Doctoral Students' Perspectives on Textbooks and Open Educational Resources

Needs, Impact, and Future Directions

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Abstract

While discussions of textbook needs have typically focused on undergraduate students, doctoral students face some unique challenges related to course materials. Their positionality as students and also potentially future faculty, researchers, or instructors can provide useful insight as academic libraries seek opportunities to promote open textbooks. This article reports on the results of semi-structured in-depth interviews with 12 doctoral students in the College of Education at the Pennsylvania State University. Findings suggest that they obtain access to required textbooks in different ways and tend to purchase a personal copy of a textbook if they expect to use it in the future for their research. Their course selection was not impacted by the cost of the required textbook, although textbook requirements influenced their perception of the teaching faculty. Some already had experience publishing OER. Some others expressed interest in promoting OER or open access materials, while others expressed skepticism of these initiatives. Many articulated the importance of accessibility. Materials related to older seminal texts, ethnographic works, and methods textbooks were suggested as potential open textbook targets. Implications for academic libraries are discussed.

Introduction

Textbook costs have risen 36% in the past decade (Bureau of Labor Statistics, U.S. Department of Labor, 2021). At the Pennsylvania State University (Penn State), the average textbook cost for all students was

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$1,840 in the fiscal year 2020-2021 (National Center for Education Statistics, 2022). Given this challenge, the Penn State Libraries have been supporting students' textbook needs in different ways, including open educational resources (OER), open access (OA) resources, and licensed or purchased content. While OER provide the most flexibility among these options, with immediate, free, and open access to materials and the ability to retain, revise, remix, reuse, and redistribute them (Wiley, 2014), this multi-pronged approach is necessary because licensed and purchased materials and OA investments scale faster to reduce costs for more students across more disciplines than OER. The Libraries have had endowments for course-related materials as well as additional support from the administration.

In February 2017, a university-wide working group, consisting of faculty, students, bookstore representatives and others, was charged with developing new initiatives related to open and affordable educational resources. For example, Penn State now offers several grant initiatives to advance OER, supports the World Campus e-book program, affordable content platforms (e.g., Top Hat, Unizin Engage), and a textbook and educational resource fund (Riehman-Murphy et al., 2020). Additionally, it created an institutional OER repository and a textbook web aggregator to help automate the process of identifying courses that rely on open and affordable content.

OER adoption could accelerate in the future as instruction returns to "normal" after the pandemic and instructional faculty's interest in OER increases. While open textbook discussions tend to focus on undergraduate students' needs, graduate students can also benefit from open textbooks because they too experience financial and other challenges. Doctoral research may also require long-term access to specialized and expensive textbooks. Some doctoral students teach while in doctoral programs or plan to teach in the future. Their unique positionality as students, graduate assistants, future faculty, researchers, or instructors might provide helpful insight as academic libraries seek opportunities to promote open textbooks.

Literature Review

While academic libraries historically avoided investing heavily on textbooks, some pivoted to purchase more textbooks in recent years (Diaz, 2017; Eighmy-Brown et al., 2017; Filion & Wallace, 2018; Greiner, 2012; Raish et al., 2018). However, even if libraries intend to purchase required textbooks, many major textbook publishers do not sell electronic versions of their textbooks to libraries (Bell, 2021; University of Guelph Library, 2020), and those that are available are largely limited to the humanities and social sciences and often provide a poor user experience (Filion & Wallace, 2018). Publishers also frequently impose limits on the number of users that can simultaneously access these materials, negating their utility for classroom use. Such limitations have necessitated that textbook purchasing efforts be coupled with other measures, e.g., OER. Some libraries have incentivized OER adoption for faculty and attempted to increase visibility of these programs (Todorinova & Wilkinson, 2019, 2020). The following sections describe literature on student and instructor perspectives on textbooks and OER and disciplinary differences.

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Student Perspectives on Textbooks and OER

Studies on student perceptions related to required textbooks and OER have focused largely on those of undergraduate students. These studies have suggested that undergraduates prefer using online open textbooks (Petrides et al., 2011) and that they have positive perceptions of OER quality (Bliss, Hilton III, et al., 2013; Bliss, Robinson, et al., 2013; Delimont et al., 2016; Gil et al., 2013; Ikahihifo et al., 2017; Jhangiani & Jhangiani, 2017; Lin, 2019; Lindshield & Adhikari, 2013; Pitt et al., 2013; Wynants, 2022). Students have typically attributed their positive perceptions of OER to factors such as cost savings, access, technological advantages, and elements that support their learning (Brandle et al., 2019; Pfannenstiel et al., 2020). Relatively little research has been conducted on how required textbooks impact course selections or student perceptions of faculty. Vojtech and Grissett (2017) found that undergraduate students rated a hypothetical faculty member who used an open textbook as more kind, encouraging, and creative than a faculty member using a commercial textbook.

