

Student Experiences of Open Educational Practices: A Systematic Literature Review

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Abstract

The purpose of this literature review was to gain a deeper understanding of student experiences of open educational practices (OEP). The research was conducted against the backdrop of a small, publicly funded university in Canada that offers a masters-level program delivered largely through open learning environments. A systematic literature review identified both benefits and challenges to OEP, related to open learning digital environments, tools and activities as well as institutional services and supports. Students further experienced benefits in working with others, developing a sense of self, and increased learning engagement. They also reported challenges associated with anxiety and with practical aspects such as privacy, copyright, and time management. Much can be learned from research into existing collaborative and related educational practices that preceded concepts of OEP. The study recommends increased focus on scaffolding for faculty and students in the implementation of OEP, as well as more research into student experiences.

KEYWORDS: Open education, open education practices, student experiences, OER, OEP

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1. Introduction

Royal Roads University (RRU) is a small, publicly funded institution with a mandate to deliver programming to working professionals. Academic programs are designed to meet the needs of the labour market and are informed by the institutional learning, teaching, and research model (LTRM) which values applied, authentic learning (Harris et al., 2019). Within the LTRM, a sub-category includes “openly practiced”. Based on extensive stakeholder feedback, this sub-category was introduced in the 2019 LTRM in recognition that “open, social and participatory media

[have influenced] the ways in which users interact, communicate and participate with technologies” (Conole, 2013, p. 47). In the RRU context, openly practiced applied to learning involves “empowering students to learn with, by and through others in communities and networks supporting dialogical, socially constructed learning” (Harris et al., 2019, p. 16). With respect to teaching, openly practiced allows for the design of courses and programs to implement open educational practices (OEP) including participatory pedagogies and technologies for collaborative learning in open learning environments. The application of openly practiced to research undertaken at RRU creates a research approach that incorporates “participatory technologies and online social networks to share, reflect on, critique, improve, validate and further scholarship” (Harris et al., 2019, p. 16).

While openly practiced is identified as an attribute of the LTRM, there is no institutional policy on openness or, more specifically, OEP at RRU. Consistent with current literature highlighting the grassroots approach to the implementation of OEP at post-secondary

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institutions (Morgan, 2019), the MA in Learning and Technology (MALAT) program at RRU provides an example of how in this environment, openness can be taken up as a program design principle. In the MALAT degree, students contribute meaningfully to digital learning networks and communities in the field. The degree prepares students to work within and critically evaluate digital learning environments. They apply theoretical and practical knowledge to critically analyze teaching and learning practices and technologies, and assess their impact on organizations and society.

Openness is central to the achievement of the MALAT program goal, and was implemented with the intent that OEP “lead to collaboration and the development of a digital mindset that values sharing and cultivates networked learning” (BCampus, 2017, para 2). Openness in the MALAT program is viewed as a continually negotiated space, one where a definition is always a work in progress. Cronin’s (2017) definition of OEP as including “collaborative practices which include the creation, use and reuse of OER, as well as pedagogical practices employing participatory technologies and social networks for interaction, peer-learning, knowledge creation and empowerment of learners” (p. 10) guided the program design.

Through the program development cycle, initial tensions surfaced including developing a common understanding of openness and what openness can be within the constraints of an institution, how openness supports or detracts from online community, the role of openness in the creation of safe learning environments, and the ways to support students learning in, and designing for, openness. The researchers were curious as to whether the benefits of OEP used in the MALAT program were being recognized by the students. While a body of knowledge is increasingly being established around open practice (Haßler & Mays, 2014; Paskevicius & Hodgkinson-Williams, 2018), students as partners in higher education (Mercer-Mapstone et al., 2017), and co-creation of innovative open learning environments (Ramírez-Montoya & García-Peñalvo, 2018), little is known of student experiences of working in open learning digital environments. Therefore, our goal was to gain a deeper understanding of student perceptions and experiences of open learning digital environments with an aim to identify implications for practice for faculty working in these spaces. Beginning with a literature review, this research is part of a larger multi-year research project investigating student and faculty perceptions of openness within the MALAT degree.

