

STUDENT EXPERIENCES WITH OPEN (FREE) TEXTBOOKS

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ABSTRACT

In the Fall of 2016, ten faculty from the California community college and six faculty from California State University system adopted copyright free textbooks for all or part of the courses they were teaching. As part of this study, student perceptions on use of free textbooks was recorded in a survey. This paper reports the results of that study. Students rate the free books to be high quality and visually easy to use and read. The majority of students evaluated the free textbook more favorably than the traditional text for the class. Students accessed texts predominantly using PDF format on a laptop computer. Several students still preferred a printed copy of the textbook.

Keywords: Open Educational Resources, Textbooks, Copyright Free, Affordable Education

INTRODUCTION

According to the Bureau of Labor Statistics, the cost of college textbooks has increased by 812% since 1978 [11]. After paying tuition, there are many students who cannot afford to purchase books. Disturbingly, as many as 65% of students report that they have gone without the books for a class, even though they knew it might negatively impact their grade [6]. The California Open Educational Resource Council [3] recruited 16 faculty from California colleges to teach using a free textbook in their course, instead of the traditionally published, for-profit textbook. This paper reports student responses to a survey given after the students used the OER textbook, during those courses.

Students and faculty are troubled by the high cost of textbooks. Publisher tactics such as releasing new editions too frequently, selling eBooks that expire prior to the end of the term and selling custom books that a student cannot resell have created a desire for people to seek alternate resources than traditional textbooks. Using a free textbook though simple, is a solution to making education more affordable, particularly at community colleges, where the books can cost more than the courses. In a sense, OER textbooks are a disruptive technology that challenge the traditional publishing industry.

LITERATURE REVIEW

Open Educational Resources (OER) is defined by the William and Flora Hewlett foundation as:

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 and re-purposing by others. Open educational resources include full courses, course materials, modules, textbooks, streaming videos, tests, software, and any other tools, materials, or techniques used to support access to knowledge (Hewlett, 2014).

As OER becomes more mainstream, perceptions about OER quality are changing. In a 2016 study on OER efficacy, over half of the faculty found OER to be comparable to traditional textbooks and several rated the OER materials as superior [10]. Several studies give evidence that students enrolled in a course using an OER textbook, perform as well or better than students in similar classes using a publisher-based textbook [2] [7] [8] [10] [12]. This may be because students can now have free access to a textbook, that before they could not afford to buy.

Research on OER is beginning to look at the benefit of re-professionalizing teaching. Faculty who adopt OER textbooks or collect dispersed materials to create an OER course report that they are more engaged with their teaching [1]. In a study of Washington State community colleges, faculty found that the use of OER caused them to rethink their instructional style and adapt the OER textbook to fit their teaching style [4]. OER textbooks can have the largest cost savings in lower level courses with high enrollment and multiple sections. Having uniform materials, test banks and automated grading can create situations where faculty ‘teach to the text’ and rely heavily on canned materials.

To establish a robust OER culture in California colleges, the Ca-OER Council [3] was formed by the State of California and funded, in-part, by the Hewlett and Gates Foundation to develop strategies and resources that would encourage adoption of OER textbooks. Much of the council’s work was in the development of Cool4Ed.org [5]. The Council developed a list of the 50 most enrolled courses in the Community College, California State and University of California systems. Three or more public domain textbooks were reviewed for each highly-enrolled course. The reviews were done by faculty members from the three college systems. Today, Cool4Ed includes links to the OER textbooks, the textbook reviews written by faculty and, profiles of faculty who adopted the OER textbooks in their courses.

Resistance to using OER often criticized the quality of free materials and the belief that students would need a hard copy of a text book in order to learn effectively. In 2014 a study of 3000 faculty showed that the largest barrier to adoption of OER was that most faculty had no awareness of OER (66%) and found OER textbooks hard to locate because a central repository for them was unavailable (45%) [1].

METHODOLOGY

Of the 351 students participating in the OER Adoption study, 123 were from Community Colleges, 223 were from California State Colleges, 4 were from University of California and 1 student declined to answer. Students were from all levels of college experience. The courses in which OER textbooks were adopted are shown in Table 1. Of the students with prior OER experience (306 students – 87%), 98% of them were satisfied with their prior experiences. Faculty who adopted OER textbooks for these courses participated in Webinars and took a survey about their experiences. The faculty administered the survey to the students in their classes.

