to better support teachers through a mentorship program. The CICO mentorship intervention was shown to improve teachers' stress in just 4 weeks. These benefits are advantageous for the teachers, students, and school environment. Administrators and policymakers should consider incorporating this intervention within professional development and other policies to better support the mental health of their teachers.

Future Direction

As this study established a new research line in the current mentorship literature, researchers should further investigate some areas. First, this study was conducted in elementary school and it was easily adjusted their environment, additional studies are needed to better understand the practicality and limitations to conduct this study in the middle and high school. Secondly, mentor-junior dyads were randomly selected and future researchers consider matching junior-mentor dyads based on their fit (e.g. dyads who are teaching same branch or closer to age) or future researchers can consider junior teachers to select their own mentors in the school. Thirdly, in this study, mentor and junior teachers picked their meeting time at the beginning of the study and consistently meet at the same time throughout the intervention. Considering teachers have busy schedule and abseentism in some days (e.g., joining conference or sick days), teachers might be given flexibility to meet their mentors in their preferred time during the day.

Conclusion

In conclusion, findings of the current study indicated that the CICO mentoring intervention is an effective intervention model for addressing teacher stress. The visual analysis and effect size calculations indicated moderate effect sizes for teachers' stress. This study did not directly impact the teachers' sense of self-efficacy; so, future studies are needed to investigate how mentorship interventions can improve teachers' sense of self-efficacy.

APPENDIX A - IRB Standard Signed Informed Consent Mentor Teacher

Today's Date:		
PROJECT INFORMATION		
Project Title:	Effects of a Teacher Mentorship Intervention on Junior Teacher's Stress and Self Efficacy	
Principal Investigator: Cagla Cobek	**Phone:**	**Email:** cagla.cobek@usm.edu
College: Education and Human Sciences	**School and Program:** School of Psychology	

RESEARCH DESCRIPTION

Purpose

You are being asked to participate in a study that is evaluating the effects of a mentor intervention on teacher's stress and feelings of self-efficacy.

Description of the Study

This study will examine the effects of a junior teacher mentorship intervention using a similar protocol to the check-in and check-out (CICO) intervention. Changes in junior teacher's stress level and sense of self-efficacy will be measured.

Procedure:

If you agree to participate in this study, you will be participating in an intervention where you will be asked to meet with a junior teacher twice a day for 8-12 weeks. As part of this study, you will check in and check out daily with a junior teacher at your school. Throughout the process, you will provide junior teachers with stress management techniques and support junior teacher's classroom management. You will also provide feedback regarding junior teacher's progress throughout the intervention. A 1-hour training will occur at the beginning of the research study to inform you of all study procedures and teach you strategies for developing a strong mentor-mentee relationship.

In addition to supporting teachers, mentors will complete rating scales used to assess stress and one's sense of self-efficacy.

Benefits

There are multiple benefits of this study for both mentors and mentees. As a mentor, you might improve your supervising skills and learn the application of stress management techniques. You may also develop a relationship with your mentee and build connections with peers.

Risks

You will be asked to complete a measure regarding your stress, and you will work with junior teachers that may be experiencing a lot of stress. Due to the nature of this study,

this may impact your wellbeing. Researchers will provide you with resources and referrals to outside agencies if necessary.

Voluntary Nature of Study & Confidentiality
Your participation in this study is entirely voluntary and you may refuse to complete the study at any point. All information obtained during the study will be kept confidential. All information that may identify you will be withheld. Your name and other identifying information will not be used in the research papers, any submission to a professional journal for publication, or presentation.

Participants Assurance
This project and this consent form has been reviewed by USM's Institutional Review Board, which ensures that research projects involving human subjects follow federal regulations. Any questions and concerns about rights as a research participant should be directed to the Chair of Institutional Review Board, the University of Southern Mississippi, 118 College Drive #5125, Hattiesburg, MS 39406-0001, 601-266-59-97.

