

## Abstract

Use of Open Educational Resources (OER) in teacher education and K-12 education is limited, in part due to a small pool of learning materials available. The purpose of this mixed methods study was to understand graduate level teacher candidates' (n=9) perceptions of sharing their work openly and the effects of a renewable assignment on their beliefs and practices. Data collected included a survey, course artifacts, interviews, and instructor reflective notes. Findings indicate the participants understanding about OER improved and they valued OER as part of their practice in both using and sharing OER. While all participants (n=9) were invited to share their artifacts on OER Commons, only one participant (n=9) chose to do so. Participants indicated that they lacked teacher self-efficacy about their work for varied reasons. However, after receiving positive student outcomes and feedback from peers, participants were more open to sharing their work publicly.

## LITERATURE REVIEW

### Open Pedagogy

As the use of Open Educational Resources (OER) increases in higher education, some instructors are involving students in creating, adapting, and remixing OER. This practice, known as open pedagogy, empowers students to become creators of knowledge and contribute to a global community (Jhangiani, 2017). In teacher education and K-12 education, OER is often underutilized because educators are not familiar with these freely available resources and also because fewer resources exist in these areas than other disciplines; yet, OER has been shown to increase students' equitable access to learning materials and improve learning experiences through the potential for personalization, individualization, and contextualization of content (de los Arcos et al., 2016). Research indicates that the awareness of OER could be increased in education at all levels, as well as an increase the development of materials available.

### Teacher Self-Efficacy

According to Bandura (1997), individuals' perceptions of their capabilities affect the choices and effort expended. Teachers' perceptions about their capabilities and effectiveness in lesson planning and implementation to positively impact student learning is known as teacher self-efficacy (TSE; Zee & Koomen, 2016). Improved student achievement and positive interactions with colleagues about teachers' performance is strongly correlated with positive TSE, particularly for novice teachers.

## DESIGN

### Purpose

This study explored the experiences of nine graduate-level teacher education candidates enrolled in a *Language, Literacy, and Educational Technology* course as they engaged in a renewable assignment. The purpose was to understand the teacher candidates' perceptions of sharing their work openly and effects of the renewable assignment on their teaching beliefs and practices.

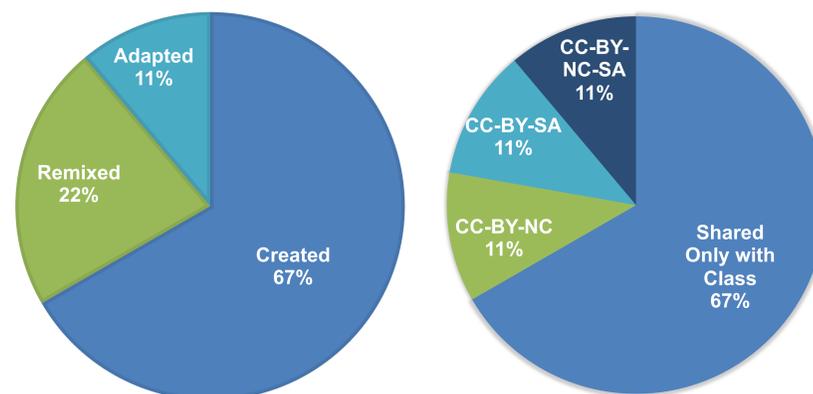
### Context

This study took place at a large, urban university where the researchers are employed. The participants were enrolled in a course to understand digital literacies and learn best practices for incorporating technology into their literacy instruction. The teacher candidates were largely practicing teachers seeking continuing education, with all considered novice teachers. Based on an open pedagogy approach, a renewable assignment was integrated into the course. A renewable assignment is one in which the artifact produced has value to others beyond the course, leverages the permissions of OER, and is made available publicly (Wiley & Hilton, 2018). In the renewable assignment, the candidates produced an open resource for teaching and learning by creating, adapting, or remixing existing OER and were invited to submit their finished artifact to OER Commons (<http://oercommons.org>; see Van Allen & Katz (2019) for details about the renewable assignment).