Few studies have been aimed at graduate students. Nipa and Kermanshachi (2020) found that graduate students in their risk management course performed better academically when using OER materials. Furthermore, they found that perceptions of OER materials were more positive among engineering graduate students than non-engineering graduate students and graduate students with student loans than those without loans. Hare et al. (2020) argued that open pedagogy experiments, in collaboration with librarians and faculty, can be used to teach doctoral students about OER and principles of open pedagogy.

Instructor Perspectives on Textbooks and OER

Graduate student perspectives have also been absent in scholarship focused on instructor perspectives. Discussions related to instructors have mostly focused on faculty. Studies have indicated that faculty are aware of textbook costs and would be willing to use OER (Martin et al., 2017) and that reducing cost for students is the most influential factor in making a transition to OER (Petrides et al., 2011). Faculty who adopt OER rate them as similar or better in quality to other materials (Bliss, Robinson, et al., 2013; Hilton III et al., 2013) and students using OER were equally or more prepared than students using other resources (Bliss, Hilton III, et al., 2013). In one notable exception to this tendency to focus on faculty as instructors, Hardin et al. (2019) studied student learning outcomes in multiple sections of an undergraduate general psychology course using an open textbook taught by graduate students and found that content knowledge improved and that instructor experience level had no impact on student learning outcomes. However, this study concentrated on measures of student performance, rather than addressing graduate student instructor perspectives. Studies of instructor perceptions have, therefore, been confined to those of faculty.

Disciplinary Studies on Textbooks and OER

In addition to the absence of graduate student perspectives, existing studies have generally targeted fields other than education. Among these discipline-specific investigations are ones in the fields of American history (Beile et al., 2020), engineering (Anderson et al., 2017; Moore & Reinsfelder, 2020; Reinsfelder & Moore, 2020), film studies (Georgiadou & Kolaxizis, 2019), human factors (Choi & Carpenter, 2017), mathematics (Delgado et al., 2019; Hilton III et al., 2013; Muggli & Westermann,

2019), nutrition (Fialkowski et al., 2020; Lindshield & Adhikari, 2013; Tillinghast et al., 2020), physics (Hendricks et al., 2017), psychology (Cooney, 2017; Griggs & Jackson, 2017; Hardin et al., 2019; Jhangiani et al., 2019; Magro & Tabaei, 2019; Nusbaum, 2020; Nusbaum et al., 2020; Vojtech & Grissett, 2017), and sociology (Ross et al., 2018). The lack of research on the role of OER specifically within the education field, particularly at the graduate level, is striking, given that these students are somewhat uniquely situated to understand the educational context.

Distinct Challenges Facing Graduate Students

In light of the gaps in existing scholarship, this study focuses on the needs and perspectives of doctoral students in the field of education. Studies have shown that graduate students are more likely to be enrolled part time than undergraduates and that part-time graduate students are typically older and face more demands on their time and finances than full-time students, in part because of being married and/or having children (How America Pays for College, 2017. Sallie Mae's 10th National Study of College Students and Parents, 2017; How America Pays for Graduate School, 2018). Studies have also shown that a majority of doctoral students feel stressed about financial concerns (Kovacs, 2016), including uncertainty about the availability of departmental funding and being compelled to take on substantial debt due to inadequate funding (Cho & Hayter, 2020). From an access perspective, doctoral students, particularly those pursuing academic careers, may have a greater need to retain textbooks for long-term use than undergraduates. From a pedagogical perspective, many doctoral students occupy a space where they are simultaneously students and instructors, giving them an insight unlike that of undergraduates or faculty.

This study seeks to identify doctoral students' textbook needs, their perceptions of required textbooks and their impact, and future opportunities for open textbooks, promoted through university libraries. Specifically, the study team attempted to find answers to the following research questions: (1) how are doctoral students meeting their textbook needs?, (2) how do textbook requirements affect their course selection and perception of the instructional faculty?, and (3) where can libraries find future opportunities for marketing and supporting the use and creation of open textbooks? This study primarily focuses on required textbooks assigned to doctoral-level courses.

Methods

In Fall 2021, the research team conducted semi-structured in-depth interviews with 12 doctoral students in the College of Education at Penn State. College of Education students were purposefully sought due to their fields of study being aligned with or related to learning and pedagogy. The researchers posited that education students would be of particular interest as they may have perspectives related to textbooks and OER that went beyond their experiences as students. Furthermore, the researchers decided to work with students at Penn State because they wanted to follow up on the findings to support these students and promote open textbooks at the institution. The study was submitted to the university's institutional review board and was determined to be exempt from human subjects research regulations.

