COLLEGE OF EDUCATION | UNIVERSITY OF NEBRASKA AT OMAHA
JOURNAL OF CURRICULUM, TEACHING, LEARNING, AND LEADERSHIP IN EDUCATION

Volume 6
Issue 1 *Special Issue: COVID-19 and Education*

Article 5

December 2021

Adapting to Covid-19: Exploring the Relationship between Integrating Microteaches during Field Experiences and Pre-service Teachers' Self-efficacy

Paula M. Jakopovic
University of Nebraska at Omaha, paulajakopovic@unomaha.edu

Jennifer L. Lemke
University of Nebraska at Omaha, jenniferlemke@unomaha.edu

Tracie Reding
University of Nebraska at Omaha, treding@unomaha.edu

Sheryl McGlamery
University of Nebraska at Omaha, scmcglamery@unomaha.edu

ADAPTING TO C0VID-19: EXPLORING THE RELATIONSHIP BETWEEN INTEGRATING MICROTEACHES DURING FIELD EXPERIENCES AND PRE-SERVICE TEACHERS' SELF-EFFICACY

Paula M. Jakopovic

Jennifer L. Lemke

Tracie Reding

Sheryl McGlamery

University of Nebraska Omaha

Abstract: The COVID-19 pandemic has had major impacts on PK-16 education in the United States. In-person teaching and learning opportunities have been disrupted and as a result, schools and institutions of higher education (IHE) have resorted to creative solutions to adjust and adapt to remote learning and social distancing. In particular, teacher preparation programs have wrestled with the limitations put in place by IHE as well as PK-12 school districts while trying to maintain high quality field experiences for pre-service teachers. In this action research report, we examine the implementation of a hybrid field experience model in a teacher preparation program at a four year university, and the perspectives of pre-service teacher participants and faculty supervisors engaged in this model.

The literature on the value of field experience in teacher education focuses on its use to develop both teacher skill and the ability to reflect on practice. Researchers agree that teaching experiences in classrooms give pre-service teachers valuable opportunities to practice specific pedagogies with students (Cheng, et al., 2012). In addition, preservice teachers benefit from observing mentor teachers as they demonstrate instructional strategies in different subjects and contexts. It is the field experience that provides the context for pre-service teacher reflection on practice and the opportunity for them to adjust teaching strategies in real time (Darling-Hammond, 2008, 2012; Liakopoulou, 2012).

Engaging in the reflective process combined with these experiences planning and implementing lessons gives pre-service teachers valuable opportunities to connect theory to practice. Without the context of the "practice component" of field experiences, it is difficult for them to conceptualize the complex nature of teaching. It is critically important for pre-service teachers to experience the teaching process for themselves to develop pedagogical and reflective skills and teacher efficacy (Darling-Hammond, 2012; McGlamery & Harrington, 2007; Liakopoulou, 2012). So, in the current global pandemic, how have teacher education programs restructured their field experiences to address the needs of pre-service teachers and the realities of more limited access to PK-12 classrooms?

With many colleges and universities shifting to all remote models in the Spring of 2020, the development of virtual and hybrid courses and practicum experiences has become more prominent. Typically, teacher preparation programs collaborate with local school districts to coordinate on-site practicum experiences for pre-service teachers. As schools and universities adjusted to social distancing protocols and condensed learning structures, both on campuses and in schools, instructors worked to restructure practicum experiences that facilitated meaningful teaching opportunities within the parameters designated by university and district administration. This article describes the ways in which a team of instructors restructured their practicum experience to include microteach opportunities in conjunction with condensed learning experiences in local elementary schools. We utilized

Bandura's four sources of self-efficacy to examine the potential benefits of engaging in hybrid microteaches in supporting their development as future teachers.

Field Experiences and Microteaching

Current research supports the importance of engaging pre-service teachers in authentic field experiences to help prepare them for the complexities of teaching in PK-12 classrooms (McDonnough & Matkins, 2010). Boyd et al. (2009) found that field-based opportunities and experiences were the most predictive indicators of teacher success in their first years. These hands-on experiences allow pre-service teachers to reflect on what they learn through their coursework and to apply this newfound knowledge in structured experiences. This can help pre-service teachers develop confidence in their ability to effectively deliver instruction and to manage challenges that occur in the learning environment.

Microteaching Experiences

Microteaching experiences are part of a larger trend to provide pre-service teachers with more authentic opportunities to enhance their knowledge and skillset. Microteaching is defined as an organized practice that concentrates on a specific teaching behavior in a controlled environment (Allen & Eve, 1968). This process builds a connection between theory and practice while focusing on specific skills needed to manage and engage the learning environment. These teaching opportunities also allow for a larger number of pre-service teachers to teach simultaneously while receiving feedback from peers and instructors. This immediate feedback allows pre-service teachers to identify strengths and areas of growth in their performance and correct undesired behaviors, which can be a beneficial component in building pre-service teachers' self-efficacy (Fernandez & Robinson, 2006).

Studies suggest pre-service teachers perceive microteaching as beneficial to their learning and are an effective teaching method (Benton-Kupper, 2001; Fernandez & Robinson, 2006). Mergler and Tangen (2010) found that microteaching experiences positively affect pre-service teachers' self-efficacy while Peker (2009) found that microteaches help decrease pre-service teachers' levels of stress and anxiety with teaching. These benefits demonstrate the positive impact microteaching experiences have on pre-service teachers' overall skill and performance.