1.1 Background

Within a digital context, OEP have generated a growing interest in the education community over the past few

decades. Early research into e-Learning and online education began to appear in the 1990s, emerging out of the open and distance education milieu and gradually expanding to include social media and evolving toward OEP as it increasingly entered the mainstream of higher education (Weller et al., 2017). OEP are described from a diversity of perspectives, including learning environments. In their earlier forms, massive open online courses (MOOCs) were initially designed as loosely configured open learning environments that permitted open access and were based on digital networks and sharing of resources rather than structured delivery of content (Straake et al., 2019). The underlying approaches included a shift from the learning management system (LMS) as a one-shop stop for teaching and learning online to an open learning network consisting of interconnected personal learning networks:

Instead of implementing tools that simply help instructors “manage learning,” [Gardner] Campbell argued that we should embrace technologies that enable co-learners to frame, curate, share, and direct learning “engagement streams.” John Seely Brown and Richard Adler argued that learning with Web 2.0 tools is so different that we ought to call it “learning 2.0.” They asserted that, unlike old passive forms of learning, the new learner-centric paradigm (facilitated and reinforced by new tools) emphasizes participation over presentation, encourages focused conversation over traditional publication, and “facilitates innovative explorations, experimentations, and purposeful tinkering that often form the basis of a situated understanding emerging from action, not passivity”. The net result is an “open participatory learning ecosystem” (Mott, 2010, p. 3).

The pedagogical approach in open learning environments initially was focused on a student centred, constructivist learning paradigm in which students “negotiate learning via unfettered and largely unstructured or ill-structured Web resources to address individual learning needs” (Hannafin et al., 1999, p. 641). Within this paradigm, students have increased responsibility for negotiating their own learning goals and strategies, and locating the necessary resources to achieve them. More recently, open learning environments are envisioned as supporting digital pedagogies that use OER within a larger framework of OEP including such elements as use of social networks, open sharing of ideas and resources, connecting with professional communities, open critique of scholarship and other similar attributes (Hegarty, 2015). From a critical pedagogy perspective, open learning environments can be designed to support agentic

online social spaces (Morris, 2017; De Rosa & Robinson, 2017) and can be implemented to help address social justice intentions (Lambert, 2018).

2. Research Methodology and Methods

A systematic literature review (SLR) (Au, 2007; Okoli & Schabram, 2010; Paterson et al., 2009) was conducted to examine the literature on the student perceptions of OEP and identify gaps in the literature. Searches were conducted in Google Scholar, the RRU Library discovery search, ERIC @ Ebscohost, Taylor & Francis Online database, Springerlink database, and Academic Search Premier @ Ebscohost. The following parameters guided the search: explore peer reviewed articles, published books, published journals, and white papers; include those between 2002 and 2019 consistent with the span of the use of the term OEP (OER) (Rolfe, 2012; UNESCO, 2002).

Keywords and Boolean search terms used included:

- Open including open educational practice/s; open education practice/s; open learning environment/s; open learning systems; open systems; open practice; open platform; culture of open; OER;
- Open learning activities including blogs; wiki/s; e-portfolio/s; Wikipedia; e-book
- Learning activities including collaboration; collaborative practice; inclusive; personalization; self-directed; participatory pedagogy; 5 R's; reuse of learning objects;
- Student perceptions including fear; challenge; experiences; expectations; perspectives; tensions; supports; engagement; best practices; and,
- Digital mindset including digital education/al resources; networked learning; textbook adaptations.

While a total of 36 articles were initially identified as meeting the literature inclusion criteria above, upon further review by the co-researchers, 25 articles were identified as relevant. Articles selected for this review were deemed relevant when they situated their research within a continuum of openness (Kimmons, 2016).

The research assistant generated an initial list of descriptive codes. Four researchers reviewed the 25 articles and individually identified the conceptual categories. These categories were then collectively discussed and refined. A consensus was reached on the five final emergent themes: participatory pedagogy, open educational resources (OER), tools and activities, institutional services and supports, and student experiences.

3. Results

The final themes that emerged from the systematic literature are summarized and described below.