Participants were recruited through an initial email on a College of Education graduate student-only listserv, which invited students to participate in a 30- to 45-minute recorded online interview via Zoom. The email described the study and explained how students may benefit from the findings. This

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recruitment drive resulted in a diverse pool of 14 potential interviewees who met the criteria for the study. The 12 participants selected for interviews, based on a first-come first-serve basis, included a mix of full-time, part-time, fully funded, and self-funded students. Due to the nature of this qualitative study, the research team decided to interview 12 participants first, with the intention of interviewing more students if additional perspectives were needed (See Table 1).

Table 1

Program of study of interview participants

Program	Number of participants
Counselor Education	1
Curriculum and Instruction	3
Education Theory and Policy	1
Educational Leadership	2
Higher Education	3
Lifelong and Adult Education	1
Special Education	1
Total	12

Participants were asked about courses that required textbooks, how they acquired the textbooks, their perceptions of teaching faculty who assigned them, and the future of textbooks (see Appendix A). Each of the research team members conducted four interviews. During this phase, the researchers met twice to discuss emergent findings from the interviews. After the last round of interviews, as no new findings had emerged, the team determined that data saturation had been reached and decided not to interview additional participants. Each interview was transcribed by the researcher who conducted the interview and cross-checked by another researcher for accuracy. The original recordings were deleted once the transcription work was complete and each participant was assigned a number to maintain confidentiality. Two of the 12 transcripts were then selected for the initial coding process.

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Each researcher individually open coded the two transcripts using NVivo qualitative data analysis software. Open coding involves inductively developing codes from the data without advancing the authors' interpretations (Corbin & Strauss, 2008). After this process of ordering and categorizing codes was completed, the team met and, through discussion and consensus, arrived at interpretive convergence (Saldaña, 2021). Guided by the research questions and memos taken throughout the coding process, the researchers collectively developed themes under the three areas of investigation—textbook needs and usage, impact of required textbooks, and reflections on the future of textbooks. From this process, the researchers developed a common coding scheme to be used across all transcripts. Each researcher then focused on one specific area of investigation and coded and analyzed all 12 transcripts using this common coding scheme. To ensure trustworthiness, the researchers used the common coding scheme developed through group discussions and reviewed each other's work for accuracy (See Appendix B).

Results and Discussion

Textbook Needs and Usage

Almost all the participants said that textbooks were required for one or more of their courses. Some students stated that almost two-thirds of their courses required textbooks, while others said that about half did so. Only one participant described never or rarely having to buy textbooks. For most students, required materials ranged from expensive research methodology books, which could cost up to $250, to less expensive titles, which might cost about $30.

Participants described a variety of strategies for obtaining access to required textbooks. Most stated that they had purchased textbooks, either from an online seller—most frequently Amazon—or a physical bookstore. For several students, the default strategy was to search online to find the cheapest options for buying new or used books, before searching on the Libraries' website. Participant 2 noted, "…for the first three classes I bought the textbook. For the third class, I bought it but also had access to it via online copy from the library. So I actually bought the textbook before I realized that there was an online copy."

Several students described accessing "free" books online from links provided by their instructors, although not all were aware that they were accessing materials provided by the Libraries. At the same time, several participants described obtaining textbooks from the Libraries, including one student who said she had borrowed five of her six required books that semester from the Libraries. Participant 8, however, commented on the challenges of trying to access textbooks from the Libraries when there were typically too few copies available:

> Let's say that my classes, 15 students, there wouldn't be enough for everyone. So, there was a bit of hesitation, because it wasn't necessarily equitable…It seems like some people would try to get the text list earlier in the semester before it even started to try to search out and see if they can get a library [copy] or through Interlibrary Loan. (Participant 8)

Sharing copies of books was one strategy that several students mentioned. A few described borrowing textbooks from their peers rather than purchasing them, particularly if these were books that they did not

plan to use in the future, and one participant described sharing a downloaded copy of a book via email with other students. Participant 3 described how a group of classmates pooled their resources to share the cost of a particularly expensive text:

> My classmates and I ended up going in on one together with a small cohort. So that kind of worked. It was six of us buying a book together and passing it around different days of the week…And then we ended up donating it to our program's library at the end rather than fighting over who got it. (Participant 3)

She further added that her peers had started an informal library of previously purchased foundational texts that were housed on bookshelves in the College's lounge area, with the intention that future first-year students would have those resources available if needed. This idea of sharing textbooks with peers reflected a sensitivity among some participants to the needs of other students who might find the costs of books prohibitive.