Business Communication 300 Ecology English History of Graphic Design History of US to Reconstruction – Futurism and the great war Human Communication Human Development Humanities	Introduction to Sociology Introductory Statistics Lifespan 38 Development (child and family development) Marketing Principles Physics Principles of Biology Public Speaking Trigonometry
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Table 1. Courses Adopting OER Chapter(s) and Textbooks

RESULTS

Results of the study show that students are overwhelmingly positive about the use of OER textbooks. The survey questions are broken into four distinct areas: satisfaction with the OER text, readability of the OER text, a comparison of the OER text with the traditional text for the class and how students prefer to read the text.

Were students satisfied with the OER Text used in their course?

Table 2 shows the student responses, when asked if the OER text met their expectations for the class, if they found the reading helped them understand the subject and if they found the reading engaging. The majority of students ‘strongly’ or ‘slightly’ agree that the book met their expectations for the courses and helped them to understand key course concepts. A large percentage of students also replied ‘neutral’ to the questions. This response helps to support the argument that OER textbooks are no different from a traditional text, except they are free. OER advocates argue that the quality of some OER textbooks is equivalent to those produced by traditional publishers. If so, why wouldn’t a faculty member select an OER text? There are other issues identified by faculty, such as availability of high quality support materials and the time needed to prepare an OER text that lacks these materials. A very small percentage of students responded negatively. Of the students who did, no specific course received the negative responses.

	The OER textbook chapter(s) or materials used in this course met my expectations for the class..	The assigned reading from the OER textbook helped me to understand key concepts from the course.	The assigned reading from the OER textbook was engaging to me.
■ Strongly Disagree	1%	1%	3%
■ Slightly Disagree	2%	3%	3%
■ Neutral	19%	18%	28%
■ Slightly Agree	24%	26%	25%
■ Strongly Agree	54%	52%	41%

Table 2. Student Satisfaction with Adopted OER Text

Do Students Find the OER Textbook Readable?

Students were asked a series of questions related to editorial conventions and the readability of the textbook (Table 3). The questions related to the organization, font, layout, graphics and examples used throughout the textbook. These questions were important because a textbook that has too busy (or too bland) a layout or that has a visually unreadable font is hard for students to use. Critics of OER texts argue that they lack the visual appeal or image/text

fidelity to engage a student in the subject matter. From the questions asked, this appears not to be the case for the sixteen courses. The results were highly positive, with a moderate percentage of students rating the readability as neutral.

	The OER textbook was organized in a way that helped my understanding of course concepts.	The OER textbook was readable. I had no trouble reading the font used in the text.	The OER textbook had a layout that contributed to the readability of the materials.	The OER textbook used graphics that helped my understanding of course concepts.	The OER textbook used examples that helped my understanding of course concepts.
Strongly Disagree	1%	1%	1%	3%	1%
Slightly Disagree	3%	2%	3%	4%	2%
Neutral	19%	11%	16%	26%	17%
Slightly Agree	26%	17%	30%	24%	30%
Strongly Agree	51%	69%	50%	43%	50%

Table 3. Readability/Editorial Conventions of OER Textbook

OER Textbook Compared to the Traditional Textbook for the Class

When asked about reading an OER textbook, compared to a traditional textbook, there was very little difference (Table 4). About 10% of the students in this study report that they never read the textbook, regardless of whether it is free or not.

	Decline to Answer	Never	Once	2-3 Times a Week	4-5 Times a Week	6+ Times a Week
How often do you read a traditional textbook?	7%	9%	28%	38%	11%	7%
How often did you read the OER textbook?	9%	12%	30%	32%	11%	6%

Table 4. How Often Student's Read the Textbook

When students were asked if the OER textbook chapter(s) were better than the traditional textbook, most students answered neutral (42%). Though a high percentage of students rated the OER textbook as better (46% as "Strongly" or "Slightly Agree"), 12% rated the textbook as worse than the traditional textbook and 8% declined to answer.