Theoretical Framework

Defining Self Efficacy

Bandura (1997) defines self-efficacy as the "beliefs in one's capacity to organize and execute the courses of action required to produce given attainments" (p. 3). Teachers' self- efficacy is determined by their self-perceptions of their confidence and ability to impact student learning (Bandura, 1997). Self-efficacy is an important aspect of teacher effectiveness as it can directly affect teachers' attitudes, behaviors, and motivation in learning environments (Tschannen-Moran & Johnson 2011). Novice teachers with high levels of self-efficacy feel prepared to teach in challenging environments and support the needs of diverse learners (Skaalvik & Skaalvik, 2007; 2010). According to Usher and Pajares (2008), higher levels of self-efficacy are built when individuals have the opportunity to complete a task or action successfully. These transformative opportunities are especially important for novice teachers as their beliefs, attitudes, and perceptions are developing and easily influenced. Bandura (1997) identifies four main sources that contribute to the development of teacher self-efficacy, which include: mastery experiences, vicarious experiences, verbal persuasion, and physiological arousal.

Four Sources of Self-Efficacy

Mastery Experiences According to Bandura (1986), the most powerful source contributing to pre-service teachers' self-efficacy is the mastery experience. Mastery experiences are hands-on teaching experiences that range from teaching students in individual settings to teaching and managing a whole class. Whether done in person or through virtual environments, these direct experiences allow candidates to identify both successes and failures in the planning and implementation process. Because mastery experiences are considered the most influential source of efficacy, it is important that pre-service teachers have an abundance of mastery experiences throughout their teacher preparation program (Clark & Newberry, 2019).

Vicarious Experiences Vicarious experiences accumulate through the process of imagining yourself teaching or watching someone engage in the teaching process (Clark & Newberry, 2019). It is likely that throughout pre-service teachers' programs, they have opportunities to engage in simulated lessons with a group of peers or observe others modeling a specific skill or strategy. Studies show that vicarious experiences, like the opportunities described above, correlate with higher self-efficacy and are identified as the second most influential self-efficacy source. These experiences can be highly beneficial for pre-service teachers when mastery experiences are limited (Clark & Newberry, 2019).

Verbal Persuasion Verbal persuasion is the process of receiving feedback, encouragement, or mentoring from a trustworthy and credible source (Clark & Newberry, 2019). Mulholland and Wallace (2001) determined that feedback from peers, in-service teachers, or instructors can be a significant source of self-efficacy in pre-service teachers. Though feedback can come in a variety of formats, Rots et al. (2007) found that quality feedback and supervision provided by university faculty or mentors correlated to higher levels of self-efficacy in pre-service teachers.

Physiological arousal The emotional, physical, and physiological wellbeing of an individual can influence that person's perceptions of their abilities in various situations. Interpreting stress indicators, such as anxiety or nervousness, as normal responses to a new experience rather than an indicator of incompetence can build pre-service teachers' self-efficacy (Howardson & Behrend, 2015). Often, pre-service teachers experience a lot of anxiety when teaching their first lessons in classroom environments. Allowing these lessons to be taught in controlled environments with immediate feedback can help pre-service teachers manage these emotions and remove the physiological barriers that exist in their development and learning (d'Alessio, 2018).

The question is, how do university faculty and practicum supervisors facilitate authentic and meaningful practicum experiences while teaching and learning in hybrid learning environments? This study describes the efforts of one teacher preparation institution and an advanced field block of methods instructors, who made significant changes to the field experiences in response to COVID-19. In this paper, we chronicle the changes made to this field experience, focusing on the perceptions of pre-service teachers and supervising faculty regarding microteach hybrid experiences.

Context of the Study

This study is situated at a medium-sized, urban four-year university in the Midwest. The research team and authors consist of a subset of four out of five total instructors for a block of undergraduate methods courses typically assigned to a traditional face to face, on-site practicum experience in local elementary schools. Due to de-densification requirements enacted during the onset of the COVID-19 pandemic, the instructional team developed and implemented a hybrid field experience, positioning our pre-service teachers (henceforth referred to as "students") in both field-based and campus-based teaching experiences. The goal of the on-campus microteaches was to provide additional teaching opportunities for our students to support their self-efficacy development as future educators.

The Microteaching Model

In a traditional semester our students engage in a six-week practicum experience in a local metropolitan school district. Due to COVID restrictions, our school community partners did not have PK-6 students in the building at full capacity in Fall 2020. PK-6 students in this district were in a condensed model in which they engaged in in-person learning during part of the week and completed asynchronous learning tasks during the other part of the week. To align our practicum to this condensed model, we structured students into two groups, each supporting in-person learners two days a week. Unlike other semesters in which students had a minimum of 12 opportunities to plan and implement lessons in a variety of formats and content areas, this semester and structure created a unique challenge in facilitating a variety of authentic opportunities for our students to develop their knowledge of effective instructional practices.

Due to the inability to be in schools for the same duration as in traditional semesters, our instructional team looked to simulate teaching experiences on campus so students could demonstrate effective planning and teaching methods and strategies. The instructional team decided to facilitate five microteaching opportunities in which students would enact a portion of a planned lesson to a group of peers and then receive feedback from both peers and an instructor. The team of instructors selected each week's topic to engage students in similar concepts and

disciplines, but students were able to choose the grade level and learning objective for the plan. This choice led many to connect their microteach presentations to lessons they would eventually implement in practicum.

