A PHENOMENOLOGICAL STUDY ON THE LIVED EXPERIENCES OF CREATOR-

PRACTITIONERS OF OPEN EDUCATIONAL RESOURCES AND PRACTICES IN THE

UNITED STATES

by

Alex Henry Wanstrath

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Philosophy

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APPROVED BY:

Susan Stanley, Ed.D., Committee Chair

Matthew Ozolnieks, Ed.D., Committee Member

Abstract

The purpose of this hermeneutic phenomenological study was to describe the lived experience of creator-practitioners of open educational resources (OER) and open educational practices (OEP) in United States (U.S.) higher education institutions. The theory guiding this study is Vygotsky and Bruner's constructivist theories, as they describe both the cognitive and social aspects of content creation. Eleven current instructors from colleges and universities across the U.S. participated in this study. These participants had used OER for at least one academic term, were current instructors at their institution, created their own OER, and engaged in OEP in at least one of their courses. This study followed a hermeneutical phenomenological research design, collecting qualitative data through journal entries, artifact analysis, and semi-structured interviews. The journal entries and semi-structured interviews were analyzed through van Manen's (2014) data analysis framework and the artifacts were analyzed through Cox and Trotter's (2017) OER Adoption Pyramid. The three themes that were revealed were the participants' desires for (a) improvement of the student experience, (b) improvement of the creator-practitioner's craft, and (c) community and contributions. The findings of this study include the alignment and emphasis of the learner-centered approach that creator-practitioners implement, the paradigm shift of power and control pertaining to the roles of instructors and learners, and the importance of cooperation between creator-practitioners and other stakeholders.

Keywords: open education, open educational resources, open educational practices, higher education, pedagogy, learner-centered

Dedication

I dedicate this dissertation to my family and to the Open Education community. Without these critical elements, I would not have been inspired to create or have been able to complete this work. To my amazing wife, Lindsey, you have been the support and teammate I needed to complete this dream. During each difficult and critical part of this journey you kept me focused on the purpose of why I started this journey: to support, inspire, and spread the love and hope of education. I will never be able to fully thank you for this support. No one does this journey alone, and I could not have picked a better teammate to help in this journey than you. To my children, Mackenzie and Camden, this dissertation and work is inspired to make our world better for you and your future. I want to work to support Mac and Cam's world to be open, connected, engaging, and growth driven. I hope when they are old enough to view this work, that they can understand that they have inspired me to make a difference in our world. I love you both.

To the Open Education community, you have both welcomed and inspired me to do better and more ambitious work. Thank you to those who were willing to lend their time and expertise in official and unofficial capacities throughout my doctoral journey. In kind, I dedicate this work to the community to continue the research and work in Open Education. I hope the community takes this opportunity to engage, discuss, critique, and improve this work as one of the bricks that builds a stronger Open Education community of the future. I am excited to see where others can support this work and where I can return the favor and support others.

Acknowledgments

I would like to acknowledge my Liberty University instructors who inspired me to continue to challenge and refine my understanding and application of instructional design, technology, and learning theory. I would like to acknowledge Dr. Mark Beadle who began this dissertation journey with me. His guidance, challenge, and encouragement elevated my dissertation goals from mundane to purposeful. I would like to acknowledge Dr. Susan Stanley and Dr. Matthew Ozolnieks who were instrumental in guiding and mentoring me to the finish of this dissertation. I appreciate all three of you and your hard work in helping me create a work of which I am extremely proud.

I would like to acknowledge the people of the Open Education communities, who generously opened their work, their expertise, and their networks to me. I have had the opportunity to connect with over 100 individuals in various capacities from across the globe, each graciously giving me their time. I was welcomed into groups, message boards, calls, and discussions that were inspiring, informative, and exciting. Your kindness has inspired me to share my own work, build relationships, and seek new opportunities to be involved in the Open Education community.

I would also like to acknowledge my professional teaching colleagues who pushed me to be my best as an educator. Thank you to my teammates in the Social Studies department at Loveland High School, who challenged me, collaborated with me, and lent their expertise to help me grow and create better experiences for our students. To those many educators who served on committees and teams with me throughout my decade as a public school educator, thank you for pushing me to keep growing professional and personally. Your professional encouragement continues to inspire me to engage in challenging and valuable work.

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Open Educational Resources (OER)

Open Educational Practices (OEP)

CHAPTER ONE: INTRODUCTION

Overview

The purpose of this hermeneutic phenomenological study was to describe the lived experience of creator-practitioners of open educational resources (OER) and open educational practices (OEP) in United States (U.S.) higher education institutions. The lived experience description of the use of OER and OEP used by creator-practitioners in U.S. higher education institutions was identified as a current gap in the broader OER and OEP research. Despite the growth of awareness of OER in U.S. higher education over time (Seaman & Seaman, 2022), few educators are adopting and using the principles and pedagogy championed by OER and OEP. Despite identified cultural and institutional challenges and barriers (Lantrip & Ray, 2020; Werth & Williams, 2021), these creator-practitioners have persisted and decidedly taken actionable steps to evolve from awareness to use. This introductory chapter serves as the contextual setup for this study, including background and critical information to provide a broader scope of understanding of the still evolving landscape of OER and OEP in U.S. higher education. The purposeful historical, social, and theoretical contextual background for OER and OEP in U.S. higher education serve as the major categories to examine the background for this study.

After the background of this study is examined, both the problem and purpose statements of this study are reviewed. This first chapter further investigates the issue, purpose, and associated research questions of this study, providing a scope and focus to produce further research into OER and OEP. The justifications for the significance of the study and the research question are detailed following these sections. Next, this chapter concludes with a list of critical definitions provided to further the understanding of pertinent items of this study to the audience.

The chapter ends with a summary to provide a pointed review of the information provided in this first chapter.

Background

Creator-practitioners are at least three decades in the making, emerging in the open education landscape at the crossroads of digital accessibility and pedagogical approach of the learner-centered environment. This background section brought the historical, social, and theoretical contexts to creator-practitioners, involving relevant information pulled from OER and OEP. First, the historical background examined an overview of the evolution of pedagogical approaches enhanced by technology overlapped onto the use of OER. This section detailed how creator-practitioners have evolved from a multitude of pedagogical backgrounds that were enhanced and empowered by contributory communities. Next, the social background examined the issues of availability, use, and cost in the OER realm and the contrasting pedagogical approaches of the learner-centered environment. Lastly, the theoretical background examined the foundational concepts that have both defined OER and OEP, as well as creating a wide distribution of pathways due to a lack of governance. This background was intended to provide an overview of the pertinent landscape of OER and OEP relevant to creator-practitioners, as research into this particular focus is still emerging.

Historical Context

The history of OER and OEP can be viewed as rooted in the growing access and desire for education in the second half of the 20th century. Educational access and opportunity across the globe emerged between 1950 and 1970, driving a desire to expand access to education and grow educational technology (Meyer et al., 1977). This period of growth in the U.S. would be greatly aided by educational technology, leading to the use of computer-assisted instruction in

schools made possible by advances such as fiber optics (Gagne, 1985). New technology and innovations in training and educational design in the 1970s and early 1980s furthered constructivist ideas, experimenting with new ideas of instruction and breaking from the traditional molds of the teacher-centered environment (Reiser, 2001b). However, educational technology's effectiveness on student outcomes slowed and became stagnant in the 1980s and 1990s due to simple substitution of classroom technology as opposed to expansion of opportunity or expression. Emergent technologies as tools were increasingly available but continued to yield no significant difference in learning outcomes (Reeves & Oh, 2017). Technology was increasingly present in the physical spaces of schools and universities, but the lack of instructional creativity plagued its yet untapped potential to improve student learning (Reiser, 2001a). However, this general lack of innovation was not absolute, and the open movement began to emerge as an instructional- and tool-driven solution to the general apathetic state of technology use in education, but especially higher education, throughout the U.S.

The technology infrastructure present in schools and universities in the 1990s would lay the groundwork for the foundational delivery system of OER and OEP that would exponentially grow in the 21st century. The first major opportunity for the growth and use of OER came with the widespread use of the internet, allowing for a user-friendly infrastructure that is less costly than physical materials, as well as easily disseminated and reproduced (OECD, 2007). Former Massachusetts Institute of Technology (MIT) president, Charles Vest, commented that MIT's answer to using the internet for education was to "use it to provide free access to the primary materials for virtually all our courses" (Vest, 2011, p. 213). MIT's application of the internet came in the form of their OpenCourseWare (OCW), which released open instructional materials and disrupted the classical norm of protected materials in higher education (Johnstone & Pouline,

2002). MIT's OCW was a legitimizing movement to allow other higher education institutions and organizations to pursue open education (Hilton, 2016). Several universities and organizations that included "open" materials would emerge, or dramatically increase their growth due to the legitimacy of the open format and movement that MIT established with its name and brand (Hilton, 2016). The expanded potential of the internet would see higher education launch or improve OCW from various universities, openly licensed textbooks, massively open online courses (MOOCs), and OER hosted in various formats (Bliss et al., 2013; Hilton, 2016; Kimmons, 2015; Wiley et al., 2014). Putting the open movement expansion into perspective by numbers, MIT's (2020) OCW Report noted that there are 2,550+ OCW courses and supplemental resources, 210 million individuals who have accessed OCW materials, and 1.3 billion page views since the OCW launch in 2002.

The internet provided the infrastructure needed for OER, but the definition, international recognition, and work of researchers, universities, and organizations propelled OER to grow. Trying to define the movement of freely accessible and distributed course content and resources that accelerated from the launch of MIT's OCW, the term *open educational resources* was first used in 2002 from UNESCO's Forum on the Impact of Open Courseware for Higher Education in Developing Countries (Hilton, 2016; Wiley et al., 2014). UNESCO defined these open educational resources as follows: "The open provision of educational resources, enabled by information and communication technologies, for consultation, use and adaptation by a community of users for non-commercial purposes" (UNESCO, 2002, p. 24). The continued global interest in developing and growing OER led to the Cape Town Open Education Declaration in 2007, which committed to expanding awareness and progress for educators and learners, OER, and open education policy (CTOED, 2008). The open movement continued to be

advocated in international circles, such as the 2009 Dakar Declaration on Open Educational Resources and the 2012 Paris Open Educational Resources Declaration, leading to the recent 2019 UNESCO Recommendations on OER (UNESCO, 2019b). These 2019 recommendations addressed five objectives of the expansion of access, awareness, and growth of educational technology seen in the 1950s to 1970s.

The growing international recognition of OER led to further awareness and use of OER in institutions of higher education in the U.S. Whereas some pathways to OER use can be seen in courseware, resources, commentary, and community exchange, the history of OER in higher education over the past 15 years has placed a major focus on open textbook initiatives (Grimaldi et al., 2019; Tlili et al., 2020). The consideration of cost-saving for students, especially due to cost barriers for course success, was a major driver in the open education movement in higher education (Bliss et al., 2013; Fischer et al., 2015; Wiley et al., 2014). In open textbook efficacy studies between 2002 and 2018, no significant learning deficits were reported in studies between open textbooks at zero cost and commercial textbooks at market prices (Hilton, 2016, 2020). The perceptions of higher education faculty of the use of OER continue to be reported as good or better than that of commercial textbooks (Jung et al., 2017; Seaman & Seaman, 2021). Despite reported perceptions as good or better than commercial textbooks for higher education faculty, there continue to be many faculty members in higher education in the U.S. who remain unfamiliar with OER (Spilovoy et al., 2020). Although studies have shown that zero cost textbooks can provide financial relief to college students (Fischer et al., 2017, 2020; Valentino & Hopkins, 2020), there is much research that continues to be needed to better understand the pedagogical impact of OER and OEP and the discrepancy between perception and implementation (Hilton et al., 2020; Kimmons, 2021; Spilovoy et al., 2020). The growth of OER

in U.S. higher education has been dependent upon its cost consideration, and although many open textbook repositories such as MERLOT, OpenStax, and OER Commons, as well as individual institution's own repositories, such as the University of Minnesota's Open Textbook Library, exist, there continues to be a need for instruction on how to use these OERs in a transformative pedagogical way.

Despite more research and implementation initiatives being needed to bridge the gap between perception and use of OEP, the result of growing international interest, efforts, and some initiatives have spurred real, practical change in U.S. higher education institutions. In the U.S., OER use has been growing in higher education, with the percentage of instructors using an OER as a required material in at least one course they teach growing between the 2015-2016 and 2019-20 academic years (Seaman & Seaman, 2021). In 2021, 24 states and the U.S. federal government had policies aimed at leveraging OER as a "solution to higher education challenge" (SPARC, 2021, p. 2). According to SPARC (2021), the U.S. Department of Education had approximately $7 million available in OER-related grants in 2021, providing real opportunities for organizations and states to create and execute OER initiatives. However, sustainability remains an ever-present issue with OER (Tlili et al., 2020). How to continue to sustain those individuals, groups, and initiatives that curate, create, and adopt OER remains a looming issue for institutions of higher education in the U.S.

Social Context

The social context of OER and OEP may be generalized into two areas: collaboration and cost. The field of education has a history of change and evolution, and Littlejohn and Hood (2017) have commented that educators are both simultaneously teachers and learners. Brons (2017) described the relationship between mentor and mentee learner as a transfer of knowledge

that was freely given and for the benefit of the community. However, all rights reserved copyright has created barriers that Wiley and Hilton (2018) criticized, "If students learn by doing, and copyright makes it illegal to engage in certain kinds of doing without a license, then copyright necessarily functions to limit the ways in which students can learn" (p. 135). Blomgren (2018) commented that K-12 teachers are inherent collaborators, sharing lessons and what they can, especially for new teachers, as an informal collaborative community. Blomgren (2018) further acknowledged, "[Higher ed and K-12] have begun to acknowledge that open educational resources have the potential to revitalize and guide all levels of education toward substantially participatory and inclusive possibilities" (p. 65). The desire for inclusiveness has been and will continue to be a foundational element of education, and OER and OEP can be critical elements of that foundation.

Life-long learning is a journey that has been described by Bruner (1960) as a continuous spiral, by Wiley and Hilton (2018) as participatory, and by Reigeluth et al. (2017) as a master-apprentice co-educational journey. OER and OEP continue education's tradition of collaboration of change, evolution, and development free of some of the cost barriers that exist with all rights reserved copyright in K-12 (Blomgren, 2018) and in higher education (Littlejohn & Hood, 2017). Although a large emphasis has been placed on the cost-effectiveness of OER materials (Fischer et al., 2015), the benefit of OER and OEP exist in allowing users to participate in Wiley's 5 R's - retain, reuse, revise, remix, and redistribute (Wiley & Hilton, 2018). This study aims to further investigate the social and cultural context aspects of the understanding (or lack thereof) of the awareness, adoption, and use of OER and OEP in the classroom and what solutions may come to light to help combat these challenges.

Theoretical Context

OER is built around the notion of a collaborative, contributory community, where those who engage in the community benefit from the expertise of one another. OER aims to crowdsource and assist others in their community by lending their expertise (Wiley, 2010). This notion of shared progress follows Vygotsky's (1978) zone of proximal development (ZPD) concept, where each learner benefits from the skills of the others in the group to advance further in their learning process than they would have individually. Wiley's notion of renewable resources (Wiley & Hilton, 2018) is akin to Bruner's (1960) constructivist notion of the spiral curriculum, where students revisit, edit, and collaborate with instructors to continue improvement of concepts to further advance their journey to mastery. Wiley and Hilton (2018) further advocated that open licensing and the ability to use Wiley's 5 R's further allowed instructors and learners to engage in the content and resources in a way that is not allowed by all rights reserved copyright.

The engagement of OER and OEP is further supported by Sweller's (1988) notion of cognitive load. OEP is predicated on the engagement of content through various means of content manipulation and experimentation. Sweller's (1988) concept of the building of schema through problem-solving and discovery to mastery is built around struggle and the individual learner processing challenges effectively in order to build structures in their long-term memory. This challenge will further help the learner process similar concepts more quickly while continuing to build on their schema to mastery (Sweller, 1988). OER and OEP engage learners in diverse, unique situations, where learners can collaborate and engage in material that is "live" and unique, furthering their exposure, use, and curiosity of learning.

It is important to note that more research will need to be conducted when OER and OEP are implemented on a larger scale, but the connection to constructivist best practices can be made

more readily available through continued research and studies on the topic of OER and OEP.

One aspect of this study is to provide guidance or solutions to challenges facing the awareness,

adoption, and use of OER and OEP in the educational setting and to have research-based best

practice connections to further the open education cause as a reputable solution.

Problem Statement

The problem is that there is no knowledge of the lived experiences of creator-

practitioners in creating and using OER and OEP in U.S. higher education (Atenas et al., 2019;

Bodily et al., 2017; Cox & Trotter, 2017; Elder et al., 2020; Koseoglu et al., 2020; Marin et al.,

2020; Martin & Kimmons, 2020; Tur et al., 2020; Werth & Williams, 2021). Seaman and

Seaman (2022) showed that higher education faculty favored OER adoption and OEP use over

the past decade; however, there is a reported discrepancy between faculty awareness of OER

versus actual usage in the classroom, which is not present in the larger research body and thus

begs further investigation. Researchers have identified some barriers and challenges as reasons

for this gap, but the research continues to lack the lived experience of the creator-practitioners

who persist to OER creation and OEP usage despite these identified challenges. Bodily et al.

(2017) and Coleman-Prisco (2017) have shown that the time necessary to create OER, in

addition to teaching and research responsibilities, was identified as an obstacle expressed by

higher education faculty as a barrier to OER production and use. This barrier to creation is

compounded by an identified lack of support from institutional administration, as well as

challenges to traditional tenure track promotions around publishing practices (Martin &

Kimmons, 2020; Nascimbeni & Burgos, 2019). While Seaman and Seaman (2021) identified

lack of time and support as the most frequent reasons noted by higher education faculty, , over

time, issues associated with the status of the copyright holder and who can distribute have also

created barriers for engaging in the creation of OER and use of OEP (Atenas et al., 2019; Cox & Trotter, 2017; Werth & Williams, 2021).

Purpose Statement

The purpose of this hermeneutic phenomenological study was to describe the lived experiences of creator-practitioners of OER and OEP in U.S. higher education institutions. Individual practitioner-creators are faculty and/or support staff that create and implement OER and OEP in their individual roles in higher education in the U.S. Generally, OER may be defined as resources and materials that are openly licensed to be curated and adapted by other users (UNESCO, 2019; Wiley & Hilton, 2018), and OEP may be generally defined as learner-centered teaching and learning that occurs through the principles of OER (Joint Research Centre of the European Commission, through Nascimbeni & Burgos, 2019; Wiley & Hilton, 2018).

Significance of the Study

This phenomenological study was significant to investigate the description of creator-practitioners to gain insight into the emerging population that uses adaptable best practices to empower 21st-century learners in higher education in the United States. As emerging technologies and continual importance are levied on soft and hard skills in the 21st century (Partnership for 21st Century Learning, 2019), it is important to bring tools and resources to the classroom in order to develop students with transferable skills and processes. The significance of this study may be approached from an empirical perspective, a theoretical perspective, and a practical perspective, all of which are detailed in the following paragraph.

This phenomenological study was necessary to help further build the foundation of understanding of the open education movement from an empirical perspective. Studies that have examined OER and OEP have focused mainly on questions that do not show significant

differences, and also lack a rigorous examination of both resources and pedagogy (Grimaldi et al., 2019; Kimmons, 2016). In their study, Grimaldi et al. (2019) described the state of OER research and called for further exploration of student learning, as large numbers of null effects do not provide benefits to student learning due to the lack of an actual intervention where textbooks were already available. This led to the conclusion that the question of whether OER impacts student learning is still unanswered. Hilton (2016) questioned the presupposition that textbooks are effective learning interventions when he commented, "Is this in fact the case? Does the amount of time or way students engage with the learning resource influence outcomes?" (pp. 587-588). Conclusions regarding the limitations of research designs in several studies that examined OER textbook efficacy (Fischer et al., 2015; Grimaldi et al., 2019; Hilton, 2016; Hodge et al., 2019) lead to Grimaldi et al.'s (2019) call for investigating OER's impact on student learning as an appropriate target of research. Because there is currently limited use of OER and OEP in K-16 classrooms in the U.S., it is difficult to ascertain the effect of OER and OEP on student learning, thus a gap exists in the current literature on this topic. This study aims to bridge, or at least partly bridge, that gap as a justification for the awareness, adoption, and use of OER and OEP in the educational classroom.

Research Questions

This phenomenological study included purposefully broad questions. These broad questions followed the social constructivist paradigm of allowing subjective, complex views of the phenomenon to be examined as least restrictive as possible to gather the full extent of the expressions of the participants (Creswell & Poth, 2018). As identified in the Significance of the Study section, a more pointed understanding of the phenomenon of open education, and (specifically, OER and OEP in combination), and how it can be implemented in the classroom

needs to be understood. The following questions probed both the understanding of the phenomenon as it is and how it could be implemented in the classroom.

Central Research Question

How do creator-practitioners in higher education in the United States perceive their use of OER and OEP?

Sub-Question One

What challenges/benefits do creator-practitioners encounter from OER creation?

Sub-Question Two

What challenges/benefits do creator-practitioners encounter from OEP usage?

Sub-Question Three

How do creator-practitioners make decisions on what OERs to create?

Sub-Question Four

How do creator-practitioners make decisions on how to incorporate OEP?

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Definitions

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1. *OER-Enabled Pedagogy* - "the set of teaching and learning practices that are only possible or practical in the context of the 5R permissions which are characteristic of OER" (Wiley & Hilton, 2018, p. 135).

2. *Open Education Practices* (OEP) - "teaching and learning practices that not only use OER but are also open to change, adaptations, and collaboration, making the range of different teaching and learning approaches more transparent, shareable, and visible" (Joint Research Centre of the European Commission, through Nascimbeni & Burgos, 2019, p. 8).

3. *Open Education Resources* (OER) (A) - "teaching, learning or research materials that are in the public domain or released with intellectual property licenses that facilitate the free use, adaptation and distribution of resources" (UNESCO, 2019, para. 1).

4. *Open Education Resources* (OER) (B) - "The *open* in open educational resources indicates that these materials are licensed with copyright licenses that provide permission for everyone to participate in the 5R activities - retain, reuse, revise, remix, and redistribute" (Wiley & Hilton, 2018, p. 134).

5. *Open Teaching* - "Open teaching is about encouraging learners to access available online content, fostering co-creation of knowledge by students in collaboration with peers within and outside the university, and encouraging students to contribute to public knowledge resources" (Nascimbeni & Burgos, 2019, p. 2).

Summary

The purpose of this hermeneutic phenomenological study was to describe the lived experiences of creator-practitioners of OER and OEP in U.S. higher education institutions. Research in open education has focused on cost savings of open textbooks, with some attention paid to the pedagogical impact of open practices and approaches. According to Seaman and Seaman (2022), a majority of faculty in higher education indicated a willingness to use OER. Barriers in the creation of OER and using OEP in higher education have been identified as decentralization, lack of understanding, barriers to tenure and promotion, and copyright issues. Despite these barriers, there are individual practitioner-creators who are creating, adopting, remixing, and using OER and OEP in their courses. The central research question for this study is: How do creator-practitioners in higher education in the United States perceive their use of OER and OEP?

CHAPTER TWO: LITERATURE REVIEW

Overview

The purpose of this hermeneutic phenomenological study was to describe the lived experiences of creator-practitioners of open educational resources (OER) and open educational practices (OEP) in United States (U.S.) higher education institutions. This chapter reflects the appropriate theoretical framework and literature related to both the purpose and content of this study. A thorough literature review was conducted to engage scholarship of past, current, and future practices, concepts, and initiatives of creator-practitioners, OER, and OEP. The first section of this literature review examines the social constructivist approach as the theoretical framework for this study. The next section of the chapter includes the literature review, which consists of the current literature related to open education, OER, OEP, and the key points of this study. Each of the sections of the literature review specifically targeted the beliefs, theories, and practices, or lack thereof, of creator-practitioners, OER, and OEP throughout its development. This chapter concludes with a summary, bringing together the major themes and concepts identified in the literature review, and ends with the justification of the identified literature gap and the foundation for this study.

