

# **Learning to Practice Digitally: Advancing Preservice Teachers' Preparation via Virtual Teaching and Coaching**

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Widespread school closures resulting from the coronavirus pandemic of 2020 have forced PK-12 teacher and teacher educators' use of technology into educational and instructional planning and decisions. This national crisis has signaled that US teacher preparation programs must embrace non-traditional, innovative, and progressive approaches to maintain the integrity of preparation and acknowledge the need for future educators' digital teaching competence. To support pre-service teachers' continued clinical practice during school closures, a strategy was developed involving candidates' virtual teaching, reflection, and goal setting, supported by teacher educator virtual coaching and feedback.

## **Theory/Literature Review**

During the coronavirus pandemic of 2020, teachers and teacher educators across the country have been forced to move instruction online suddenly, confirming the need for progressive approaches to maintain the integrity of teacher preparation and to acknowledge the need for future educators' digital teaching competence. Rising stakeholder interest in hybrid and fully online teacher preparation programs (Carney, 2019) was validated by a sudden dependence on virtual learning in schools and in higher education. Widespread school and college closures made it abundantly clear that virtu-

al teaching was, at least temporarily, representative of the role of a teacher, and that pre-service teachers' preparation should include the ability to respond to such conditions.

In recent decades, teacher education scholars have called for highly effective, resourced, and scalable models of teacher preparation that require students to connect theory and practice through a combination of coursework and extensive field experiences (Boyd et al., 2008; Darling-Hammond, 2010; Zeichner, 1993) the latter of which have been emphasized as an essential aspect of learning to teach (Ball & Cohen, 1999; Hammerness, Darling-Hammond, & Bransford, 2005). The strategy described below involved relocating such essential elements of the teacher preparation program within virtual environments. As a result, this strategy allowed pre-service teachers to apply theoretical knowledge to their practice, continue to develop fluency of content curriculum, and begin to develop digital competencies via the design and teaching of both synchronous and asynchronous virtual lessons.

Virtual coaching from a teacher educator was developed as part of the strategy, given that candidates who engage in practice, reflection and feedback cycles are considered highly prepared (Darling-Hammond & Bransford, 2005). Coaching has been identified as an essential element of "individualization of candidate practice and feedback" (Miller, 2017, p. 165) and provides candidates with opportunities to refine and retry practice in order to improve (Darling Hammond, 2010; Stapleton, Tschida, & Cuthrell 2017). Virtual coaching has been empirically validated (Stapleton et al. 2017; Wake et al., 2017; Weiss et al., 2020) and employs the same strategies of observation, practice and reflection/feedback, but in the online environment.

## Process

A model of *virtual* practice, reflection, and feedback cycles (Darling-Hammond, 2010) was developed to allow pre-service teacher candidates to continue to acquire content fluency, lesson planning, and digital skills. Pre-service teacher candidates were graduate students, enrolled in a master's degree program and studying inclusive education leading to state licensure pre-kindergarten through middle school. Candidates had completed early field experience hours in school settings, and one was enrolled in a full time practicum.

Each week, candidates were required to attend one group synchronous class session focused on planning, peer feedback, and accessibility, and one 30-45 minute 1:1 feedback and coaching session which involved goal set-

ting. Each candidate developed an average of three accessible, universally-designed lessons per week aligned to content curriculum with an identified age/grade range. Lessons were approximately 30 minutes long, recorded within the college's learning management system (Blackboard), and tracked on a Google spreadsheet, which was shared with local district administrators/made public as a master schedule of virtual activities. The schedule<sup>1</sup> contained a link to join virtual sessions as well as instructions for participating (disclaimer about recording, instructions to use first name or initials). Free, cloud-based Google sheets and Google forms were used to develop the digital schedule, as well as self-reflection and feedback forms<sup>2</sup>.

Candidates' self-reflection form and feedback form (which mirrored each other) employed elements of the graduate course and program expectations, as well as state requirements for early field experiences. The feedback form (see Appendix) was completed by the teacher educator during synchronous/asynchronous observations, and made available to candidates prior to the weekly coaching session (conducted via Zoom). The self-reflection form was completed by the candidate immediately following conclusion of the lesson.

## Early Results

This strategy offered candidates the opportunity for continued practice teaching, but the most powerful element of the model appeared to be coaching, which provided opportunities to refine, analyze, improve, and further develop pedagogical skill. The recordings of lessons allowed for shared analysis and in-vivo feedback focused on particular skills, strategies, or delivery of the candidate's teaching during coaching sessions. This created opportunities for well-developed, highly specific weekly goals that guided candidate's planning and practice the following week. Candidates also occasionally repeated particular lessons following coaching sessions in order to refine specific pedagogical skills.

