Beyond Saving Money: Engaging Multiple Stakeholders is a Key to OER Success

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Abstract

This article addresses how the mere development of open educational resources (OERs) and the financial savings are not enough to support OERs as means to academic success. The transition from for-pay textbooks does not end with the adaptation, adoption, or creation of open-access resources; it must also provide broad-ranging support provided for multiple campus stakeholders. This should include, at minimum, comprehensive professional development for academic and
library faculty concerning (1) how to review and revise OERs after their initial implementation; (2) training students to be actively engaged in their learning; (3) partnering library and academic faculty to grow, sustain, and expand an OER initiative; and (4) defining academic freedom and accessibility through an OER lens.

**Keywords:** academic freedom, accessibility, andragogy, collaborations, open educational resources

**Introduction**

The open educational resources (OER) initiative in the Early Childhood Education (ECE) program at an urban community college began with a $300,000 Achieving the Dream (AtD) grant, shared with two other community colleges and funded in late Spring 2016. The executive director of the library and the coordinator of the academic program had multiple questions as they wrote the proposal: (a) How will OER benefit faculty and students? (b) How do we find the right resources for our courses? (c) How does this benefit the institution? and (d) Will faculty from liberal arts be interested in this project?

For faculty, OERs offer teaching, learning, and research resources that reside in the public domain or have been released under an intellectual-property license that permits their free use, distribution, and/or adaptation by others. OERs include full courses, course materials, modules, textbooks, streaming media, tests, software and other tools, and/or techniques used to support access to knowledge. Students benefit from having course content available with zero costs and a wealth of resources available to them.
The final result was expected to be that ECE students would be able to complete all 60 credits required for their degree with zero textbook costs—an anticipated savings of approximately $2,800 across 60 required credits. Faculty from English, Education, Mathematics, and the Behavioral and Social Sciences began working on adapting their existing course in Fall 2017. The goal was to complete at least one section of each required course by 2019.

The starting point for each course was to tie together specific student learning objectives, program learning outcomes, and general education competencies used in the sections that relied on traditional for-purchase textbooks. Faculty who developed OER sections had three choices: adopt, adapt, or create. They began by reviewing the objectives, outcomes, competencies, topics, and assignments before identifying or developing OER materials for each course. Faculty developers could have adopted a complete course and used it in its entirety, they could have selected components from more than one existing course to compile a new OER course, or they could have created their own content units and resources. Regardless of which way the OER sections were developed, they must have been available to anyone seeking to adopt or adapt their content.

As a college community striving to reach a 50% graduation rate by 2021-2022, it was hoped that the proliferation of OER would help students reduce their costs, thereby mitigating one of the factors that often delays graduation—a lack of funds. It was also anticipated that OERs would level the academic playing field because all students would have access to academic content on the first day of class—no more waiting for the secondhand book to come from another state or students using earlier editions that may be worn, damaged, or incomplete. Faculty and administration expected that students would feel more competent and be better able
to pace the work because they could access the course from any computer or mobile device. They would, therefore, be less likely to drop the class.

Before agreeing to join the grant proposal, the potential participants were charged with asking the chairs of their departments whether or not they would encourage a faculty member to create the OER and whether they would schedule it every semester once it was certified. Support from all departments was obtained, and faculty members enthusiastically promised to develop courses.

One of the key components to this work was the partnership between library faculty and teaching faculty from the different academic content areas. For each course, a specific library faculty member was assigned to serve as a co-researcher, helping to sift through available OER material and researching for resources when what is needed is not easily located. This collegial approach served to reduce any apprehension about delving into an unfamiliar means of delivering instructional information.

Two additional goals for this OER grant existed. Besides creating an entire degree program that would be offered free of any cost for textbooks, workbooks, or supplemental materials, additional goals were (a) to expand the number of sections offered and (b) to use existing OER sections in liberal arts courses as a springboard to the development of additional OER degrees. Students began taking the first OER sections in Spring 2017. Three sections (one each from Education, English, and Mathematics) were offered with the attribute ZERO, signifying no textbook costs.

During this college’s initiative, it became apparent that the actual development of OER-based content was not going to be the only part of moving toward open materials that would impact student success. The initiative would need to support (1) reviewing and revising OERs
after their initial implementation; (2) training students to be actively engaged in their learning; (3) partnering library and academic faculty to grow, sustain, and expand an OER initiative; and (4) defining academic freedom and accessibility through an OER lens.