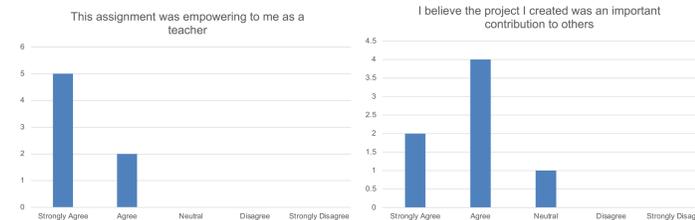
### Methods

Utilizing a convergent mixed methods research design (Creswell & Creswell, 2018), the researchers collected quantitative and qualitative data through a survey, follow-up interviews, collection of artifacts, and instructor reflective notes. Quantitative data was analyzed through univariate descriptive methods to describe the artifacts created by the teacher candidates and understand initial perspectives regarding their work. Qualitative data was analyzed through inductive thematic analysis to understand the teacher candidates' perceptions of the assignment and effects of the assignment on their beliefs and practices.

## TYPES OF RESOURCES CREATED (n=9)



## TEACHER PERCEPTIONS (n=7)



## FINDINGS

Results showed that of the nine participants, six (67%) created a new resource, two (22%) remixed existing resources, and one (11%) adapted an existing resource. Three participants (33%) shared their work with an open license in a public class folder, with only one (11%) of those participants also publicly sharing their openly licensed artifact on OER Commons.

### Understanding of OER

As a result of the course, the participants' overall understanding of OER improved, though levels of understanding varied. However, all participants displayed basic understandings that OER are freely available materials with Creative Commons (CC) licensing that allows different permissions to use the work.

*"Resources where everyone can go to retrieve (them) and use in their own way...that help and support...curriculum, content, whatever it is you're trying to achieve."*

The participants indicated this was their first exposure to OER, with some struggling to understand the differences among different CC licenses.

*"The licenses definitely stood out because I had never heard of those before"*

### Value of OER

Participants demonstrated positive beliefs about the value of OER to their practice because the resources provide extra support and new or additional teaching ideas to adapt to their students' needs.

*OER "provides a big pool of information from different people, different areas that can come together and build off each other so everyone's getting support."*

In addition, participants saw value in sharing their work openly with others, becoming part of a community of educators.

*"Other teachers can take my project and easily adapt it to their students."  
"I'm contributing to this larger community, and supporting other teachers.."*

### Self-Efficacy and Sharing

Surprisingly, although participants saw value in sharing openly with others, they largely elected not to share their work with an open license beyond the class. In interviews, participants reflected, explaining they were uncomfortable sharing because they lacked confidence. However, after positive student outcomes and feedback from colleagues, administrators, and parents, they were more open to sharing.

*"Just going head on not knowing what the result would be kind of made me nervous...But now that it's done, I feel like maybe it was pretty good. I could've shared it openly."*

## DISCUSSION

Although this study was limited to one class in which nine teacher candidates participated in the study and only seven completing the survey, the insights provide in-depth exploration of teacher candidates openly sharing teaching resources. Despite being practicing classroom teachers, this was the first time any of them had heard of OER or CC licenses. While participants expressed enthusiasm for finding and using OER, their own self-efficacy in their work, technology skills, and self-perceptions as a novice prevented them from sharing their work with an open license as well as beyond the class. In the in-depth interviews, participants expressed regret that they had not shared their resource openly on OER Commons after receiving positive feedback on their work. As one participant stated, "It would be interesting if I put it up there and then saw someone else use it in a different way... that would be pretty cool." As open pedagogy becomes more popular in teacher education, finding ways to increase teacher candidates' self-efficacy may help promote open sharing of resources.

### Recommendations

- Provide multiple opportunities to learn about OER and CC licensing in teacher education programs.
- Allow opportunities for teacher candidates to adapt, remix, and create OER in teacher preparation coursework.
- Allocate time for teacher candidates to share work with peers and implement projects with students prior to inviting the teacher candidates to share work openly.

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