When asked why they chose to access textbooks in a particular way, one of the most frequently cited reasons for purchasing physical books was the desire to have a personal copy of a book if they expected to use it as a resource in the future or to share with others. Participant 6 commented, "I've kept them with the intention that if there's someone in, like, the year below me, or that takes the class, I'll be able to like, lend them out to folks."

Often, students said that if they were unlikely to use the textbook in the future, they would rent it. However, Participant 10 said that if the difference between renting and buying a copy was minimal, she would buy it outright. Participant 1 stated that while she purchased almost all her books, she decided to rent one that was particularly expensive: "…it was like 250 bucks, and I was told that we really didn't use it that much, but that there were certain things in it, and I couldn't find it anywhere."

Financial reasons were most frequently cited by students who said that they borrowed textbooks, whether from the Libraries or a peer. Participant 8 noted, "If there was a textbook available in the library, I tried to get it. And that's been my primary strategy. I tried to keep my costs low through rentals [or] using the library and using World Campus free resources."

A preference for reading print over online texts was a common refrain. Several participants described it as physically hard to read books on a screen for a sustained length of time, while others said they liked to be able to write in the margins and make notes on a physical copy. Participant 12 felt that this functionality was hard to replicate satisfactorily in the online environment: "I've tried Adobe; I've tried other annotation software or free annotation software. They just don't work like I can with my writing. So, I prefer to have the print for that reason as well."

Participant 8 offered a similar view, noting that it was harder to navigate and "flip the page" in the digital environment. Although in the minority, there were a few students who described a preference for accessing textbooks online, such as Participant 2, who described using an Apple Pencil to annotate texts on her iPad.

Impact of Required Textbooks on Course Selection

The participants generally indicated that textbook requirements did not affect their course selections. Instead, the need or desire to take certain courses typically took priority over concerns about textbook costs. When costs were significant, they often attempted to find alternatives to purchasing new copies of textbooks. Participant 4 noted, "I think that my career goals and my degree goals far outweigh any kind of complication. I think that there's always a way around obtaining a textbook. There's not always a way around obtaining a degree. So, I don't really prioritize that as an obstacle."

While textbook requirements did not deter the participants from taking certain courses, they provided several caveats. First, certain core courses are required to complete their degrees, leaving them with no alternatives to taking those courses. Second, participants noted that it is not always possible to ascertain the textbook requirements for courses far enough in advance to make informed decisions based on costs:

> So, we often get syllabi very late, like right before the semester starts. So, if I had known in advance what the requirements were going to be for those courses, I would have done things differently. It was a tight budgeting September and October of that year where I was just trying to keep things together. I don't think I've ever not taken a class because of the price of texts. Yeah, but I think if I had had more information, I might have made some choices differently. (Participant 3)

Three participants acknowledged that they enjoyed a certain degree of economic privilege that insulated them from having to make choices about courses based solely on textbook costs. If their finances were such that expensive textbooks would have caused significant hardship, they suggested that their course selections might have been impacted:

> I am unusually well-funded for someone in my program in terms of what my graduate stipend looks like. And I also come from—I'm not a first-generation student. I come from a solidly middle-class family. My resources are also different. So, when I talk about not making those choices, that's within the context of my financial situation as well. Acknowledging that if I didn't have that buffer or my GA stipend was lower, I absolutely would have made choices differently. (Participant 3)

While one participant noted that being in a dual-income household meant that she did not need to worry about the financial implications of textbooks, another pointed out that transitioning to be a full-time student has made her look at textbook costs more closely:

> If I were to see a list that had like a bunch of textbooks listed, that would absolutely factor into my decision about taking the course, just because, you know, financially speaking, right, like as somebody who's now a full-time student who doesn't have a GA position. You know, I've gone from a two-income household to a one-income household. And so that really factors a lot into it, right? Like if I had to pay a couple hundred dollars for books, like that would be significant for me, so that would be something I would consider. (Participant 11)

Impact of Required Textbooks on Perceptions of Faculty

While textbook requirements generally played little role in course selection, they impacted student perceptions of teaching faculty. Participants applauded faculty for acknowledging student concerns about textbook costs and for their efforts to mitigate those costs:

> So, like my one professor, she made the text available to the library, and we almost use it like an optional part of the coursework. My other two professors, even though there are these required texts, they do not mandate that we have like the most up-to-date versions of the texts. They have given us resources on how to obtain older copies of the text. So, I think it's something that people in my department at least we're all kind of aware that it's a pain, and people have tried to take steps to do that. (Participant 4)

Conversely, participants criticized faculty who failed to take measures to keep costs at a minimum. Participant 3, for example, said she held a negative view of faculty who assigned expensive texts that ended up not being used in class. Just as faculty who acknowledged cost concerns were viewed as conscientious of the student experience, those who did not do so were viewed as out of touch. In some cases, this criticism stemmed from what they perceived as poor pedagogical choices, such as requiring excessive numbers of textbooks that were used minimally in the course or not clearly relevant to the topic at hand. As participant 2 commented:

> I have definitely been in classes where I did not feel like I should have needed to buy that book because it didn't really add anything to my understanding of the topic, and I've actually in my own teaching switched books because I felt like my students weren't getting anything out of the books that I had chosen as well. So, I—you know—even in a doctoral program that it's still every once in a while there's been books that I've been like "Why am I reading this? I don't understand how this has anything to do with the course objectives or anything I'm learning." (Participant 2)

Students also inferred that some faculty overlook the implications of digital technologies when assigning textbooks. For example, duplicative content in online learning management systems could in some instances obviate the need for a textbook:

> And so, in those instances, I don't think the faculty are intending to be— "malicious" isn't the right word, but—aren't intending to just make us pay ridiculous amounts of money. It's more that they haven't thought about the fact that the alternative learning structures that they built really make the book redundant. But I think it's hard in some disciplines more than others for them to think about a syllabus as being sufficiently rigorous or sufficiently real to their discipline without it having a brick of a book attached to it. (Participant 3)

In some cases, students noted how digital technologies present usage hurdles to some students:

> The professors that I've encountered haven't thought about students who might have disabilities that prevent them from looking at materials online, so there's not something in place for those

students. And that's more common than most people would think, the students' inability to read online. (Participant 12)

Other students attributed excessive textbook requirements to inertia, laziness, or an unwillingness to change on the part of faculty—or as Participant 11 described, being "out of touch," rather than poor pedagogical choices.

> As soon as I see the textbook, I'll be like "Okay, how are you going to use this? Since now I know we have a textbook, how is it going to be integrated?" And so, I would say I'm a little skeptical when I see that a course has a textbook. Because yeah, I don't want it to be a waste of money. And I don't want it to replace the instruction. (Participant 6)

While participants were not asked about it explicitly, they also indicated mistrust toward faculty who required the purchase of books they authored, suggesting that these faculty might have ulterior financial motives in assigning commercially produced texts they had written. As Participant 6 commented:

> I would say if the textbook was written by faculty, even if it's not the same faculty that's teaching the course, I would be cautious or skeptical about it. I would be wondering if it's like self-promotion over, I don't know, that this was the best possible material. Which isn't necessarily to question the instructor, but it feels like, "Is this a conflict of interest?" in my head. (Participant 6)

Reflections on the Future of Textbooks

All interview participants indicated that they hope to see required textbooks provided by the university either freely or with no undue burden to students. Their comments show that they perceive this to be an equity issue that potentially hinders students' academic success. Some of their observations are based on their experience as doctoral students, while others are based on their experience teaching courses:

> I'd like to see all books be open access, because the prices of some of them are absolutely ridiculous. So, I would really like to see them be free. There're so many other things, whether you have the assistantship or not, that that money can go towards. …we just have to make sure that it works for students with disabilities too. (Participant 1)

The interview participants shared various approaches to reduce costs and increase accessibility of textbooks. Nine participants mentioned instructional faculty's role in achieving these goals, e.g., avoiding unnecessary textbooks whenever possible, assigning only required materials, providing articles and chapters via the course management system without incurring additional costs for students, using free and/or open materials, working with libraries to place course reserves, allowing to use older editions, and providing multiple formats for accessibility purposes. Participant 2 commented:

> I think anytime that the faculty can provide a free option for their students, they should. And if that option is available, they should make sure that they let students know early… I know it's a lot of work, but I think it would be awesome if faculty were willing and able more often to create

their own materials and offer them for free… the pandemic actually helped a little bit in the sense that faculty became more aware of a lot of students' struggles that they didn't know already. (Participant 2)

Others talked about the need for the library to continue to play a central role in providing access to required textbooks. While their comments tended to focus on traditional library functions such as course reserves and licensed e-textbook acquisitions, some participants discussed services such as open monographs, OER, HathiTrust Emergency Temporary Access Service (ETAS), and alumni access. The participants seemed to understand that libraries are usually not able to purchase numerous copies of the same print textbooks. A few participants emphasized the importance of increasing awareness of OER through outreach efforts:

> Are there ways to make that [access to digital content] a longer commitment to alums—that would be fantastic—and what's available that way? I wasn't in State College for much of last year and so the fact that I could access so many library books remotely [via HathiTrust ETAS], because that kind of increased availability of those texts, was fantastic, and I used the heck out of it. (Participant 3)

> I don't have a strong opinion whether it shouldn't come from what the faculty is assigning or creating themselves as opposed to what the library is gaining access to. But some sort of collaboration so that the student is able to access it without having to Google "free PDF." (Participant 11)