Review of the Literature

The existing literature most frequently addresses the use of OERs and its impact on academic achievement; however, studies have been conducted that discuss non-financial benefits of using OERs. Among these non-financial benefits are andragogy, creating confident learners, student engagement, and accessibility.

Andragogy. The term andragogy is described as the art of instruction of adults (Ross-Gordon, 2003). A recommendation for classroom practice for adult learners in higher education is to foster relationships between academic learning and learning in the larger world (Ross-Gordon, 2003). Thus, an approach that faculty can use to facilitate adult learning is to create “opportunities within the classroom for students to make linkages between course content and knowledge gained in the contexts of work, family, and community living” (Ross-Gordon, 2003, p. 50), thereby training students to be actively engaged in their learning. Adult learner access to OERs provides the content to help post-secondary students build these connections, especially when faculty bring the rationale for selecting items for inclusion in the content into the classroom dialogue.

Another benefit of OER featured as an advantage was its usage as a tool in a flipped classroom using team-based learning instructional strategies (Jakobsen & Knetemann, 2017). In the flipped classroom, students engage in the course material (i.e., OER) outside of the classroom permitting them to study the OER data at their personal speed (Jakobsen & Knetemann, 2017). “Rather than spending class time laying down the foundation, students are able to delve into a
deeper understanding of the material” (Jakobsen & Knetemann, 2017, p. 177). During this institution’s OER initiative, faculty members are encouraged to make the OER content available via the online learning platform advance of the first week of class.

**Confidence building.** Another major benefit of OER is that it advances student learning. In a study of the impact of OER use on teaching and learning, one conclusion drawn from the project was that “implementation of OER can improve student performance, but often indirectly through increased confidence, satisfaction and enthusiasm for the subject” (Farrow et al, 2015, p. 972). Other research on encounters with OER referenced the identification of improved learning as a potential benefit of OER (Hatzipanagos, 2015). A student participant in research conducted by Brandle et al. (2019) shared that the strong sense of direct involvement of an instructor with OER content benefited students because the instructor was more aware of the materials students were using.

Feldstein et al. (2012) and Fischer et al. (2015) both discussed the non-financial benefits of OERs, which can lead to increased confidence. Feldstein et al. (2012) found that students indicated a preference for non-paper OER materials compared with traditional printed textbooks based on their “ease of use” and their belief that the content would be revised thereby remaining accurate and relevant. Although there were inherent flaws in the study, primarily because of its scope, Fischer et al. (2015) determined that there was a higher likelihood that students completed more credits in a semester when enrolled in OER-based courses compared with for-pay textbooks. This particular finding supports the initiative discussed herein as this campus is involved in a university-wide drive to increase retention and graduation rates.

**Student engagement.** OERs have the potential to expand access to learning mostly for non-traditional groups of students. This will in turn increase participation in higher education
Sometimes life can get in the way of student participation in courses. Students in this college typically hold at least one job, are dependent on financial aid, and, in the ECE program, are rearing young children. According to the Fall 2018 Student Profile, 43.6% are part-time students (Hostos, 2018). When students are able to access the content online without needing to purchase or potentially lose a textbook, they are able to participate with less financial concern and at their personal convenience. Even when students do not have access to the Internet at home, students can utilize computer laboratories to review and complete online course content at their convenience. This practice of online learning fosters self-directed learning. Students are put in a position to manage their learning tasks independently via self-management and self-monitoring (Garrison, 1997). The professor sets up the environment for the student to continue in their self-directed learning journey, with the OER content being instrumental at the onset of the course. Open educational resources can be a successful way of producing lifelong learners and closing the gap between formal and informal learning (Ehlers, 2011).

Involvement. OER content that is available online can empower students to gain control of their lives by becoming organized early in the semester. They can accomplish this by previewing content prior to the start date of the course and even laying out readings for the semester. Taking a look at course content at their own leisure or when it works with their schedule puts them in control of their learning.

