

# Washington State University

## College of Education

### Jendra Elbek

Will defend the dissertation on

Date: December 12, 2023

Time: 1:00 P.M.

Pullman Campus – Cleveland 353

Zoom available upon request to [gradstudies@wsu.edu](mailto:gradstudies@wsu.edu)

*Faculty, students and the general public are encouraged to attend*

## DESIGNING ENGAGING TECHNOLOGY-ENHANCED LEARNING EXPERIENCES FOR ONLINE TEACHER EDUCATION

Chair: Jane Kelley

This dissertation represents a comprehensive two-year design-based research endeavor involving 5 iterations of redesigns with a total of 189 pre-service teachers enrolled in an undergraduate education program. As a participant researcher, I designed, implemented, and assessed a digital educational escape room (EER) to teach phonemic awareness (PA) through online learning during the COVID-19 pandemic. I applied Egbert's Task Engagement (TE) Model to create and review the engaging features of the EER. Data collection and analysis included participant self-assessment ratings from pre- and post-surveys and an analysis of the scores utilizing paired T-tests. I also observed participants during the sessions, asked interview questions, and gave the final iteration's group a content pre- and post-quiz. Results of the study showed significant increases in mean differences between the pre- and post-surveys, indicating increased confidence in participants' knowledge, ability to teach, and likelihood of teaching the content. Observations and oral and written feedback informed changes across the iterations and indicated student engagement aligned with the TE model. The final group's post-quiz saw an increase in content knowledge gain scores. The results culminated in the creation of digital EER design guidelines for use by future researchers and practitioners. The remaining data will be used for subsequent papers with a focus on phonemic awareness and descriptive EER research.