Theoretical Framework

This section details the theoretical framework for this hermeneutic phenomenological study. The selection of social constructivism was chosen as the theoretical framework to best describe the individual, community, and pedagogical perceptions and considerations of this study as a comprehensive approach to teaching and learning. Social constructivism has a substantial history and evolution with multiple branches (Harlow et al., 2006, as cited in Schunk, 2020). This approach, in contrast to the conditioning theories and information processing model,

emphasizes the interaction of learners and the environment in the building and refining of knowledge and skills (O'Donnell, 2012, as cited in Schunk, 2020). Jerome Bruner's work in cognitive constructivism in the 1940s through the 1980s placed an emphasis on the cognitive processing aspect of the constructivist approach (Stapleton & Stefaniak, 2019). Some of Bruner's seminal constructivist concepts included the spiral curriculum (Bruner, 1960), discovery learning (Bruner, 1961), and instructional learning cycles (Bruner, 1966). Bruner's instructional theory was founded on the idea that learners can engage in any content at a level appropriate to the learner and continually revisit it, building upon their experiences and engagements, discovering new knowledge, and cycling this construction until mastery of content is achieved (Bruner, 1960; Stapleton & Stefaniak, 2019). The motivation of student-selected content and engagement are part of Bruner's (1960) spiral curriculum but have been advocated in numerous ways by previous educational thinkers such as John Dewey. The emphasis on the learner has evolved in the second half of the 20th century and into the 21st century, producing ideas such as the learner-centered environment, inquiry-based learning, personalized learning, and collaborative learning. The constructivist approach has bred the notion of a learner-centered environment as a model for the 21st-century classroom where greater emphasis is placed on the learner's critical thinking and problem-solving skills as opposed to the increasingly accessible wealth of information available online.

Vygotsky's zone of proximal development (ZPD) can be enacted in a digital group, network, or supportive educational technology tool instead of in the physical peer(s) setting (Kivunja, 2014b; Mattar, 2018). Kivunja (2014b) commented, "Learning is no longer a lonely, DIOYO experience, but an interactive activity within dynamic communities that comprise Peer Learning Networks" (p. 90), showcasing how the digital space has provided opportunities for

constructivism to reach and support individuals and groups through Vygotsky's (1978) ZPD. Reigeluth et al.'s (2017) assertion of the learner-centered environment is founded in the idea of collaborative instructor-learner relationships, which can be enhanced by Kivunja's (2014b) and Mattar's (2018) assertions of digital ZPD.

Related Literature

With the usage of open educational resources (OER) and open educational practices (OEP), students, institutions, and faculty in higher education in the United States continue to show a growing awareness of open education; however, still continue to lack larger implementation across all course levels (Seaman & Seaman, 2022). The progress of awareness was a good forerunner to further adoption, but the questions investigated about OER and OEP continued to focus on delivery, cost, and resource adoption. Two decades ago, questions about whether students, institutions, and faculty in higher education would embrace digital learning were being researched (Allen & Seaman, 2003). A decade ago, those questions transformed into whether students, institutions, and faculty in higher education would view open and online-only learning as quality learning experiences (Allen et al., 2012). Recently, researchers looking into OER and OEP use in higher education have identified patterns of growing awareness of OER, growing acceptance of digital materials, and an awareness and sensitivity to the cost of textbooks (Seaman & Seaman, 2022). The COVID-19 pandemic's conscription of education to go into the digital, remote space has accelerated the awareness, perceptions, and engagement of digital learning of those involved in higher education (Seaman & Seaman, 2022); however, *digital* does not necessarily mean *open*.

The *open* in OER and OEP continues to be a difficult movement to fully define in unison, giving rise to branches of research that inspect information or viewpoints that do not necessarily

build linear progress of research over the past two decades. In this literature review, the variety

of *open* OER and OEP was examined, taking particular interest in what the current literature

discussed relevant to the historical and current use of both the resources and pedagogy in higher

education. The lived experiences of creator-practitioners in higher education highlighted an

interesting intersection of the adoption of dynamic course resources in OER and the use of

dynamic, cooperative learning experiences in OEP in their courses.

Open in Education

There have been varying definitions and contextual uses of OER and OEP over time. The

variance that these terms express has created challenges for creator-practitioners in

implementation (Kaatrakoski et al., 2016) as well as difficulties in researching the quality of

OEP (Baran & Al Zoubi, 2020). The variance can partly be blamed on the different contextual

uses of the term *open* and its increasing multitudes of meanings (Pomerantz & Peek, 2016).

Despite the growing common usage of *open*, the specific phrases of OER and OEP continue to

grow in research breadth and awareness while continuing to face challenges in universal

definitions. OER has been present and growing for two decades, but without a commissioning

body or association to support standardization, OER lacks a codified series of universally agreed-

upon definitions (Ko & Rossen, 2017). The Cape Town Open Education Declaration (2008) was

the first major effort to specifically recognize the importance of and further the cause of OER

(whereas the 2002 UNESCO forum was to understand and begin developing OER). This

declaration initially spread some degree of awareness of OER and its work, but OER did not get

its first global definition until UNESCO declared its 2014 definition of OER to be "teaching,

learning or research materials that are in the public domain or released with intellectual property

licenses that facilitate the free use, adaptation and distribution of resources" (UNESCO, 2019a,

para. 1). The lack of unified indexing has led some researchers to create their own definitions (Wiley & Hilton, 2018), or some have built upon a specific definition of another researcher (Blomgren, 2018).

Comparatively, OEP has not garnered as much research focus as OER over the past two decades. Similar to struggles dealing with OER, researchers have also struggled to create a universal definition of OEP (Witt, 2020). Some researchers support Wiley and Hilton's (2018) OER-Enabled pedagogy concept and definition of OEP, while other researchers subscribe to the concept that OEP resists definitions and codification (DeRose & Jhangiani, 2017). Baran and AlZoubi (2020) have researched emerging OEP, concluding that open pedagogy in action reflects a scaffolding of reflection, development, content curation, peer feedback, and community engagement. In addition to efforts to create a strict definition of OEP, Jhangiani and Green (2018) commented that at the heart of OEP are the concepts of learner-empowerment through the use of some kind of open manipulation. These variances support a larger history and issue of what *open* means in education.

Education has seen several different iterations of *open*, varying in context and meanings from specific classroom space to digital resources to shared resources (Kimmons, 2016; Wiley & Hilton, 2018). This general use of the common phrase *open* has presented challenges in solidifying a central definition of how the term should be used when describing the *open movement* in education. The difficulty of general and scattered use of *open* has also presented issues in trying to define phrases that combine other common usage terms such as open educational practices (OEP) or open educational resources (OER; Brons, 2017; Cronin, 2017; Kimmons, 2016; Nascimbeni & Burgos, 2019; Wiley & Hilton, 2018). Instead of agreeing upon a centralized set of definitions, *open,* as it applies to phrases such as OEP, OER, open access,

open scholarship, and open data, among others, has either been defined by a team of researchers to frame their scope of work or have referenced another team's specific definition. The decentralized nature of OER and OEP has produced attempts to create a core definition of each term more recently; however, refinement of the definitions is an ongoing process as the research evolves.

Not all share the sentiment to establish a centralized version of *open*. For example, Kimmons (2016) expressed a troubling conundrum with the term, commenting that it does not just present a lack of commonality spread between professional communities, "but it is exacerbated by the fact that open is a common, colloquial term [rather than a specialized, technical term]" (p. 3). This notion of commonality is further complicated by the usage of the word itself, sometimes expressed as a verb and sometimes as an adjective depending upon the interpretation of the user. Weller (2014) asserted that the challenge to define *open* as a standardized term in education is not worthwhile and, instead should be accepted as a general term. Witt (2020) commented that the more researchers tried to define and set boundaries on open pedagogy, the more confusion and decentralization were created. Zawacki-Richter et al. (2020) explored the many topics of open education with invitations to the micro-, meso-, and macro-levels, showing the still evolving and multiple opportunities to explore this vast and growing topic.

While these frustrations have created challenges in the cohesive chain of research, other researchers have taken the approach of framing *open* in general bounds or guidelines that encompass a variety of definitions under umbrellas. Cronin (2017) detailed the four interpretations of openness in education: (a) open admission, (b) open as free, (c) OER, and (d) OEP. Of the four interpretations examined by Cronin, content creators are behind each

interpretation, but only the OER and OEP interpretations engage the audience in a community of purposeful engagement through open licensing and Wiley's 5Rs. The difference between these four interpretations lay within what Winn (2012) described as open as *gratis*, free to access, and open as *libre*, or legal reuse. Although open admission and open-as-free interpretations provide further access to those who would otherwise not be able to access the content, the beginnings of the modern open movement in education began with the legal movement of open licensing (Winn, 2015).

Despite the lack of cohesion in defining *open*, there have been reports of the growth of awareness and use of open educational resources (OER) and OEP among higher education faculty. Seaman and Seaman (2021) reported that the higher education faculty in the United States have shown an increase in awareness of open educational resources (OER) each year since the 2014-15 academic year. Further, the use of OER as supplemental (22%) and required (15%) materials has grown by a factor of three between the 2015-16 and the 2019-20 academic years (Seaman & Seaman, 2021). However, reports of barriers and challenges associated with implementing OER or OEP into courses in higher education have tempered some of the enthusiasm surrounding this general growth trend (Baas et al., 2019; Kaatrakoski et al., 2017; Nascimbeni & Burgos, 2019; Otto, 2019). Specifically, the difficulty of moving higher education faculty from awareness to implementation has been a serious challenge plaguing the OER and OEP movement (Luo et al., 2019). Luo et al. further commented that implementation of OER and OEP is composed of multiple actions, combining an advanced understanding and usage of curation, adoption, and use, time to access and remix OER, and sustained adoption practices through institutional support. OER has continued to grow in its curation, adoption, and

production since the early 2000s despite these challenges. This growth implies a continued need

and desire for OER despite the ongoing challenges and barriers to adoption.

Open Content Creation

The awareness and understanding of what constitutes *open* in education is an important

step before taking action to implement OER and OEP into the classroom. The growth of higher

education faculty awareness of OER has risen over the past decade, but the use of OER in the

classroom as a required material remains comparatively small (Seaman & Seaman, 2022).

Higher education faculty are making decisions on the use of resources based on pedagogical

needs under the constraints of time. The curation, creation, and implementation of OER takes

time that many educators do not want to spend (Baas et al., 2019). The time constraint continues

to be an issue for faculty, but advocacy of equity and access to course materials as well as key

partnerships (e.g., instructional designers, media specialists) in higher education continues to

grow stronger (Luo et al., 2019; Morgan, 2019; Ren, 2019). As more advocacy for the creation

and partnerships of OER grows, it is also important to note that OER efficacy studies have

shown no significant difference between OER textbooks and closed textbooks in over 95% of

OER studies (Hilton, 2020). This growth of OER, despite continued obstacles, is encouraging for

more creators, more learner engagement, and a growing digital community for more individuals

to engage in open education.

The creator-practitioner incorporates both open materials and instruction in their

classroom, bringing together the characteristics of openly licensed materials (e.g., Creative

Commons) and open teaching and learning pedagogy (e.g., Baran and AlZoubi's (2020) open

pedagogy in action). Baran and AlZoubi's open pedagogy in action model pushes the boundaries

of traditional pedagogy, describing the use of reflection, development, content curation, peer

feedback, and community engagement in teaching and learning practices. The concentration on learner growth is both a hallmark of OEP (Cronin, 2017; Cronin & MacLaren, 2018) and the learner-centered environment (Reigeluth et al., 2017).

OEP offers a special opportunity for learners to engage in an open community to further their learning, growth, and contributions. Ehlers (2011) advocated for a focus on the sustainability of OER, putting an emphasis on the continued engagement and growth of OER contrary to the reported focus on access to OER during the time of Ehler's publication. Supporting Ehler's assertion, access alone has not been shown to successfully lead to the adoption and use of OER in higher education (Koseoglu & Bozkurt, 2018). Advocacy of an open ecosystem, where learners, OER, OEP, institutional support, and other systems support the system, has been introduced by Mays (2017). Mays' advocacy of open and distance learning as a system has yet to be realized, despite its relevance during the COVID-19 pandemic, due to ongoing obstacles in higher education (Werth & Williams, 2021). Despite a full OEP ecosystem yet to be fully created, the support and advocacy of OEP expanding into digital communities outside of the classroom (e.g., social media, blog posts, open internet communities) is apparent in the growing OEP literature (Koseoglu & Bozkurt, 2018). The advocacy, support, and concepts of OEP as a contributory community are present but require more advocates to build the community collaboratively to see a future impact.

Content Creation through Open Licensing

In the context of open content, the confusion between open and accessible is one that has plagued the digital world since the internet's massive expansion. The open movement of the late 1990s developed into the larger, modern version it is today with the expanse of awareness and sharing (Bliss & Smith, 2017). This expansion was slowed by the decentralization of OER

content, which limited the ability to connect to other databases or caches, both to the creator community and to the users (Otto, 2019). The accessibility that individuals enjoy in closed systems, such as radio, television, and live speech, is not the same as the accessibility that can be easily captured, recorded, and otherwise retained and distributed in the digital environment. The ability for individuals to access information does not necessarily make the information open.

The term *open content* was conceived by David Wiley to describe how copyright licensing can allow for access, reuse, and further development of content and resources in the educational field in the late 1990s (Tuomi, 2013). In support of efforts to share and distribute open content creations, such as Massachusetts Institute of Technology's (MIT) OpenCourseWare (OCW) courses, Creative Commons was founded by Stanford professor Lawrence Lessig, along with Hal Abelson and Eric Eldred, to support Wiley's efforts for an effective open license (Bliss & Smith, 2017). Lessig, Abelson, and Eldred's organization, Creative Commons, has a suite of licensing that guarantees users the ability for free access and to engage in the content through practices such as remixing and reuse (Bliss & Smith, 2017; Wiley et al., 2014; Williams & Werth, 2021). Wiley's notion of how to interact with openly licensed materials has evolved from his 4Rs (Wiley et al., 2014) into the 5R's (Baas et al., 2019; Otto, 2019) when *retain* was added: (a) reuse, (b) revise, (c) remix, (d) redistribute, and (e) retain (Heck et al. 2020; Wiley & Hilton, 2018; Wiley et al., 2014; Witt, 2020). These 5Rs encapsulate the basics of open education as it pertains to authentic user interaction and a shared contribution to the community of learners (Allen & Katz, 2019; Blomgren, 2018; Brons, 2017; Ko & Rossen, 2017; Nascimbeni & Burgo, 2016, 2019; Wiley & Hilton, 2018). The 5Rs describe open content, and the expansion of open content lies within its ability to be accessed. Essentially, open content creates a vehicle for

creator-practitioners to contribute to larger, collaborative communities and involve their learner-centered pedagogy to expand.

The open licensing of OER makes certain engagement activities permissible that are traditionally non-permissible for all rights reserved copyright (Clinton-Lisell, 2021). Open licensing, developed further by organizations such as Creative Commons, has a full suite of open licensing options and education on licensing use (Williams & Werth, 2021). The Creative Commons licensing suite includes options to credit the author, share adaptations under the same licensing, permit non-commercial use only, and prohibit derivatives of the work, including a creator's dedication to releasing their work into the public domain (Creative Commons, 2019). These licensing options may be combined and placed on the content creator's work to notify users what their interaction permissions are. These permissions are the basis for the agreement between the creator and user to interact with the content. Open licensing allows for resources to engage at some level of Wiley's 5 Rs, which are the basis for OEP. Licensing allows creator-practitioners to license their creations, as well as educate students about how to openly license their own contributory creations.

Despite the ability to open content by creators and engage created content by the users, the understanding of and comfort of using open licenses, either as a creator or as a user, is not widespread (Elder et al., 2020; Williams & Werth, 2021). The knowledge of how to decide which license to use, the proper application of that license to create work, and the ability to share the content online have all been reported as challenges in engaging in open content (Belikov & Bodily, 2016). Furthermore, the social and cultural barriers present in higher education institutions on copyrighted materials and the pressures of tenure have kept OER and OEP from the acceptance and use that is seen more often at the community college level (Hood &

Littlejohn, 2017). While challenges and hesitation exist in institutions of higher education, there remain those who persist in creating content, sharing content online, and engaging in OEP in their courses (Lantrip & Ray, 2020; Werth & Williams, 2021).

The complexity of indexing and choosing OER as a resource in the higher education classroom is further complicated by the licensing rights of the OER. Due to the availability of digital material, there is uncertainty about what can be adopted and remixed within a classroom under traditional copyright. Copyright restricts the availability and educational uses for resources, or what Wiley and Hilton (2018) contrasted as closed resources compared to the open resources that utilize the 5Rs. Discerning closed and open resources as they pertain to copyright has proven difficult for educators. Seaman and Seaman (2022) reported that individual understanding of awareness of OER and awareness of Creative Commons licensing was increasing among higher education faculty, but that those who had an awareness of both comprised a much lower percentage. Williams and Worth (2021) commented that the lack of understanding of how OER is combined with licensing can account for misunderstandings or a lack of empowerment of OEP in courses that use OER or open licensing. Moreover, copyright is complicated and varies by country. Creative Commons is more standardized across the globe with its various levels of licensing, incorporates the 5Rs (Clinton-Lisell, 2021), and is the preferred licensing tool of OER, as advocated by the Hewlett Foundation (Bliss & Smith, 2017). In a literature review of OEP studies, Clinton-Lisell found that studies in which open pedagogy was explored shared similar characteristics, in that OEP involved student-created artifacts that had value beyond learning (e.g., "renewable"), and were open or shared publicly. Several studies commented that open licensing was a critical element of OEP; however, Clinton-Lisell noted stark differences for whether the focus was on the open license or student artifact creation.

Despite the lack of continuity of research definitions for the open community, the open community has an underlying commitment to the concept of knowledge as a common good, which may be shared in the digital space over the internet (Wiley et al., 2014). The principles of openly licensed sharing usually have been dispersed through Creative Commons licensing, where content creators can license their works based on different levels of use by others (Wiley et al., 2014). Sandanayake (2019) has examined the different levels of use through a research-based blended model in which OER was used in undergraduate distance learning courses with positive results. The ability to interact with authentic materials and data empowers learners to build competencies that diverge from sterile, terminal examples into authentic development of possible scenarios that they would encounter in real life (Atenas et al., 2015). Open content engages both the creator and the audience. OER is able to be shared under Wiley's 5Rs within proper licensing. This properly licensed OER can be leveraged by OEP-driven creator-practitioners in the learner-centered environment. However, the bridge between licensing, curation/creation, usage, and pedagogy is yet to exist in the literature.

Content Creation Tension: Open versus Closed

The frustration about the definition and use of *open* has not slowed the distribution and access to openly licensed content. The ability to widely access, distribute, and otherwise build upon created content through digital access has presented a unique opportunity to creators and users of educational content. Openly licensed content comes with legal definitions that provide the scope of use at the point of access. This growth may be credited, at least in part, to the internet, a robust vehicle to widely distribute openly licensed information (Cronin, 2017; Luo et al., 2019; Williams & Werth, 2021).

The development of open licensing has been a recent development in the larger tension between open and closed contexts. These historic tensions have centered around who owns the intellectual property created and who, and to what extent, should have access to the intellectual property (Williams & Werth, 2021). History has favored closed, where intellectual property is seen as a commodity and not as a resource (Brons, 2017). This tension has further been increased as OEP developments have not only shared more openly licensed production of learners and facilitators but have also encouraged Wiley's 5Rs (Wiley & Hilton, 2018). The creation of open content has been limited by the permissions allowed by copyright. Wiley and Hilton (2018) described this sentiment: "The open in open educational resources indicates that these materials are licensed with copyright licenses that provide permission for everyone to participate in the 5R activities - retain, reuse, revise, remix, and redistribute" (p. 134).

The tension between open and closed pedagogies has steadily evolved since the 1970s when pedagogical approaches between the degree and function of student creation and pursuit of interest have come into conflict with copyright (Wiley & Hilton, 2018). In this context, open pedagogy is comprised of OER material usage, the implementation of open principles (e.g., Wiley's 5Rs), and its products openly available to others (Cronin, 2017; OPAL, 2011; Weller, 2014). In contrast, closed pedagogy uses copyright-restricted materials (e.g., all rights reserved textbooks) to instruct learners (Wiley & Hilton, 2018). This tension between open and closed became more apparent as the growth of the internet allowed for faster and easier distribution of materials, where digital materials could be shared instantly (Cronin & MacLaren, 2018). The desire to create, index, and distribute open materials now had a robust vehicle in which to employ open principles. These desires began to manifest themselves in the late 1990s in open index caches, open digital licensing, and Open Access digital data (Bliss & Smith, 2017).

Content Creation Communities

Support for those engaged in OER and OEP comes from contributory communities. These communities can appear as online communities (e.g., Creative Commons) or organizations (e.g., SPARC, UNESCO). These communities work to produce support for various target audiences, whether at the institutional, regional, national, or international level. Creator-practitioners, however, have small communities that are yet realized through these larger, more general communities. As the United States and other nations work to understand the implications of OER and OEP in higher education, some funding is available to support open efforts in education, but these mostly fall under (a) reduction of the cost of textbooks to students, or (b) labor hours for faculty and staff to produce institutional OER (Belikov & Bodily, 2016).

Despite more research and implementation initiatives being needed to bridge the gap between perception and use of OEP, the result of growing international interest, efforts, and some initiatives have spurred real, practical change in U.S. higher education institutions. In the U.S., OER use has been growing in higher education, with the percentage of instructors using an OER as a required material in at least one course they teach increasing between the 2015-2016 and 2019-20 academic years (Seaman & Seaman, 2021). In 2021, 24 states and the U.S. federal government had policies aimed at leveraging OER as a "solution to higher education challenge" (SPARC, 2021, p. 2). According to SPARC, the U.S. Department of Education had approximately $7 million available in OER-related grants in 2021, providing real opportunities for organizations and states to create and execute OER initiatives. However, sustainability remains an ever-present issue with OER (Tlili et al., 2020). How to continue to sustain those individuals, groups, and initiatives that curate, create, and adopt OER remains a looming issue for institutions of higher education in the U.S.

The creation of OER is considered non-rivalrous, contributing to a public-good resource without diminishing the value of other OER (Tuomi, 2013). The concept of collaborative contribution emphasizes the notion of closed ownership and promotes the spirit of education, a relationship Wiley (2010) described as the asymmetry of expertise where a relationship is entered into for one to learn from another. Furthermore, Wiley explained, "Expertise (or whatever you want to call the source of the asymmetry) has the magical property of being non-rivalrous or non-competitive – meaning that a teacher can give of them without giving them away" (para. 19). The spirit of OER creation is non-profit, nor a race of concepts and ideas behind closed copyright, but rather the notion that expertise can be multiplied and contributions made to the learning community that benefits those who wish to enter into the educational relationship.

OER Content Creation and Delivery

The creation of OER is a complicated issue. Creation and creativity can be based on need, and OER must be created to serve a purpose in the open education movement. The growth of OER is partly based on the need to further engage in the digital community, create open resources for the public good, and to further engage OER creation as a suite of practices associated with OEP (Cronin, 2017; Wiley & Hilton, 2018). To aid in the growing adoption, adaptation, and creation of OER and OEP, Elder et al. (2020) commented that support staff at institutions of higher education (e.g., media specialists) should also work to understand these resources and practices in order to continue to provide support. The sentiment of a group of specialists supporting this practice is one that has been seen throughout the growth of innovative teaching and learning practices that have been made possible by technology.