CONSENT TO PARTICIPATE IN RESEARCH

_____
Participant's Name

I hereby consent to participate in this project. All research procedures and their purpose was explained to me, and I had the opportunity to ask questions about both the procedures and their purpose. I received information about all expected benefits, risks, inconveniences, or discomforts, and I had to opportunity to ask questions about them. I understand my participation is completely voluntary and that I may withdraw from the project at any time without penalty, prejudice, or loss of benefits. I understand the extent to which my personal information will be kept confidential. As the research proceeds, I understand that any new information that emerges and that might be relevant to my willingness to continue my participation will be provided to me.

_____
Research Participant

_____
Person Explaining the Study

APPENDIX B - IRB Standard Signed Informed Consent Junior Teacher

Today's Date:		
PROJECT INFORMATION		
Project Title:	Effects of a Teacher Mentorship intervention on Junior Teacher's Stress and Self Efficacy	
Principal Investigator: Cagla Cobek	**Phone:**	**Email:** cagla.cobek@usm.edu
College: Education and Human Sciences	**School and Program:** School of Psychology	

RESEARCH DESCRIPTION

Purpose

You are being asked to participate in a study that is evaluating the effects of a mentor intervention on teacher's stress and feelings of self-efficacy.

Description of the Study

This study will examine the effects of a junior teacher mentorship intervention using a similar protocol to the check-in and check-out (CICO) intervention. Changes in junior teacher's stress level and sense of self-efficacy will be measured.

Procedure:

If you agree to participate in this study, you will be participating in an intervention where you will be asked to meet with a mentor twice a day for 8-12 weeks. Throughout the process, you will provide daily stress ratings three times a day and will be asked to identify self-care activities to complete each week. Your mentor will provide feedback regarding the junior teacher's progress throughout the intervention.

In addition, you will complete rating scales used to assess stress and one's sense of self-efficacy.

Benefits

There are multiple benefits of this study for both mentors and mentees. You might learn strategies to maintain or improve your levels of stress and self-efficacy related to teaching. You may also develop a relationship with your mentor and build connections with peers at your school. This intervention may make you feel more valued and supported. You may also notice feelings of improved self-worth and confidence about your job.

Risks

You will be asked to complete a measure regarding your stress, and you will work with mentor teachers to discuss the stress you might be experiencing. Due to the nature of this study, this may impact your wellbeing. Researchers will provide you with resources and referrals to outside agencies if necessary.

Voluntary Nature of Study & Confidentiality
Your participation in this study is entirely voluntary and you may refuse to complete the study at any point. All information obtained during the study will be kept confidential. All information that may identify you will be withheld. Your name and other identifying information will not be used in the research papers, any submission to a professional journal for publication, or presentation.

Participants Assurance
This project and this consent form has been reviewed by USM's Institutional Review Board, which ensures that research projects involving human subjects follow federal regulations. Any questions and concerns about rights as a research participant should be directed to the Chair of Institutional Review Board, the University of Southern Mississippi, 118 College Drive #5125, Hattiesburg, MS 39406-0001, 601-266-59-97.

CONSENT TO PARTICIPATE IN RESEARCH

_____
Participant's Name

I hereby consent to participate in this project. All research procedures and their purpose was explained to me, and I had the opportunity to ask questions about both the procedures and their purpose. I received information about all expected benefits, risks, inconveniences, or discomforts, and I had to opportunity to ask questions about them. I understand my participation is completely voluntary and that I may withdraw from the project at any time without penalty, prejudice, or loss of benefits. I understand the extent to which my personal information will be kept confidential. As the research proceeds, I understand that any new information that emerges and that might be relevant to my willingness to continue my participation will be provided to me.

_____
Research Participant

_____
Person Explaining the Study

APPENDIX C - Confidentiality Agreement

USM School of Psychology
School Psychology Program, University of Southern Mississippi
Research Participant Confidentiality Agreement

CONFIDENTIALITY AGREEMENT
You are being asked to participate in a research study. As part of this study, you will have access to individual's ratings of their daily stress and will meet with individuals to discuss their stress levels and feelings towards teaching. All information shared with you, whether contained in researcher's file, in conversation, or in any other medium is strictly confidential. All rating scales and documentations of individuals in this research study are to be held in strict confidence and are not to be disclosed without the specific permission of the individual participants themselves.
I certify that as a mentor teacher, I understand the statements above and I am aware of the confidential nature of this research study.