3.1 Participatory pedagogy

Participatory pedagogy was a common theme in the literature reviewed and involved students as co-creators of teaching approaches; co-creators of course design, co-creators of curricula (Baran & AlZoubi, 2020; Bovill, 2014; Bovill et al., 2016), co-creators of open textbooks (Valjataga, Fiedler & Laanpere, 2015), and peer support for co-creation projects (Gordon, 2017). While there did not appear to be one central definition of participatory pedagogy used in the articles reviewed, the various roles identified as being taken by students include:

(1) consultant, sharing and discussing valuable perspectives on learning and teaching; (2) co-researcher, collaborating meaningfully on teaching and learning research or subject-based research with staff; (3) pedagogical co-designer, sharing responsibility for designing learning, teaching and assessment; and (4) representative, student voices contributing to decisions in a range of university settings (Bovill et al., 2016, p. 198).

Various examples of participatory pedagogy appeared in the literature reviewed including collaborative writing projects that used Wikipedia (Di Lauro & Johnke, 2017); e-portfolio projects (Gordon, 2017), and co-authoring of OER (Hodgkinson-Williams, & Paskevicius, 2012). In their systematic literature review of students as partners, Mercer-Mapstone et al. (2017) found that “the majority of partnerships took place outside the graded curriculum as extra-curricular (non-graded) activities” (p. 10). There were positive outcomes for students as a result of engaging in these partnerships including increased motivation and ownership over learning. In addition, increased self-efficacy and empathy, and deepening of trust between students and faculty were identified. Interestingly, the negative outcomes of partnerships for students reflected an inverse relationship to the outcomes outlined above and included a reinforcement of the existing power inequities. The four themes identified by Mercer-Mapstone et al. (2017) were also consistent with this and included: the need for reciprocity in the partnership, the development of a holistic understanding of the partnership, a focus on small scale partnership activities focused on teaching and learning, and creating inclusive partnered learning communities in higher education.

Challenging issues discovered by students in their

experience of co-creating included the level of rigour required (Di Lauro & Johnke, 2017), the time required to build trust and establish connections with other students in an online environment, and the unreliability of technology (Parke et al., 2017). Students also identified the requirement for a base technology skill set (Gordon, 2017). From the perspective of education leaders, students-as-partner initiatives were more likely to be used as a way for the “institution to enhance its educational products” (Matthews et al., 2018, p. 6) as opposed to enriching collaborative practice in student learning environments.

3.2 Open educational resources (OER)

The use of OER by students generated both benefits and challenges. The researched articles represent a variety of contexts, but had in common learning activities that enabled open pedagogy approaches. Among the benefits identified were collaboration in the creation of OER such that a large percentage of students surveyed wanted to continue to use OER (Tur et al., 2016). Students reported an increased sense of agency and social inclusion, and greater access to resources in the co-creation of OER (Hodgkinson-Williams & Paskevicius, 2012). They identified “the potential to contribute to and access resources from other community development organizations” (Paskevicius & Hodgkinson-Williams, 2018, p. 34). Studies of student uses of OER and underlying concerns also reported challenges encountered. These included the need for guidance on the ethics of downloading and copyright (Czerniewicz, 2017); similarly, Paskevicius and Hodgkinson-Williams (2018) identified a need for improved legal understandings of copyright among students. In addition, Paskevicius and Hodgkinson-Williams encountered such challenges as contextualization of resources, curation and storage, metadata requirements, identifying resource rights holders, and the time and effort involved in relation to the reuse of digital educational resources. Furthermore, Tur et al. (2016) found students were uncertain as to whether OER can increase creativity, pointing to the need for specific examples of research in how OER are actually used and perceived in open learning settings, where students have shown

...positive attitudes when asked about general ideas whereas, when the question is focused on concrete aspects such as creativity and the role of textbooks to carry out the general principles, they have demonstrated more reluctance. This is evidence that although they can understand the principle, they have not achieved a transformative level of knowledge (2016, pp. 37-38).

Similarly, students described their experiences of open pedagogy practices in developing “renewable

assignments” and OER from idea stage to completion, both as positive in terms of learning and as generating cautions in such areas as ethics and identifying credible resources. Scaffolding provided by teachers was seen as important in renewable assignments, where “students felt that the guidelines provided throughout the renewable assignment phases were significantly helpful, which in turn enabled them to envision clear expectations and become more structured while developing OER” (Baran & AlZoubi, 2020, p. 9). In addition to the creation and repurposing of OER, the benefits of open access and the value of open repositories were also reported (Czerniewicz, 2017).