During this time of experimentation, constructivism, and new pioneering ideas in the 1970s, the open in open education has continued to mean a variety of teaching and learning approaches. These approaches included concepts such as informal learning, personalized learning, cooperative learning, education through Web 2.0, and discovery learning (Wiley & Hilton, 2018). Part of this experimentation was due to the accelerated growth of instructional design, which continued to develop formative assessments from the 1960s and systems approaches in the 1970s to improve outcomes for the military, business, and education realms (Reiser, 2001b). However, the 1980s and the 1990s brought stagnation to educational innovation from an instructional design technology standpoint (Reiser, 2001b). Emergent technologies as tools were increasingly available but continued to yield no significant difference in learning outcomes (Reeves & Oh, 2017). The 1990s brought more technology to the physical spaces of schools and universities, but a lack of instructional creativity continued to lead to a lack of use and innovation (Reiser, 2001a). This general lack of innovation was not absolute, and the open movement began to emerge as an instructional- and tool-driven solution to the general apathetic state of technology use in education throughout the United States.

Content creation and delivery have focused on accessibility and cost. Recently, the use of OER via OEP has expanded the possibilities for practitioner-creators to have a more focused learner-centered experience. This experience is inherently digital, shared, and available at its optimal use. The phases of content creation and delivery may be summarized into three phases. The first phase includes resource cache availability, where content creation was curated, and delivery was user-driven in an unstructured environment. This first phase included the advent of massively open online courses (MOOCs), zero-cost open textbooks, and decentralized OER resources. The second phase targeted the life and feedback cycle speed of resource caches. This

phase continued to include MOOCs, open textbooks, and OER, but introduced open textbook companies such as Lumen and open textbook organizations such as OpenStax, both of which allow for quick edits, expansion, and management of resources. The third phase included resources that become interactive with the user and to the community at large. These are what Wiley & Hilton (2018) have described as renewable resources - interactive course materials that may be augmented by users, as well as community collaboration and sharing through the digital space.

Static Delivery of Open Content

Access to OER resources, both static and dynamic, does not necessarily mean effective learning is happening (Grimaldi et al., 2019). The novelty of early open education was the availability of free content through higher education institutions' courses, such as MIT's OCW, or the next MOOC developed by other institutions (Hodge et al., 2019; Ko & Rossen, 2017). Stracke et al. (2019) commented that MOOCs, in regard to content, are not OER due to the difficulty of reusing them within the framework of Wiley's 5R's. However, MOOCs as an innovative teaching and learning vehicle may be viewed as a pedagogical approach more akin to OEP when compared with closed, traditional practices (Stracke et al., 2019). Content creation for MOOCs allows for asynchronous delivery of information that is free to access; however, some have criticized MOOCs for extending the digital divide due to the inequality of opportunity involved in the infrastructure of access (McGreal, 2017). There are others who have criticized MOOCs for their lack of learner support, as well as lack of local language support and access to differentiation (Marin et al., 2020; McGreal, 2017). The quality of MOOCs became an important criticism that shed light on the lack of best practices in distance and eLearning (Stracke et al., 2019). Quality frameworks for MOOCs have recently been developed to improve the

pedagogical delivery and quality of MOOC courses, focusing on the impact of the MOOC and not simply the availability, especially as it pertains to creators versus learner perspectives (Stacke et al., 2019).

The success of initiatives such as MIT's OCW in the early 2000s gave legitimacy to open courses and a vast amount of open material, but questions remained about how to use this new material and to what extent. This large cache of open material began to branch into the massive open online courses (MOOCs), where large amounts of information were available, but largely required the user to make sense of and engage them with limited dynamic instructional support (Stracke et al., 2019). This notion led to OER as the availability of course materials cached by MOOCs (Stracke et al., 2019; Zhao et al., 2018), but OER is much more expansive than that, taking into consideration government documentation, subject matter expert data and resources, and creations of individuals (Otto, 2019). How individual educators choose to use OER has a profound effect on their teaching, as well as the environment in which the learner is growing (Littlejohn & Hood, 2017; Nascimbeni & Burgos, 2019; Stracke et al., 2019). Availability, and its subsequent use, has become both an awareness and indexing issue for many in education (Otto, 2019).

Each of these general descriptions of open content has required an evolution of open content by those who wished to create, index, and distribute to others. The creation of California State University's MERLOT index in the late 1990s was a practical way to index open content using the internet as a distribution database (Bliss & Smith, 2017). The choice and creation flexibility offered by the digital experience was further enhanced by Wiley's proposed open license, later developed and expanded by Creative Commons, and the Open Access movement of the late 1990s.. This movement allowed for a practical application to data share and expand

research and also added key components and practical use to the creation of open content (Bliss & Smith, 2017). Stracke et al. (2019) commented that MOOCs can either be seen as a static resource that do not fulfill Wiley's 5R's of OER, or they can be seen as a limited innovation in OEP. In either case, the static delivery of early OER and OEP was an important step to later innovations that would develop creator-practitioners.

Dynamic Delivery of Open Content

The static accessibility of MOOCs and other early OER become more personalized with open textbooks. These accessible resources are used to substitute for closed textbooks at zero cost for students (Fischer et al., 2020; Hilton, 2020). Seaman and Seaman (2022) noted that supplemental OER resources have grown in the past decade but have yet to reach large usage as required textbooks for those surveyed. Instead, the creation of open textbooks has been subjected to a great deal of examination for perceived quality (Hilton, 2020) and cost benefits (Fischer et al., 2020). The perceptions of the quality of OER textbooks for students and faculty have generally been positive (Bliss et al., 2013; Hilton, 2020), and the cost savings for students have been noted as a major benefit for students, but especially for lower socioeconomic students who struggle to pay for higher educational opportunities compared to those in higher socioeconomic brackets (Lantrip & Ray, 2020; Martin et al., 2017). Martin et al. commented that higher education faculty were willing to locate and implement OER alternatives, especially when driven by student cost.

The need for OER in cases like Martin et al. (2017) is a cost-saving need, not a pedagogical one. Instead of driving teaching and learning innovation through technology use and open practices, OER was examined as a resource that would not harm student progress and would save the extensive cost of college textbooks (Annand & Jensen, 2017; Grimaldi et al.,

2019; Hilton, 2020; Lantrip & Ray, 2020). A good deal of research conducted on OER between 2002 and 2018 focused on access to free textbook resources, mostly for higher education students (Hilton, 2016, 2020; Grimaldi et al., 2019). The cost of textbooks has led some institutions to promote OER textbooks for students; however, this process has been slow, inefficient, and complicated (Annand & Jensen, 2017; Bazeley et al., 2019). In researching the use of OER textbooks, Grimaldi et al. bemoaned that the so-called access hypothesis – (i.e., studies conducted on comparing courses that used traditional textbooks versus those that used OER textbooks), was not a true intervention when 95%+ of students already had access to traditional textbooks. As a result of this study, Grimaldi et al. (2019), as well as other researchers, began shifting the focus who were interested in shifting the focus of OER research from the question of textbook access to the question of pedagogical use and quality of resources (Bass et al., 2019; Grimaldi et al., 2019; Nascimbeni & Burgos, 2019).

Currently research on this topic is focused on the effectiveness of interventions, whereas there were no studies that targeted effectiveness earlier. Intervention due to zero cost does not correlate to the effectiveness of the content. The rising cost of textbooks affected student course success, courses taken, and debt incurred through high textbook costs (Fischer et al., 2020), which stimulated research on the access hypothesis (i.e., the notion that students in higher education would have better access to textbooks that were free versus costly textbooks; Fischer et al., 2019; Hodge et al., 2019). However, Grimaldi et al. (2019) criticized the access hypothesis studies, noting that they were fundamentally flawed, as they either reported the intervention of OER when there was not an identified gap, or showed a lack of evidence of isolating proper independent and dependent variables to prove an experimental framework. Essentially, OER

research and production in higher education has been focused on cost, not educational innovation.

Interaction-Based Delivery of Open Content

Innovations over the past several decades have been enhanced by technology and technology-supported teaching and learning practices (Brown & Green, 2020; Schrum & Sumerfield, 2018). These innovations have begun to move past the focus on closed, individual learning (i.e., traditional textbooks), and have embraced the engagement of the digital communities, such as Wiley and Hilton's (2018) renewable assignments. Learner-centered instruction focuses on the growth of the learner as facilitated by an instructor (Reigeluth et al., 2017), but this facilitation is ongoing, creating opportunities for the learner to revise, reflect, and continue constructing their learning by leveraging technology. The ability to leverage technology and provide a learner-centered environment provides a structure beyond OER that encourages an interaction, in practice, between the learner and the instructor, which allows the learner to grow in a more dynamic way (Clark & Mayer, 2016; Reigeluth et al., 2017; Wilson et al., 2017).

In order to produce renewable assignments and continue to revisit, revise, and edit these products, some researchers have created frameworks or rubrics to examine the extent that OER is being used in the classroom to produce open products through use of the facilitator's OEP (Brons, 2017; Ko & Rossen, 2017; Nascimbeni & Burgos, 2016, 2019; Wiley & Hilton, 2018). The goal of renewable assignments is to produce work that can be continued by the student and by others in a collaborative community (Wiley & Hilton, 2018). Empowerment and continuous works are part of the building blocks of an OER community, where facilitators, learners, and subject matter experts can collaborate, contribute, and critique the work and contributions of others in real-time over an authentic, digital network (Atenas et al., 2015). This model can either

be built within university courses (Atenas et al., 2015; Sandanyake, 2019), preservice teacher curricula (Allen & Katz, 2019; Kim, 2018), or teacher's professional development opportunities (Littlejohn & Hood, 2017; Nascimbeni & Burgos, 2019).

Although the intervention of OER has been well studied, much research still needs to be conducted that targets the pedagogical impact of open education on teaching approaches through the use of open and collaborative materials (Atenas et al., 2015; Brons, 2017; Hood & Littlejohn, 2017; Kaatrakoski et al., 2016; Littlejohn & Hood, 2017; Nascimbeni & Burgos, 2016, 2019; Wiley & Hilton, 2018). The open education community has been recently moving past the research of OER adoption and towards "a broader understanding of the impact of open practices in support of innovative education" (Nascimbeni & Burgos, 2019, p. 5367). As previously discussed, the lack of a governing body or association causes OEP similar challenges as OER in terms of its lack of a central, standardized definition.

Open Content Practices

Open content is a pedagogical decision made by those who involve themselves in the learner-centered environment, leveraging OER to guide and construct knowledge. In the context of the learner-centered environment, it is critical to take an instructional approach that emphasizes the growth of the learner. Bruner's (1960) spiral curriculum provides the groundwork and theory for learners to continuously engage openly in material with an emphasis on critical thinking and problem-solving. This constructivist approach involves the idea of reflective learning cycles, allowing the learner multiple opportunities throughout the learning process to learn, apply, and reflect as opposed to terminal outcomes, such as a test or the end of a unit without carryover. Bruner's learning theory involves a long-term approach to developing life-long and authentic learners that focuses on the learners themselves as the critical

emphasis, as compared to an outcome emphasis (e.g.., test scores). Similarly, Wiley and Hilton's (2018) renewable assignments take this approach. OER-enabled practices allow learners to engage and re-engage in a cyclical learning cycle, emphasizing reflective practices and learner growth.

The growth of the learner requires persistence and multiple advancing attempts at knowledge and skills. The learner-centered environment is comprised partly of multiple, cyclical attempts, emphasizing how the structure or process of learning should be built around these attempts. Sweller's (1988) cognitive load theory explored how learners should engage in open, or inquiry, learning to build schema, as opposed to terminal means-ends formulas that do not support long-term learning. In other words, the structure and emphasis on process allow the learner to design categories for where to place information in increasing complexity. Dirksen (2016) used the analogy of a closet to describe this concept: if a bit of information is like a shirt, a person with an organized closet will have a blue shirt in a certain place. If information is given to the learner without a structure, then the shirt in Dirksen's analogy gets thrown to the floor. In both instance of the organized and unorganized closets, the shirts are in the metaphorical closet, but when trying to retrieve and utilize that information, a structured closet allows the learner to know where the blue shirt is, retrieve it, and wear it. The unorganized closet will have the learner rummaging through the pile of shirts, not knowing where to look, or if they will successfully retrieve it at all. Building schema requires the ability to reflect and grow, a notion that Bruner (1964) further developed in his constructivist framework after his spiral curriculum as discovery learning. Leveraging OER and OEP to place an emphasis on growth, schema, and retrieval of information empowers students beyond the time they spend in a single course.

The attempts of persistence and the emphasis of building learner structure are major pieces of the learner-centered environment. Achieving both of these goals also takes a technological aspect as a vehicle to optimize OER and OEP. Mayer's (1997) CTML provides the avenue in which multimedia learning should be optimized for learners in the 21st century via digital and multimedia learning. Optimizing both audio and visual information provides a dual channel input, allowing learners to build schema with bits of information from both inputs. OER and OEP are both audio and visual, and Ren's (2019) advocacy for the use of instructional designers as support to faculty engaging in OER and OEP shows both the complexity and the necessity of collaboration that OER and OEP can leverage. Using, adopting, and constructing digital resources and learning experiences should be leveraged for learners in order for them to gain the most out of their learner-centered educational experiences.

Although these learning approaches as described by Bruner, Sweller, and Mayer have been around for decades, the collaboration between these approaches in the digital space to leverage OER and OEP is a fairly new concept. The groundbreaking Wiley and Hilton (2018) description of OER-enabled pedagogy was disseminated in the last five years, thus creator-practitioners are still learning along with the students. Werth and Williams (2021) described how faculty in Pikeville, Kentucky experienced their own growth throughout the first and second iterations of using OER-enabled pedagogy in their courses. Tillinghast et al. (2020) explored OER-enabled pedagogy courses to find no significant difference between the OEP and non-OEP similar courses. Overall, there is a lack of research that addresses how learner-centered approaches show specific learning results in classrooms in open education research. The learning approaches and the research into how they impact open education provide a foundation for further attempts and research to be conducted.

Open Experience and Practice

While researching the use of OER and targeting teaching and learning principles in the classroom, Cronin and MacLaren (2018) inadvertently discovered and described the evolution of OEP. Seaman and Seaman (2022) reported that both faculty and administrators commented that the COVID-19 pandemic improved their opinions of online learning and their acceptance of using digital materials. Clinton-Lisell (2021) noted that the various definitions of open pedagogy, as well as the different means of examining this pedagogy, has created challenges in synthesizing research findings. Despite this lack of cohesion, the growth of interest and research into OEP has grown since the mid-2000s (Koseoglu & Bozkurt, 2018). What has remained apparent in empirical research that focused on OEP is the alignment and definition of OEP to Wiley and Hilton's (2018) OER-enabled pedagogy characteristics (Clinton-Lisell, 2021).

Further, the use of OER materials in higher education classrooms saw a 7% increase between the 2019-20 and 2020-21 academic years as the COVID-19 pandemic continued to disrupt the normal classroom modality patterns (Seaman & Seaman, 2022). The learner-centered environment is inherent in OER and OEP, where both learners and instructors use open content to create, edit, and engage in authentic learning experiences targeting individual learner growth. According to Reigeluth et al. (2017), "The goal of student-centered pedagogies is to enable transformative learning experiences and produce creative, self-directed graduates" (p. 394). The creation process of instructors and learners engaging in OER products encourages a culture of participation and offers opportunities for innovation and creativity, as well as refinement of products (Allen & Katz, 2019). This process of open co-creation should use OER-enabled pedagogy, (i.e., OEP) through Wiley's 5R's to further the discovery learning of each individual learner (Wiley & Hilton, 2018). The learner-centered environment creates a peer-production

contributory community through Creative Commons licensing and internet accessibility that was not available 20 years ago (Brons, 2017). The result is a dispersed marketplace, where OER and OEP "live in pockets", but have yet to receive standardized practice or adoption for the learner-centered environment (Baas et al., 2019; Hood & Littlejohn, 2017; Kaatrakoski et al., 2017; Littlejohn & Hood, 2017; Nascimbeni & Burgos, 2016, 2019; Otto, 2019).

Critical to the learner-centered environment is individual growth in pursuit of mastery. The pursuit of mastery has been described as the construction of schemas, where masters have transferred critical information, structures, and algorithms to long-term memory that are available on demand (Sweller, 1988). Sweller's theory of cognitive load is based on the strain put on working memory, as problem-solving processes are undertaken in the greater framework of comparative schemas. In building these schemas, novices may fill their working memory (heavy cognitive load) using means-end processes, lacking the appropriate working memory, or cognitive space, to build schema to improve. As a result, novices have a disconnect between building schema in the respective subject/content/area to become experts or masters, as well as processing errors due to working memory being used in the process. This learning barrier can be reduced by using the nonspecific goal strategy to reduce cognitive load, allowing for more precise processing, and novices to construct schema to make progress toward mastery.

In application, this nonspecific goal strategy may be described under the umbrella of Bruner's (1964) discovery learning. This approach, also called inquiry-based learning, problem- or project-based learning, presents an open-ended problem that allows the learner to choose the process and structures to use as an experiment. This experimental process has been described by Sweller (1988) as providing cognitive space for the construction of schema along with the

content/topic, and by Bruner (1960) as part of the spiral curriculum, where learners engage in discovery learning to continuously build toward mastery.

The shift of OER research has brought a larger focus to the scattered field of OEP research. Koseoglu and Bozkurt's (2018) review of OEP peer-reviewed publications between 2007-2017 indicated that OEP had two major strands of study: the first being open educational principles through the use of OER, and the second being OEP in the context of open scholarship, open teaching and learning, open systems, and open-source software. As it relates to classroom education, the former OEP strand has further received attention in higher education (Hood & Littlejohn, 2017; Kaatrakoski et al., 2016; Littlejohn & Hood, 2017; Nascimbeni & Burgos, 2016, 2019; Sandanayake, 2019), in preservice teacher education (Allen & Katz, 2019; Kim, 2018), and an emerging look into K-12 (Blomgren, 2018; Wiley & Hilton, 2018). Current OER and OEP research is trending towards targeting how OER and OEP affect the classroom; however, a lack of awareness, adoption, and usage are challenges preventing feasible quantitative analyses. Further qualitative research will need to be conducted to produce the justification and foundation for further implementation and understanding proof of the effectiveness of OER and OEP in the classroom.

Wiley and Hilton (2018) commented on the difficulty in connecting and building upon other research dealing with OEP, stating, "From a research perspective, the dearth of agreement on a common definition makes evaluating the impacts of open pedagogy on student learning, student engagement, and other metrics of interest essentially impossible since we cannot specify what we are evaluating" (p. 135). In a literature review of open education practices (OEP) from peer-reviewed publications between 2007-2017, Koseoglu and Bozkurt (2018) reported that OEP is complex, and the trend of further branching research into new endeavors and new ways to

share data and information has grown by the scope and by numbers in the decade of 2007-2017. Koseoglu and Bozkurt further reported that although the evolution of the open community and OEP in particular, occurs in pockets around various institutions, OEP usually can categorize itself into two divisions: (a) OER-based curation, review, development, and community, and (b) open-courseware based, where MOOCs and open systems live.

Open Self-Regulatory Learning

Heidari et al. (2021) contended that digital learning has become increasingly important in higher education, where digital competencies play a corresponding role in students' academic success. The major issue in the subject of OER and OEP is not the purpose, effort, or concept, but rather its cohesive definition and depth of research. Likewise, Koseoglu and Bozkurt (2018) reported that OEP have mostly been confined to either the curation, adoption, and use of OERs or the open systems market, neither of which have been formally defined across research literature.

In the learner-centered environment of the 21st-century learner, multimedia learning has had a significant impact. The delivery of OER and OEP in the learner-centered environment is made most efficient and effective as digital, where learners can interact with the vast amount of information online. Pursuant to multimedia learning is Mayer's (1997) work on the cognitive theory of multimedia learning. Referred to as the generative theory of multimedia learning, Mayer brought together the idea of generative learning theory and dual coding theory. The availability of multimedia platforms that were growing in the 1990s led Mayer to investigate how to optimize long-term storage and usage of information for the best outcomes of problem-solving due to the lack of transfer from single modal delivery systems (e.g., a reading passage). Mayer's theory proposed that using the dual processing channels of auditory and visual

information concurrently through multimedia in conjunction with purposeful selection of information to optimize and increase the learner's ability to select, organize, and integrate information from working memory to long-term learning will improve the transfer, and, by extension, provide the information necessary to use problem-solving more effectively as compared to a single modal delivery.

The learner-centered environment is native to OER and OEP, where both learners and instructors use open content to create, edit, and engage in authentic learning experiences targeting individual learner growth. According to Reigeluth et al. (2017), "The goal of student-centered pedagogies is to enable transformative learning experiences and produce creative, self-directed graduates" (p. 394). The creation process of instructors and learners engaging in OER products encourages a culture of participation and offers opportunities for innovation and creativity, as well as the refinement of products (Allen & Katz, 2019). This process of open, co-creation should use OER-enabled pedagogy, called OEP, through Wiley's 5Rs to further the discovery learning of each individual learner (Wiley & Hilton, 2018). The learner-centered environment creates a peer-production contributory community through Creative Commons licensing and internet accessibility that was not available twenty years ago (Brons, 2017). The result is a dispersed marketplace, where OER and OEP live in pockets, but have yet to receive standardized practice or adoption for the learner-centered environment (Baas et al., 2019; Hood & Littlejohn, 2017; Kaatrakoski et al., 2017; Littlejohn & Hood, 2017; Nascimbeni & Burgos, 2016, 2019; Otto, 2019).

The COVID-19 pandemic has affected the way that higher education faculty are thinking about digital resources, online learning, and OER and OEP. Stracke et al. (2022) reported that an unintended consequence of the COVID-19 pandemic was the exposure to the potential benefit of

distance and eLearning presented to educators, stakeholders, students, and policymakers. Higher education being thrust into digital learning had many in higher education curating online resources, creating a surge in the use of OER, mixed collections, and collaborative and created materials by students and faculty (Seaman & Seaman, 2022). This acceleration of migration to digital learning has created an opportunity for new users and seasoned practitioner-creators in higher education to collaborate, share, and create (Bessette, 2020; Cavanaugh, C., & DeWees, 2020; Davidson et al., 2021). However, the contrast between the population of those higher education faculty who implement OER in the classroom compared with those who are only aware of OER is a meager 30% (Seaman & Seaman, 2022). The acceleration of higher education into the digital space due to the COVID-19 pandemic marks a significant way forward in the diffusion of OER and OEP, yet continues to remain a mere footnote in the larger pedagogical approach of faculty in the United States.

Summary

Open education expanded in the 21st-century learning space but remained largely untapped and lacked full diffusion into higher education in the United States (Braddlee & VanScoy, 2019). Research proved the cost-saving of open textbooks to end-users, but the cost to fund these initiatives, as well as sustain them continued to raise issues despite millions of dollars in grant money from state governments (Elder et al., 2020; SPARC, 2021). A majority of faculty expressed favorable perceptions towards OER, but cultural and practical barriers, such as time to create, copyright concerns, and barriers to tenure, prevented creation and implementation at scale (Martin & Kimmons, 2020). A current trend in research has shifted from the investigation of openness in education as artifacts to openness as a process or practice (Tur et al., 2020). As such, investigations into the use of OEP and its effect on student learning outcomes emerged recently,

but the theoretical support for OEP has been discussed and advocated previously (Tillinghast et al., 2020). This trend investigated the learning outcomes for students, but an examination into the perceptions of those who are creating and using OER and OEP, despite the challenges, still exists as a gap in the literature. The collaborative nature of education, especially the digital nature of open education over the internet, should examine the exemplary individuals who have persisted despite barriers as trailblazers to be replicated. The collaborative nature of OER and OEP could allow further development of distributed and delegated workload of rigorous education over the internet by investigating successful cases of OER creation and OEP implementation to discover what works, what does not work, and how to mitigate the barriers to OER and OEP in higher education.