Signature Date

Printed Name

PI (Witness Signature) Date

Printed Name

APPENDIX D - Check-In/Check-Out Protocol Treatment Integrity

Check-In Protocol & Treatment Integrity

Check In Steps	**Description**	**If mentor applies the step, Mark (Y) yes or (N) no**
1. Positive Interaction: Greeting	Mentor greeted the mentee using a positive tone.	(Y) (N)
2. Review Stress Ratings	Mentor reviewed the mentee's previous score on the daily stress measure.	(Y) (N)
3. Discuss Stress and Instructional Strategies	Mentor discussed ways to maintain low stress levels or skills to reduce stress. Including self-care and classroom management or instructional support.	(Y) (N)
4. Goal Setting	Start of the week: Mentee developed weekly goals with their mentor Daily: Mentor reminded the mentee of their daily goals.	(Y) (N)
5. Wrap Up	Mentor offered a positive farewell to mentee.	(Y) (N)
Steps Completed		/
Percentage of Steps Completed		%
Mentor Require Retraining		(Y) (N)

Check-Out Protocol & Treatment Integrity

Check Out Steps	**Description**	**If mentor applies the step, Mark (Y) yes or (N) no**
1. Positive Interaction: Greeting	Mentor greeted the mentee using a positive tone.	(Y) (N)
2. Review Stress Ratings	Mentor reviewed the mentee's daily stress score on the daily stress measure.	(Y) (N)
3. Discuss Stress and Instructional Strategies	Mentor discussed how the mentee maintained their stress during the day. Mentor and mentee discussed successes, challenges, and barriers. Mentor provided feedback and praise regarding the use of skills.	(Y) (N)
4. Goal Setting	Mentor reminded mentee of their weekly self-care goal.	(Y) (N)
5. Wrap Up	Mentor offered positive farewell to mentee.	(Y) (N)
Steps Completed		/
Percentage of Steps Completed		%
Mentor Require Retraining		(Y) (N)

APPENDIX E - Self-Care Activity and Goal Setting Form

ACTIVITIES *(Examples)*		**OTHER ACTIVITIES**
Go to a restaurant **Pleasure Reading** **Get a manicure, facial or massage** **Take a day trip** **Have coffee or tea with a coworker/friend** **Allow myself to a lesson plan free week** **Take a walk in the park** **Buying things for myself** **Watching TV** **Doing physical exercise (yoga, cross fit, jogging)**	**Breathing Exercise** **Rearranging and decorating a house** **Meeting someone new** **Being at the beach** **Going to a bar, club, café** **Pleasing my family** **Camping** **Involving in charity organization** **Doing artwork** **Cleaning**	**Teacher will come up with their preferred activities.**

Date	**What activities will I do this week?**	**How often will I do them?**	**What needs to happen to make sure I can do them?**

Check out: Accomplishment for the week

Date	**What activities I did this week?**	**How often I did them?**	**What needs to happen to make sure I can do them more often next week?**

Goal Setting

My overall goal doing this activity is to

The goal is important me because

To achieve this goal what I need to commit to follow?

How important is it for me to meet my goal? Circle a number and write it in a blank.

0 1 2 3 4 5 6 7 8 9 10

Not Confident ***Very Confident***

What could I do to myself become more confident

APPENDIX F - Daily Stress Monitoring Form

Daily Stress Monitoring Form

Monday	***Most Stress***	**10**	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	***Least Stressed***
Tuesday	***Most Stress***	**10**	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	***Least Stressed***
Wednesday	***Most Stress***	**10**	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	***Least Stressed***
Thursday	***Most Stress***	**10**	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	***Least Stressed***
Friday	***Most Stress***	**10**	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	***Least Stressed***