Our teacher preparation program uses the Interstate Teacher Assessment and Support Consortium (InTASC) performance standards to both guide instructor observations and feedback and to evaluate each student's overall performance during the practicum experience (Council of Chief State School Officers (CCSSO), 2013). These standards, constructed by the CCSSO, outline what teachers should know and be able to do to ensure all PK-12 students reach their potential and are college and career ready. Our team was aware that limitations of the practicum structure brought on by COVID would lessen opportunities for students to demonstrate these competencies, therefore we focused each microteaching on a different performance standard. This concentrated planning on specific topics and disciplines, and encouraged students to determine how to demonstrate specific performance standards and competencies in the context of the microteach.

To help students prepare for the microteaching experiences, they completed both a lesson plan and a planning sheet prior to implementation. This comprehensive lesson plan focused on the designated topic or discipline given by the instructor each week and served as a guide toward meeting the InTASC standard. To show evidence of planning with the performance standard in mind, students also completed a microteach planning sheet to capture how they planned to demonstrate the assigned week's InTASC performance standard.

Before each microteach, students provided their small group with a synopsis of the learning objective and lesson plan and explained what part of the lesson they would model during their 15-minute presentation. They also explained specifically how they would demonstrate the indicators or behaviors of the InTASC performance standard.

During the 15-minute presentation, students facilitated opportunities for their peers to engage with the learning objective. While each student presented, their small group of peers was expected to actively participate and take notes to assist in providing meaningful feedback to the presenter.

After each presentation, both the instructor and participating peers provided feedback. Each participant was encouraged to provide both positive and constructive feedback using language centered on the designated performance standard. While peer feedback was verbal, the instructor provided both oral and written feedback. After the reflective conversation each student engaged in self-reflection, documenting aspects of the lesson that went well, things to consider, and a goal moving forward.

The microteaching experience acted as an opportunity for students to plan and implement a lesson, consider how the instructional design demonstrated specific teaching competencies, and receive feedback to help refine their teaching skills. While enacting this revised field component, the instructors wanted to analyze the impact of the microteaching as part of this hybrid field experience. Therefore, the research question this study seeks to answer is: How are the perceptions of pre-service teachers and supervising faculty regarding microteach hybrid experiences related to the four sources of self-efficacy?

Method

As previously mentioned, the researchers in this study were also members of the instructional team involved in implementing the microteach experiences. Knowing the same de-densification guidelines would be enforced the following semester, this study was intended to help inform the planning, development, and implementation of the microteach experience for the following semester and beyond, therefore action research was the method employed. Action research is an inquiry process regarding a specific focus or action, and is conducted by the "actors" implementing it with the specific purpose of improvement/refinement of the action (Sagor, 2000). There are seven steps in action research: 1) selecting a focus, 2) clarifying theories, 3) identifying research questions, 4) collecting data, 5) analyzing data, 6) reporting results, and 7) taking informed action (Sagor, 2000). As previously discussed, the focus of this study is the microteaching experience that we implemented as a result of de-densification guidelines in the Fall of 2020, knowing the following semester would present similar restrictions. We utilized Bandura's (1997) self-efficacy sources as the theoretical framework for this study because the intention of the microteaches was to increase our students' confidence in their ability to plan and deliver research-based teaching practices. The research question guided the study to uncover the experiences of both the students and their instructors to help improve the experience for the following semester. Data collection, analysis, results, and taking informed action will be described in more detail in the following sections.

Participants

In the Fall of 2020, a total of 42 elementary pre-service teachers (i.e., "students") were enrolled in an instructional block at our institution and completed the initial version of our hybrid practicum model as part of their normal course experience. As participation in the study itself was voluntary, we sent a recruitment email to all enrolled students at the end of the semester after final course grades were posted so as to eliminate any perceived pressure or negative consequence in their electing to participate in the study or not. Participation did not require any additional work or time on the part of the students; rather, they agreed to allow the research team access to their final course reflection for analysis. A total of 14 students agreed to use of their reflections for the study. There were a total of five faculty instructors in the practicum block at the time of the study who were similarly recruited to voluntarily participate in a post-semester interview, and four of these instructors are also the researchers in the study.

Data Collection and Analysis

To better understand the perceptions of both the potential benefits and challenges of engaging in on-campus microteaching opportunities, we collected data from two sources, students and instructors. All students completed a written reflection (Appendix A) at the close of the semester as part of their regular participation in Author A's course. We collected the reflections of the 14 students who gave us permission to use the assignment for the study via the university's Canvas Learning Management System as a secure data collection conduit. We then transferred participant data to a secure server for analysis and long-term storage. We utilized a semi-structured interview protocol to ensure consistency among faculty interviews, particularly since members of the research team were included as both interviewers and interviewees. Author B interviewed Authors A, C, and D. Author A interviewed both Author B and the fifth instructor (who was not part of the research team). These interviews (Appendix B) were completed after the end of the semester to provide additional perspectives about the potential impact of the microteaching experience on students' self-efficacy related to teaching. Interview transcripts were housed on the same secure server. To protect the anonymity of all participants, we removed identifying information from each unit of data, renaming students as Student 1, Student 2, etc., and faculty participants as Instructor 1, Instructor 2, etc.

We utilized thematic analysis (Braun & Clarke, 2006) to explore both sets of data. We reviewed both the instructor transcripts and the students' written reflections to familiarize ourselves with the data. We utilized open coding to identify common semantic descriptors in the first round of analysis (see Appendix C). We then examined the codes to determine patterns and identified codes that aligned with Bandura's four sources of self-efficacy (Bandura, 1997). We reviewed the data a second time to calibrate and refine codes and their alignment to the themes. Additionally, participants sometimes presented hypothetical ideas or suggestions to improve the organization of the microteach experience in the future, which we noted separately. For example, students provided suggestions on managing the logistics of multiple groups presenting in a shared space and ensuring instructors could provide targeted feedback to all students.