CHAPTER THREE: METHODS

Overview

The purpose of this hermeneutic phenomenological study was to describe the lived experiences of creator-practitioners of open educational resources (OER) and open educational practices (OEP) in United States (U.S.) higher education institutions. This chapter examines various aspects of this hermeneutic phenomenological study, including support for the decision to use the phenomenological approach and its alignment to the research questions. The phenomenological research design is examined and a revisit of the research questions, a description of the general setting of this study, and the participants for this qualitative research study follow. Next, the detailing of procedures of this study are outlined and followed by the researcher positionality, including the researcher's role in a hermeneutic phenomenology study. Following these sections are the data collection and data analysis sections that are written for transparency and replication. A section of the methods and rationale of trustworthiness of this study, as well as ethical considerations, are detailed, with this chapter concluding with a summary.

Research Design

Researchers noted that various obstacles have impeded higher education faculty to adopt, adapt, create, and otherwise implement OER and OEP (Annand & Jenson, 2017; Fischer et al., 2020; Hilton, 2020; Jung et al., 2017; Kaatrakoski et al., 2016; Kimmons, 2021; Koseoglu & Bozkurt, 2018; Nascimbeni & Burgos, 2019; Wiley, 2021; Wiley et al., 2014). However, these obstacles have generally centered around required textbook costs (Fischer et al., 2020; Hilton, 2020; Koseoglu & Bozkurt, 2018; Spilovoy et al., 2020; Wiley, 2021), leaving gaps in the research, such as the pedagogical impact of OER and OEP (Clinton-Lisell, 2021; Grimaldi et al.,

2019; Kimmons, 2016). The identified awareness and growing adoption of OER among higher education faculty (Seaman & Seaman, 2022) created an interesting question of why higher education faculty are creating OER and using OEP despite the identified challenges or barriers. Creswell and Poth (2018) commented that qualitative research is conducted when a detailed understanding of the issue needs to be explored and report findings in a flexible style suited to describe the data. Exploration of the lived experience of creator-practitioners who implement OER and OEP fits this description of flexible style due to the lack of direct research for this topic. Moustakas (1994) and van Manen (2014) both asserted that the goal of phenomenological research is to determine the experience of those involved in the phenomenon and place special emphasis on deriving meaning from these experiences. Aligned with this definition of phenomenology, this study aimed to investigate the shared experience of the creation of OER and the use of OEP in higher education despite identified obstacles.

This study was designed to use the qualitative approach to explore the lived experiences of participants who have created OER and use OEP in their courses in U.S. higher education. A qualitative approach is an appropriate method to explore the lived experiences of creator-practitioners because of its flexibility to explore a variety of data and uncover the emergent themes as described by those who are experiencing the phenomenon (Creswell & Poth, 2018). Phenomenology is most appropriate for this study because of its investigatory nature of the common phenomenon, or theme, of persistence of creation and pedagogy despite a lack of diffusion and cultural obstacles in higher education. The niche and emergent nature of the identified literature and research gap lent itself to the hermeneutical phenomenology as an appropriate approach. This approach is designed to allow the participants to guide the data as well as allow the researcher the leeway to interpret the data using coding.

Phenomenology has been a term used as early as 1765 in philosophy but was formally defined and had technical meaning built with Hegel (Moustakas, 1994). In the transcendental approach of phenomenology, Husserl was influenced by Descartes to employ epoché and take a reductionist approach to produce empirical evidence before interpretive, intuitive, and essential knowledge was examined (Moustakas, 1994). With an emphasis on description, the method of phenomenology, especially transcendental phenomenology, was adopted by various disciplines throughout the sciences in the 20th century (van Manen, 2014). In recent times, phenomenology has become an umbrella term to describe the lived experience, but many times lacks the philosophical heart of describing the phenomenon itself (van Manen, 2017). In comparison to Husserl's ideas of descriptive, or transcendental, a phenomenology that emphasizes epoché and reductionism (Moustakas, 1994), Heidegger wanted the researcher and participants to use their perspective and history to give meaning and interpretation to the experienced phenomenon in an interpretive, or hermeneutical, phenomenological approach (Guignon, 2012; Neubauer et al., 2019). The hermeneutical approach spread from Heidegger to his student, Gadamer, in the 19th century and from Gadamer to contemporaries throughout the 20th century (Neubauer et al., 2019). Bynum and Varpio (2018) described the hermeneutical approach as purposefully embedding the researcher's past experiences and knowledge as a critical part of the interpretive process, openly reflecting upon their subjectivity during data collection and analysis. Still emphasizing the phenomenon of the lived, human experience, the hermeneutic approach to phenomenology embraces the *lifeworld* that each person's lived experience perspective brings to the phenomenon, placing an emphasis on each human experience as interpretive in contrast to the reduced origin of the phenomenon itself (Neubauer et al., 2019).

Despite the differences in data interpretation between hermeneutic and transcendental phenomenology (Eddles-Hirsch, 2015), both approaches to phenomenological research include four key characteristics: description, reduction and bracketing, imaginative variation, and essence (Moustakas, 1994; van Manen, 2014). The description, the recording, and data collection of the prereflective phenomenon, is both the most challenging and necessary part of the phenomenological study (Eddles-Hirsch, 2015; Moustakas, 1994). The interview is a key part of the description, used for understanding the prereflective experience of the phenomenon, but van Manen (2014) also noted that the phenomenon can be captured in several ways, such as art, video, and artifacts. Van Manen commented that the phenomenological interview is challenging, citing the need for the interviewee to describe the phenomenon in a prereflective manner and for the interviewer to keep the conversation towards that prereflective reporting. The interview, or other methods of data gathering, helps describe the phenomenon as best it can, but the researcher must bracket their own commentary when gathering data and coding. Although transcendental phenomenology studies will keep their bracketing, or epoché, through the writing stage, van Manen contended that bracketing serves the purpose of getting as close to the phenomenon in prereflection as possible. Once coded, the imaginative variation allows the hermeneutic researcher to use their interpretive skills to uncover the structural themes of the phenomenon reported (Eddles-Hirsch, 2015; van Manen, 2014). Lastly, the researcher develops the essence of the phenomenon to be described in the study report. Van Manen also commented that the researcher will need to develop a sense of wonder and shared experience through hermeneutic writing expressive of the reflective journey in which the researcher has engaged.

This study was the investigation of lived experiences of the use of OER and OEP in higher education in the United States, and collected the prereflective lived experiences of use

that allowed or created obstacles that are ignored in the creation of OER and the use of OEP. Collecting prereflective lived experiences seems oxymoronic; however, this study was well suited for phenomenology because its focus was the use by those who engage in OER and OEP, and not the commentary or opinions of the product (i.e., the OER product itself or the OEP classroom impact). The exploration of the lived experiences of expertise is a complicated topic and the research design for this qualitative study was selected as hermeneutic phenomenology as prescribed by van Manen (2014).

Research Questions

The research questions were designed to investigate the central phenomenon of the creation of OER materials and the use of OEP pedagogy despite identified obstacles in higher education in the United States. The questions were framed in the constructivist approach, aimed to understand how individual creator-practitioners use OER and OEP. The research questions were further justified and linked with the interview questions presented later in this chapter.

Central Research Question

How do creator-practitioners in higher education in the United States perceive their use of OER and OEP?

Sub-Question One

What challenges/benefits do creator-practitioners encounter from OER creation?

Sub-Question Two

What challenges/benefits do creator-practitioners encounter from OEP usage?

Sub-Question Three

How do creator-practitioners make decisions on what OER to create?

Sub-Question Four

How do creator-practitioners make decisions on how to incorporate OEP?

Setting and Participants

For this study, digital video conference technology (e.g., Microsoft Teams) and the decentralized, digital nature of OER allowed for participants to be selected from multiple institutions from various locations in the U.S. Creswell and Poth (2018) commented that phenomenological studies do not necessarily need to be at a single site; instead, the articulation of the lived experience is more important for the selection of participants than a single site. The site and participant selection rationale and justifications for this hermeneutic phenomenological study are detailed in the following sections.

Setting

Seaman and Seaman (2021) reported that between 2015-16 and 2019-20, the use of OER as a required material in higher education in the U.S. grew from 5% to 15%. However, Spilovoy et al. (2020) indicated that while awareness and acceptance of OER are growing, many individuals and institutions in higher education continue to be unfamiliar with them. Despite this lack of awareness of OER, the number of faculty in higher education teaching online doubled in the fall of 2020 due to COVID-19 (Seaman & Seaman, 2021). Opposed to studies that focus on particular sites, such as OEP through the use of OER of higher education sites (Nascimbeni & Burgos, 2019), textbook affordability using OER at higher education sites (Bazeley et al., 2019) or national repository systems (Otto, 2019), the decentralized nature of this setting was appropriate for this study because those who used their expertise in the creation and use of OER are active online without particular or required connection to any exclusive institution or organization. The growing online presence of faculty in higher education, combined with the growth in the use of OER, provided an opportunity to connect with various participants from

multiple institutions around the U.S. who share in the lived experience of the combination of the

creation OER and the use of OEP.

Creswell and Guetterman (2019) suggested that qualitative research should have a small

number of participants to focus on each individual's experience. A single-institution site would

have limited the ability of this study to be properly conducted due to the limited nature of OER

creation, adoption, and use. Using the digital space setting to study the environment in which this

phenomenon was occurring was most appropriate for insight into the phenomenon itself, as well

as transferability to other groups of experts operating in this same space.

Participants

Participants in this study included educators in higher education institutions in the U.S.

who have created and used OER materials for their course(s) for at least one academic term.

Participants for this study were not bound by age, ethnicity, gender, or other demographic

metrics due to the digital nature and criteria related to experience and profession as opposed to

demographic requirements. Maximum variation was targeted for this study as a means to

represent multiple perspectives from diverse backgrounds (Creswell & Guetterman, 2019).

Creswell and Guetterman (2019) commented that purposeful sampling is intentionally

chosen by the researcher to study the identified central phenomenon. Patton (2015) added that

the standard in choosing sites for purposeful sampling is whether or not the site is information

rich. As such, participants for this study who engage in OER were purposefully selected online

for this study. In addition to the identification and recruitment of participants through purposeful

sampling, the use of criterion sampling in this phenomenological study allowed for a level of

quality control for those who speak to the phenomenon (Creswell & Poth, 2018). Additionally, if

participants for the study became problematic in the initial search by the researcher, Creswell

and Poth contended that snowball, or chain, sampling can identify further individuals who are experts in the phenomenon. Snowball sampling aided in providing identification of peers and colleagues also engaged in this phenomenon to further the sampling pool and potential participants.

Researcher Positionality

Transcendental phenomenology requires the researcher to maintain epoché throughout the study (Moustakas, 1994), but Heidegger's notion of hermeneutic phenomenology recognizes that the researcher's *lifeworld* is a valuable guide to inquiry (Neubauer et al., 2019). Neubauer et al. expanded upon the subjective nature of hermeneutic phenomenology by stating, "It is the researcher's education and knowledge base that led him/her to consider a phenomenon or experience worthy of investigation" (p. 95). As a former teacher and currently learning and development professional, I have been creating and using OER in my courses and workload for the past eight years. My passion for creating OER led me to pursue a doctoral degree in instructional design and technology with the goal of becoming more effective and purposeful in the design and development of learning materials, courses, and resources. In the following sections, I detail the interpretive framework, philosophical assumptions, and my role as a researcher in this phenomenological study.

Interpretive Framework

The interpretive framework used for this study is social constructivism. Social constructivism is the idea that individuals seek an understanding of their world, subjectively constructing their views (Creswell & Poth, 2018). The *social* part of social constructivism is the historical and socio-cultural dimensions to the subjective construction of an individual's views through experiences such as shared understandings, practices, language, and experiences

(Schwandt, 2007). From the researcher's perspective, social constructivist research seeks to understand the participant's world in which they live and work, as well as interprets participants' construction of meaning in their account (Creswell & Poth, 2018). This framework aligned with the phenomenological method and this study in that the aim of this study was to understand the lived experiences of the participants and how they have constructed meaning of value through their interactions with OER and OEP.

Philosophical Assumptions

The interpretive framework that guided this study was social constructivism, which influenced the philosophical assumptions of ontology, epistemology, and axiology. In social constructivism the meanings of the world are varied and multiple, subjectively constructed by individuals, and lead researchers to search for the complexity of views as opposed to categorized meanings that are narrow (Creswell & Poth, 2018). Related to this study, social constructivism provided the basis for examining the lived experiences of multiple participants to better understand the essence of the phenomenon. In the following sections, the ontological, epistemological, and axiological assumptions related to this study are explored.

Ontological Assumption

According to Creswell and Poth (2018), the social constructivist view of ontological assumptions is such that "multiple realities are constructed through our lived experiences and interactions with others" (p. 35). This nature of reality asserts that individuals subjectively construct their own reality through their experiences, but especially through the lens of sociocultural interactions (Schwandt, 2007). This assumption was beneficial in this study, as it aligned with van Manen's (2014) view of phenomenological reduction. In van Manen's reduction, the researcher must use epoché to suspend natural attitudes and attitudes of science, as

well as use reduction to bracket the researcher's assumptions, essentially suspending the assumptions to objectively analyze the qualitative data. Essentially, the hermeneutic phenomenological researcher must suspend their own subjective constructed view of the world to get to the essence of the phenomenon. The ontological assumption in this study was that each individual experienced and viewed the phenomenon in their own, subjective perspective. These perspectives aided in the development of the essence of the phenomenon by reverse-engineering the subjective experiences of the participants.

Epistemological Assumption

Creswell and Poth (2018) summarized the social constructivist view of epistemological assumptions by stating, "Reality is constructed between the researcher and the researched and shaped by individual experiences" (p. 35). Similar to Schwandt's (2007) assertion that sociocultural influences affect the subjective worldview of participants, the epistemological assumption is a belief that the interaction between the researcher and participants of a qualitative study is an intimate one that affects this sociocultural influence of each side's worldview (Creswell & Poth, 2018). In hermeneutical phenomenology, this closeness of the relationship worked as both a positive aspect to build rapport and fully explore the phenomenon, and as a challenge to continuously work towards epoché and reduction (van Manen, 2014). In this study, it was important to build rapport with participants to fully explore their experiences as data and strive for epoché and reduction to justify the claims of the participants towards the descriptive essence.

Axiological Assumption

Creswell and Poth (2018) noted, "Individual values are honored and are negotiated among individuals" (p. 35) when referring to the social constructivist view of axiological

assumptions. In the context of social constructivism, the subjective worldviews of the researcher and participants are both valued and negotiated through interaction (Creswell & Poth, 2018). This assumption is critical in hermeneutic phenomenology, where the researcher must self-reflect to both identify their assumptions and to engage epoché and bracketing of those assumptions (van Manen, 2014).

Researcher's Role

Van Manen (2014) described the differences in transcendental thought and hermeneutic thought between Husserl and Heidegger: "While Husserl steps out of the world to grasp the meaning from above, Heidegger stays in the world of beings to understand their modes of being from within the world" (p. 220). My role as a researcher was shaped by Heidegger's interpretation of having the perspective from the researcher's *lifeworld* to make sense of the studied phenomenon. As an educator and learning and development professional, I had created, adopted, remixed, and used OER and OEP in advanced placement, college prep, and elective courses, as well as corporate professional development and resources for the past eight years. I did not have experience in higher education, but my familiarity and passion for OER and OEP reflected a context from which to interpret the lived experiences of the participants. Hermeneutic phenomenology relies on the researcher's experiences to interpret what is being revealed through research (van Manen, 2014). I did not adhere to Husserl's interpretation, in trying to transcend the world and its viewpoints, but rather acknowledging and making sense contextually of the phenomenon while trying to bracket out biases and reducing the phenomenon to its *essence* (van Manen, 2014). Although my perspective played a key role in the interpretation of this hermeneutic phenomenological study, I did not have previous experience with any of the participants of this study in any capacity.

Procedures

Prior to any procedure, recruitment, and data collection, the proposal was successfully defended and Institutional Review Board (IRB) approval was secured (Appendix A). After successfully defending the proposal and securing IRB approval, the recruitment of participants began. The 11 participants were recruited via criterion sampling, ensuring the use, familiarity, and expertise related to OER and OEP necessary to investigate the phenomenon of this study fully. The permissions and recruitment process are further detailed in the following sections.

After the return of the consent forms (Appendix B), participants were asked to fill out the journal prompts (Appendix C) and send an OER artifact via email. The journal prompts asked participants to express their lived experience of using OER and OEP. Both the journals and artifacts were collected before the semi-structured interview to provide more context to the researcher and maximize use of the 30-60 minutes of the interview. Lastly, after collecting journal entries and artifacts, interviews via Microsoft Teams were scheduled with the participants. Interviews were conducted via Microsoft Teams due to the geographical distances between U.S. participants that prohibited face-to-face interviews. These semi-structured interviews were conducted for 30-60 minutes in an informal setting to build rapport and use conversational style language. Using a conversational approach allowed the interviewee to express their experience of the phenomenon while trying to avoid steering the conversation (van Manen, 2014). Data analysis was ongoing throughout this process, following van Manen's (1990, 2014) prescription of hermeneutic phenomenology data analysis.

Permissions

Liberty University's Institutional Review Board (IRB) approval to conduct this phenomenological study may be found in Appendix A. No site permissions were necessary due

to the digital, decentralized nature of this study. Participants voluntarily completed a screening

survey at which time they were provided study requirements and time commitment estimates.

After completing the screening survey and being identified as a prospect for the study, the

prospect was emailed the study consent form, journal entries, and artifact submission instructions

to review the study fully. If the prospect elected to continue with the study, they signed the

consent form (Appendix B) and returned it to the researcher. Participants were instructed to

begin the journal entries and artifact submission process after they sent in their consent form to

begin the process immediately. Confirming prospect willingness and commitment, after

explanations and expectations were provided and any questions were answered was crucial to

securing full consent and building rapport with participants.

Recruitment Plan

After IRB approval, participants were identified through snowball networking,

connecting with faculty engaged in OER and OEP research, through networking in OER and

OEP social media (e.g. LinkedIn, Facebook, and Twitter) and professional groups (e.g. the

Global OER Graduate Network (GO-GN) and Creative Commons Certification Alumni), and

targeted searches for faculty who use OER and OEP through social media communities

dedicated to professional growth around open education. Recruitment for this study also included

advertising on social media and via snowball sampling from recommendations of those who

engage in OER and/or OEP. Identified participants who met the criteria were contacted through

readily available contact avenues which will include social media messaging. Each participant

was informed of the nature of the study formally through a screening survey, email explanation,

full review of the consent form, journal entries, and artifact submission instructions. After

participants signed and returned the informed consent form agreeing to participate in this study,

participants began journal entries, identified artifacts to submit, and were informed of the timeline in which the semi-structured interviews were scheduled, which was approximately two weeks from the return of their consent form. Additional email communications were used as necessary to follow up on questions related to the journal entries, artifact submissions, and the interview process.

Data Collection Plan

This qualitative study collected data to explore the phenomenon of the lived experiences of OER and OEP in U.S. higher education institutions. For the purposes of triangulation, three data collection methods were employed: participant journaling, artifact analysis, and the semi-structured interview. As a hermeneutic phenomenological study, the interview process was at the heart of gathering information on the phenomenon (Creswell & Poth, 2018). Participant journaling occurred first in the data collection process, which allowed both the participant and the researcher to examine points of curiosity and focus as a setup for the semi-structured interview. Similarly, participants were asked to submit OER artifacts for analysis before the interview process. Between the journal prompts and the artifacts, the semi-structured interviews had more options to discuss specifics of the phenomenon. The interviews were conducted last, after the journal prompts and artifacts had been collected from the participants. Critical to the coding of this study, the prompt scheduling, recording, and transcribing of the semi-structured interview led to the conclusion on possible follow-up interviews or continuation straight to the final data collection piece. Triangulation, a technique used to check the integrity of the claims the researcher draws from one data point and method through the use of two other methods, was used to establish the validity of claims from data collection (Schwandt, 2007).

Journal Prompts

The purpose of the journal prompts, found in Appendix C, was to allow participants the ability to reflect and write as close to prereflective experiences as possible (van Manen, 2014). These prompts were given as a data point in triangulation that allowed for fuller preparation, reflection, and answering, compared to interview questions. Although writing without commentary was difficult, the ability to give adequate time for participants to reflect upon their experiences and articulate them is valuable to further explore the phenomenon both as a setup and beyond the interview (van Manen, 2014). Journal prompts were sent digitally to participants with the consent form so that participants could immediately engage in the prompts. These prompts were designed to target usage of OER and OEP along with reflection of use over a two-week time period. Once completed, the participants sent their digital copies of the journal prompts to the researcher via email. These journal prompts were designed similar to the open-ended nature of qualitative semi-structured interview questions to maximize user experience commentary with as little bias and steering as possible (Creswell & Poth, 2018).

Journal Prompts Data Analysis Plan

The researcher analyzed the journal prompts (Appendix C) by using van Manen's (1990, 2014) data analysis framework for hermeneutical phenomenology and through the qualitative research software MAXQDA. Before analyzing the journal entries, the researcher engaged in epoché and bracketing (van Manen, 2014). The suspension of assumptions allowed reflection of the reported experience by the participant. This purposeful reflection isolated thematic statements through holistic, selective, and detailed approaches (van Manen, 1990, 2014). The four aspects of the participant's *lifeworld* were taken into consideration when themes were analyzed and clustered (van Manen, 1990). Essential and incidental themes were categorized and supported the ability to describe the phenomenon (van Manen, 1990, 2014). These aspects were

categorized and analyzed through the MAXQDA software to ensure an expedient and efficient analysis process of journal entry data.

Artifact Analysis

The second data collection point for this study was artifact analysis. The heart of this study is the phenomenon of the lived experiences of the use of OER and OEP, and participants were asked to produce participant-generated materials at the same time as they received the consent form and journal prompts. I requested that participants provide participant-generated OER digital materials via email to be submitted either before or at the same time as completion of the journal prompts. These materials included course reference materials, course notes, course content aids (e.g., checklists, organizers), course presentation materials, course guiding documents (e.g., web quests, instructional guides to activities), course assessments (e.g., rubrics), and other materials that related to OER generated materials. This phenomenon was not simply the lived experiences of the participants, but, as van Manen (2014) contended, there are several different aspects and mediums to investigate to further pursue phenomenological research. These artifacts provided another aspect to investigate participant perception.

The collection and analysis of these digital documents demonstrated the perception of the participants through how they produced these digital documents. This data collection and analysis were framed through the major frameworks for the anticipated approaches of OER material: (a) adopted materials, (b) participant-created works, and (c) learner-centered instructional guidance works. These three frameworks were used to determine how to best examine artifacts that may or may not pertain to any of the three frameworks. These artifacts were examined for document history (e.g., collaborative edits), direct use, evolution over time,

and the content decisions for creation. Documents were requested, collected, and sorted in the digital space through ongoing communication with the participants.

Artifact Analysis Data Analysis Plan

The artifacts were analyzed by using van Manen's (1990, 2014) data analysis framework for hermeneutical phenomenology alongside OER research frameworks. Specifically, I used Cox and Trotter's (2017) OER adoption pyramid to examine adopted aspects of the artifacts and Vygotsky's (1978) ZPD for the level of learner-centered instructional guidance for the artifacts. Cox and Trotter's OER adoption pyramid presented six levels of OER adoption and included the possibility of the individual or the institution to be an agent of OER adoption. These six levels framed the adoption sophistication of the artifacts submitted. Vygotsky's ZPD included elements of learning theory related to collaborative learning and growth. The artifacts were analyzed using these combined approaches to further examine how these artifacts lent themselves to OEP best practices.

Similar to analyzing the journal prompts, the researcher must engage in epoché and bracketing before analyzing the artifacts (van Manen, 2014). Where necessary, the qualitative research software MAXQDA was used to analyze qualitative works more efficiently and effectively. The suspension of assumptions allowed reflection of the reported experiences by the participants (van Manen, 1990, 2014). This purposeful reflection isolated thematic statements through the holistic, selective, and detailed approaches (van Manen, 1990, 2014). The four aspects of the participant's *lifeworld* were taken into consideration when themes were analyzed and clustered (van Manen, 1990). Essential and incidental themes were categorized supporting the ability to describe the phenomenon (van Manen, 1990, 2014).