Positive thoughts or activities that made me happy

1. _____
2. _____
3. _____
4. _____
5. _____

APPENDIX G - Perceived Stress Scale

PERCEIVED STRESS SCALE

The questions in this scale ask you about your feelings and thoughts during the last month. **In each case, you will be asked to indicate by circling *how often* you felt or thought a certain way.**

Name _____ Date _____

Age _____ Gender (*Circle*): **M F** Other _____

	0 = Never	1 = Almost Never	2 = Sometimes	3 = Fairly Often	4 = Very Often
1. In the last month, how often have you been upset because of something that happened unexpectedly?	0	1	2	3	4
2. In the last month, how often have you felt that you were unable to control the important things in your life?	0	1	2	3	4
3. In the last month, how often have you felt nervous and "stressed"?	0	1	2	3	4
4. In the last month, how often have you felt confident about your ability to handle your personal problems?	0	1	2	3	4
5. In the last month, how often have you felt that things were going your way?	0	1	2	3	4
6. In the last month, how often have you found that you could not cope with all the things that you had to do?	0	1	2	3	4
7. In the last month, how often have you been able to control irritations in your life?	0	1	2	3	4
8. In the last month, how often have you felt that you were on top of things?	0	1	2	3	4
9. In the last month, how often have you been angered because of things that were outside of your control?	0	1	2	3	4
10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?	0	1	2	3	4

APPENDIX H - Teachers' Sense of Self-Efficacy Scale

Teachers' Sense of Efficacy Scale[1] (short form)

Teacher Beliefs Directions: This questionnaire is designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please indicate your opinion about each of the statements below. Your answers are confidential.		How much can you do?								
		Nothing		Very Little		Some influence		Quite A Bit		A Great Deal
1.	How much can you do to control disruptive behavior in the classroom?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
2.	How much can you do to motivate students who show low interest in school work?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
3.	How much can you do to get students to believe they can do well in school work?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
4.	How much can you do to help your students value learning?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
5.	To what extent can you craft good questions for your students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
6.	How much can you do to get children to follow classroom rules?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
7.	How much can you do to calm a student who is disruptive or noisy?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
8.	How well can you establish a classroom management system with each group of students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
9.	How much can you use a variety of assessment strategies?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
10.	To what extent can you provide an alternative explanation or example when students are confused?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
11.	How much can you assist families in helping their children do well in school?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
12.	How well can you implement alternative strategies in your classroom?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

APPENDIX I - Modified Usage Rating Profile for Mentors and Teachers (URP-IP)

USAGE RATING PROFILE Directions: Consider the described intervention when answering the following statements. Circle the number that bestreflects your agreement with the statement, using the scale provided below.	**Strongly Disagree**	**Slightly Disagree**	**Disagree**	**Slightly Agree**	**Agree**	**Strongly Agree**
1.This intervention is an effective choice for addressing a variety of teacher's stress and feeling of self-efficacy.	1	2	3	4	5	6
2.I would need additional resources to carry out this intervention.	1	2	3	4	5	6
3.I would be able to allocate my time to implement this intervention.	1	2	3	4	5	6
4.I understand how to use this intervention.	1	2	3	4	5	6
5.A positive mentor-mentee relationship is needed to implement this intervention.	1	2	3	4	5	6
6.I am knowledgeable about the intervention procedures.	1	2	3	4	5	6
7.The intervention is a fair way to decrease teacher's stress.	1	2	3	4	5	6
8.The total time required to implement the intervention procedures would be manageable.	1	2	3	4	5	6
9.I would not be interested in implementing this intervention.	1	2	3	4	5	6
10. My administrator would be supportive of my use of this intervention.	1	2	3	4	5	6
11. I would have positive attitudes about implementing this intervention.	1	2	3	4	5	6
12.This intervention is a good way to increase teacher's sense of self-efficacy.	1	2	3	4	5	6
13.Preparation of materials needed for this intervention would be minimal.	1	2	3	4	5	6
14.Use of this intervention would be consistent with the mission of my school.	1	2	3	4	5	6
15.Mentor-mentee collaboration is required in order to use this intervention.	1	2	3	4	5	6
16.Implementation of this intervention is well matched to what is expected my job.	1	2	3	4	5	6
17.Material resources needed for this intervention are reasonable.	1	2	3	4	5	6
18.I would implement this intervention with a good deal of enthusiasm.	1	2	3	4	5	6
19.This intervention is too complex to carry out accurately.	1	2	3	4	5	6
20.These intervention procedures are consistent with the ways things are done in my system.	1	2	3	4	5	6
21.This intervention would not interrupt mentor and mentee's lessons.	1	2	3	4	5	6
22.I would be committed to carry out this intervention.	1	2	3	4	5	6