	Strongly Agree	Slightly Agree	Neutral	Slightly Disagree	Strongly Disagree
Overall, compared to the regular text, the OER textbook was thorough and complete in covering required topics and competencies.	41%	24%	31%	3%	1%
The OER textbook chapter(s) was better than the regular class textbook.	25%	21%	42%	7%	5%

Table 5. Student Comparison of OER Text with Traditional Text

What preference did students have for reading the OER book?

Students were asked to select a preference for reading the OER text in terms of where they read it from and what platform they prefer (Figure 1). While most students prefer to read the text online (64%), there are still students who prefer to read a printed copy (28%). Nicely, a public domain text lets a student print the text themselves without copyright violations. At many universities, libraries and bookstores offer services to print entire public domain textbooks for a small fee (\$15 for a 150 page text).

The most preferred platform for accessing the OER text was a laptop computer. Many students (16%) indicated they preferred reading the text on their cell phone. This may be because you can study and read anywhere as the cell phone is constantly with you. It may also be beneficial for students who cannot afford a laptop computer.

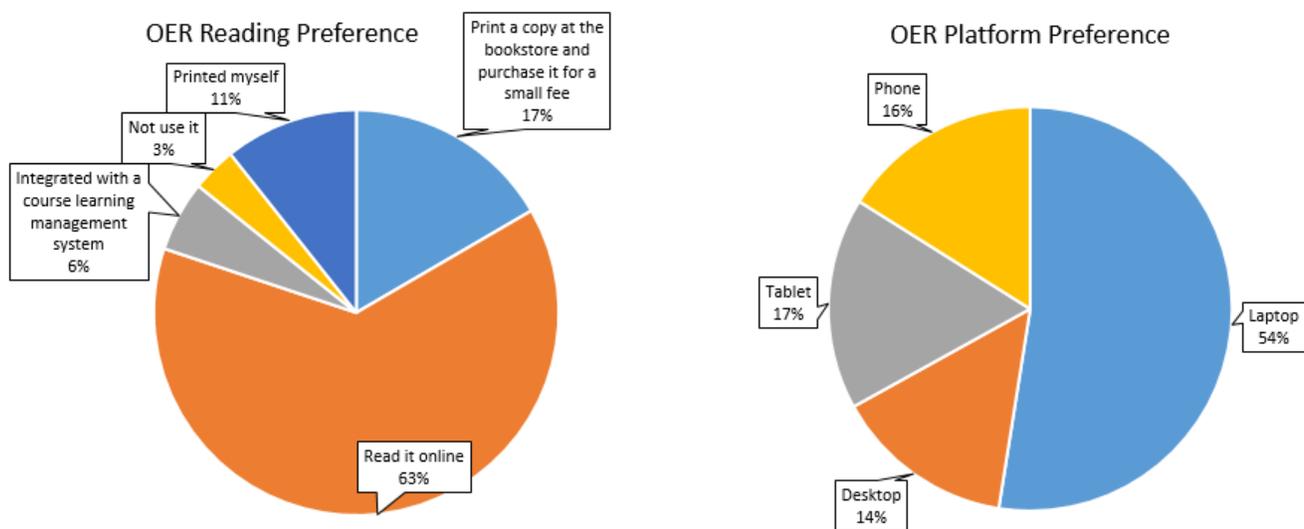


Figure 1. Student Reading and Platform Preferences using OER Textbooks

CONCLUSION

This paper presented the student perceptions of OER textbooks. Of course, students are relieved to have a break from a high cost textbook purchase and are perhaps overly positive. Faculty have a different perspective that comes from being an expert in their discipline and from understanding more about what it takes to prepare a course. For example, an OER text that has no test bank or PowerPoint slides could be too time consuming for a faculty member to consider using in teaching.

Frustration with the high cost of publisher textbooks and the practices of locking in students and faculty to fully automated course-ware has caused some faculty to turn to OER textbooks. Most faculty do not use OER textbooks because they are unaware of how to find them or they lack the support or desire to convert an existing course into an OER course. If the OER movement grows, challenges will arise for textbook publishing companies. Several prominent companies offer proprietary learning management systems and adaptive learning

modules to add value to student learning. In the future, recognizing the importance of making college education affordable, universities might build in support structures that allow for creation and of OER materials and sharing them across a scholarly community.

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