Semi-Structured Interviews

The interview is the key data collection method of phenomenology (Creswell & Poth, 2018; Moustakas, 1994). The semi-structured interview for this study included 12 open-ended questions in order to allow the phenomenon to reveal itself (Moustakas, 1994; van Manen, 2014). Both Creswell and Poth and van Manen emphasized the importance of recording and transcribing the interview for proper analysis and coding to get to the heart of the phenomenon through the lived experiences of the interviewees. Interviews are appropriate in the hermeneutic approach because they seek the lived experience of the individual experiencing the phenomenon, providing the opportunity to dynamically explore the interviewee's experience.

Microsoft Teams interviews were conducted with participants due to their scattered geographic locations throughout the U.S. Part of the phenomenological interview process includes gaining rapport with the interviewee, developing a relationship of friendliness and comfort to allow for the full extent of the phenomenon to be explored and become accessible (van Manen, 2014). The semi-structured interviews were given a timeframe of 30-60 minutes to properly plan and respect the time of the participants, especially those in different time zones compared to my own. The Microsoft Teams platform has a recording function that I used during the semi-structured interviews; however, to ensure accuracy and allow for further analysis after transcription (Creswell & Poth, 2018), I also recorded the interviews with a physical audio recorder (with permission from the interviewees). Pseudonyms for participants and their organization(s) were used.

Semi-Structured Interview Questions

The interview is a defining feature of qualitative research (Creswell & Poth, 2018). Van Manen (2014) commented that the point of the phenomenological interview is to gather prereflective experiential accounts necessary to formulate a description of the essence of the

phenomenon. However, experiential accounts from participants in phenomenological interviews typically come with lived meanings or interpretations, creating challenges for participants to describe the experience without commentary. Van Manen asserted that reflecting on the meanings of the phenomenon is a necessary goal of the phenomenological interview. The collection of the account of the human experience was a critical element to this goal.

Van Manen (2014) commented that the interview should take place in a comfortable environment that builds rapport, does not rush, is driven by wonder, and allows the conversation to come back to the research questions. This comfortable interview environment is best planned by proper preparation on the part of the interviewer; a well-managed interview is more likely to produce data related to the research questions and avoids speculation, overinterpretation, or overreliance on personal opinions (van Manen, 2014, 2017). In pursuit of proper preparation, a list of interview questions, their appropriate links to the research questions, and their justifications of use are detailed as follows.

1. Please introduce yourself, your current role, your expertise in [content/subject] and how you came to use OER and OEP. (**CRQ**)

2. Please describe your experience in using open educational resources (OER). (**CRQ**)

3. Please describe your experience in implementing open educational practices (OEP). (**CRQ**)

4. Please describe how you view your expertise in [content/subject]. (**CRQ**)

5. Please describe what challenges/benefits you view from the use of OER (**SQ1**)

6. Please describe your decision-making process in creating OER. (**SQ3**)

7. How have different factors [e.g., people, ideas, or events] affected your perception of your created OER? (**SQ3**)

8. Please describe what challenges/benefits you view from the use of OEP. (**SQ2**)

9. Please describe your decision-making process in implementing OEP. (**SQ4**)

10. How have different factors [e.g., people, ideas, or events] affected your perception of the value of your implemented OEP? (**SQ4**)

11. How has your experience as an expert in [content/subject] changed due to OER and OEP, if at all? (**CRQ**)

12. We have covered a lot of ground in our conversation, and I appreciate the time you have given to this. One final question: What else do you think would be important for me to know about your views on the use of OER and OEP? (**CRQ**)

Question 1 served as a mechanism to build rapport with the participant (Creswell & Poth, 2018) and it also began the examination of the phenomenon (van Manen, 2014). Gadamer, (1960, 1975) commented that participants' experiential stories come with meaning and perspective, which enhance the novelty of the participant's *lifeworld* and subjectivity. This subjectivity was important to note as part of the full experience being explored in this study. Spilovoy et al. (2020) commented that awareness of OER is the most important factor for the probability of OER adoption, and the participant's background serves as a concrete understanding of the inspiration for engagement in OER.

Questions 2 and 3 further examined the lived experiences of the participant as they relate to the phenomenon (van Manen, 2014). Belikov and Bodily (2016) reported that higher education faculty needed more information to comfortably adopt and use OER, and the experiences of the participant examined their perceptions of using OER despite other colleagues' hesitations. Although OER and OEP have been reported to be viewed favorably with students and faculty (Clinton-Lisell, 2021; Hilton, 2020; Hilton et al., 2019), there continues to be a lack

of diffusion into practice in higher education (Kimmons, 2021). The experiences of the

participants in the current study provided an important understanding of how OER and OEP

implementation in higher education took place.

Questions 4 and 5 aligned with the first sub-question, which explored the topic of

expertise and countered with challenges/benefits. Expertise and value may be investigated in a

variety of ways, and the open nature of questions 4 and 5 provided opportunities for participants

to describe their experience without being led (Creswell & Poth, 2018). Lincoln and Guba (1980)

commented that value may be evaluated through merit, which is context-free, or it may be

evaluated through worth, which is determined in an actual context. the exploration of value, as

perceived by the participants, explored these different aspects of value. Beyond these general

aspects of value, Fischer et al. (2020) reported that the primary factors for OER adoption

included (a) cost savings, (b) pedagogical benefit and customization, (c) easy access for students

and faculty, and (d) up-to-date materials. Each of these factors had a different aspect of value to

them: financial value, pedagogical value, ease of use value, and time value. Kivunja (2014)

reported the value of 21st century productive learners, further exploring which aspect of

pedagogical value was placed on OER and OEP. The lived experience of the value of expertise

and the value of OER creation had the potential to provide insightful data into how educators are

experiencing this phenomenon.

Question 6 explored the process of OER creation. Guba and Lincoln (1982) commented

that a needs assessment must be rooted in the following values: (a) identification and operation

of the target state of ideals and norms, (b) the identification between target and actual states, (c)

benefits of the process of intervention, and (d) standards for evaluation of the intervention. This

needs assessment was the beginning of instructional design cycles that took into consideration

which interventions should be applied to an identified need or gap (Brown & Green, 2020).

However, instructional design creation of interventions through OER can be viewed as an

advanced step for higher education (Martin, 2019). OER creation can be seen as the fourth step

of OER use: first is OER awareness (Seaman & Seaman, 2020), next is OER acceptance

(Kaatrakoski et al., 2016; Nascimbeni & Burgos, 2019), third is OER use (Hilton, 2020), and

finally OER creation (Martin & Kimmons, 2019). Higher education faculty reported favorable

perceptions (Jung et al., 2017), and noted the benefits of engaging in OER, both through the

creation and engagment in a community(Littlejohn & Hood, 2017; Martin & Kimmons, 2019).

However, Martin and Kimmons reported that although higher education faculty were willing to

engage in OER creation, the actual engagement of OER creation was difficult, as noted by the

authors: "When they actually engaged in the process of finding, remixing, and creating OER,

they met with a variety of unexpected technical barriers that slowed, discouraged, or altogether

stopped them" (p. 141). While perceptions may be favorable, this question sought to understand

if expertise and value played a factor in the participants' decisions regarding what to create and

to what depth to create OER.

Question 7 explored the specific experiences and perceptions of the participants

regarding the use of OER and how different factors affected their perceptions of use. Despite the

advocated advantages of OER, there continues to be a lack of diffusion of the use of OER in

higher education (Kimmons, 2021). Cultural and institutional challenges regarding perception,

rigor, and value to OER adoption and use, as well as concerns dealing with both financial and

time sustainability, have been identified as major barriers to OER adoption and use (Baas et al.,

2019; Kaatrokoski et al., 2017; Nascimbeni & Burgos, 2019; Ren, 2019; Seaman & Seaman,

2022; Tlili et al., 2020). Reports of OER initiatives, professional learning network supports, and

OER awareness have all been reported in the encouragement and adoption of OER and OEP (Koseoglu & Bozkurt, 2018; Littlejohn & Pegler, 2014; Seaman & Seaman, 2022; Spilovoy, 2021). The exploration of interviewee responses regarding how identified factors affect the content and scope of OER creation was valuable in understanding how what is of value transfers from belief to the product (i.e., the OER created resource).

Questions 8, 9, and 10 had a similar aim as question 7 but applied to OEP. Students have favorable perceptions of some types of OEP in higher education (Hilton et al., 2020), but the lack of a unified definition of OEP creates confusion in research (Wiley & Hilton, 2018; Witt, 2020). This lack of a unified definition has compelled some researchers to put forth their own frameworks of OEP (Nascimbeni & Burgos, 2019; Wiley & Hilton, 2018). Regardless of a standard definition, the assertion that in order for educators to maximize the opportunities that OER presents, they should not only adopt OEP (Hood & Littlejohn, 2017; Nascimbeni & Burgos, 2016; Wiley & Hilton, 2018), but also acknowledge that they would face challenges in adoption from individuals, groups, and/or institutions (Kaatrakoski et al., 2016; Littlejohn & Hood, 2017; Nascimbeni & Burgos, 2019). This exploration sought to understand how different factors and perceptions of value have affected the use of OEP by participants.

Questions 11 and 12 were wrap-up questions. Hermeneutic phenomenology engages unique experiences, influenced by both the participant and researcher. Although preparation more likely led to favorable outcomes in the phenomenological interview (van Manen, 2014), the unknown of the exploration was what gives phenomenology its purpose as a qualitative research design (Creswell & Poth, 2018). The mindset of wonder (van Manen, 2014), along with openness to allow the interview to guide the exploration as a matter of trusting the process (Smythe & Spence, 2020), are important parts of epoché and bracketing necessary for a

successful phenomenological study. Specifically, in these two questions, the unstructured part of the semi-structured interview allowed the participant and researcher to explore the phenomenon beyond the scope of the prepared questions.

Semi-Structured Interview Data Analysis Plan

The semi-structured interviews were recorded and transcribed by a transcription service. After being transcribed, the semi-structured interview transcripts were analyzed by van Manen's (1990, 2014) data analysis framework for hermeneutical phenomenology. Before engaging in the semi-structured interview, the researcher engaged in epoché, what Husserl described as the suspension of natural attitudes and the attitude of science (van Manen, 2014). Epoché was paired with bracketing, where the researcher had put various assumptions into "brackets" as in mathematics, which keeps bracketed operations separate from those outside of the brackets (van Manen, 2014). The suspension of assumptions allowed reflection of the reported experience by the participant: the goal of phenomenology is not to solve the experience, but instead, try to reduce the essence of the phenomenon reported (van Manen, 1990, 2014). This reflection was part of conducting thematic analysis on the transcribed semi-structured interviews, where themes of reported experiences can be understood as "structures of experience" (van Manen, 1990, p. 79). The isolation of thematic statements found in the transcribed interviews were uncovered through three approaches: (a) the holistic approach, (b) the selective approach, or (c) the detailed approach (van Manen, 1990). For the analysis of the transcribed interviews, each approach was to be taken in a serial manner. First, a holistic approach was used, followed by selective, and, finally, a detailed approach was the third and final approach. In reflecting upon the transcripts for themes, four guides for reflection were considered: (a) lived space, (b) lived body, (c) lived time,

and (d) lived other (van Manen, 1990). These four existences form the *lifeworld* through which

participants experience the phenomenon (van Manen, 1990).

Highlighted themes were organized around the broad categories of incidental and

essential themes. In determining essential themes, van Manen (1990) commented "In

determining the universal or essential quality of a theme our concern is to discover aspects or

qualities that make a phenomenon what it is and without which the phenomenon could not be

what it is" (p. 107). The reflection of data yielded themes with consideration for the participant's

lifeworld. These structures were categorized, analyzed, and scrutinized under the guiding

question "What is this an example of" (van Manen, 1990, p. 86). The ability to reflect upon or to

describe the essence of the phenomenon helped support these structures (van Manen, 2014).

These themes yielded data to support the description of the structure of meaning of the lived

experience of the phenomenon (Creswell & Poth, 2018).

Data Synthesis

This hermeneutic phenomenological study used open coding (van Manen, 2014), reading

and memoing emergent ideas (Creswell & Poth, 2018), and data triangulation (Schwandt, 2007)

to analyze and validate the journal prompts, artifact analysis, and semi-structured interviews.

Instead of having predetermined codes, this technique allowed for analysis of the data points and

group like-items, creating themes and codes that could be further refined, changed, or eliminated.

Several readings of the data were required to continually narrow and refine the themes and

coding (van Manen, 2014). The process of open coding included developing a list of significant

statements from the data sources (including non-repetitive, non-overlapping statements), broadly

organizing these statements into themes, creating a description of *what* (the phenomenon and

information about it), creating a description of *how* the experience happened, and writing a

composite description of the phenomenon after studying these previous elements (Moustakas, 1994). This process allows the researcher to track the information to see where it is going, with the information leading the researcher to themes with regard to the perspectives of the researcher and the participants (Bynum & Varpio, 2018).

The second technique of data analysis included reading and memoing emergent ideas. This technique is a series of notes and memos that inform about the general characteristics and inspirations of possible ways to frame codes and information gathered from qualitative data points (Creswell & Poth, 2018; van Manen, 2014). This process includes the researcher taking notes while interviewing, reading, and analyzing documents to sketch reflective thinking, and summarizes field notes to capture thoughts, visualizations, and general thinking and feeling from research (Creswell & Poth, 2018). This technique follows van Manen's idea of phenomenological reflection, where the researcher is trying to capture the essential meaning of something. This notetaking and reflection are practices that enable the researcher to ask the critical question: "What is this an example of?" (van Manen, 2014). This critical reflective piece is a way for the researcher to keep the study's essential questions and essence of the phenomenon at heart to be able to better frame and code the study.

To validate the consistency of the codes and findings of the phenomenon, data triangulation was used to compare the codes from the interviews, surveys, and document analysis (Schwandt, 2007). This comparison follows phenomenological best practice, where the researcher bracketed his preconceived notions to allow the phenomenon to present itself (Moustakas, 1994; van Manen, 2014). Although the hermeneutic approach of phenomenology leaned on the researcher's own interpretation (Guignon, 2012), the data collection of the human experience was analyzed as it was told first (van Manen, 2014).

Open coding, memoing and journaling, and consistency checks through data triangulation allowed for the composite of this study to be compiled and written. Van Manen (2014) commented that phenomenology as the process of writing and the codifying of the human experiences expressed through these three data collection methods will show the phenomenon as lived by the participants.

<div align="center">**Trustworthiness**</div>

The design of the phenomenological study was rooted in the interview, of which van Manen (2014) commented that trustworthiness was paramount to the study. The trustworthiness of this study was ensured by employing the use of pseudonyms, memoing, creating a codebook, and completing a digital audit trail for reliability, validation, credibility, and transferability. The following sections detail the procedures and methods for ensuring trustworthiness.

Credibility

Credibility has been defined by Lincoln and Guba (1985) as the truth of the findings. To enhance the credibility of the findings, presenting evidence of memorization and keeping a codebook allows for transparency, providing a clear representation of both the participant's and the researcher's experience (Bynum & Varpio, 2018; van Manen, 2014). Memoing was a way to synthesize the data points in summary. While there was no standardized procedure for memoing, using an approach that met individual needs seemed the best way to proceed (Creswell & Poth, 2018). Synthesizing the information allowed comparison, correlation, and emergent ideas to present themselves through concept and data synthesis; whether taking points within a set timeframe or over the entirety of the research.

Creating a Word document codebook developed a list of codes such as those identified in the six levels of Cox and Trotter's (2017) OER adoption pyramid. These codes included the six

levels that may contain sub-level codes to provide for more categorization. These codes provided

descriptions for guardrails and boundaries of the definitions of each code (Creswell & Poth,

2018). This standard of definitions allowed for inter-rater reliability among multiple coders as

well as a check on individual coders to meet specific criteria or parameters (Creswell & Poth,

2018). A codebook is a technique that can help keep researchers on track and organized when

coding. Both instances provided an insight into the thinking and decision-making of this study.

Transferability

Transparency in data collection and analysis allows for scrutiny and replicability for

future studies. It is important to note that Crowther and Thomson (2020) commented that no two

hermeneutic phenomenological studies are the same, creating challenges of standardized

measure and rigor for repeatable processes. Gadamer (1968, 2008) commented that

hermeneutical phenomenology is always a product of its specific time, place, and people, and the

essence is never finalized or concluded causing an evolving understanding of the phenomenon.

Additionally, Creswell and Poth (2018) commented that since the focus of this type of qualitative

study is on a particular phenomenon, it may also be studied in other qualitative forms as well.

However, the coding, memoing, and detail provided for this study will allow others to compare

and scrutinize this study using the transferability principles described by Lincoln and Guba

(1985). The descriptions and details also provides other researchers with various avenues to

explore for future research, whether in higher education in the U.S. or otherwise.

Dependability

Lincoln and Guba (1985) commented that dependability may be defined as the

consistency of findings across both the researcher and over the course of time. To ensure the

dependability of this study, a digital audit trail created a catalog of memos that can be retrieved

as a database on-demand (Silver & Lewins, 2014). Creswell and Poth (2018) suggested memoing as a validation strategy for the researcher to document their thought process while analyzing the materials over time. Creating memos included writing notes and definitions of the analysis process – journal prompt analysis, artifact analysis, and semi-structured interview transcript analysis – throughout the duration of the analysis process. Seeing the transformation of memos and thinking over time allows the researcher to confirm their decisions and review important information as the investigation continues. The audit worked both as a means to ensure that consistent notes, definitions, and terms were used throughout the entire analysis process, as well as why changes were made when they were made. Memoing was undertaken each day the analysis occurred and used summaries and checks every three sessions to ensure consistency of thought, process, and use of terms and categories. Whether new perspectives or categories better suited the analysis, there was an error made on the part of the researcher, or whether a new way of approaching the analysis would be undertaken, memoing allowed the researcher to ensure a chain of thought and analysis. This was useful for memo coding comparatives and notes as well as a summation of the research over time.

Confirmability

Lincoln and Guba (1985) commented that confirmability may be defined as the confidence to which the research can report the perceptions of the participants. To ensure the confirmability of the study, tape recordings of the interviews were created, transcribed, and checked by the researcher to ensure their accuracy and meaning (Creswell & Poth, 2018). This process can be further supported by cross-referencing researcher memos and notes (Creswell & Poth, 2018).

Ethical Considerations

Several ethical considerations were considered and implemented during this study. First and foremost, IRB approval was sought and confirmed before proceeding into any participant search and data collection to ensure ethical practices of the study. Permission from each participant was explained and obtained before data collection commenced. Paramount to any study is the ethical consideration of protecting participants from harm (Creswell & Poth, 2018). This study included avoiding disclosing information that would harm participants and avoiding situations where personally identifiable information (PII) could be exposed. Solutions for these issues included assigning pseudonyms to participants and creating composite participant profiles, avoiding specified clues instances (Creswell & Poth, 2018). Another ethical issue includes the possibility of disclosure of comprehensive findings (Creswell & Poth, 2018). Limited access to analysis procedures and lack of agreement about how findings are presented, as well as siding with participants and disclosure of only positive results are possible ethical considerations. Solutions included using member-checking strategies, opportunities for sharing procedures and results, and presenting multiple perspectives reflective of a complex picture (Creswell & Poth, 2018).

Important to mention in this study was the nature of open education and open licensing. Although the spirit of free and open material generation was at the heart of this study, it was my intention to pursue the protection of individual PII and confidentiality as a means of rapport and protection of the participants. The participants were not asked to have their personal data published due to the professional nature of this study. Phenomenological research aims to explain that which is difficult to quantify, especially difficult to express through one medium or in standard prose (van Manen, 2014). This study was about the phenomenon, not the personal

information, attributions, or citations of the individuals involved, despite the content and nature of open education and its current movement.

Summary

This hermeneutic phenomenological study aimed to explore the phenomenon of educators' lived experiences in creation of OER and implementation of OEP in U.S. higher education. In this chapter, I discussed the phenomenological research design, which was specifically chosen as hermeneutic phenomenology to interpretively frame the description of the essence of this phenomenon. The setting was chosen as the digital space, where technology and the internet create an environment for this phenomenon to take shape. The target participants were all experienced educators with experience in the creation of OER and the use of OEP. As the researcher, I took an active role in the administration of journal entries, artifact analysis, semi-structured interviews, and used memo writing and open coding in order to better understand this phenomenon. This chapter concluded with the pursuit of ensuring trustworthiness and ethical considerations; several steps have been taken to replicate, prove accuracy, confirm dependability, and protect those involved in the study.

CHAPTER FOUR: FINDINGS

Overview

The purpose of this phenomenological study was to describe the lived experiences of creator-practitioners of open educational resources (OER) and open educational practice (OEP) in U.S. higher education institutions. This chapter examines the findings of the research, from participant descriptions to the data. First, the participants and their descriptions are expressed, inclusive of their background, their introduction and use of open education, including participant information pertinent to this study. Next, the results of the data collection were categorized into themes and expressed with some sub-themes to best communicate the gathered qualitative data. Third, the research question responses from the participants are examined and summarized. Lastly, the chapter concludes with a summary of the findings.

Participants

The 11 participants for this study were recruited via popular social media platforms and snowball recruiting methods. Recruiting proved challenging to find the correct participant prospects on social media from initial estimates. Akin to the multiple terms used in the OER and OEP literature, many prospects were reached in groups or profiles by varying the key term phrase such as open educational resources, OER, #OER, open education, open ed, and other variations due to a lack of a cohesively used hashtag, label, or common phrase. Many prospects made themselves known and were able to be reached through various searches and groups. Some participants had a small or no presence on social media and were recruited via snowballing professional connections volunteered by other prospects. Compounding this issue was the presence of non-instructors in the form of librarians, media specialists, instructional designers,

advocates who were adjacent but not directly involved in higher education, as well as individuals with profiles that had yet to be updated to reflect their current roles.

All participants were asked to complete an online screening survey to view the basic requirements and time commitment estimates, and then an assessment of the prospect's initial eligibility for the study was completed. All participants were at least 18 years old, employed by a university or college in the United State at the time of this study, taught at least one academic term at an institution of higher education in the U.S., created at least one artifact that could be described as OER, and had used that created OER as a supplemental or required material for at least one academic term. Participants were asked to be currently employed by an institution of higher education so that their lived experience could include current benefits and challenges in 2023.

Participant geographic locations ranged from the eastern to the western coast of the U.S., including a mix of those who worked at universities and colleges, degrees earned, years of experience using OER, and the content they taught. Three participants had been teaching in higher education for more than a decade, and all participants had at least three years of higher education instructional experience. Nine of the 11 participants had earned a doctoral degree from a mix of content areas, from the sciences to business to the humanities. The participants' institutions ranged from small community colleges with less than 1,000 students on campus to large state universities with over 20,000 students on campus. Five of the participants were instructors at small institutions, defined as less than 5,000 students on campus. Four of the participants instructed at medium institutions, defined as 5,000 to 15,000 students on campus. The final two participants instructed at large institutions, defined as more than 15,000 students on campus. Not all participants had been using OER when the COVID-19 pandemic disrupted

national education during the lockdowns that began in March 2020. However, all participants commented that the COVID-19 lockdown had affected the way that students consumed digital information and materials, creating less friction in implementing OER materials, such as textbooks or supplemental materials. Participants' demographic information relevant to this study is summarized through pseudonyms in Table 1.