23.The intervention procedures easily fit in with my current practices.	1	2	3	4	5	6
24.I would need consultative support to implement this intervention.	1	2	3	4	5	6
25.I understand the procedures of this intervention.	1	2	3	4	5	6
26.My work environment is conducive to implementation of an intervention like this one.	1	2	3	4	5	6
27.The amount of time for record keeping would be reasonable.	1	2	3	4	5	6
28.Regular mentor-mentee communication is needed to implement this intervention.	1	2	3	4	5	6
29.I would require additional professional development in order to implement this intervention.	1	2	3	4	5	6

APPENDIX J - Mentor Training Integrity Checklist

Description	**If step is completed, Mark (Y) yes or (N) no**
Mentor Training	
1. Researcher reviewed the definitions of stress and self-efficacy.	(Y) (N)
2. Researcher provided instructions to train the mentors on how to complete each step of the check-in and check-out process.	(Y) (N)
3. Mentors were instructed on how to complete each of the stress-related worksheets and rating scale forms.	(Y) (N)
4. Mentors were given an overview of self-care and classroom management strategies that they might suggest to their mentees.	(Y) (N)
5. After given instructions, researcher modeled how to perform check-in and check-out sessions.	(Y) (N)
6. After researcher model the skills, rehearsal was done by mentor to perform the desired skills.	(Y) (N)
7. Researcher provided feedback to mentor.	(Y) (N)

APPENDIX K - Procedural Integrity Checklist

Description	**If step is completed, Mark (Y) yes or (N) no**
Baseline	
1. Researcher collected PSS and T. self-efficacy scale	(Y) (N)
2. Researcher completed BST with mentor teachers regarding CICO steps during 20 minutes training.	(Y) (N)
3. Researcher provided resources to mentors for supporting teachers with stress (e.g., self-care tips) and instruction (e.g., classroom management tips) during 20 minutes training.	(Y) (N)
4. Mentors are trained to complete the daily stress ratings during 20 minutes training.	(Y) (N)
5. Mentees are trained to complete the daily stress ratings prior to baseline data collection.	(Y) (N)
6. Data are collected across 5 days with a 2-point stagger for all teacher dyads.	(Y) (N)
Intervention	
1. Teachers were contacted to begin intervention phase.	(Y) (N)
2. Teacher dyads were introduced, and CICO begins.	(Y) (N)
3. Forms were provided to mentees to complete three times per day.	(Y) (N)
4. Treatment integrity data were collected.	(Y) (N)
Post Intervention	
1. Researcher collected PSS and T. self-efficacy scale following intervention	(Y) (N)
2. Teacher completed daily ratings during follow-up phases	(Y) (N)
3. Researcher collected PSS and T. self-efficacy scale following follow-up data collection.	(Y) (N)