3.3 Tools and activities

Learning activities that are potentially open, and the digital tools that could support them are described in many articles identified by the literature review. Student consumption, creation, or co-creation of written material featured in multiple ways in the literature reviewed including storytelling (Tur et al., 2016), writing for Wikipedia (Di Lauro & Johnke, 2017), and the reading and co-writing of open textbooks (Jhangiani et al., 2018; Valjataga et al., 2015). In addition, social networking and group collaboration tools are the subject of three articles (Veletsianos & Navarrete, 2012; Ozmen & Atici, 2014; and Parke et al., 2017).

However, insight on how they might constitute or support open learning was contextually dependent (Wuetheric & Dickinson, 2015; Williams & Whiting, 2016; Ozmen & Atici, 2014; Haresname, 2015; Tur & Marin, 2015). In situations where an instance of open creation or co-creation by students is described, platforms used remained traditional (i.e., LMS) or are not mentioned at all (Bovill, 2014; Bovill et al., 2016; Hodgkinson-Williams & Paskevicius, 2012). There are a wide range of tools identified in the literature reviewed with e-portfolios playing a prominent role, both as a static assignment (Wuetheric & Dickinson, 2015) and as an opportunity for student co-creation of curriculum (Gordon, 2017). E-portfolios are not described as specific platforms, but as a genre of learning tool. However, the degree of openness of the technology used for e-portfolios varied and was implied by the practice surrounding them in the literature reviewed. Similarly, the degree to which the technology was open varied according to its use in a continuum of open pedagogy in other articles that described categories of tools like repositories and remixing platforms (Hodgkinson-Williams & Paskevicius, 2012; Paskevicius & Hodgkinson-Williams, 2018). LMS were prominently featured not as open platforms themselves, but as major components of a larger learning environment that may or may not include open tools (Hodgkinson-Williams, & Paskevicius, 2012), or

as foils for examining other tools like Ning (Ozmen & Atici, 2014) or Twitter (Williams & Whiting, 2016).

3.4 Institutional Services and Supports

A common thread in the literature on the student experience was the implied or explicit need to support instructors and students in components of open learning as it requires scaffolding for a variety of skills. The most common support required is for technical skills used within open platforms by both instructors and students (Tur et al., 2016; Parke et al., 2017; Paskevicius, 2017; Gordon, 2017). This support can range from tutorials on how to create content in an open platform, to more support on copyright, developing media and effectively distributing it in the open (Czerniewicz, 2017; Paskevicius & Hodgkinson-Williams, 2018).

A variety of ways student support needs can be met were discussed in the literature reviewed. While tutorials can be created that address the gaps experienced by some students, there is a need to provide supports for students lacking the necessary digital skills (Andersen & Ponti, 2014; Tur et al., 2016). One study considered the difference in technical support provided by instructors and students (Gordon, 2017), and found that the formal integration of peer technical support can help to make student creation or co-creation of content more scalable.

Support for design and development of curriculum for open learning, and the technologies that can support it, were also identified as being important for faculty (Paskevicius, 2017; Tur et al., 2016). Similarly, as open learning leads to the use of platforms outside of the LMS, it was noted that faculty need advice on which to adopt and how to configure and use these platforms (Veletsianos & Navarrete, 2012). Guidelines on strategies for curation, approaches to sharing, and methods for increasing discoverability are important for student collection and creation of OER. Institutional support for these issues increases the chances of success of open learning initiatives (Paskevicius & Hodgkinson-Williams, 2018).

3.5 Student Experiences - Benefits

While the literature on student experiences with OEP and open learning environments is scant, topics emerging from the literature explore the perceived benefits and challenges for those working in these environments. The eight sub-themes related to benefits of the student experience fell under three larger areas: (1) working with others (collaboration, peer support, and feedback); (2) sense of self (accomplishment, agency, and voice); and, (3) learning (problem solving and deep learning).