As the participants reflected on what the future of textbooks might look like, some speculated that doctoral education will increasingly rely on articles, chapters, and open content, rather than textbooks. Participant 1 noted:

> I like the articles because then you can have it be as recent as you want. And I know that you can scan a chapter or two and put it up for your students, and if they want to print it off, they can. So, I see textbooks, formal textbooks, going away eventually. (Participant 1)

Participant 4, however, argued that assigning textbooks was a way for the university to legitimize what was being taught, commenting:

> I guess I want to be careful when I say we should sort of re-institutionalize how we think about textbooks. That doesn't mean throwing out all of the good things that textbooks currently provide. But I do see textbooks as political documents. And I think that whatever the institutions that control the purchase of those textbooks, like whatever they want those textbooks to say or not say, I think is what happens. (Participant 4)

Others shared their continued preference for reading print books and a desire to maintain their own print collection, particularly for books that are important for their areas of study. At the same time, they emphasized the importance of accessibility and flexibility. This was summed up by Participant 3:

I would prefer to be reading my own hard copy book so that I'm—I shouldn't say this to a librarian, but like I'm a marginalist. I write in my stuff. I fold pages. I'm not nice to my books. But that's also important to me in the way that I make sense of things. So, I would still prefer to have my own books. But I don't think that should ever be the only option… I think some of the ways that textbooks are going to be evolving is that we're going to find ways to be moving away from the written word. (Participant 3)

In terms of their experiences with open textbooks, a few participants spoke about challenges that were specific to the field of education and the prevailing negative perceptions of open access (OA) and OER materials. Describing a recent conversation with her advisor about an opportunity that had arisen to publish in an open textbook, Participant 6 said,

If I want to go into academia and get tenure, it looks better if I have it in a journal than a textbook just from, like, a prestige standpoint. I'm sure, to be honest, that was part of her [the advisor's] thought. I also got the feedback "Oh that's less prestigious. It's got to be less meaningful for you when you put that on your CV." (Participant 6)

One participant expressed concern about the idea of not receiving payment for work:

I am a little reticent to jump on the open access digital train because one, I don't like the idea of the author or editors not getting royalties for the purchase, you know, they put a lot of work in in doing so in making those books. I don't want them to get shortchanged. (Participant 7)

Several participants shared that they have experience publishing or using open textbooks. Their comments suggest that the open, free, and flexible nature of open textbooks worked in their particular situations. Participant 3 commented that OER materials would have been "fantastic" for an ethnographic methods class that she had taken, noting, "they were trying to be more inclusive about it. But there was no good inclusive ethnography methods textbook." Others expressed enthusiasm for participating in the open textbook movement in the future and shared their ideas:

I actually wrote my geography textbook for my seventh graders and published it online… But so, what I was trying to do was say, "Okay, how do I write a text that fits my audience and makes the rest of my classroom experience better? And how can we use a text that will actually facilitate learning? And how do I turn this into a handbook that can be both instructional but also like referenced, right?" (Participant 4)

I think a good space for the open resource textbooks… would be to get some of these older [seminal] works that are not being published anymore … because the professors that require these are less interested in reading from cover to cover. (Participant 12)

Overall, the participants' comments reveal both an interest and willingness to explore the possibilities of OER, not least for reasons of equity and affordability. At the same time, there may be some hesitancy, possibly due to the influence of prevailing negative perceptions of OER among faculty as well as within their scholarly fields.

Conclusion

This study paints a complex picture of the textbook usage practices of doctoral students and allowed the researchers to find future opportunities for open textbooks. Compared with earlier studies centered on undergraduate students, doctoral students in the current study were less focused on cost savings, although they expressed their desire for free and open access to course materials whenever possible.

Most doctoral students, like undergraduates, attempted to find the most cost-effective option through Web searching. Borrowing print copies from the library or using print course reserves was not frequently mentioned, although some expressed a desire for faculty and librarians to collaborate more so that syllabi and required textbooks are available via the course management system earlier. Methods textbooks were frequently mentioned as examples of required textbooks. While most doctoral students liked convenient online access to textbooks, many also expressed their preference for reading print books and having their own print copies. This implies that libraries are expected to provide online access for quick reference purposes for all students while some doctoral students might continue purchasing their own print copies, particularly for the items that are in their fields of study.

The study participants expressed that required textbooks generally do not affect their course selections. This contradicts the existing research on undergraduates, which is focused more on consideration for cost savings as the driver for advancing OER. Many expressed appreciation for faculty who provide free access to scanned chapters or collaborate with libraries to manage costs. At the same time, the students were critical of faculty who assigned unnecessary textbooks or failed to take measures to keep costs at a minimum. Doctoral students expected faculty to assign the most relevant and useful materials for readings, which might be in the form of an article, chapter, video, or open content, instead of generic or outdated textbooks. These findings could provide useful data points for librarians and instructional designers to share with faculty as they support them with course preparation.