Table 1

Creator-Practitioner Participants

Participant	Institution Type	Degree	OER Exp.	Subject
Isaac	University	Doctorate	10+	STEM
Caroline	University	Doctorate	8-10	Education
Kelly	University	Masters	3-5	Information
Tony	University	Doctorate	5-7	Foreign Language
John	College	Doctorate	10+	Humanities
Robin	Community College	Masters	5-7	Foreign Language
Patricia	College	Doctorate	10+	Communications
Claire	University	Doctorate	10+	Literature
Anne	University	Doctorate	5-7	Business
Vaughn	University	Doctorate	3-5	Science
Alexander	University	Doctorate	5-7	Social Sciences

Participant Profiles

The profiles of the participants in this section are presented to communicate the various backgrounds and experiences brought together for this study. These descriptions are part of the introduction to open education that began the participants' lived experiences with the phenomenon of creating and using OER and OEP in their instruction in higher education in the U.S. The protection of each participant's identity was carefully handled as part of the ethical considerations of this study, including removing any identifiable markers, projects, locations, or unique indicators. These items were taken into consideration beyond using pseudonyms for the participants and their institutions. Below is a concise summary of critical background information and in vivo quotes from the participants to describe their lived experiences.

Isaac - Eastern State University

At the time of the study, Isaac was a science, technology, engineering, and math (STEM) instructor at Eastern State University, a small-sized regional campus that is part of a large state university system. He had been teaching for 10+ years at the higher education level and had been using OER for 10+ years. Isaac came to use OER as a graduate student, collaborating with other graduate students who were teaching assistants at the time, creating a concept map:

> I was looking at using concept maps as an interface for a textbook, and so I had to generate some of the content to go to make a concept map explorer or content concept map-based kind of navigation system for all that. All of the concept map-based navigation stuff is kind of fallen by the wayside, but I did end up keeping the content kind of expanded it out by like 2014 I had a full open textbook.

This collaboration grew into his teaching career, culminating in two OER textbooks and a library of activities, videos, assessments, and other materials. He continued to develop materials

over time, but commented on the restrictions of creating large and small changes: "So the big stuff is more grant driven, the smaller stuff I guess is more writing stuff down, just finding the time. Usually, over the summer to kind of fix it." All of this is in support of finding what is best for students: "what is the best thing to do and I'm constantly trying to implement and like build the best classroom."

Caroline - Northern State University

At the time of the study, Caroline was an education instructor at Northern State University, a medium-sized state university. She had been teaching for between 8-10 years at the higher education level and had been using OER for 5-7 years. Caroline came to use OER by getting involved in a state-wide initiative that was funding open-source textbooks:

> What the students are experiencing, and that was a big complaint, was that textbooks are too expensive and I got in, you know, I looked into it briefly, but I was like, whoa, this is overwhelming. I don't know. But then a little bit after that I got an e-mail from my chair saying that there was a statewide initiative that had been funded by the legislature and that there'd be, you know, this meeting. We were welcome to attend, where they would explain all of the useful things.

After attending and getting involved in this state-wide initiative, she compared a semester of the commercial textbook against a semester of the open-source textbook and found that student achievement was just as effective with the open-source textbook, including more students having access to it. Since then, she had found ways to bring OER and open texts into her course load, as well as expand her students' experiences by engaging in authentic activities: "My students produced usually two or three times more than they were required to because they were,

yeah, they were so motivated. Because and then we tell me, you know, there'd be whatever issue that they cared about."

Kelly - Mountain State University

At the time of the study, Kelly was a librarian and a general education instructor at Mountain State University, a small-sized university. She had been teaching for 5-7 years at the higher education level and had been using OER for 5-7 years through support for others and instruction. Kelly had come to use OER through exploration in a fellowship program that supported her journey of learning and developing instruments to support the adoption of OER:

> I did a faculty fellowship a couple of years ago on open educational resources, which is where my love of OER started from. It is not actually in my job description. It's just something I do because I love it.

> Kelly has had an interesting role. One of her official roles as a librarian was as a support person, but also another role was as a teacher. In this dual role, she had leveraged the instructor support she helps others with in her own courses. Kelly described herself as, "I'm a Jack of all trades" in different subject areas. Her "main focus over the last couple of years for subject focus has been open educational resources." She continued to push for the use of OER in her use and others' use because, "I think really, one of the biggest things for me was open educational resources is not the cost barrier. It's the accessibility." A strong advocate of OER as an accessibility and equity tool, Kelly continued to advocate for OER and OEP to serve all students with the ability to adapt, modify, and overcome accessibility and equity barriers.

Tony - Central State University

At the time of the study, Tony was a foreign language instructor at Central State University, a large-sized university. He had been teaching for between 5-7 years at the higher

education level and had been using OER for 5-7 years. Tony came to use OER through collaborating in a cross-institutional foreign language initiative to create OER resources:

> There was this group and … a bunch of other universities creating this content. Kind of like an assessment tool to be shared between instructors. And I was part of the project. I think it was the third time they were doing it and I was part of the [foreign language] group at the same time, there was a microeconomics group and other people working on this. I think the project failed and they didn't go through, but that was, like, my first kind of actually hearing the word, OER.

He commented that the initiative failed to gain momentum, but inspired colleagues at his institution and geographically neighboring institutions to secure a grant to build resources for their foreign language students that were both age-appropriate and affordable. Tony's experience from this cross-institutional group brought forth efforts at his university to develop an OER textbook used in the foreign language department with the support of a state-sponsored grant:

> So, the first time we actually use [OER] was we, I mean, except maybe like using, you know, like one activity from somewhere or things like various minor or the first time, we actually used OER was after we wrote an OER textbook for [foreign language] for educators. That was the first time we actually started working a lot on the OER we were able to win a grant to create this textbook this resource. And so it was the first semester, we copied it and we were testing the book, it was not available for everyone else, but we were testing it. And that was my first experience of actually using and teaching a full-year class using OER resources.

> Tony had been collaboratively developing OER textbooks and materials for the foreign

language department at his university since this first exposure. Tony commented that although he

considered himself an expert in foreign language, "I never wrote anything by myself, like, all the resources we're creating, they're all collaborative effort." He believed that teamwork was a major part of any successful OER initiative for the start, resiliency, and ongoing success: "Don't do it by yourself, because it's gonna be a lot of work, but if you have someone that will support you and help you in the process, you're gonna be better off."

John - Coastal Technical Community College

At the time of the study, John was a humanities instructor at Coastal Technical Community College, a small-sized technical community college. He had been teaching for 10+ years at the higher education level and had been using OER for 10+ years. John had come to use OER as he continued to build supplemental supports for his diverse student demographic. The supplemental support over time became more valuable to the course and students than the commercial text, creating a large handbook for students to use in the course. John had Google searched what he had done and found more about OER, eventually crafting more materials for his English courses. Although the textbooks and materials for other English courses were able to be curated, adapted, remixed, and added to over time, the introductory religion course was a different challenge altogether:

It took so much work just trying to find a textbook at an introductory level, a textbook for religion. And then I finally got to the point where I just basically said to heck with it, man, I'm just gonna write my own and then that's what I did.

At the time of this study, John was using OER in all five of the courses he taught throughout the academic year, and while not all five may appear on the semester course load, all five had been designed, developed, and continuously improved over several years. In speaking

about the motivation for his leap of faith to engage in OER for the betterment of his growth and his students, he stated:

> I reached a point. Where I was like I, you know, kind of talking to myself and I was like, you know what? I really don't care about my fear anymore. The only way I'm gonna realize if I am doing this right or not is to put myself out there.

The opening up of criticism had allowed John to connect with others across the nation, which brought the "Gospel of OER" to others through conferences and "evangelizing" the benefits of OER. John also commented that his librarian played a major role in this evangelism, co-presenting and being a great teammate in OER improvement.

Robin - Western State Community College

At the time of the study, Robin was a foreign language instructor at Western State Community College, a medium-sized community college. She had been teaching for 10+ years at the higher education level and had been using OER for 5-7 years. Robin came to use OER when a colleague invited her to review and edit an OER textbook for a foreign language course:

> She had told me: "Hey, I'm working on writing a textbook for my students for lower cost." I said, 'how awesome! Let me take a look at it.' So I was one of her peer reviewers at the textbook, and then I came [to Western State Community College] and actually taught out of that textbook.

Robin became a co-author of this text and even modeled her own textbook for another foreign language based on the original one. She also touched on the need to be tech-savvy and need relationships with others for "full richness." Reflecting on beginning the process again, she commented, "I would have probably approached [OER creation] differently because being a

subject matter expert is not enough." Robin commented that the learning process possible with OER and OEP gives perspectives and growth not otherwise achieved:

> It's the ability to model true intellectual building with students rather than saying I'm the boss and I wrote this and it's all correct and you're just gonna do it this way. It's encouraging the students to actually be intellectuals and question and ponder and draw connections, and test their hypothesis, which is what I'm always asking them to do in a foreign language anyways. But now I'm modeling that for them and the relationship, that connection coming out of it is so much richer.

Patricia - Southern State College

At the time of the study, Patricia was a communications instructor at Southern State College, a small-sized state college. She had been teaching for 10+ years at the higher education level and had been using OER for 8-10 years. Patricia came to use OER when she partnered with her chair to secure a grant to produce an OER textbook:

> My chair, the person who was chair at the time, well, we got a $30,000 grant to create a textbook for the basic public speaking class that we taught and part of that was that it had to be Creative Commons licensed and it had to be accessible, available for everyone who wanted to use it.

That textbook had been successfully shared and updated, producing multiple versions over several years. The accessibility and access of this project led Patricia to secure more grants to produce ancillary support and resources for the textbook. Now as the chair of her department, Patricia commented that, "In general there is not, in most universities, going to be an incentive to create [OER] unless it somehow gets incorporated into the tenure and promotion standards." Patricia continued to seek current information and skills for her students to engage in,

commenting that scrutinizing content and finding the right content is extremely important: "It's finding the best. It's finding the most relevant. It's not trying to overdo. And it has to be credible. You know, just because it's timely doesn't mean that it's really been well-researched." Patricia made an impactful comment about OER when she stated, "So it's if it was just saving money, it wouldn't be worth it. But then it's quality. You know that matters more, so I don't regret adding to it, even though it's been a lot of work."

Claire - Middle State University

At the time of the study, Claire was both a librarian and instructor at Middle State University, a large university. She had been teaching for 1-2 years at the higher education level and had been using OER for 10+ years. Claire had a unique response when discussing her involvement with OER, commenting, "I found open educational resources because I was already engaged in those practices." Claire noted that when she found the name of open educational practices, it was not a surprise, but rather a way to communicate and be able to get grants centered around the definition and name. For Claire, education and openness were not only intertwined but engrained as a family affair:

> I'm a fourth-generation teacher and so as far as engaging with open educational resources my whole life sitting around the table Thanksgiving dinner is about what are you using to teach this? Oh yeah, hey can I borrow that? Yeah, here you go. I'm going to change it a little bit because I've got kids that need this.

Claire had the opportunity to engage in OER as an instructor, and also described the collaborative team effort that entails the support of OER adoption for other staff. She also brought some perspective on multiple departments at Middle State University. Claire recounted an experience of an instructor who was frustrated with the commercial publisher for her courses.

She and Claire collaborated on OER as a solution, and also leveraged her department teammates and her own expertise: "Now that entire department at every level, they're all using OER that they've modified or created." Claire also commented that engaging at a global level has created a better sensitivity to accessibility and technology barriers. International colleagues commented on her work, stating, "She finally had a discussion where can you stop making [high-resolution OER]? I don't have a good internet connection and I can't interact with a lot of the stuff you're creating." She has continued to be an advocate of OER and OEP, supporting others to adopt, adapt, remix, and build their own OER.

Anne - Sunbelt State University

At the time of the study, Anne was a business instructor at Sunbelt State University, a medium-sized university. She had been teaching for 5-7 years at the higher education level and had been using OER for 5-7 years. Anne came to use OER when she transitioned from an experienced career in business to the classroom:

> I started teaching project management particularly, I found that the textbooks that the publishers were providing were kind of out of date, and they were also not structured in a way that is more natural to how projects are being done. So from the beginning, I started looking for free materials I could share with my students to help them learn more about how project management actually progresses in an organization.

After adopting OER materials early on, Anne continued to focus on keeping up to date for her students. She designed projects and pulled information from current governing associations to provide real-world applications. During a previous academic year, Anne continued her journey in OER by being awarded a grant to create her own textbook. However, it was a major challenge: "I realized how time-consuming it is to try to create your own materials,

even if you're remixing from existing sources, you still have to read everything and make sure it's up to date." Despite the challenge, Anne noted that the students were more responsive and engaged knowing that Anne took a personal stake in their education by building her own OER and their success through the use of OEP, authentic application projects.

Vaughn - Southeastern State University

At the time of the study, Vaughn was a science instructor at Southern State University, a medium-sized university. He had been teaching for between 8-10 years at the higher education level and had been using OER for 3-5 years. Vaughn came to use OER due to being thrown into a teaching assignment a week before a science course started without available resources:

> So this was a very kind of strange situation. It was the middle of the pandemic. So it's all this. 2020. I'm sitting here, the classes start in about a week. I'm trying to find the textbook I'm trying to get a teacher's copy from the publishers. While I got promises from a few of them and I did get them in December of that year. I had clearly [gotten it] late, so again I went OpenStax and I fully created kind of the online version of the course which did not actually go all that well because, well, you don't make a good class in one week.

OpenStax, the open textbook repository run by Rice University, had been founded in 2018, two years prior to his ordeal in 2020 in a similar situation: "In my Googling, right? I found OpenStax as one of the possibilities." That situation worked for the remainder of the academic year, but after the 2020 pandemic course build, Vaughn had begun to take to OER creation and long-term use. Vaughn and colleagues at Southeastern State University secured a grant to "formally, fully develop the materials and switch the core textbook to OER." He commented that, "There is always this process of self-improvement. I think self-education, that's constant,"

believing that expertise is driven by life-long learning and engagement, whether involved in OER or not.

Alexander - Atlantic State University

At the time of the study, Alexander was a social sciences instructor at Atlantic State University, a small university. He had been teaching for 10+ years at the higher education level and had been using OER for 5-7 years. Alexander came to use OER a decade after trying to deliver a class that had its full materials available online and available in a printed version. Alexander lamented, "Students didn't bother reading the material, so, it was, I would like to say a failure…so I was not happy about it." However, in 2017, Alexander was encouraged to try digital materials that included a print copy again:

> A librarian was a friend of mine at Atlantic State University and encouraged me to use open educational resources to use for the [course] from OpenStax. So we talked about it in 2017 and every time I was seeing her, she was encouraging me to usually, yeah, and I was concerned because I was afraid that the students will not have access to a paper version. But using an OpenStax, students were able to buy it. So…it was good. It was…a huge success. The students were really appreciative.

Alexander's successful adoption of this OpenStax textbook led to securing grant money for "an opportunity to create the supplemental material that I didn't have for OpenStax." Alexander would leverage students and colleagues to help build supplemental materials with this and other grants that continued the work over multiple semesters. He credited part of his success in engaging students to explaining the use of OER and because he cares about them. That explicit explanation, according to Alexander, had made a big difference in student success and engagement with OER and OEP.

Results

This phenomenological study used the triangulation of the analysis of participant journaling, analysis of submitted artifacts, and the conducting and analysis of semi-structured interviews per the methodology outlined in Chapter Three. In this section, these qualitative data points were analyzed and organized into three major themes that describe the lived experiences of creator-practitioners of open educational resources and practices in institutions of higher education in the U.S. These three themes include improvement of the student experience, improvement of the creator-practitioner craft, and community and contributions. Each theme also has corresponding sub-themes that further describe the lived experiences of the participants.

Improvement of the Student Experience

The theme of improving the student experience through the use of OER and OEP appeared multiple times in each of the participant interviews and is supported by participants' journal entries. The student experience was a combination of students' ability to engage in the course and their feedback about how they felt about the course. As the target audience of the creator-practitioner, the student experience has been described as a critical piece of the decision-making and factors for driving OER creation and OEP implementation. Alexander explicitly states this sentiment to students in his courses. He explained during the interview, "I really spend 10 to 15 minutes to say hey, I'm using OER because I care about you kids and I want to do everything I can to help you with your education." This theme is divided into two sub-themes that will be further analyzed: student affordability and student accessibility.

Student Affordability

The student experience is affected by student affordability of materials. In this context, affordability indicates the ability of students to purchase course materials at a reasonable price.

Although reasonable price is a subjective measure, the consensus among the participants in this study was that materials that cost hundreds of dollars for a single course on top of student tuition were too expensive. Tony described course material cost in this way:

> I don't feel comfortable or happy when I have to ask my students to pay $200, $300 when all the universities are talking about equity, diversity, inclusion, but then we still ask the students to pay $300 or we still charge $20,000 in tuition. So, it's mostly like a what can we do as professors to reduce this gap?

Many participants agreed with Tony's concept of wanting to support student affordability. Many participants interestingly discussed how they did not understand how costly some of the course materials were until they investigated them themselves. Caroline stated, "What the students are experiencing, and that was a big complaint, was that textbooks are too expensive and I got in, you know, I looked into it briefly, but I was like, whoa, this is overwhelming."

Participants discussed the concept of affordability in two variants: (a) an absolute cost issue, such as the one Tony described previously, and (b) a marketplace value issue. Participants expressed the desire for their students to receive value from course resources. In terms of affordability, the participants described the comparative value of what was found in commercial resources against the no-cost or low-cost OER resources. Although comparisons to commercial resources were stated in dollars, the participants also expressed the value of resources in different ways. Some participants described not using the full resources or having to bring in supplemental materials to enhance the student experience. Robin described this valuation and how it led her to OER:

I thought it sounded like a great idea to save students money. And yeah, if I know all this stuff, I don't need a textbook, I can write it. I can use a marker board. Why should students have to pay $300.00 for [a foreign language textbook] when I have the information here, and we have things like an online dictionary? It's like that was the idea: it was cost-saving to students first and foremost and then also it was a frustration with getting a big fat textbook and you only use a third of it.

Although other participants did not describe the dramatically small portion of commercial textbook use that Robin described, others, such as John and Anne, relayed their frustrations about not being able to find a textbook that accurately encompasses their entire course's materials. Anne described her realization of needing materials that were up to date, high quality, and tailored to her students when she commented, "So kind of in light of not finding good suitable materials that were up to date, I realized I needed to start creating materials." After securing a grant, Anne was able to produce the OER textbook that she used in class a year later. In John's case, his OER textbook was ready about 18 months after his frustration with not finding a suitable textbook for his course. Both John and Anne commented that their students find much more value and utility in the OER created textbooks compared with the previous materials that were purchased at high cost with only portions of the text used.

Beyond the textbook, ancillary support, such as workbooks, assessment banks, and supplemental activities and materials also add value to the cost of course materials. Vaughn commented that commercial publishers have an advantage over OERs as a whole because of their ancillary supports, but Patricia commented that ancillary supports have been a value-add for her Creative Commons licensed textbook. Patricia secured grant money to "create the test banks and slides and stuff like that" that add value to her use and her students' use, as well as other

instructors and students who have adopted her free Creative Commons licensed OER textbook and course materials.

Student Accessibility

The student experience is also affected by student accessibility to materials. The student experience with OER and OEP is improved when students can afford and access the materials-whether printed or digital - on the first day of the course. Both John and Patricia commented that students may not be able to access the course materials until they purchase the course materials. John stated that before he used OERs, students "literally couldn't afford to buy the book until they got paid, which would be at the end of the month, or, you know, every two weeks." Accessing the materials allows students to fully engage through the entire duration of the course.

Tony, Caroline, Robin, Kelly, and Claire commented specifically on the value of having an affordable resource with voices that represented their student populations. This measure of quality was described by Caroline in scrutinizing sources from different perspectives, stating, "So, like, how are they presenting different cultures? How are they presenting different viewpoints, that sort of thing? That's a big thing I look for in any material." Tony described this sentiment in improving his OER text, noting that during revisions they could "change the examples in the textbook and make them examples that relate to our current population." Kelly and Alexander also noted accessibility as a means for all students to engage in the materials. Kelly stated that OER provides accessibility for "the student who, you know, has visual impairment and needs to use a screen reader, or the student who you know is neurodivergent and needs something that is organized in a certain way." Alexander provides visual, audio, and Braille expressions of content for different learners. He also shared that, beyond his course materials that are housed in the learning management system, his "YouTube videos have closed

captions. So, it's best practice in terms of accessibility and I am flirting with universal design," as he continues to evolve his practices.

Improvement of the Creator-Practitioner Craft

The theme of improving the creator-practitioner craft also appeared multiple times in each of the participant interviews and is supported by participants' journal entries. In the analysis of participant artifacts using Cox and Trotter's (2017) OER Adoption Pyramid, a common trend emerged: all artifacts, in conjunction with explanations during the interview or descriptions in the journal entries, were found at the top of the pyramid and encompassed all six elements of the pyramid: access, permission, awareness, capacity, availability, and volition. In the improvement of their craft, creator-practitioners worked within the OER Adoption Pyramid for the delivery of resources, engaged students at higher levels of the Revised Bloom's Taxonomy (i.e. analyze, evaluate, create), and worked to improve their own expertise. As the individual who is in control of the course setup and delivery, the creator-practitioner is a critical aspect of the decision-making and a factor in driving OER creation and OEP implementation in conjunction with the students. This theme is divided into three sub-themes that will be further analyzed: control and improvement of content, higher-level engagement and application, and improvement of expertise.

Control and Improvement of the Content

Control and improvement of the content was described as a major element of the lived experiences of the creator-practitioners in this study. When discussing the ability to have control over the content, John stated, "So that's one of the things that I love about OERs is that they're dynamic and so pliable." Isaac echoed this sentiment when discussing the improvement process of content when he commented, "I'm continually just like playing around with the class and

trying to make it better, kind of gathering informal feedback here and there. Occasionally I do a more formal sort of assessment." By involving students in the process, the creator-practitioner is able to create a more authentic text for students as the intended audience. One of the things that Robin touched on was that the control of content through OER also allows a different, more authentic relationship between the creator-practitioners and the students when she commented, "And I have found so much beautiful interaction with my students through that vulnerability."

The control of content ultimately makes content more accurate for the learner and allows the ability to correct mistakes while improving the quality of the text. When speaking about keeping materials relevant, Patricia stated, "So I find that [commercial materials] have limited utility for me because they're not updated and I have to keep my material updated." Caroline stated the need for control to fix errors and keep the content useable when she stated, "I've had issues where there were some just egregious mistakes in the publisher materials and I can now, you know, I can edit those, or I can delete them." Some participants involved their students with the correction of mistakes in their own OER. Isaac described a "bug bounty" to find and report issues with content, and Robin had a similar system that included extra credit for mistakes reported in her foreign language materials.

Higher-Level Engagement and Application

Higher-level engagement and application of learning objectives appeared through the participants' reporting of their lived experiences. Tony described OER and OEP as more "individualized instruction, or at least individualized, personalized based on the professor and students' needs." Higher-level engagements, which can be framed through the Revised Bloom's Taxonomy or through the principles of the learner-centered environment that is rooted in the constructivist approach, were described by the participants, noted in journals, and became readily

apparent in their artifacts. Artifacts included websites, dashboards, textbooks, and workbooks, of which their design and development included learner-centered design and feasible interaction. In conjunction with these artifacts, Table 2 summarizes an explicit example of higher-level engagements that participants had described in current use for their courses.

Table 2

Creator-Practitioner Use of Higher-Level Engagement Examples

Participant	Description
Isaac	Groups students to solve authentic challenges as they would in a team setting in an authentic job setting.
Caroline	Uses renewable assignments to grow student skills and knowledge.
Kelly	Engages students in 21st-century skills to create projects of voice and choice using the course's research and communication skills.
Tony	Engages students in immersion and drives accurate speech and writing accuracy.
John	Experiments with different project-based learning and experiential learning techniques each semester to improve student learning experiences.
Robin	Uses authentic speakers and culture to drive differentiated understanding, immersion, and understanding.
Patricia	Engages students in current issues to discuss how the field is changing and how to strategically think about these issues through the course objectives.
Claire	Engages students in authentic voice creation and exposure to other authentic voices to grow their expression toolkit.
Anne	Brings in real-world case studies to develop authentic strategic thinking and practice of course principles.
Vaughn	Uses authentic scientific calculations and scenarios to drive engagement and application of course objectives.
Alexander	Facilitates a cooperative learning process in which students create assessment questions and engage in authentic community projects.