Results

We present the final codes and themes in Table 1 below.

Table 1
Analyzing Student and Teacher Identified Experiences and Self-Efficacy Sources

Codes	Themes	Description of Self-Efficacy Source
● Usefulness of practice teaching opportunities, including multiple subject areas ● Practice writing lesson plans ● Developing teaching awareness/learning to teach ● Focus on INTASC standards/summative assessment indicators	Mastery Experiences	Engaging in hands on teaching experiences

● Teaching adults not representative of teaching students ● Seeing different teaching strategies from peers ● Resource sharing	Vicarious Experiences	Observing other people teaching
● Giving and receiving feedback	Verbal Persuasion	Feedback from classmates and peers
● Safe space to practice teaching/Feelings about microteaches	Physiological Arousal	Emotional experiences related to teaching

The goal of incorporating on-campus microteaches in the Fall, 2020 semester was to supplement limited in-field practicum experiences with the hope of increasing the pedagogical self-efficacy of pre-service elementary teachers amidst the pandemic. We found that both students and instructors reflected on aspects of the microteaches that aligned to all four sources of self-efficacy (Bandura, 1997). In the following sections, we report the results of our interpretation of their takeaways.

Mastery Experiences to Supplement "The Real Thing"

Students and instructors alike identified a range of aspects of the microteach experiences that they found beneficial. Mastery experiences can help pre-service teachers engage in hands-on teaching opportunities that allow them to learn about the planning and implementation processes of teaching (Bandura, 1986). Recognizing the limited opportunities to plan and implement lessons in the field due to COVID, students and instructors identified several positive aspects of engaging in microteaches as an alternative. This included having additional opportunities to practice planning and teaching lessons and engaging in targeted practice implementing the InTASC standards (CCSSO, 2013) into instruction. As Student 12 shared, "I thought the most beneficial parts of the on-campus microteaches were being able to get more experience writing lesson plans and executing them." Students also remarked on how engaging in the microteach opportunities helped them to develop their teaching skills and presence in the classroom, particularly skills needed to successfully teach during the pandemic. According to Student 10,

> It helped me use my "teacher voice" more. When delivering my lesson while wearing a mask, I've learned to speak up so that everyone can hear. After doing the microteaches so many times it started to become a little more natural when teaching my lesson.

The instructors noted similar benefits with regard to student gains related to pedagogical mastery opportunities and concentrating on one specific InTASC standard at a time to help them develop their teaching praxis. As Instructor 5 remarked, "I think it was nice that for each microteach we had one InTASC standard that we were focusing on, and that they knew that upfront, they had to think about it, they had to do the pre-planning, and they had to do the post reflection."

Instructors also noted the shift in students' presence and preparation as the hybrid field experience continued. "In the third week...I saw some real improvement… their presentation style was more professional, they were prepared to present," explained Instructor 4, highlighting the self-efficacy development of students over the course of the five-week experience.

Not all students agreed about the usefulness of microteaches as mastery experiences, however. Some commented on positive experiences, such as Student 9, who explained, "The microteaches were a good fill in for not teaching actual students. This helped a lot with learning about how I want to teach and work on my wording of lessons." One or two students held the opposite view, however. Student 1 shared,

> Microteaches during field were more opportunities to write lesson plans in a scripted specified format that I will not be utilizing after [graduation], a time to teach adults concepts they already know, a time where I was not challenged, had to do scaled down versions of lessons, and never once had to practice classroom management.

Although all instructors reported the benefits of microteaches as mastery experiences for their students, several echoed similar sentiments to that of the student above about the inability to fully recreate the lived experience of teaching children. Instructor 3 remarked that, "...the reality is that teaching to a group of adults is different than teaching to a group of elementary students." Instructor 2 explained that, "It is impossible to recreate the actual environment of teaching children... our candidates did not have to worry about issues such as classroom management, interruptions, or students who come in with gaps in their background knowledge and understanding."

Overall, some student and instructor comments identified negative or neutral aspects of microteaches as mastery experience development opportunities. The vast majority of comments, however, were more positive in nature, implying an overall positive connotation between microteaches and developing teacher self-efficacy through mastery experiences.

Vicarious Experiences Add to Pre-service Teacher "Toolkits"

In addition to identifying elements of conducting microteaches that are related to mastery experiences, students and instructors also shared encounters observing and learning from peers as vicarious teaching and learning opportunities (Clark & Newberry, 2019). Unlike the comments for mastery experiences, all instances where students and instructors reflected on vicarious experiences were reported as useful. For students, comments included learning different approaches to model and teach content, as well as finding new resources (including virtual tools) via their peers' lesson presentations. As Student 13 put it, "It was incredible to hear the new ways I could go about teaching a specific skill or being introduced to the various online tools that my peers used in their own lesson plans."

In addition to finding general value in these vicarious experiences, students also remarked on ideas and strategies they were learning that could help to support teaching and overcoming challenges related specifically to COVID. One example of this is Student 13's comment that,

> One challenge was figuring out how to adapt lessons to online formats or COVID restrictions. Although it was a challenge, it exposed me to all kinds of resources I never would have known about otherwise. I will definitely take a lot of these things into my future practice, COVID or not!

Instructors also saw the value in microteaches as a vicarious learning experience for their students. Two instructors directly commented on the benefits of this, with Instructor 3 stating, "I think that they, lots of times, got great ideas or learned about effective strategies from one another through this opportunity." Instructor 2 shared similar sentiments, expressing,

> [Students] were able to see a wide range of lessons in terms of content, instructional strategies, and lesson delivery. This afforded them opportunities to diversify their own instructional toolboxes as they shared and learned with their peers. I believe this impacted our candidates' ability… to be more intentional about planning for future lessons.