Palloff and Pratt (1999) suggested that it is the student’s responsibility to make sense of the content and take control of their learning. Moreover, the professor supports the process with the assignments and selection of textbook. In the case of OERs, the professor selects content that students can relate to and connect with, which can motivate them to learn the material with ease. Students may be more inclined to preview the content before the course begins and become
comfortable with the course itself. Granting access to OER content in advance not only piques their interest early, but also provides students with the key tool for success—the content. As students review the textbook and course expectations, they can come up with a plan to navigate and juggle other courses for the semester. Additionally, they can make a major decision by asking themselves, “Am I ready for this course?”

**Accessibility.** In the past, research identified the absence of visual literacy in education. The potential for Accessibility Resource Centers (ARC) to manipulate images from a textbook was more challenging (Bader, 2019). When the course content is embedded into the learning-management system and made available online, such issues do not exist. Images, diagrams, and words do not need to be scanned and re-organized to the extent it once was. Content is also available on students’ mobile devices or at home. There is no need to visit the library reserves or even the ARC to view course content in many cases.

Since the course content is available to both the instructor and students, courses can be organized in advance so that students can preview the material before the first day of class. By providing the ability to see materials earlier than necessary, faculty create a supportive atmosphere and give students tools for success early in the semester. Students have resources at their disposal, and it is their choice to utilize them before the course begins or when it begins. Some students may not even review the course until a few days into the semester, as they are getting acclimated to returning to school. Nevertheless, the option was provided to them. It is not always easy to get buy-in from students to engage in online courses early in the semester (Slusky, 2019). Instructors providing the benefit of early access to the course may improve the likelihood of success for students.
Overall fear can be a motivating factor to either enroll or not enroll in an online course. However, professors can assist in alleviating that fear by outlining the benefits of engaging in the course early (Davis, 2019). Students can take a look at the textbook and course expectations. In turn, they can ask questions about information early in the course. They can begin coursework early and work at a slower pace or one that accommodates their lifestyle. When professors set up the online learning environment for success and provide access to the textbook, students have the potential to become self-directed learners. This is an empowering role for students.

Collaborations between the Library and Academic Faculty

At the initial stage of the grant that would lead to an Associate’s Degree program in which students would never have to pay money for academic content, it became clear that a collaborative approach was critical to success. Academic faculty could recite program learning outcomes and outline the scope and sequence of the syllabus, but the library faculty had the ability to determine which materials could serve as OERs for a particular course and specialized knowledge of where and how to locate these materials. Partnering library and academic faculty to grow, sustain, and expand this OER initiative was critical to its success.

This community college is part of a 24-campus university and was founded to provide a college education for those who previously were excluded from such an opportunity. The central office of the university includes a library-based team dedicated to the development of OER resources, faculty development for all involved in the university-wide OER initiative, and the successful fulfillment of grant-funded OER projects, including the one awarded to this community college and the one funded through state monies.

At this specific college, individual library faculty are typically assigned the role of liaison for specific academic content areas and often develop strong collegial relationships with
academic faculty housed in their specialized departments. It is not unusual for classroom instructors to seek the expertise of their library counterparts when selecting materials, such as books, reading lists, media, and Internet resources and therefore working together to adopt, adapt, and/or create OER works.

Library faculty members typically have greater expertise in copyright, licensing, e-platforms, interoperability, scholarly communication, and open access. For the grant awarded to the ECE program, faculty worked closely with their library counterparts when selecting materials that could be licensed under Creative Commons; the newly compiled or created OER sections were not certified as OER through the library because an outside entity was provided under the terms of the grant. The governor recently allocated approximately $4 million per academic year to support OER initiatives. OER content for the state project is certified through the library, which is also designing a means for faculty to access existing OER resources easily by creating LibGuides specifically listed in an online OER section.

Over the past three years, academic and library faculty have shared ownership of the OER initiative and have co-presented at local and national meetings and conferences on topics related to OERs: in particular, the benefits of OER content and identifying open-access materials. They encourage interdisciplinary efforts, as materials on individual topics are often mutually included in multiple course offerings across different departments.

**Faculty development.** It is widely accepted that the library is the nexus of teaching, learning, and research. When the invitation to submit a proposal to create an OER-based program was brought to this campus, it was offered to the Executive Director of the Library. It was at her behest that the ECE program became interested in this grant and in OER at all.
One of the concerns faculty members new to OER development frequently have at this campus is the impact that OERs have on student attitudes, achievement, retention, and graduation rates. Academic faculty applying for approval to conduct research at this campus must work with the library faculty member dedicated to Human Research Protections Program (HRPP). It is their responsibility to ensure that all applicants have completed the requisite certification to conduct research with human subjects and to assist them as they write their proposal.