APPENDIX L - IRB Approval Letter

Office of Research Integrity

THE UNIVERSITY OF SOUTHERN MISSISSIPPI

118 COLLEGE DRIVE #5116 • HATTIESBURG, MS | 601.266.6756 | WWW.USM.EDU/ORI

NOTICE OF INSTITUTIONAL REVIEW BOARD ACTION

The project below has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services regulations (45 CFR Part 46), and University Policy to ensure:The risks to subjects are minimized and reasonable in relation to the anticipated benefits. The selection of subjects is equitable.
Informed consent is adequate and appropriately documented.
Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects. Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
Appropriate additional safeguards have been included to protect vulnerable subjects.
Any unanticipated, serious, or continuing problems encountered involving risks to subjects must be reported immediately. Problems should be reported to ORI via the Incident submission on InfoEd IRB.
The period of approval is twelve months. An application for renewal must be submitted for projects exceeding twelve months.
PROTOCOL NUMBER: 22-1317
PROJECT TITLE: Effect of Teacher Mentorship Intervention on Junior Teacher's Stress and Self-efficacy.
SCHOOL/PROGRAM Psychology
RESEARCHERS:
PI: Cagla Cobek
Investigators: Cobek, Cagla~LaBrot, Zachary C~ IRB COMMITTEE ACTION: Approved
CATEGORY: Expedited Category
PERIOD OF APPROVAL: 30-Sep-2022 to 29-Sep-2023

Michael Madson, Ph.D.

REFERENCES

Baik, S. H., Fox, R. S., Mills, S. D., Roesch, S. C., Sadler, G. R., Klonoff, E. A., & Malcarne, V. L. (2019). Reliability and validity of the Perceived Stress Scale-10 in Hispanic Americans with English or Spanish language preference. *Journal of health psychology*, *24*, 628–639. https://doi.org/10.1177/1359105316684938

Bandura, A. (1997). Self-efficacy: The exercise of control. W H Freeman/Times Books/ Henry Holt & Co.

Barni, D., Danioni, F., Benevene, P., (2019). Teachers' self-efficacy: The role of personal values and motivations for teaching. *Frontiers in Psychology*. https://doi.org/10.3389/fpsyg.2019.01645

Brackett, M. & Cipriano, C. (2020).Teachers Are Anxious and Overwhelmed. They Need SELNow More Than Ever. Retrieved from https://www.edsurge.com/news/2020-04-07-teachers-are-anxious-and-overwhelmed-they-need-sel-now-more-than-ever *psychology*, *24*, 628–639. https://doi.org/10.1177/1359105316684938

Briesch, A. M., Chafouleas, S. M., Neugebauer, S. R., & Riley-Tillman, T. C. (2013). Assessing influences on intervention use: Revision of the Usage Rating Profile-Intervention. Journal of School Psychology, 51, 81–96. doi: 10.1016/j.jsp.2012.08.006

Briscoe, P. (2019). Virtual mentor partnerships between practicing and preservice teachers: Helping to enhance professional growth and well-being. *International Journal of Mentoring and Coaching in Education* . Retrieved from https://www.frontiersin.org/articles/10.3389/fpsyg.2019.01645/full

Caprara, G. V., Barbaranelli, C., Borgogni, L., & Steca, P. (2003). Efficacy b eliefs as determinants of teachers' job satisfaction. *Journal of educational psychology*, *95*(4), 821.

Chafouleas, S. M., Briesch, A. M., Riley-Tillman, T. C., & McCoach, D. B. (2009). Moving beyond assessment of treatment acceptability: An examination of the factor structure of the Usage Rating Profile—Intervention (URP-I). *School Psychology Quarterly, 24*(1), 36–47. https://doi.org/10.1037/a0015146

Chafouleas, S.M., Briesch, A.M., Neugebauer, S,R., Tillman T.C.(2011). Usage Rating Profile Intervention (Revised). Storrs, CT: University of Connecticut.

Chitra, A. (2020). Study on impact of occupational stress on job satisfaction of teachers during Covid-19 pandemic period. *Global Development Review*, *4*(2), 52-62.

Cohen, S., & Williamson, G. M. (1988). Perceived stress in a probability sample of the United States. In S. Spacapan, & S. Oskamp (Eds.), *The social psychology of health* (pp. 31-67). Sage.

Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior, 24*, 385-396.

Cook, D. L. (1962). The Hawthorne effect in educational research. *Phi Delta Kappan, 44,* 116-122.