Students and instructors alike identified aspects of the vicarious learning experiences that could translate to both short- and long-term teaching practices in the future. The overwhelmingly positive connotations gleaned from student and instructor comments demonstrate the impact of microteaches on self-efficacy through these vicarious experiences.

Verbal Persuasion and Feedback as a Reflective Tool

Although research has shown that feedback provided by practicum supervisors and mentors is related to improved pre-service teacher self-efficacy (Rots et al., 2007), feedback from peers can also have a positive impact (Mulholland & Wallace, 2001). Students and instructors in our study overwhelmingly described finding feedback from instructors and peers as helpful. Student 4 reflected that, "The microteachings impacted the way I taught in the field because peer feedback showed me a lot of suggestions and things that went well, which helped me to adjust and succeed in my lessons in the field." At times, students had the freedom to select the topics and grade levels for their presentations, and as a result they also taught some selected lessons in their field practicum classroom. For example, Student 8 shared, "I could get feedback from peers and instructors on what went well and what could be changed. I took that feedback, adjusted some of my lesson, and was able to use it in field. It ended up being better than it was before the microteach." This unique opportunity allowed students to engage in a sort of "lesson rehearsal," with the ability to apply the feedback directly and immediately in the field.

One point that instructors and students did not necessarily agree upon, however, was the quality of feedback provided. Some students reported having specific, intentional feedback, such as Student 13,

> Teaching to the same peers also made the feedback and advice portion much more meaningful and intentional because my peers knew where I started on my first microteach and where I am now. They were able to give me much more direct, honest, and helpful feedback to help better my future lesson plans.

Despite positive student reflections on peer feedback, instructors sometimes reported feeling that feedback among students was lacking. As Instructor 4 put it,

> Some of the students were initially hesitant to give legitimate feedback. Now, by legitimate feedback, I mean, they all want to say, "Oh, that's great, "oh, it was good, oh, it was wonderful," when in fact, it was not. There were things that needed to be changed, and some of them were reticent to comment on that.

Additionally, one or two students shared that they felt feedback from instructors was deficient. For example, Student

7 stated,

> The other support I wish I had was more feedback during the microteaching times. There was only one professor that would provide me with "grows" or things to consider, whereas the others only provide me with some "glows". This feedback is vital to me and I am always wanting to find areas to improve upon.

In their reflections, students advocated for honest, and even critical feedback, to help them grow, which can tie directly back to the development of their self-efficacy (Rots et al., 2007).

The instructors also identified some of the same problems that students noticed about the opportunities for intentional specific feedback. Instructor 2 shared,

> A second challenge of the microteach experience is more of a logistical one…there were also weeks where there were not enough instructors to do all the observation of feedback themselves and bringing in external help for these weeks sometimes resulted in mixed results in terms of the usefulness and consistency of feedback.

While most viewed peer and instructor feedback as useful, there were also comments that identified shortcomings of the quality of the feedback provided. The usefulness of the feedback was highlighted when students were able to use that feedback immediately, whereas the shortcomings dealt more or less with the lack of consistent, constructive criticism in lieu of generic, positive feedback.

Providing a "Safe Space": Physiological Arousal Development

For many of our students, this hybrid field experience afforded some of their first opportunities to implement planned lessons due to pandemic related school closures and interrupted practicums in Spring 2020. A common theme that emerged from student responses was the feeling of a safe space in which to practice. Interestingly enough, this theme only surfaced in the student reflections. Although the instructors may have organized the microteach environment in ways conducive to developing trust and rapport within the group, their reflections on the experience focused more on student learning than on student feelings. Unlike the instructors, a number of students made remarks about how the microteaches made them feel about teaching, in particular expressing that these experiences helped them to become less nervous about teaching over time. Many students shared the impact of microteaches on their confidence being in front of a group. Student 12 elaborated, "I have been lacking confidence when it comes to executing a lesson plan like I hope and so I think having the opportunity to 'practice' in front of our peers helped develop more confidence and experimentation of the lesson execution."

Several students explained that the microteaches provided opportunities for them to get over the fear of leading the lesson, and to move from teaching mechanically toward confident delivery. Student 13 reflected,

> I also found the microteaches to be very beneficial to my confidence and comfort teaching. As expected, I was terrified for my first one and practically memorized the lesson plan word for word so I wouldn't mess up. However, after doing just a couple microteaches I felt much more comfortable teaching in front of my peers and was able to obtain a much more natural approach both during my micro teaches and during my time in the classroom with students. It was helpful to have the room to take risks, try things out and make mistakes with peers who are in the same boat and are wanting you to succeed.

Students shared that having small groups to conduct microteaches in and working with the same peers from week to week helped to develop a sense of rapport and a "safe space" to take risks, develop their praxis, and to become comfortable giving and receiving feedback. Students recognized that teaching in this controlled environment helped them to move past anxiety and to be open to feedback as a natural part of their growth (d'Alessio, 2018). This fostered students' self-perceptions of increased confidence and competence (Bandura, 1997) across the five-week microteach experience.