Six weeks of virtual practice resulted in increased confidence on the part of teacher candidates, the development of new digital skills, and the perception of improvement in practice by both the teacher educator and the candidates. Feedback (unsolicited) from the community, including photo-

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<sup>1</sup> Sample schedule can be found at <https://docs.google.com/spreadsheets/d/10zoY8Acrq3d-JtQpfEh3fjeWevUn1KLEl7UTlZ2DNaU/edit?usp=sharing>. Schedule was populated one week at a time; past sessions were moved to an 'Archive' tab.

<sup>2</sup> Sample form can be found at <https://forms.gle/9xGvedYbreJRoweQ7>

graphs of students engaged in lessons, suggested that the strategy may have also helped local communities and districts as they ramped up to virtual teaching. Student participation developed steadily but was mostly limited to small groups with a few exceptions.

Lastly, the strategy demonstrated its effectiveness as a workaround to the current circumstances, but also offers promise as a practice that could be integrated into future courses. This combination of theory and virtual practice, if replicated and well-developed, may be a scalable model of teacher preparation (Darling-Hammond, 2010; Zeichner, 1993).

## Implications

Learning “to practice in practice, with expert guidance, is essential to becoming a great teacher” (Darling-Hammond, 2010, p. 61); the essence of this strategy is to keep pre-service teachers *engaged* in teaching vs. *thinking* about teaching. This distinction will be critical as educators and teacher educators continue to navigate ongoing uncertainty about extended school closures now and in the future.

The strategy supported the development of candidates’ digital literacy by preparing them to leverage technologies that promoted engaging, accessible, universally designed lessons and also prepared them for responsibilities in schools that required skills which many traditionally prepared teachers may not have. Teacher candidates should be supported to practice virtually during their teacher preparation programs with systems that mirror traditional strategies, such as coaching and cycles of feedback, for developing well-prepared teachers. These approaches were quickly and successfully moved to the digital environment with few resources. This means that a well-planned and developed approach may yield significant improvement in candidates. Candidates who develop digital literacy and have supported experiences teaching virtually will be better prepared for future school closures, which given the current situation, seems more of a certainty than possibility. Teacher educators can pilot virtual practice in specific courses to gauge effectiveness using free and readily available resources.

This international health crisis has put many of education’s shortcomings on full display, not the least of which is the urgent need to embrace digital technology as part of teacher preparation and digital teaching competencies as part of teacher preparation program outcomes. To do so, teacher preparation programs must embrace innovation and develop strategies which simultaneously protect the integrity of preparation while acknowledging the need for change.

## Future Research

Ideally, this model of virtual practice, reflection, and feedback would be implemented with partner districts looking to enhance or expand their remote learning opportunities for their PK-12 students. The coaching/feedback should be tailored to reflect local contexts, and designed to support a reciprocal relationship between the teacher preparation program's internal accountability and program outcomes and any external requirements required to prepare candidates to meet regulatory expectations (Cochran-Smith et al., 2018).

Teachers must be continually adapting, changing, and shifting to meet the changing needs of their students (Keefe & Steiner, 2018); teacher preparation must do the same by preparing candidates with the digital competencies they need and examining how elements of regulatory teacher preparation can be met in a virtual environment. Proactive thinking and planning to develop virtual experiences in teacher preparation in advance of continued closures/future interruptions could lead to proactive strategies and guidance for teacher educators, improved experiences for pre-service teachers, and better outcomes for students.

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## Appendix

### Virtual Lesson Coaching Form

This Google form was used to provide feedback each time a pre-service teacher is observed (synchronously or asynchronously). The candidates had immediate access to the feedback as they were made a 'collaborator' on the document. The rubric was co-constructed with the curriculum class, and leveraged both internal accountability (program tenets such as democratic education) and external accountability (state Department of Education performance assessment rubric).

1. Candidate Name

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2. Date, Time & Topic of Lesson

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3. How well did the lesson run?

*Mark only one oval.*

- Well  
 Adequate/Good  
 Fair  
 Poor

4. Was the learning objective clear?

*Mark only one oval.*

- Yes  
 No  
 Other: \_\_\_\_\_

5. What went well?

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6. What could be improved?

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7. To what extent did [pre-service teacher] interact with students?

*Mark only one oval.*

- Well
- Adequate/Good
- Fair
- Poor

8. Were students engaged?

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9. Were opportunities for feedback from students provided?

*Mark only one oval.*

Yes

No

Other: \_\_\_\_\_

10. What kind of feedback did students provide?

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11. How well did the teacher make adjustments to practice?

*Mark only one oval.*

Well

Adequate/Good

Fair

Poor

Other: \_\_\_\_\_

12. How did the teacher meet the diverse needs of students?

*Mark only one oval.*

- Very well
- Adequate/Good
- Fair
- Poor
- Other: \_\_\_\_\_

13. How well was the lesson structured?

*Mark only one oval.*

- Well
- Adequate/Good
- Fair
- Poor
- Other: \_\_\_\_\_

14. What evidence indicated that the teacher had high expectations?

\_\_\_\_\_

15. What attempts did the teacher make to create a safe learning environment?

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\_\_\_\_\_  
\_\_\_\_\_