Collie, R. J. (2021). COVID-19 and teachers' somatic burden, stress, and emotional exhaustion: Examining the role of principal leadership and workplace buoyancy. *AERA Open*. https://doi.org/10.1177/2332858420986187

DiCarlo, C. F., Meaux, A. B., & LaBiche, E. H. (2020). Exploring mindfulness for perceived teacher stress and classroom climate. *Early Childhood Education Journal, 48*(4), 485–496. https://doi.org/10.1007/s10643-019-01015-6

Ehlers, T. (2019). *Supporting Beginning Teachers Through Mentorship* (Thesis, Concordia University, St. Paul). Retrieved from https://digitalcommons.csp.edu/teacher-education_masters/8

Forman, S. G. (1981). Stress-management training: Evaluation of effects on school psychological services. *Journal of School Psychology*, *19*, 233-241.

Friedman, G. H., Lehrer, B. E., & Stevens, J. P. (1983). The Effectiveness of self-directed and lecture/discussion stress management approaches and the locus of control of teachers. *American Educational Research Journal*, *20*, 563–580. https://doi.org/10.2307/1162814

Guo, Y., Kaderavek, J. N., Piasta, S. B., Justice, L. M., & McGinty, A. (2011). Preschool teachers' sense of community, instructional quality, and children's language and literacy gains. *Early Education and Development*, *22*(2), 206-233.

Herman, K. C., Hickmon-Rosa, J., & Reinke, W. M. (2018). Empirically derived profiles of teacher stress, burnout, self-efficacy, and coping and associated student outcomes. *Journal of Positive Behavior Interventions*, *20*, 90–100. https://doi.org/10.1177/1098300717732066.

Herman, K. C., & Reinke, W. M. (2014). *Stress management for teachers: A proactive guide*. Guilford Publications.

Hobson, A. J., Ashby, P., Malderez, A., & Tomlinson, P. D. (2009). Mentoring beginning teachers: What we know and what we don't. *Teaching and teacher education*, *25*(1), 207-216.

Hoversten, C. (1992). How principals inspire teachers. *NASSBulletin, 76,* 102-106. https://doi.org/10.1177/019263659207654217

Hoy, A. W., Hoy, W. K., & Davis, H. A. (2009). Teachers' self-efficacy beliefs. In K. R. Wenzel & A. Wigfield (Eds.), *Handbook of motivation at school* (pp. 627–653). Routledge/Taylor & Francis Group.

Jennings, P. A., & Greenberg, M. T. (2009). The prosocial classroom: teacher social and emotional competence in relation to student and classroom outcomes. *Review of Educational Research*, *79*, 491–525. https://doi.org/10.3102/0034654308325693

Kerr, M. M., & Nelson, C. M. (2010). Strategies for addressing behavior problems in the classroom (6th ed.). Boston, MA: Pearson.

Klassen, R. M., & Chiu, M. M. (2010). Effects on teachers' self-efficacy and job satisfaction: Teacher gender, years of experience, and job stress. *Journal of educational Psychology*, *102*(3), 741.

Kratochwill, T. R., Horner, R. H., Levin, J. R., Machalicek, W., Ferron, J., & Johnson, A. (2021). Single-case design standards: An update and proposed upgrades. *Journal of School Psychology*, *89*, 91-105.

Lee E. H. (2012). Review of the psychometric evidence of the perceived stress scale. *Asian nursing research*, *6*(4), 121–127. https://doi.org/10.1016/j.anr.2012.08.004

Limm, H., Angerer, P., Heinmueller, M., Marten-Mittag, B., Nater, U.M, & Guendel, H. (2010). Self-perceived stress reactivity is an indicator of psychosocial impairment at the workplace. *BMC public health, 10*(1), 1-10.

LoCasale-Crouch, J., Davis, E., Wiens, P., & Pianta, R. (2012). The role of the mentor in supporting new teachers: Associations with self-efficacy, reflection, and quality. *Mentoring and Tutoring Partnership in Learning*, *20*, 303-323.

Lyne, M. J. (2013). Effect of teacher mentoring programming in Malaysia on improving teachers' self-efficacy. *Malaysian Journal of ELT Research*, *9*(1), 1-18.