What We Learned: Taking Informed Action

Reflections on the First Iteration of Microteaches

At the start of the Fall 2020 semester, our instructional team sought to mitigate the negative impacts of limited field experiences on our pre-service teachers by providing alternative simulated teaching opportunities, known as microteaches. In this action research study, we identified several benefits of engaging students in microteaching opportunities in addition to their abbreviated field experience. Our hope was to elucidate evidence of how these opportunities relate to pre-service teacher self-efficacy so that we could take informed action moving forward into Spring 2021. We examined specific elements of the microteaches that students and instructors described as being useful and identified how these elements connected to Bandura's four sources of self-efficacy.

We strove to examine creative solutions to supplement interrupted practicum experiences in ways that could positively influence teacher preparation and self-efficacy.

Many benefits regarding the hybrid microteaching opportunities surfaced during our analysis. Students recognized that the microteaching opportunities provided them with additional practice writing and implementing lesson plans in a safe space while also receiving feedback they could use immediately in the field. Instructors also noted the benefits of the additional practice in terms of improved presence and lesson implementation over the course of the experience. Students and instructors also identified that students were able to gather ideas for teaching strategies and resources while acting as the "students" for their peers during the microteaches. These benefits affirmed the usefulness of the microteaching experiences as an alternative to a typical practicum.

While our efforts did create intentional and meaningful alternatives for simulated teaching, we also identified several challenges at the end of the initial semester. Even though many students identified one or more benefits to engaging in microteaches as a mastery experience, some students failed to see the usefulness of these exercises. Both students and instructors wanted to increase the amount of quality feedback that our students received. At the end of the semester, we realized that we needed to identify the specific strengths and areas of growth that students and instructors experienced so that we could identify targeted action steps to revise the hybrid teaching structure for the spring.

Lessons Learned for Spring 2021 Microteaches

Due to the evolving nature of the pandemic, our university continued to implement its de-densified approach for on-campus classes in the Spring 2021 semester. Through data analysis we identified specific areas of improvement to our model. Many of the challenges reported by participants were related to the ability of peers and instructors to provide quality feedback. The instructional team made several logistical changes to address this. First, we recognized that not all students provided specific, meaningful feedback to peers. In the final fall microteach, we implemented the use of sentence frames to help students structure their comments. A sentence frame is a structure that incorporates fill-in-the-blank words or phrases for students to use as a starting point to formulate a structured reflection response (Brakebill, 2018, April 2). We incorporated this modification as a model for how to give effective feedback in the spring semester.

A second challenge identified was running multiple microteach presentations simultaneously with only one instructor present to provide feedback. For spring, we adjusted by recruiting additional university faculty so that students received individualized written and verbal feedback immediately after their lesson.

A final concern was whether five microteaches was "too much," both for students in terms of planning, and instructors in terms of managing feedback. As a result, in spring we incorporated a mix of professional development sessions and microteaches to balance the workload. The new plan included three professional development sessions, two face-to-face microteaches, and an additional opportunity for students to receive instructor feedback through a video conference reflection.

Moving Beyond COVID: The Potential of Hybrid Practicum Models and Microteaches

Maximizing targeted teaching opportunities and meaningful feedback for pre-service teachers continues to be a focus for university faculty. We will continue to explore how to utilize hybrid structures to maximize teaching experiences for pre-service teachers. Hybrid structures in teacher preparation programs, specifically practicums, create flexibility for university faculty to offer additional support and experiences that the parameters of traditional practicums and learning structures may not afford. Facilitating microteach experiences in addition to school-based opportunities allows pre-service teachers more opportunities to engage in the lesson planning and implementation process. This increased exposure could be extremely beneficial for pre-service teachers who need extended opportunities to demonstrate knowledge and ability. This hybrid approach would also be beneficial in alternative certification programs, as often these pre-service teachers' practicum experiences are limited or minimized compared to those participating in traditional programs.

We also plan to explore how to create more in-depth, targeted teaching experiences aligned with the various InTASC performance standards. Not all pre-service teachers will have authentic teaching opportunities to demonstrate all competencies in their practicum experience; therefore, facilitating targeted experiences on-campus is a favorable alternative. Embedding these opportunities into already established on-campus professional learning sessions or by facilitating microteach opportunities focused on InTASC standards in individual methods courses can

help teacher preparation programs maximize the potential to positively influence pre-service teachers' self-efficacy and teaching praxis.

These microteach experiences also validated the need for targeted peer feedback structures for pre-service teachers when engaging in reflective practice. The use of sentence frames to guide feedback allowed pre-service teachers to reflect on evaluative standards, seek specific ideas and guidance from their peers, and practice giving timely and descriptive feedback. Schools are reflective, collaborative cultures so facilitating these intentional opportunities to engage in reflective dialogue will equip pre-service teachers to be contributing members of their school communities.

As teacher preparation programs continue to explore structures and alternatives to traditional practicum models, this action research study demonstrates that facilitated microteaches provide meaningful, authentic experiences for pre-service teachers to develop self- efficacy. These hands-on opportunities coupled with purposeful feedback prove to be strong alternatives to consider as university faculty look to maximize pre-service teachers' potential and effectiveness in PK-12 classrooms.

References

Allen, D.W. & Eve, A.W. (1968). Microteaching. *Theory into Practice*, 7(5), 181-185.

Bandura, A. (1986). The explanatory and predictive scope of self-efficacy theory. *Journal of Social and Clinical Psychology*, *4*, 359-373.

Bandura, A. (1997) *Self-Efficacy: The Exercise of Control.* W.H. Freeman and Company.

Benton-Kupper, J. (2001). The microteaching experience: Student perspectives. *Education*, *121*(4), 830-835.

Boyd, D., Grossman, P., Lankford, H., Loeb, S., & Wyckoff, J. (2009). Teacher preparation and student achievement. *Educational Evaluation and Policy Analysis*, *31*, 416-440.