All of the study participants expressed interest in supporting free and open textbooks. Several students shared ideas for OER, such as old seminal texts, ethnographic works, and methods textbooks. Some students had experience in publishing or using open textbooks. At the same time, many discussed challenges associated with online reading and accessibility. Research articles and chapters were the most common formats of required readings for these doctoral students. Some expressed skepticism due to perceived lack of prestige associated with OER and OA materials. Those concerns mirror, and are in many cases informed by, faculty perceptions. As Skidmore and Provida (2019) write:

The largest barrier to participation in OEP [Open Educational Practices] is the lack of professional recognition. Tenured and tenure-track faculty members who evince interest in becoming involved in OEP worry about the amount of time needed to do it properly. Those concerns are compounded if the faculty member thinks that the time and effort expended on OEP will not be recognized in the normal career progression processes, namely tenure and promotion (p. 10).

This issue points to a need for institutions to provide greater weight to these efforts in promotion and tenure decisions. While some universities have recognized open educational practices in their promotion and tenure guidelines (McCarthy, 2022; Miami University, 2022; Szeri & Mukherjee-Reed, 2020), this is not yet the norm. Libraries should work with faculty and other relevant stakeholders to advocate for

similar guidelines at their institutions, using frameworks that other scholars have developed to aid in these advocacy efforts (Coolidge et al., 2020; Elder et al., 2022).

In addition to suggesting a need for assigning greater institutional and professional value to faculty open education efforts, the data point to a need for greater transparency in the communication of required course materials. While the Higher Education Opportunity Act of 2008 (Miller, 2008) requires all institutions of higher education receiving federal financial aid to publish a list of required and recommended materials prior to course registration, compliance with this requirement varies widely. Some institutions have implemented course marking systems in which courses that use OER or other low-cost materials are clearly designated in platforms like course registration systems and campus bookstore websites, and while seven states have enacted legislation concerning course marking, Pennsylvania is not among them (Ainsworth et al., 2020). The Penn State Libraries continue to collaborate with faculty, students, the university bookstore, the registrar's office, and others to work toward course marking, and other institutions without course marking should follow suit. Libraries can also potentially partner with students and other relevant stakeholders to push for state legislation where none currently exists in order to provide students with greater transparency regarding their course materials.

The participants' responses point to opportunities for libraries to improve their outreach and support efforts related to OER and affordable course materials. Libraries can work with doctoral students to ensure that they have access to the required texts in a manner that is useful to them. Additionally, libraries can play the role of consultant by providing the expertise and resources that support an infrastructure for future educators to develop, publish, and curate OER, while eliminating misconceptions about OER and OA. Liaison librarians might reach out to faculty who teach ethnographies and methods courses, or the areas that the doctoral students recommended, to explore opportunities for OER. Doctoral students with teaching assignments are also positioned to potentially advocate for the use of OER in their departments.

Future research could add to this study and address its limitations. While the present study focused solely on doctoral students, including faculty perspectives would build on the richness of the data, especially if the interview protocol is informed by the doctoral student perspectives provided in this study. Additionally, this study could be replicated in other disciplines in order to explore how the present findings compare with fields beyond education. Successful open and affordable education efforts require the collaboration of multiple stakeholders. Given their unique positionality as students and current/future educators, doctoral students can serve as invaluable partners for libraries to advance open textbook initiatives.

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The authors have no conflicts of interest relevant to this article.

References

Ainsworth, B., Allen, N., Dai, J., Elder, A., Finkbeiner, N., Freeman, A., Hare, S., Helge, K., Helregel, N., Hoover, J., Kirschner, J., Perrin, J., Ray, J., Raye, J., Reed, M., Schoppert, J., & Thompson, L. (2020). *Marking open and affordable courses: Best practices and case studies.* (S. Hare, J. Kirschner, & M. Reed, Eds.). Mavs Open Press. https://uta.pressbooks.pub/markingopenandaffordablecourses/

Anderson, T., Gaines, A., Leachman, C., & Williamson, E. P. (2017). Faculty and instructor perceptions of open educational resources in engineering. *The Reference Librarian, 58*(4), 257–277. https://doi.org/10.1080/02763877.2017.1355768

Beile, P., deNoyelles, A., & Raible, J. (2020). Analysis of an open textbook adoption in an American history course: Impact on student academic outcomes and behaviors. *College & Research Libraries, 81*(4), 721–736. https://doi.org/10.5860/crl.81.4.721