McClain, M. B., Callan, G. L., Harris, B., Floyd, R. G., Haverkamp, C. R., Golson, M. E., Longhurst, D. N., & Benallie, K. J. (2021). Methods for addressing publication bias in school psychology journals: A descriptive review of meta-analyses from 1980 to 2019. *Journal of School Psychology*, *84*, 74–94.

McCarthy, C. J. (2019). Teacher stress: Balancing demands and resources. *Phi Delta Kappan*, *101*, 8-14

Murphy, Ashley, "Check-In/Check-Out with High School Students" (2019). Dissertations. 1684. https://aquila.usm.edu/dissertations/1684

Oducado, R. M., Rabacal, J., & Tamdang, K. (2021). Perceived stress due to COVID-19 pandemic among employed professional teachers. *International Journal of Educational Research and Innovation, (15)*, 305-316.

Ramberg, J., Brolin Låftman, S., Åkerstedt, T., & Modin, B. (2020). Teacher stress and students' school well-being: The case of upper secondary schools in Stockholm. *Scandinavian Journal of Educational Research*, *64*, 816-830.

Reimers, F. M., & Schleicher, A. (2020). A Framework to Guide an Education Response to the COVID-19 Pandemic of 2020. Organization for Economic Co-Operation and Development

Reinke, W. M., Lewis-Palmer, T., & Martin, E. (2007). The effect of visual performance feedback on teacher use of behavior-specific praise. *Behavior Modification*, *31*, 247- 263. https://doi.org/10.1177/0145445506288967

Schwan, A., Wold, C., Moon, A., Neville, A., & Outka, J. (2020). Mentor and new teacher self-perceptions regarding the effectiveness of a statewide mentoring program. *Critical Questions in Education*, *11*, 190-207.

Tahmassian, K., & Jalali Moghadam, N. (2011). Relationship between self-efficacy and symptoms of anxiety, depression, worry and social avoidance in a normal sample of students. *Iranian Journal of Psychiatry and Behavioral Sciences*, *5*, 91–98.

Tarlow, K. R. (2017). An improved rank correlation effect size statistic for single-case designs: Baseline Corrected Tau. *Behavior Modification, 41*, 427-467. http://dx.doi.org/10.1177/0145445516676750

The World Bank (n.d.) Teachers. https://www.worldbank.org/en/topic/teachers

Todd, A. W., Campbell, A. L., Meyer, G. G., & Horner, R. H. (2008). The effects of a targeted intervention to reduce problem behaviors: Elementary school implementation of check in—check out. *Journal of Positive Behavior Interventions*, *10*, 46-55.

Towe, P. B. (2012). *An investigation of the role of a teacher evaluation system and its influence on teacher practice and professional growth in four urban high schools*. Seton Hall University.

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

Vannest, K. J., & Ninci, J. (2015). Evaluating intervention effects in single-case research designs. *Journal of Counseling & Development, 93,* 403-411.

Wolgast, & Fischer, N. (2017). You are not alone: colleague support and goal-oriented cooperation as resources to reduce teachers' stress. *Social Psychology of Education*, *20*(1), 97–114. https://doi.org/10.1007/s11218-017-9366-1

Wong, V. W., Ruble, L. A., Yu, Y., & McGrew, J. H. (2017). Too stressed to teach? Teaching quality, student engagement, and IEP outcomes. *Exceptional children*, *83*, 412-427.

Zadok-Gurman, T., Jakobovich, R., Dvash, E., Zafrani, K., Rolnik, B., Ganz, A. B., & Lev-Ari, S. (2021). Effect of inquiry-based stress reduction (IBSR) intervention on well-being, resilience and burnout of teachers during the COVID-19 pandemic. *International Journal of Environmental Research and Public Health*, *18*(7), 3689

Zai, S. A., Munshi, P., & Zai, Z. I. Y. (2016). Construct validity to examine the latent traits of teacher self-efficacy instrument. *Advances in Social Sciences Research Journal*, *3*, 74-83.

Zimmerman, B. J. (2000). Self-efficacy: An essential motive to learn. *Contemporary educational psychology*, *25*(1), 82-91.