Brakebill, A. (2018, April 2). Why you should be supporting your English language learners with sentence frames. *Edumentum.* https://blog.edmentum.com/why-you-should-be-supporting-your-english-language-learners-sentence-frames

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 36*(2), 77-101.

Cheng, M. M., Tang, S. Y., & Cheng, A. Y. (2012). Practicalising theoretical knowledge in student teachers' professional learning in initial teacher education. *Teaching and Teacher Education*, *28*(6), 781-790.

Clark, S. & Newberry, M. (2019). Are we building preservice teacher self-efficacy? A large-scale study examining teacher education experiences. *Asia-Pacific Journal of Teacher Education*, *47*(1), 32-47.

Council of Chief State School Officers (2013, April). Interstate Teacher Assessment and Support Consortium InTASC Model Core Teaching Standards and Learning Progressions for Teachers 1.0: A Resource for Ongoing Teacher Development. Author.

d'Alessio, M. (2018). The effect of microteaching on science teaching self-efficacy beliefs in preservice elementary teachers. *Journal of Science Teacher Education*, *29*(6), 441-467.

Darling-Hammond, L. (2008). Teacher learning that supports student learning. *Teaching for intelligence*, *2*(1), 91-100.

Darling-Hammond, L. (2012). *Powerful teacher education: Lessons from exemplary programs*. John Wiley & Sons.

Fernandez, M. L., & Robison, M. (2006). Prospective teachers' perspectives on micro-teaching lesson study. *Education*, *127*(2), 203–215.

Howardson, G. & Behrend, T. (2015). The relative importance of specific self-efficacy sources in pretraining self-efficacy beliefs. *International Journal of Training and Development*, *19*(4), 233-252.

Hyler, M. (2020, September 01). Educator preparation during COVID-19: Lessons learned for fall. *Learning Policy Institute*. https://learningpolicyinstitute.org/blog/covid-educator-preparation-lessons-learned

Liakopoulou, M. (2012). The role of field experience in the preparation of reflective teachers. *Australian Journal of Teacher Education*, *37*(6), 42-54.

McDonnough, J., & Matkins, J. (2010). The role of field experience in elementary preservice teachers' self-efficacy and ability to connect research to practice. *School Science and Mathematics, 110*(1), 13-23.

McGlamery, S. & Harrington, J. (2007). Developing reflective practitioners: The importance of field experience. *The Delta Kappa Gamma Bulletin*, *73*(3), 33-45.

Mergler, A. G., & Tangen, D. (2010). Using microteaching to enhance teacher efficacy in pre-service teachers. *Teaching Education*, *21*(2), 199–210.

Mulholland, J., & Wallace, J. (2001). Teacher induction and elementary science teaching: Enhancing self-efficacy. *Teaching and Teacher Education*, *17*(2), 243–261.

Peker, M. (2009). The use of expanded microteaching for reducing pre-service teachers' teaching anxiety about mathematics. *Scientific Research and Essays*, *4*(9), 872–880.

Rots, I., Aelterman, A., Vlerick, P., & Vermeulen, K. (2007). Teacher education, graduates' teaching commitment and entrance into the teaching profession. *Teaching and Teacher Education, 23*(5), 543–556.

Sagor, R. (2000). Guiding school improvement with action research: ASCD. *Association for Supervision and Curriculum Development.*

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

Skaalvik, E. M., & Skaalvik, S. (2010). Teacher self-efficacy and teacher burnout: A study of relations. *Teaching and Teacher Education*, *26*, 1059-1069. doi:10.1016/j.tate.2009.11.001

Tschannen-Moran, M., & Johnson, D. (2011). Exploring literacy teachers' self-efficacy beliefs: Potential sources at play. *Teaching and Teacher Education*, *27*, 751- 761. doi:10.1016/j.tate.2010.12.005

Usher, E. L., & Pajares, F. (2008). Sources of self-efficacy in school: Critical review of the CAPAP literature and future directions. *Review of Educational Research*, *78*(4), 751–796.

Appendix A: End of Semester Student Written Reflection Questions

1. What components and supports of the practicum experience did you find beneficial this semester?
2. What supports do you wish you had, or what changes would be helpful for the instructional team to consider?
3. What were the most beneficial parts of the on-campus micro-teaching opportunities before and during the field experience?
4. How did the on-campus micro-teachings impact your performance in field? Develop your skillset?
5. What suggestions do you have on improving micro-teachings for future semesters and candidates?

Appendix B: End of Semester Instructor Interview Questions

1. Describe the benefits of conducting micro-teaching opportunities as part of a hybrid field experience this semester.
2. Describe the potential challenges of conducting the micro-teaches.
3. In what ways do you believe the micro-teach experiences helped to develop our candidates' familiarity and facility with the INTASC standards on which they are assessed?
4. What role did you see the micro-teaches play in the development of our candidates' teaching skills during and after the field experience?
5. Upon reflection, what suggestions do you have on improving micro-teaches for future semesters with teacher candidates?