3.5.1 Working with Others

The sub-themes under this heading are collaboration, peer support, and feedback. While participants in open education environments noted both benefits and challenges associated with collaboration, the challenges were mainly focused on expectations that did not match the reality experienced (Parke et al., 2017). On the other hand, benefits included a reduced feeling of isolation, and an increased feeling of being supported, which led to a positive experience (Veletsianos & Navarrete, 2012). Gordon discussed students who received peer support, noting that activities such as peer review resulted in the creation of safe spaces, which allowed students to voice their insecurities (2017). In addition, Kasch et al. (2018) commented that when peer feedback expectations and value were clearly communicated, students felt better prepared. This is consistent with the findings of Baran & AlZoubi (2020) and their themes focussed on student engagement with open pedagogy, including content creation and peer feedback.

3.5.2 Sense of Self

Under this theme, the sub-themes of accomplishment, agency, and voice are found. In their work on the use of wikis to engage students in collaborative writing exercises, Di Lauro and Johnke (2017) noted that students felt a sense of accomplishment when working on a project that was broadly accessible outside the confines of the course. Other students who initially entered an e-portfolio activity with some trepidation about sharing their experiences publicly, ultimately had feelings of accomplishment by the end of the course (Gordon, 2017). In their study on social inclusion, Hodgkinson-Williams and Paskevicius (2012) found that post-graduate students experienced feelings of agency when co-authoring OER, and other studies explored the positive attributes of student voice when co-creating curriculum (Bovill et al., 2016) and co-creating of learning and teaching (Bovill, 2014).

3.5.3 Learning

The sub-theme learning includes the aspects of problem solving and deeper engagement in learning. In a study focussed on co-creation and group problem solving in an open education course (Andersen and Ponti, 2014), students made suggestions about course content. There were tensions with having students involved in the development process when students had different technical knowledge; for example, some had more experience and wanted to create complex tasks. However, through the acts of co-creation and group problem solving, users felt empowered in their learning. Moreover, Bovill et al. (2016) noted that co-creation resulted in students who were more deeply engaged in their learning, and faculty who had a greater

understanding of what was involved in creating effective learning and teaching environments.

3.6 Student Experiences - Challenges

An exploration of the challenges resulted in seven sub-themes, falling into two larger areas: (1) emotional response (anxiety and fear) and (2) practical (privacy, legality, copyright, time commitment, and technical skill).

3.6.1 Emotional Response

Anxiety and fear are the two aspects that fall under the overarching sub-theme of emotional response. Bovill et al. (2016) found that students worried about the unknown and were concerned that their learning would not be scaffolded appropriately. These concerns resulted from a lack of confidence in their ability to contribute in a meaningful way if they did not have sufficient subject matter expertise. Similarly, anxiety was evident in a study conducted by Gordon (2017), when the author found students working on e-portfolios initially felt stressed and worried that the project would be too complicated and time consuming for them to complete. In the study conducted by Baran & AlZoubi (2020), students commented on the value of the scaffolding provided by the instructor during all phases in the creation of OER, and saw it as key to their success.

3.6.2 Practical

The overarching sub-theme practical resulted in the four aspects of privacy, legality, copyright, and time commitment. Privacy was noted as an issue for students taking part in MOOCs (Jones & Regner, 2016) and questions were raised by research participants about how universities are handling MOOC-related privacy issues, as well as the security of information. Similarly, Paskevicius and Hodgkinson-Williams (2018) as well as Czerniewicz (2017) discussed concerns about the illegal reuse and sharing of materials, as well as the lack of students' understanding about copyright. Gordon (2017) highlighted time commitment as a practical consideration when working in the open, linking it to increased anxiety, and Paskevicius et al. (2018) discussed the time and effort it took to reuse digital educational resources. While there was an expectation that technology would perform well, one study found that it was unreliable (Parke et al., 2017). Even though there was a recognition that the dependability of technology was not immediately addressable, one study recommended students receive appropriate preparation for working with technology so their lack of technological expertise would not hinder their ability to develop critical thinking and reflective skills (Gordon, 2017).