The Scholarship of Teaching and Learning Committee hosted a three-part series on writing a successful research application; the HRPP library faculty member assisted in forming research questions and identifying proper research techniques. As a result, at least two academic professors have successfully completed research on the results of using OERs.

Additionally, the Office of Educational Technology facilitates the uploading of the OER shell into the online learning system for each course using that material. Academic faculty can work with a technologist to enhance this content by placing it conveniently on the online site. They can also work with the campus’s dedicated OER specialist, who is library faculty. This OER expert will participate in one-on-one brainstorming sessions or provide small-group training on topics related to the development and use of OERs.

Faculty in the ECE program raised the issue of how to review and revise OERs after their initial implementation in order to maintain relevance; the next phase will include working with their library liaison to establish a process by which existing OER materials will be routinely reviewed and to provide training on how to effectively review open content. This is to maintain a focus on best practices, include the most current and applicable research, and ensure that the content addresses the latest academic knowledge, general education competencies, and career
attributes the students will need to transfer to a four-year college or gain employment in their chosen field. One part of this professional development will be maintaining an interdisciplinary dialogue, as material must be shared among content specialties as needed.

**Academic Freedom**

In its *OER State Policy Playbook* (2018), the Scholarly Publishing and Academic Resources Coalition offered the following advice when creating an OER program in higher education: “(1) Ensure that policies are designed to encourage and support OER use, not mandate or pressure it. (2) Consider speaking to faculty leaders in advance to communicate the intent to respect academic freedom. (3) Consider including language that recognizes that the legislation should not be construed to infringe on academic freedom or the right of faculty to select course materials” (Steen, 2018, p. 8). The practice at this college has been to maintain the integrity of the course regardless of the content format by adhering to the course description and learning expectations and to allow faculty developers to select OERs that will facilitate the academic success of the student by setting an atmosphere of active and engaged learning.

In defining and discussing academic freedom, the American Association of Colleges and Universities (2006) posited that “faculty are responsible for establishing goals for student learning, for designing and implementing programs of general education and specialized study that intentionally cultivate the intended learning, and for assessing students’ achievement.” These three stipulations are at the core of OER development, as is defining academic freedom and accessibility through an OER lens.

At this campus, the first consideration in designing an OER course is the program-learning outcomes and/or student-learning objectives. These have been identified based on the description for each course in the college’s course catalogue and cannot be changed solely to
facilitate the development of course content. The ability to merge material from multiple sources across different academic specialties for use in one course serves to cultivate learning, as it can take a constructivist approach where students can move from theory to practical applications from different subject areas. OER-based courses offer students an opportunity to be actively engaged in their learning (Orr, Rimini, & van Damme, 2015) rather than passively receive information solely through print. It is possible to imbed questions within OERs so that students can revisit material as needed, even beyond the end of the semester.

Faculty are encouraged to exercise their academic freedom by selecting open materials that address the topics in their course in relation to the practical context of the setting. For example, for a foundational course in education, faculty are able to include information on specific hiring practices within their urban public school system and to give up-to-the-minute information on their state’s revised standards. Instructors teaching Political Science can give students more recent information about elections and civic issues than a textbook in need of revision could. Finally, OERs in no way restrict instructional methodology.

**Future Considerations**

There have been numerous investigations into the impact of OERs on academic achievement. Some indicate greater student success using grades as the benchmark; others show no difference between achievement among students using for-pay textbooks and those using OERs (Hilton, 2016). Most of these studies have been conducted using a control and a treatment group within a course and did not allow for outliers, such as the instructor’s likability, the attractiveness of the course on its own, or student perception to the course prior to its start. A more longitudinal approach, comparing student attitudes and achievement in courses using OERs
to the attitudes and achievement in courses reliant on traditional texts, might provide significant findings as to the impact OERs have on student success.

Additionally, studies on how the partnering of library and academic faculty impacts an OER initiative, and ultimately student success, may encourage more campuses to consider this practice.

References