Appendix C: Final Open Codes

Code	Student and Instructor Examples
Usefulness of practice teaching opportunities, including multiple subject areas	They were a great way to practice and learn to make certain adjustments. When we do these, we are able to see the bigger picture of how effective the lesson or activity we are doing is (Student). I viewed micro-teaches as a game that I learned the rules for and played rather than a helpful learning opportunity (Student). So, the first benefit I see is just really the opportunity for practice and implementation of lessons. This group of students, a lot of them had not had a prior field experience before this semester. So, using micro-teaches created opportunities for students to practice implementing lessons sometimes prior to when they were conducting it with students so they could come in, had the opportunity to think through the language of the lesson and potentially make adjustments or modifications before implementing with real life students (Instructor).
Seeing different teaching strategies	I would also say being able to see all the different types of lessons provided by my classmates helped build my skill set and seeing how I could use or modify someone's lesson they presented to use one day in my own classroom (Student). I also liked being able to see how our peers might approach a specific concept that I might not have thought about before. In a way, this was better than field because with field we don't get the opportunity to see each other teach (Student). Additionally, I believe that students benefited from being able to observe their peers. Not only did this provide them opportunities to watch for evidence of these indicators in practice, they were also able to see a wide range of lessons in terms of content, instructional strategies, and lesson delivery (Instructor).
Giving and receiving feedback	The peer feedback and instructor feedback was super helpful in my lesson construction and implementation throughout field! I was able to translate feedback from microteaches into the construction of field lesson plans (Student). The other support I wish I had was more feedback during the micro-teaching times. There was only one professor that would provide me with "grows" or things to consider, whereas the others only provide me with some "grows". This feedback is vital to me and I am always wanting to find areas to improve upon (Student). I also think a benefit is that the students knew 100% that they would be getting feedback from their instructors and from peers with every single micro teach that they delivered. That's not something that we can guarantee when they are in field. So, I think that they were up to that and had that in mind when they were delivering, they knew... that professors' eyes were on their delivery of their lesson (Instructor).

Teaching adults not representative of teaching students	I sometimes found myself getting through the lesson way faster because my peers are able to do things quicker than my students would be able to (Student). It is impossible to recreate the actual environment of teaching children in a classroom any simulated setting. Our candidates did not have to worry about issues such as classroom management, interruptions, or students who come in with gaps in their background knowledge and understanding. Even when our adult learners tried to act like students, it can sometimes be difficult for a pre-service teacher to accurately anticipate the misconceptions or confusions that young learners who have never seen a concept before might encounter (Instructor). I also think just the reality is that teaching to a group of adults is different than teaching to a group of elementary students. So, at times, engaging students throughout the lesson, keeping them engaged in using those strategies or implementing classroom management techniques is always something that they needed to be doing because their peers were on task and following directions at all times. So, because we know that those are huge factors of being effective in the classroom, I don't think our candidates necessarily got meaningful opportunities with those through micro-teaching (Instructor).
Practice writing lesson plans	I thought the most beneficial parts of the on-campus micro teaches were being able to get more experience writing lesson plans and executing them. I have struggled with feeling comfortable executing my lesson plans and so I appreciated the time we were able to do those (Student). Micro-teaching gave me practice writing lesson plans how the instructors want them and then modifying them to be usable for me while I teach (Student).
Safe space to practice teaching/Feelings about microteaches	I think remote teaching was beneficial by allowing me to practice in a safe environment even though I was graded. I would rather mess up and fix it there, then in the classroom and hurting student learning (Student). The microteaches gave me more confidence that I might kind of know what I'm doing up there in front of the class (Student).
Resource sharing	It also deposited more skills in the tool bag and gave me the ability to adjust on the fly when things aren't going so well (Student). I also benefited from all the ideas that came from the microteaches like the worksheets and lesson ideas we got to collect from it (Student).

Developing teaching awareness/learning to teach	It helped me use my "teacher voice" more. When delivering my lesson while wearing a mask, I've learned to speak up so that everyone can hear. After doing the micro teaches so many times it started to become a little more natural when teaching my lesson (Student). So, in my mind I would like to think that it has made them more reflective. That's one thing that I am very impressed, in general, with how this program works is I do feel like it did a good job of keeping students towards that being reflective scholars. So at this point, because our candidates, almost all of them did not have a true field experience, and even this one being high flex, I feel like what I am very impressed with is that we were able to find a way to encourage them to be reflective scholars and to reflect not their own teaching, but I think the fact that the opportunity that they had to observe each other five times was extremely beneficial for them to see that in action, and to reflect on what their peers are doing, which, in turn, I think helped make really strengthen their own self-reflection at the end of field (Instructor). I think the first and foremost that it was just another experience to help them develop and grow their skillset because they have less experiences in the classroom. I think the micro-teaches played an important role in creating more space and opportunity for students to develop and enhance their ability and skillset of teachers (Instructor).
Focusing on INTASC standards/summative assessment indicators	I liked that we were, that the students knew the topic that they should focus on and that they had that was all itemized out even before the field experience started. So that's different than in a in a K-12 setting where, you know, their mentor teachers may change the plans, or they give them a lesson plan late, but this provided an opportunity for our candidates to know the topic that they should be focusing on and also an indicator from the INTASC standard and what we were looking for (Instructor). We were able to focus on specific indicators from the rubric, such as engaging students and critical thinking and clarify problem-solving, allowing students to really dig in and unpack what each of the indicators mean. For that specific indicator, I think this allowed students to demonstrate understanding of proficiency in ways that they sometimes are not able to in the field (Instructor).
Organizational challenges of microteaches	There were a few times that I feel like the way that we had it set up so that the instructor was observing two at a time to two groups at a time. So, I felt like my attention was divided at times, and I probably missed some things that I wish I could have captured and especially captured in my notes. But I think, in practice, you get better (Instructor).

	I also wonder how many microteach opportunities are reasonable to ask while balancing that with opportunities out in the field. What is the value for our students in terms of providing simulative versus authentic practice, versus the amount of data that we need to collect to successfully evaluate them at the end of the process? (Instructor)