5. Discussion and Conclusions

5.1 Discussion

The main student themes identified from the literature review highlighted that students generally felt a sense of accomplishment when they were producing work that had a broader audience. Several studies found that students were more engaged and motivated in their learning and had a less isolated learning experience. Students benefited from faculty who understood learning and teaching more deeply as a result of using OEP as part of their practice. Students using open digital resources appreciated the benefits of access to resources, collaboration in creating OER, and spoke to a deepening of relationships and trust with fellow students and faculty; in addition, they valued peer review and feedback as a result of the experience. From ideation through to the completion of their assignments, students found that the development of renewable assignments contributed to the amplification of their voice and overall learning. The literature reviewed identified that, in general, students valued using OER, experienced an increase in their access to resources, their sense of agency, and their feeling of inclusion in collaborative OEP and activities.

Many activities and tools often associated with open learning were captured more broadly in the literature, but were not always linked explicitly to the concept of an open education environment. Similarly, student experiences with these tools, activities and environments were rarely noted in the literature. Regardless of whether an open education environment is intentional, students could benefit from an initial discussion about the online tools in use and how student learning with these tools is situated on the continuum from private to public. Moving students to OEP requires formal, carefully structured and planned support on multiple levels. Assuming that students know or, and are comfortable in, open environments is perilous. There are key skills, abilities, and levels of awareness that are required to be a confident open learner in open learning environments.

A variety of examples of areas requiring support were evident in the literature reviewed. For instance, students expressed concerns about, and need for, guidance in such areas as copyright, privacy, and ethics, as well as the logistics of locating, use and reuse of digital educational resources and attribution. Ascertaining the credibility of sources is also a concern among students. There is a need for a better understanding of how to adapt OER to new contexts, and for better recognition by students and faculty of the time commitment and level of digital literacy required. Formal support to build relationships, trust, and collaboration skills among students as they work in open educational environments is required. This support comes in many

forms and can be included as part of course or activity design as well as an overall program orientation or mindset. Virtual collaboration skills and team skills are essential when working in open learning spaces. These are some examples of areas requiring clear guidance; students may struggle if left alone to use and make sense of open education environments and OEP. Given the potential disconnect between those who implement OEP with high expectations, and the prescriptive learning culture experienced by students in previous learning environments, adopters of OEP must provide, and advocate for, more appropriate student OEP supports. Implementing OEP using an empathic approach, and fostering a learning environment that supports risk taking and iteration, may help to address this disconnect.

5.2 Conclusion

The main themes of the literature review offer an opportunity for the open community to begin to map out terrain of discourses and research/case studies related to student perceptions and experiences of open educational practices (OEP). We found there was a lack of research in OEP, as opposed to research into collaborative practices (for example, MOOCs). Further research is required to understand more deeply student perceptions and experiences of working in an open learning environment. While involving the student voice can be difficult due, in part, to survey fatigue experienced by many post-secondary students, the lack of understanding of the lived experience of students as they participate in OEP is a gap that is limiting the ability of the discourse around open to include student voices. In addition, research that explores goals for an open initiative against the lived student experience is an underexamined area which could inform ways that institutions can support their inclusion of OEP as part of the student learning experience. In the case of the MALAT program, the larger multi-year research project investigating student and faculty perceptions of openness within the MALAT degree has incorporated the findings of this literature review in the course redesign process and in designing mechanisms for including student voice in the ongoing iteration of the program. Through the literature reviewed, it is clear that work with students in OEP should be done with care. There are a variety of well established, extensively researched collaborative practices that have been occurring for many years in education, but not all of these have been labelled as open practices. Being willing to learn from these more established practices and the lessons learned from other intersecting disciplines such as online learning, blended learning and distance education has potential to deepen and extend the experience of OEP at the student, faculty, and institutional level.

The implementation of OEP should not be an

afterthought. Education continues to respond to a variety of calls from local, regional, national, and international sources, including Conference Board of Canada (2016), and United Nations Educational, Scientific and Cultural Organization (2017), that focus on a need for an increased emphasis on complex problem solving, critical thinking, creativity, and collaboration. In addition, education needs to facilitate more impactful engagement within the open community and society in response to issues of Indigenous justice; global pandemics; Black Lives Matter; systemic racism; climate change and other urgent issues. The thoughtful implementation of OEP has the potential to empower students to increasingly engage with the important issues of our time.

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