Ultimately, the learning approach from creator-practitioners was one that was driven to give students meaning. Whether this meaning came from interaction with course materials, interaction with the instructor, or, in some cases, the facilitation of interaction between students, each participant has been and continues to work towards a more meaningful experience for their students. Caroline provided a succinct statement on the meaningful student experience as a drive for learner-centered pedagogy when she stated:

> Well, I think the big thing is just at the center is meaning for the assignment. And on pedagogy, so you know, if students can have meaning in their assignments, and what they do, they're going to care about it more. They're going to learn better. And they're more likely to use it in some way when the course is over. So, I think that's the big thing I conceptualize when I think about renewable assignments is just how can I make what they're doing meaningful.

Improvement of Expertise

The role of how the creator-practitioners viewed their own expertise described a wide range of each participant's professional development. Some described themselves as content or subject area experts having backgrounds with terminal degrees and a wealth of experience. Tony described this perspective on expertise when he stated, "My position plus my background - I have a background in language pedagogy - gives me some sort of expertise to at least give me some confidence to be like, hey, I can do this." Isaac had an interesting perspective in that his collaboration with others pushed him to advance his expertise to better answer the more complex questions from other instructors and develop the depth of content. Isaac stated, "I have to reconcile and be able to like, basically, have a back and forth with other experts that are teaching this subject," which led Isaac to improve the scrutiny of his materials to "definitively come up

with a solution to, you know, I don't wanna have something out there that's wrong, because then it can kind of amplify the situation" of incorrect problem sets, assessment questions, or course instruction. Robin described how cooperative interactions support her own professional growth and are a benefit when she stated, "I get this like web of what my learners are experiencing, which then makes me understand the language and pedagogy on a deeper level." Others believed that expertise was a way to describe their credentials but preferred to continue to push their professional development further and further. Anne described her decades of experience, terminal degree, publications, OER materials, and experience teaching as, "I feel like I probably have a 9 out of 10 skill level and knowledge level" to describe how there is room to continue to improve and strive to obtain more knowledge. In all viewpoints, participants were eager to continue to engage in their growth, whether in their instructional practices, in learning more about OER and OEP, or to gain more knowledge about their content or subject area.

An interesting perspective about expertise was raised by Tony, Robin, Kelly, John, Claire, and Alexander, where each commented that they have encouraged their peers to view their expertise positively as a persuasive argument to engage in OER and OEP. John, who described himself as spreading the "Gospel of OER" with colleagues across the nation through webinars and conferences, recounted a conversation he had with a colleague. He commented, "And everybody realizes why are we knuckling under and kowtowing to a select few when we have the same credentials that they have? We're just as good as them. You know, so why should we be using their stuff?" However, participants continue to report a lack of confidence in expertise as a barrier for others engaging in OER and OEP.

Community and Contributions

The theme of community and contributions appeared throughout this research study. The community aspect described here as part of the participants' lived experiences encompasses the interactions of all parties involved in the OER and OEP learning process. This includes the creator-practitioners, their students, colleagues at and outside of their institution, outside learners (i.e., learners at other institutions), and stakeholders such as university leadership, OER organizations, and government entities that support grants, policies, and legislation related to open education. Claire described the importance of one's internal motivation to engage OER and OEP paired with a teammate when she stated, "Embrace your own curiosity and your own strengths and also find a friend. Find someone to do it with." The contributions aspect of this theme includes the direct action that interacts with OER, OEP, or both to advance the overall experience of open education. Contributions were reported by participants to include student feedback, colleague collaboration, tenure and promotion considerations, academic freedom support, grants, resource support, and connections. Kelly interjected this point in her librarian role when she stated, "Ask for help. Don't be afraid to ask your librarian for help. Your librarians are more than happy to help you. That is literally our job!" In tandem, community and contributions have had an impact on the success of all creator-practitioners and can be further examined in the sub-themes of willingness to seek and professional support.

Willingness to Seek

The participants shared two general experiences when beginning their journey with OER and OEP. The first general experience noted was that they stumbled into OER or OEP without the intention of doing so. This describes the entry backgrounds of Isaac, John, Claire, and Anne, which were described in the Participants section earlier in this chapter. The second general experience described was that they were looking for a solution to challenges in their courses and

either secured or built - usually through grant money - OER. This background generalization included Tony, Caroline, Vaughn, Robin, Kelly, Alexander, and Patricia. These backgrounds were also previously discussed in the Participants section earlier in this chapter.

Participants also reported the concept of seeking information to propel them to conferences and develop partnerships to support their use of OER and OEP. Claire described the impact that the connections she made at one of the Global OER-Graduate Network (GO-GN) conferences was "pivotal in how I am able to share out and come alongside people with open pedagogy," as well as transformative in perspective." She continued, "That was one of the events that really helped me see the intentionality with which we need to leave our own circles to hear new voices." Robin, Alexander, and Anne all commented on the benefit of engaging in conferences for professional connections, to exchange ideas, and to keep up with current practices. From a different perspective, John described how he and his colleague had been "spreading the OER gospel" as they have "presented probably close to two dozen times with conferences and workshops" across the U.S. in the past two years.

Professional Support

Participants reported the importance of support mechanisms in support of their work in OER and OEP. Internal support mechanisms included librarians, information technology support, instructional designers, other instructors, and leadership. Participants reported having experiences where they sought out internal support to partner in their creation of OER and implementation of OEP, while others reported being approached or connected to internal support and forming partnerships. Caroline reiterated the importance of using professional support when she commented, "I would definitely contact your librarian, your campus librarian. They are the OER masters, and they're the ones to know, to check in about with, and to develop the

materials." In both instances, internal support mechanisms diversify and spread the workload, a key ingredient of avoiding burnout in work that is continually ongoing.

External support mechanisms include grant programs, OER organizations, and state institutions. Similar to internal support mechanisms, participants reported experiencing seeking out these supports, while others reported instances of these supports coming to them or partnering with them. These external supports had mostly dealt with compensation for the time spent on creating or improving materials. Participants commented on the essential nature of grants to support their use of OER and OEP. Many stated that if grant money was not available, they would not engage in some of the work. Robin commented that during the current study she was in the midst of writing a grant in pursuit of getting her foreign language materials and it was "more accessible because when I was starting five years ago, accessibility was not my big concern." She noted that accessibility is now a bigger concern and a major time barrier to converting to a product that is technologically accessible. Robin also noted, "PDFs are not friendly. They will not read in the target language and in English, and so if a student has a learning disability or it needs additional support for simply universal design for learning principles." Patricia discussed her multiple grant awards for her OER materials and humorously commented, "If I went now and I asked for one, I wouldn't be able to get it because I've already, well, I think I've maxed out on what they're gonna give me for this book!"

Outlier Data and Findings

In this section, one outlier finding was discovered through the data collection process that did not align with the questions or themes. Although the importance of grant money in the remedy of the challenge of time was expressed by all 11 Participants, the remedy of securing tenure and promotion while using OER and OEP was an exceptional finding. The lived

experience of some participants describing how they secured tenure using OER was sharply contrasted by others who did not have the same opportunity. This outlier finding is detailed in the sub-section below.

Outlier Finding

While most participants reported that OER and OEP are not supported or seen as valued academic engagement by institutional review committees, both Isaac and Alexander explained how they successfully used their OER and OEP to secure tenure. Isaac was able to show how his securing of grant money was in service of building resources that were used by multiple campuses and students. It is important to note that Isaac was an instructor at a regional campus that was teaching-focused as opposed to research-focused. Alexander was able to accomplish a similar goal, showing how his work with grant programs was in service of students across the university system of his state. In both instances, the OER work itself was not the consideration, but rather the impact on multiple populations through grant opportunities. Although this may seem like a technical loophole, it is important to note that the securing of grants and consideration of OER and OEP for tenure and promotion was reported by each of the 11 Participants. As a description of the lived experiences of creator-practitioners, it is important to note that using grant money, which is already being done, could possibly be used in tenure and promotion reviews to support the professional advancement of creator-practitioners.

Research Question Responses

This phenomenological study was guided by five questions: one central research question and four sub-questions. Participants responded to these questions through journal entries, artifact analysis, and semi-structured interviews. These questions were posed to pursue the essence of

the lived experiences of creator-practitioners of OER and OEP in institutions of higher education in the U.S. Participant data are provided to enrich the responses to these questions.

Central Research Question

The central research question for this study was how do creator-practitioners in higher education in the United States perceive their use of OER and OEP? The expressed lived experiences of the creator-practitioners was that they view their use of OER and OEP as positively impactful. Engaging in work that challenges creator-practitioners' expertise, time, and capacity creates a positive experience for both the students and the instructor, expressed as a higher-level engagement and voice and choice within the course for students and continued professional growth of the instructor. These descriptions were supported by artifact analysis, which found OER artifacts operating through all six levels of Cox and Trotter's (2017) OER Adoption Pyramid and continuously driven by the volition stage of instructors to embody learner-centered approaches that were described in instances as OEP. Alexander had a profound statement relating to the perception of using OER and OEP when he stated, "It's giving back what is OER. It's a gift to humanity. What is open pedagogy? Open pedagogy is giving back the gift we receive." Patricia offered a philosophy that summarized her perception of OER and OEP, stating that OER and OEP are "creating accessible education and I do believe in accessible education. I believe in a meritocracy, that if you can work and you shouldn't have to be held back in your education by finances."

Sub-Question One

The first sub-question for this study was what challenges/benefits do creator-practitioners encounter from OER creation? Participants commented that the challenges and benefits were connected, pairing the difficult task of OER creation with the beneficial solutions it can bring.

Vaughn summarized the concept of challenges and benefits being linked when he commented, "It's hard to separate them in that probably there is always a part of the benefit, part of the challenge in each issue that we encounter." Further, there was optimism expressed about engagement and how worthwhile engaging in the creation of OER is. Kelly summarized this concept when she commented, "I think that the good outweighs the bad when it comes to open educational resources."

The participants communicated that the challenges included a variety of elements with respect to time and capacity, availability, and technology. In discussing the time commitment challenges in creating and updating OER, Isaac commented, "At least on the authoring side, it takes a ton of time. It's not necessarily always highly rewarding." Tony touched on the creation and engagement of supplemental materials, commenting, "We try to do our best. I think it requires that - so this is another problem of OER - that it requires more time from the instructors." Robin brought up the idea of lacking ancillary support for OERs compared to a commercial publisher and commented, "There is not a bank of questions that I can go to and say, oh, ok, I'm running late. We've got a writing assignment due. Here's a prompt. No, that prompt is all me." Patricia touched on the time and capacity issue needing to be supported by grants when she stated, "There's absolutely no incentive for me to update [my OER textbook]. You know, this time there's no money involved." Others, such as Caroline and Anne, commented on the lack of available OER to begin with for certain courses. Kelly commented that the quality of OER is increasing, and peer reviews are becoming more prevalent from community-based reviews of the resources, but other participants, such as Vaughn and Patricia, advocated for a higher quality of available OER, regardless of community input. Claire's view on quality was that OER can begin as a working draft, and its live nature allows for input, editing, and improvement over time just

like the release of various editions of textbooks. Student accessibility and technological issues, such as Isaac's gripe about the difficulty he experienced with updating his website, continue to be barriers to engagement and high-quality materials.

Participants noted that the benefits of OER creation are student affordability and accessibility, instructor control, and the notion of cooperation ownership. Alexander described the value that affordable OER resources can be for the student experience when he commented, "It's not just free. It's that some people care enough about you that they decided to put together this material, and sometimes it's good and sometimes it's bad, but it doesn't matter." Many participants described the ability to manipulate content, organize how they wanted the content, take out or add content as needed, and push updates of materials quickly. Robin captured this sentiment in a succinct description when she stated, "The ability to make content very relevant and very current and to modify that easily without having to wait for a new addition published." Creator-practitioners can also make decisions based on their students' needs, expand or clarify sections, and write in a way that meets students at their level. Anne noted this student clarity concept when she described the clarity editing process that she engaged in with her student assistant. Anne relayed, "so I would create the chapter from existing resources and modify it, and she would read it and make sure it made sense from her perspective." Anne's proactive approach to student clarity contrasted with how John fell into revisions for student clarity. John described the benefit of OER for student clarity when he commented that students would approach him after class and say, "I really didn't understand it in the textbook and you explained it better [in class]…so then I realized that the level of the textbook was above some of our students." John was able to change the language and add clarifications during that semester to help support student understanding. Both Anne and John described cooperative ownership of the OER, but

cooperative ownership extends beyond the instructor-student relationship. Others, such as Tony, described the utility of having a group of people working on OER. Tony added, "Now we're working on like we're working on a book now that we have 10 faculty working at the same time. So I use my expertise, but I cannot do it by myself."

Sub-Question Two

The second sub-question for this study was what challenges/benefits do creator-practitioners encounter from OEP usage? The participants described the challenges as student engagement and availability of ancillary support. Anne described the difficulty of getting students to engage in cooperative learning: "It's very threatening to them because they've not been given a framework to create knowledge. Really. They've just been given a framework to regurgitate it." Kelly echoed this sentiment, touching on how students need skills to find and scrutinize materials. She discussed this importance when she stated, "Not only is it teaching students to be lifelong learners and how to access materials outside of a library resource, that's gonna have a paywall when they graduate, they can actually become lifelong learners." However, when there is a lack of ancillary support to engage students in skill sets, the creation of engagement materials becomes a challenge. Being granted compensation for the creation of ancillary materials is difficult, and Alexander summed up the need for pay for time spent on creation when he stated, "Time is very precious. I only have 24 hours in a day and I need to sleep, and I need to keep my job, so everything I do needs to pay. Pay…nothing in terms of money but needs to fulfill different functions."

The participants described the benefits of OEP usage to be higher level learning engagement and flexibility to evolve and adapt instruction. Table 2 from the Results section describes examples of higher levels of learning fully. Isaac commented on the success of using a

flipped classroom approach, allowing students to engage with the OER materials at their pace

outside of class, and work collaboratively in class to apply their learning. Isaac described this

approach as a support mechanism when he stated, "We do the homework problems in class. Um,

and so they've got time and I encourage them to kind of work in groups of two or three. I'm there

to answer questions." This flexibility allows students to engage in the course, investigate the

course material, and cooperatively work together to apply their learning as opposed to

consuming it. Alexander commented, "When we consume something we don't produce it. We

need to produce, not consume and consume. To produce we cannot just be in a position of

consuming." He went on to explain that resources that are not interacted with and activities that

do not engage students simply create consumers of low-level learning. With OEP, Alexander

believes we can more fully engage as producers when we adapt instruction to the learners. These

are instructional assignments, such as Caroline's renewable assignments that strive to be

meaningful, or instructional approaches, such as Isaac's flipped classroom or Anne's project-

based approach, that add value to the student experience.

Sub-Question Three

The third sub-question for this study was how do creator-practitioners make decisions on

what OER to create? The most common answers were the need for resources that more

accurately represented the needs of the course and the needs of the students. However, the

general needs assessments mentioned by the participants can be accomplished by either

scrutinizing OER to remix or by creating an OER from scratch. Kelly described the challenge of

assessing resources for quality when she commented, "So when you're looking for stuff, you

always have to go through and trying to kind of like see ohh is this good? Is this bad? Is this

OK?" Anne made an interesting observation when she noted that some OER continued to copy

off of original sources that contained errors and mistakes. She commented, "And the problem was is they kept copying and pasting grammatical errors, incorrect statements, outdated statements, and the like without a lot of quality review." She added, "I found that there were just some incorrect statements, unclear comments. Poor grammar. You know, just things like that, that they had been carrying forward in the different books." Regardless of scrutinizing the quality of the text, understanding the needs of the course and students is as important as knowing what one already has. Understanding what is already available to build on is a time and capacity-saving strategy. Claire cautions those frustrated with their textbook to take a pragmatic approach when making decisions on material creation. She asked some thought-provoking questions:

> What's your course build like? What are you using and are you in? Are you under the impression your students read the textbook? How important is that actual textbook to this experience? Is a textbook central to your course, or is it something that you bring in alongside what you're doing to kind of support it?

Sub-Question Four

The final sub-question for this study was how do creator-practitioners make decisions on how to incorporate OEP? Participants described the need to be aligned to student or course needs, similar to the responses about OER creation. However, instead of alignment to the material build, Caroline provided insight on OEP decision-making when she stated, "I try to think of something that would be suitable for the course objectives is the big thing. And also something that would be engaging for the students." The common response to this question was based on the availability of materials and how to engage the students in meaningful activities.

Summary

This chapter included the description of the participants, the results, and the responses to the research questions. The 11 participants expressed their lived experiences through the themes of improvement of the student experience, improvement of the creator-practitioner craft, and community and contributions. These themes helped frame the answers to the central research question and the corresponding four sub-questions. A good deal of crossover occurred between the participants in their expression of the compiled themes through the description of their lived experiences. Although the participants described a positive overall experience, they also explained the associated challenges, which included the time, capacity, and commitment it takes to be a creator-practitioner.

CHAPTER FIVE: CONCLUSION

Overview

The purpose of this phenomenological study was to describe the lived experiences of creator-practitioners of open educational resources (OER) and open educational practices (OEP) in United States (U.S.) higher education institutions. Eleven participants expressed their lived experiences through journal entries, artifacts, and the semi-structured interview. In this discussion, an interpretation of the findings of this study are examined, implications for policy and practice are explored, theoretical and methodological implications are considered, limitations and delimitations are reviewed, and recommendations for future research are investigated.

Discussion

This phenomenological study produced three distinct themes: improvement of the student experience, improvement of the creator-practitioner craft, and community and contributions. Through the description of the participants' lived experiences, the findings from the creator-practitioners describe factors that include internal, external, target audience, and community elements that either supported or hindered their execution of creating OER and implementing OEP. This final chapter discusses my interpretation of the qualitative data findings, implications for practice, theoretical and empirical implications, limitations and delimitations, and recommendations for future research.

Interpretation of Findings

The overall use of OER and OEP was reported as a positive experience, enriched by the drive to enhance both the experience of the learners and the instructor. This positive experience was expressed as the reward of engaging in challenging decision-making and time commitment. In this section, the findings of this study are developed. First, this section presents a summary of

the thematic findings of this phenomenological study. Next, interpretations of the study's

findings are presented.

Summary of Thematic Findings

The 11 creator-practitioner participants of this study described their lived experiences of

creating OER and implementing OEP in higher education institutions in the U.S. The description

of their lived experiences revealed the three themes of improvement of the student experience,

improvement of the creator-practitioner craft, and community and contributions. These lived

experiences were expressed through journal entries, artifact submissions, and semi-structured

interviews. In the following sections, specific interpretations of the findings of this study are

presented.

Learner-Centered Approach. The descriptions expressed by the creator-practitioners in

this study aligned with the principles of the learner-centered environment. These elements

incorporate the instructor as a guide to facilitate the learner's creation of knowledge and skills

(Reigeluth et al., 2017). A key element noted was the use of technology to support the

instructional practice that is both learner-centered and close to personalized learning.

Personalized learning, the approach that individualizes instruction to focus on each learner's

gaps and growth, is pragmatic in higher education only with technology due to management of

multiple learner pathways (Alamri et al., 2021). Using instructional technology makes sense with

OER, bringing together technology platforms for management and interaction as a key element

to effectively interacting with the OER materials for instructors and learners. The technology

element brings a double-edged implication to creator-practitioners. First, the need for proficient

technology will fall either on the instructor themselves or with a teammate, such as a librarian.

Regardless of technology proficiency, it was insightful to note the role of support staff in helping

support the technological delivery of OER. Second, the way in which OER is delivered makes a difference. Without Isaac's website, a learning management system (LMS) to deliver OER materials for many, or without a platform such as pressbooks to publish and easily edit OER text, these courses would have accessibility challenges. These accessibility challenges would act as gatekeepers, a stark contrast to the positive accessibility that was reported by the participants. In pursuit of focusing the course on the learner, technology must be accessible and there must be a level of technology proficiency to allow user accessibility and interaction.

The participants expressed positive experiences for students in the learning environments where OER is available and OEP is being implemented across the board. This was not a surprise. Best practices in education have been advocated for student engagement for decades, and the interaction between instructors, learners, OER, and OEP aligns with those best practices, especially after the COVID-19 shutdowns (Heidari et al., 2021). Student engagement with OER and OEP was highlighted in environments such as Isaac's flipped classroom, Caroline's renewable assignments, and Alexander's student ownership of material creation. Each example shows how instructors are designing their courses to engage students in an active manner across multiple disciplines. This engagement may be expressed as the application of learned knowledge and skills that have been purposefully designed through a constructivist approach that both scaffolds and allows for learner proficiency. These engagements are authentic and contextual for the learners, engaging students in readily transferrable skills for additional coursework and for their career path. Two excellent examples of this concept were Isaac's flipped classroom, where students engaged in collaborative problem solving, and Anne's case studies, where students cooperatively engaged strategic thinking and application of knowledge to real-world scenarios. The engagement approach of collaborative learning, cooperative environments, and renewable

assignments is supported in the OER literature as best practice for optimal student engagement (Baran & AlZoubi, 2020; Koseoglu & Bozkurt, 2018; Wiley & Hilton, 2018). Further, engagement in OER as an agent of instructional change has been recently identified, corroborating the descriptions of expertise and craft engagement, and growth of the creator-practitioners (McBride & Abramovich, 2022).

Although OER can be an instructional change agent, the measured effect on students is less clear. Positive student appreciation of OER, reported by the creator-practitioners, is corroborated in the literature but is mostly attributed to affordability (Fischer et al., 2020; Hilton, 2020). However, as previously discussed, affordability and accessibility allow students to fully engage in the course. This ability to participate in the learner-centered environment has the possibility to be transformative in the student learning experience with its emphasis on skill building and 21st-century skills, such as critical thinking (Partnership for 21st Century Learning, 2019). The participation of all students in these environments enhances the richness of the course through varied student outcomes in Caroline's renewable assignment, Claire's student voices as part of the OER textbook, and Alexander's student-generated assessment questions. A critical finding that emerged from this study was that when students fully engage, both in manipulation of the material and immersion in the learner-centered environment, there is a positive outcome for the learners and instructor in addition to the qualitative reporting of fuller student knowledge and skill application.

Power and Control. Another critical finding for the study was who has the power and control over the content, focus, and philosophy of the course. Power and control was expressed in a number of different ways by the participants, but in the analysis of the qualitative data four elements of power and control were revealed: (a) how and when content was delivered to

students, (b) how the content was represented, (c) the focal shift of the course, and (d) the living versus static expression of the content. Each of these represents a paradigm shift from the traditional behaviorist model of the lecturer-receiver model of education. This paradigm shift aligns with the learner-centered environment that was previously described as well as a philosophical approach that values the individual building knowledge in a community versus the tradition of knowledge transference.

The finding of power and control related to how and when content was delivered to students and how the content was represented are closely related, yet two impactful expressions that did not necessarily coincide with each other. The delivery of content was less about the transference of knowledge and more about turning control over and the expression of the content in a form that students could engage and use. Several creator-practitioner participants described the ongoing improvement of their OER, a vulnerability that has been reported by other OEP implementers (Werth & Williams, 2021). The process of co-creation with students is a vital part of Wiley and Hilton's (2018) OER-Enabled Pedagogy approach and is further supported in other OEP research (Cronin, 2017; Cronin & MacLaren, 2018; Kaatrakoski et al., 2017; Koseoglu & Bozkurt, 2018). Some creator-practitioners have chosen to be conscious of which voices are represented in their controlled content. OER can be a useful tool in diversity, equity, and inclusion (DEI) considerations (Richardson & Roebuck Sakho, 2022), and Tony, Caroline, Robin, and Claire explicitly mentioned how they were using their control of content to better represent their student populations in authentic contexts. This representation allows for dynamic customization for the audience, a flexibility described by all participants as a benefit to OER. Ultimately, the instructor can choose to what degree they will spend their time and capacity to

represent the content, whether creating it themselves, developing it collaboratively, or scrutinizing curated resources created by others when adopting.

The learner-centered environment places the emphasis on the learner, shifting the focus of the course from knowledge transference from the instructor to the growth of the learner. This aspect of power and control creates a vulnerability of the instructor and allows for an immense expansion of knowledge generation through unique creation. Aligning with Vygotsky's (1978) social constructivist principles of knowledge generation through social and individual factors, this approach uses scaffolding to support the learner's growth as an agent of productive change. The continual growth of instructors was noted by the participants, a reflection of their philosophy of continual learning. This continual learning was expressed as living versus static, with OER as a continuous process that grows in information, evolves with new information, and expands with improvements in communication, depth and breadth of content, and differentiation. This approach disbands the traditional hierarchy of content dictation and diffusion from course instructor to course receiver in favor of a cooperative approach that supports the building of knowledge and skills for the learner. It is less about receiving knowledge and more about building knowledge, or a focus shift from instructor to student. What this represents is the living nature of OER, which beckons its community to continue to improve and evolve the content.

The paradigm shift of philosophy that OER and OEP can facilitate between knowledge transference and knowledge building is an exciting one. This paradigm shift has been expressed through open education (Brons, 2017) and instructional design best practices (Brown & Green, 2020; Martin, 2019). Paired with the live nature of OER and the engagement of OEP, this shift is not only feasible, but compelling in higher education.

Cooperation. The findings of this study revealed that the creator-practitioner participants have chosen to engage in the OER and OEP community. This choice to engage in creation and practice is one that is challenging, takes a great deal of capacity and time, and requires support to sustain. Although the details of these choices are unique to the participants, the consensus was that the outcome of these choices was positive, and each participant encouraged others to create and practice.

The challenge of engaging in the OER and OEP community includes sacrifice, vulnerability, and the choice for self-improvement. Despite the growing number of educators who are aware of OER in higher education, there continues to be a very small group who adopt it (Marin et al., 2022; Seaman & Seaman, 2022). The creator-practitioners in this study made the choice to grow through sacrificing their comfort and making themselves vulnerable. Many participants described how a commercial textbook with an online learning platform would be out-of-the-box ready, able to implement and support the course. However, in choosing to sacrifice that comfort, they decided to make themselves vulnerable to mistakes and errors, a point emphasized and embraced by Isaac, Robin, and Alexander. The literature has identified time and social barriers as challenges to OER adoption (Kaatrakoski et al., 2016; Nascimbeni & Burgos, 2019), but the creator-practitioners in the current study have navigated those challenges to persist in their creation of OER and use of OEP. Beyond the affordability and accessibility already described as benefits of OER, the choice to sacrifice their comfort, time, and capacity has paid off for these creator-practitioners in positive student experiences, a greater depth and breadth of learning experiences, the ability to edit content, the ability to bring in multiple voices, and the ability to connect with students in a more intimate learning relationship where students understand the content is the creator-practitioner's and not a commercial publisher's.

This study revealed the surprising finding of the critical impact that support plays in the decision-making process and the sustainability of OER. This support came in the form of individual and group collaboration, delegated tasks, and funding through sources such as grants. The creator-practitioner participants have chosen to apply for grants, spend their time and capacity to create, and engage their students in the learner-centered environment approach through OEP. They have also cooperated with their support staff such as librarians, instructional designers, technology support, and administrators. The impactful role of support staff and external colleagues as a community of OER supporters as creator, support, and sustainability has been viewed as a critical element of resiliency to OER sustainability (Braddlee & VanScoy, 2019; Essmiller & Asino, 2021; Fischer et al., 2020; Kimball et al., 2022). The community of OER is a two-way street, and many of the creator-practitioners in this study are actively engaging the community and supporting others in OER adoption. Kelly and Claire double as instructors and librarians in support of others in OER adoption. Tony, Caroline, Kelly, John, Alexander, and Patricia all belong to various OER advocacy groups, and some hold leadership positions in these groups. The findings suggest that the community is contributory, and to fully reap the benefits of the shared expertise and support of the community, one must also give back to the community. Regardless of when the creator-practitioner participants were able to obtain support from the community, their prevailing desire to contribute and encourage the larger OER community was noted as a positive benefit of the process.

Implications for Practice and Policy

The descriptions of the lived experiences of creator-practitioners generated from the results of this phenomenological study have implications for the practice and policy for those in U.S. higher education. Although institutional and governmental policies have supported the

creator-practitioner participants through grants and academic freedom policies, commentary on policy at the institutional or governmental levels from a technical standpoint is beyond the scope of this study. However, both the implications for practice and policy as gathered from this study may be implemented by other instructors and institutions.

Implications for Practice

The implications for practice may be expressed for OER, OEP, or the combination thereof. OER and OEP may be beneficial for blended learning (Sandanayake, 2019), align with learner-centered approaches (Reigeluth et al., 2017), support 21st-century learning (Partnership for 21st Century Learning, 2019), and show the benefit of ownership and renewable assignments for student growth (Wiley & Hilton, 2018; Werth & Williams, 2021). OER creation may be effective in courses in which the instructor has the proper confidence and experience to fully engage. Tillinghast et al. (2020) found that although there were not quantitative differences between two compared courses that implemented OER only and OER and open practices, the course that used OER and open practices may show a qualitative difference in student engagement through OER-Enabled Pedagogy. The current study suggests that creator-practitioners who use a variety of OEP, and not just OER-Enabled Pedagogy, as defined by Wiley and Hilton (2018), may experience a qualitative positive experience. This is both insightful and encouraging, considering the differences in geography, course subject and level, instructor experience, and OER experience. The implication is that OER and OEP create positive, engaging courses that may be applied with success to multiple subjects across different sized institutions.

In addition to the sentiment of positive experience, the OER Adoption Pyramid provides the context for OER creation, which can optimally take place when enough time and community

networking are provided (Cox & Trotter, 2017; Marin et al., 2022). The concept of sharing an imperfect product is a challenge, but the co-creation and collaborative improvement have been reported by participants of this study to be a positive aspect of the process. OEP implementation may begin at various levels and novice users may not be ready to engage in full OER-Enabled Pedagogy (Wiley & Hilton, 2018); however, open is a process. OEP is both developed within the instructor (learner-centered approach) and through the materials to be created (OER-Enabled).

Implications for Policy

The implications for policy surround the institutional policies for adopting OER, institutional and governmental policies dealing with grant availability, and institutional policy dealing with tenure. First, Cox and Trotter's (2017) OER Adoption Pyramid provides the environmental and motivational elements necessary to adopt OER. Institutions of higher education should consider using this pyramid to provide the elements necessary for their instructors to adopt OER as an affordability and accessibility initiative. Next, policies dealing with grant availability should consider not just the creation of OER, but the ongoing support of creator-practitioners to develop ancillary materials and assessments. Some participants commented on the need for a larger library and availability of ancillary support as a barrier to adopting OER. The positive responses from participants in the use of grant money to develop OER materials revealed an opportunity for grant funding to be structured around ongoing support. SPARC (2021) reported millions of dollars available across the U.S. for OER grants, and the intentional availability of more grants that target ancillary and assessment support could help support the resiliency of improving OER. Lastly, institutions could adopt policies that support tenure and promotional activities that include OER and OEP. The obstacle of tenure and promotion not accepting OER as an academic activity has been researched and identified (Hood

& Littlejohn, 2017; Martin & Kimmons, 2020), and the challenges that faced participants in achieving tenure and promotion in how to continue using OER could benefit the ongoing professional development of the creator and improve the quality of the OER with time to edit and improve.

Theoretical and Empirical Implications

This section discusses the theoretical and empirical implications of this hermeneutic phenomenological study. Addressing an identified gap in the literature, this study looked to investigate the lived experience of creator-practitioners in institutions of higher education in the U.S. This study revealed both theoretical and empirical implications that will be further discussed in the subsections below.

Theoretical Implications

Social constructivism guided this study in its theoretical framework. Vygostky's (1978) zone of proximal development (ZPD) may be transferred to the description of higher-level learning experiences described by the participants. ZPD describes the social construction of knowledge in an interactive environment, and with creator-practitioners, this social collaboration can look like a flipped classroom, can be present in student group projects, developed through renewable assignments (e.g. Wiley & Hilton, 2018), or the interactions between the instructor and learner as co-creators of knowledge as described by the learner-centered approach (Reigeluth et al., 2017). OER and OEP are not separate from best instructional practices but rather complement them by creating an open, shared community of learners. Social constructivism, paired with 21st-century learning, relates to best OER and OEP practices from a community and active/authentic learning perspective (Cronin, 2017; Werth & Williams 2021). The theoretical implications of the pairing of social constructivism and OER/OEP best practices are OER and

OEP best practices, which can be viewed as rooted in social constructivism as an application to enhance and enrich the learning experience through collaborative learning.

Empirical Implications

This phenomenological study corroborated previous research relating to OER textbooks, OEP implications for the learner-centered environment, and the challenges of social and institutional barriers. Research on OER textbook research revealed the positive elements of student affordability (Fischer et al., 2020). Participants in the current study commented on the positive aspect of students being able to afford the course materials, especially for underserved student populations, an element reflected in OER textbook affordability research (Bazeley et al., 2019; Fischer et al., 2017; Lantrip & Ray, 2020; Spilovoy et al., 2020). OEP implications for the positive effects of aligning to the learner-centered environment were reflected in the literature (Koseoglu & Bozkurt, 2018; Reigeluth et al., 2017; Tur et al., 2020; Werth & Williams, 2021). OEP reported in the current study also pointed to the implications of the positive effects of student skill building expressed as 21st-century learning (Kivunja, 2014). Lastly, the challenges of social and institutional barriers, such as time, tenure, and support, were reflected in the participants' lived experiences, as well as in the literature (Kaatakoski et al., 2017; Nascimbeni & Burgos, 2019). These corroborations add to the growing research descriptions of the positive and negative aspects of OER creation and OEP implementation in U.S. higher education. The implication of these aspects is to continue to build upon these descriptions to better understand the greater impact on students, learning, and tenure and promotion for those in higher education.

This study diverges from previous research with its focus on creators and practitioners as the people instead of the products, (i.e., OER textbooks or how OEP might be used). This study also extends the implications and anecdotes of OER and OEP use as part of the description of the

lived experiences of creator-practitioners. The novel contribution that this study adds to the research on this topic is the descriptions as a reflection of improvement and growth over time for creator-practitioners. This improvement and growth concept is valuable to view as a process versus simply a destination that one achieves. The descriptions of multiple users from multiple content areas corroborated the same reoccurring thread: to choose to engage. This engagement is partly for underserved as well as the typical student populations; however, engagement also includes colleagues and the greater community. Although the literature has stated that OER textbooks may be viewed as an equity measure (Fischer et al., 2020), the current study investigated questions that are scant in the literature. The choice of qualitative methods as a means to search the unknown and ask further questions was intentionally chosen as part of best practices for situations where the literature is light (Creswell & Poth, 2018). Interesting happenstances regarding the use of methods and design of this study included the difficulties of recruiting on social media, and that the participants were conversational like a long-form podcast. Some information in this study could be used as diffusive questions for future research threads or supportive elements to larger questions on pedagogy and approach.

Limitations and Delimitations

The limitations of this phenomenological study include the large range of participant demographic qualities, the deadline window, and participant resignations. The participant demographic qualities, such as age group, years of experience teaching, and the environment of creator-practitioner (e.g. institution size), all varied across the participant sample. Although the sample resulted in strong support of common themes, the sample itself may have been better recruited to compare different categories in pursuit of providing more data in understanding the lived experiences of creator-practitioners. Participants were recruited based on a small window

of opportunity in January and February 2023 due to the need to meet dissertation deadlines. From participation refusal feedback during recruitment, many participants declined to participate during the recruitment period due to timeline restrictions or due to their spring semester workload. Limitations also include two participants who were unable to continue the study due to various reasons and had to resign before the semi-structured interview.

Delimitations of this phenomenological study include current instructors using OER and OEP, U.S. institutions of higher education, instructors who have at least one academic term of experience with OER, purposeful selection of a hermeneutic phenomenology study, and purposeful recruitment strategy of social media. The decision to include only current instructors was made in order to best examine the current lived experiences as a stable variable. Selecting U.S. institutions of higher education provided a similar culture to frame the context of OER and OEP as compared to different historical, cultural, and policy-driven elements from different nations (e.g., copyright policy, intellectual property history, university system history, and current environment). Selecting institutions of higher education over K-12 schools was purposeful due to the availability and amount of literature that addressed OER and OEP in higher education compared to the relatively smaller amount of K-12 literature. Familiarity and experience with OER and OEP were critical to fully investigate the lived experiences of creator-practitioners so that the participant could provide a rich description of the phenomenon. The hermeneutic approach was chosen over the transcendental due to the investigatory nature of this study. The phenomenon of open education requires familiarity with multiple principles and practices to fully explore the richness of the lived description. As someone who has used and researched OER and OEP, I made the decision to insert some of my contextual understanding to identify interesting strands of the phenomenon during the semi-structured interviews. I believe

this was the best approach in order to uncover the essence of the participants' lived descriptions. This contrasts with the transcendental approach, which extracts the essence above any context of the researcher. Lastly, as a means of purposeful recruiting, the purpose of using social media was to identify those who were engaging in the open community, displaying that they were using and were familiar with OER, and exhibiting familiarity with OER.

Recommendations for Future Research

This study was intentionally designed as a hermeneutic phenomenological study due to its emergent nature in the literature. Due to its emergent nature, the choice to design a study to openly explore the lived experiences of those currently engaging in creation and practice has led to suggestions for future research. OEP implementation should be further studied to discuss best practices for instructional approaches and decision-making. OEP implementation should be studied specifically for grant awardee cohorts to compare cultural situations, grant parameters and goals, and similar support networks to keep more variables constant. Echoing the recent findings of Marin et al. (2022) on the disappointment of general OER and OEP adoption in higher education, future research may require more targeted case studies of proper OER and OEP launch programs and grant funding for all aspects of OER creation and ongoing improvement. It is important to note that Crowther and Thompson (2020) commented that no two hermeneutic phenomenological studies are the same, and future research may have the conclusion of a difference essence of the lived experiences of creator-practitioners in institutions of higher education in the U.S. This concept should be taken as encouragement to others to build on the larger description to add to and better understand the larger description of the phenomenon of creator-practitioners in the U.S.

The lived experience of creator-practitioners may be explored further to add to the larger description of this phenomenon by exploring further metrics, more homogeneous populations, and learning impact. Complementing the Bayview Analytics survey (Seaman & Seaman, 2022), quantitative metrics may be used to explore how much of the instructor population are comprised of OER adopters, OER remixers, OER creators, OEP implementors, and creator-practitioners. These categories and definitions will need further development and parameters but are used here to express the desire to further explore the depth to which others are engaging in OER and OEP as an evolution from the more binary awareness versus use questions. Demographics, such as those involved in state-wide OER Association network grants, may also be a candidate to further explore the lived experiences of those who share a larger set of similar elements compared to this study. The true learning outcomes comparing OEP and non-OEP courses may be too challenging at this point without a set definition of OEP and the associative learning pedagogy that encompasses OEP. Not only would there be a standardization of OEP, but also instructors who would be familiar and experienced with this pedagogy to fully express the application of the learning approach for students. For now, a fuller description of the transition from awareness to the adoption of OER and OEP would provide a guide for those in higher education who, like the 11 creator-practitioners in this study, have the desire to enhance their students' learning experiences, enhance their own practitioner craft, and belong to and contribute to a collaborative community.

Conclusion

This qualitative study aimed to describe the lived experiences of 11 creator-practitioners in U.S. higher education. The central research question for this study was how do creator-practitioners in higher education in the United States perceive their use of OER and OEP?

Through journal entries, artifact submissions, and semi-structured interviews, memoing and thematic clustering were used to describe and report thematic and specific findings of the described lived experiences of these creator-practitioners. The lived experiences of the participants revealed three themes: improvement of the student experience, improvement of the creator-practitioner craft, and community and contributions. These themes drove the implications of findings of the learner-centered approach, power and control, and community. The key takeaway from these findings is that a paradigm shift in education is happening. Creator-practitioners are shifting the focus of education to the guidance of learners in their own learning journey as a way to prepare the learner for the unknown by equipping them with knowledge and skills to critically think and problem solve. OER and OEP are effective tools to conduct this paradigm shift, along with a strong instructor desire to enhance the student experience and their own professional craft. The essence of this lived experience is the choice to engage in challenging conditions and work as a sacrifice to produce an environment where students, instructors, and the community benefit from higher-level learning experiences, enriched expertise, and collaborative teamwork.

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Appendix A

Institutional Review Board (IRB) Approval

LIBERTY UNIVERSITY.
INSTITUTIONAL REVIEW BOARD

December 15, 2022

Alex Wanstrath
Susan Stanley

Re: IRB Exemption – IRB-FY22-23-503 A Phenomenological Study on the Lived Experiences of Creator-Practitioners of Open Educational Resources and Practices in the United States

Dear Alex Wanstrath, Susan Stanley,

The Liberty University Institutional Review Board (IRB) has reviewed your application in accordance with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) regulations and finds your study to be exempt from further IRB review. This means you may begin your research with the data safeguarding methods mentioned in your approved application, and no further IRB oversight is required.

Your study falls under the following exemption category, which identifies specific situations in which human participants research is exempt from the policy set forth in 45 CFR 46:104(d):

Category 2.(iii). Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) if at least one of the following criteria is met:
The information obtained is recorded by the investigator in such a manner that the identity of the human subjects can readily be ascertained, directly or through identifiers linked to the subjects, and an IRB conducts a limited IRB review to make the determination required by §46.111(a)(7).

Your stamped consent form(s) and final versions of your study documents can be found under the Attachments tab within the Submission Details section of your study on Cayuse IRB. Your stamped consent form(s) should be copied and used to gain the consent of your research participants. If you plan to provide your consent information electronically, the contents of the attached consent document(s) should be made available without alteration.

Please note that this exemption only applies to your current research application, and any modifications to your protocol must be reported to the Liberty University IRB for verification of continued exemption status. You may report these changes by completing a modification submission through your Cayuse IRB account.

If you have any questions about this exemption or need assistance in determining whether possible modifications to your protocol would change your exemption status, please email us

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at irb@liberty.edu.

Sincerely,
G. Michele Baker, MA, CIP
Administrative Chair of Institutional Research
Research Ethics Office

Appendix B
Consent Form

Title of the Project: A Phenomenological Study on the Lived Experiences of Creator-Practitioners of Open Educational Resources and Practices in the United States
Principal Investigator: Alex Wanstrath, Doctoral Candidate, School of Education, Liberty University

Invitation to be Part of a Research Study

You are invited to participate in a research study. To participate, you must be 18 years of age or older, have created your own OER, and have been the teacher of record for at least one term (e.g. semester) where OER supplemental or required materials were used. Taking part in this research project is voluntary.

Please take time to read this entire form and ask questions before deciding whether to take part in this research.

What is the study about and why is it being done?

The purpose of the study is to examine the lived experiences of creator-practitioners of open educational resources (OER) and open educational practices (OEP) in institutions of higher education in the United States.

What will happen if you take part in this study?

If you agree to be in this study, I will ask you to do the following:
1. The first task will include responses to journal prompts that should take approximately 1 hour 30 minutes to 2 hours over a four-week period.
2. The second task will include submitting at least one original OER artifact, which will take 30 minutes or less between instructions, curation, and response.
3. The third and final task will be a scheduled semi-structured interview that will last 30-60 minutes with the possibility of a single follow-up interview of 30 minutes or less (60-90 minutes total).

How could you or others benefit from this study?

Participants should not expect to receive a direct benefit from taking part in this study.

Benefits to society include building a knowledge base that is an identified gap in the research for the lived experiences that creator-practitioners. These lived experiences will provide insight to researchers who are curious about the growing awareness of OER and OEP, yet the lack of adoption by faculty.

What risks might you experience from being in this study?

The expected risks from participating in this study are minimal, which means they are equal to the risks you would encounter in everyday life.

How will personal information be protected?

The records of this study will be kept private. Published reports will not include any information that will make it possible to identify a subject. Research records will be stored securely, and only the researcher will have access to the records.

- Participant responses will be kept confidential by replacing names with pseudonyms.
- Interviews will be conducted in a location where others will not easily overhear the conversation.
- Data will be stored on a password-locked computer. After three years, all electronic records will be deleted.
- Recordings will be stored on a password-locked computer for three years and then deleted. Only the researcher will have access to these recordings

How will you be compensated for being part of the study?

Participants will not be compensated for participating in this study.

Is study participation voluntary?

Participation in this study is voluntary. Your decision on whether to participate will not affect your current or future relations with Liberty University. If you decide to participate, you are free to not answer any questions or withdraw at any time.

What should you do if you decide to withdraw from the study?

If you choose to withdraw from the study, please contact the researcher at the email address/phone number included in the next paragraph. Should you choose to withdraw, data collected from you will be destroyed immediately and will not be included in this study.

Whom do you contact if you have questions or concerns about the study?

The researcher conducting this study is Alex Wanstrath. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact him at ███████████████. You may also contact the researcher's faculty sponsor, Susan Stanley, at ███████████████.

Whom do you contact if you have questions about your rights as a research participant?

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the IRB. Our physical address is Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA, 24515; our phone number is 434-592-5530, and our email address is irb@liberty.edu.

Disclaimer: The Institutional Review Board (IRB) is tasked with ensuring that human subjects research will be conducted in an ethical manner as defined and required by federal regulations. The topics covered and viewpoints expressed or alluded to by student and faculty researchers are those of the researchers and do not necessarily reflect the official policies or positions of Liberty University.

Your Consent

By signing this document, you are agreeing to be in this study. Make sure you understand what the study is about before you sign. You will be given a copy of this document for your records. The researcher will keep a copy of the study records. If you have any questions about the study after you sign this document, you can contact the study team using the information provided above.

I have read and understood the above information. I have asked questions and have received answers. I consent to participate in the study.

☐ The researcher has my permission to audio- and video-record me as part of my participation in this study.

_____

Printed Subject Name

_____

Signature & Date

Appendix C
Journal Prompts

Overview: Participants will be asked to complete the following journal prompts to gain insight into the perceived use in the practice of the participants.

Section 1 Prompts
1. Please describe your experience first interacting with open education resources (OER).
2. Please describe how your view of OER has changed, if at all, from your first interactive experience with OER.
3. Please describe your experience first interacting with open education practices (OEP).
4. Please describe how your view of OER has changed, if at all, from your first interactive experience with OER.
5. Please give an example of an OER that you are currently using in the course(s) that you created. What led you to create this specific OER and how has this OER been augmented, if at all, over the time of its use?
6. Please give an example of how your use OEP in your current course(s).

Section 2 Prompts
7. Please describe in your own words how you view/perceive your use of OER in your current course(s).
8. Please describe in your own words how you view/perceive your use of OEP in your current course(s).
9. Please give an example of an OER that you are currently using in the course(s) that you created. What led you to create this specific OER and how has this OER been augmented, if at all, over the time of its use?
10. Please give an example of how your use OEP in your current course(s).

Section 3 Prompts
11. Please describe in your own words how you view/perceive your use of OER in your current course(s).
12. Please describe in your own words how you view/perceive your use of OEP in your current course(s).
13. Please give an example of an OER that you are currently using in the course(s) that you created. What led you to create this specific OER and how has this OER been augmented, if at all, over the time of its use?
14. Please give an example of how your use OEP in your current course(s).

Section 4 Prompts
15. Please reflect on your use of OER and how you perceive the use of OER in your course(s) over these past few weeks.
16. Please reflect on your use of OEP and how you perceive the use of OEP in your course(s) over these past few weeks.