Bell, S. (2021). Farewell print textbook reserves: A COVID-19 change to embrace. *EDUCAUSE Review.* https://er.educause.edu/articles/2021/1/farewell-print-textbook-reserves-a-covid-19-change-to-embrace

Bliss, T. J., Hilton III, J., Wiley, D., & Thanos, K. (2013). The cost and quality of online open textbooks: Perceptions of community college faculty and students. *First Monday*. https://doi.org/10.5210/fm.v18i1.3972

Bliss, T. J., Robinson, T., Hilton, J., & Wiley, D. (2013). An OER coup: College teacher and student perceptions of open educational resources. *Journal of Interactive Media in Education, 2013*(1), 4. https://doi.org/10.5334/2013-04

Brandle, S., Katz, S., Hays, A., Beth, A., Cooney, C., DiSanto, J., Miles, L., & Morrison, A. (2019). But what do the students think: Results of the CUNY cross-campus zero-textbook cost student survey. *Open Praxis, 11*(1), 85–101. https://doi.org/10.5944/openpraxis.11.1.932

Bureau of Labor Statistics, U.S. Department of Labor. (2021). Cost of college tuition has remained stable since September 2019. https://www.bls.gov/opub/ted/2021/cost-of-college-tuition-has-remained-stable-since-september-2019.htm

Cho, S., & Hayter, C. S. (2020). Under pressure: A systematic review of stress and its impact among graduate students. *Science & Public Policy, 47*(6), 758–771. https://doi.org/10.1093/scipol/scaa053

Choi, Y. M., & Carpenter, C. (2017). Evaluating the impact of open educational resources: A case study. *Portal: Libraries and the Academy, 17*(4), 685–693. https://doi.org/10.1353/pla.2017.0041

doi:10.13001/joerhe.v1i1.7205   29   Journal of Open Educational Resources in Higher Education

Coolidge, A., McKinney, A., & Shenoy, D. (2020). *OER in tenure and promotion. DOERS3.*
https://www.doers3.org/tenure-and-promotion.html

Cooney, C. (2017). What impacts do OER have on students? Students share their experiences with a
health psychology OER at New York City College of Technology. *The International Review of
Research in Open and Distributed Learning, 18*(4). https://doi.org/10.19173/irrodl.v18i4.3111

Corbin, J. M., & Strauss, A. L. (2008). *Basics of qualitative research: Techniques and procedures for
developing grounded theory (3rd ed.*). SAGE Publications, Inc.

Delgado, H., Delgado, M., & III, J. H. (2019). On the efficacy of open educational resources. *The
International Review of Research in Open and Distributed Learning, 20*(1).
https://doi.org/10.19173/irrodl.v20i1.3892

Delimont, N., Turtle, E. C., Bennett, A., Adhikari, K., & Lindshield, B. L. (2016). University students
and faculty have positive perceptions of open/ alternative resources and their utilization in a
textbook replacement initiative. *Research in Learning Technology*, *24*(1).
https://doi.org/10.3402/rlt.v24.29920

Diaz, C. (Ed.). (2017). *Textbooks in academic libraries: Selection, circulation, and assessmen*t. ALA
Editions.

Eighmy-Brown, M., McCready, K., & Riha, E. (2017). *Textbook access and affordability through
academic library services: A department develops strategies to meet the needs of students.
Journal of Access Services, 14*(3), 93–113. https://doi.org/10.1080/15367967.2017.1289817

Elder, A., Gruber, A. M., Burnett, M., & Koch, T. (2022). Open education in promotion, tenure, &
faculty development. In R. Kimmons (Ed.), *Becoming an open scholar*. EdTech Books.
https://edtechbooks.org/open_scholar/iowa_promotion

Fialkowski, M. K., Calabrese, A., Tilinghast, B., Titchenal, C. A., Meinke, W., Banna, J. C., & Draper, J.
(2020). Open educational resource textbook impact on students in an introductory nutrition
course. *Journal of Nutrition Education and Behavior, 52*(4), 359–368.
https://doi.org/10.1016/j.jneb.2019.08.006

Filion, S., & Wallace, N. (2018). Chapter 7 – Textbook or not: How library ebook purchasing power
aligns with curricular content trends. In K. Jensen & S. Nackerud (Eds.), *The evolution of
affordable content efforts in the higher education environment: Programs, case studies, and
examples*. University of Minnesota Libraries.
https://open.lib.umn.edu/affordablecontent/chapter/textbook-or-not-how-library-ebook-purchasin
g-power-aligns-with-curricular-content-trends/

Georgiadou, E., & Kolaxizis, I. (2019). Film students' attitude toward open educational resources (OERs) for film studies in Greece. *Education Sciences, 9*(3), 195. https://doi.org/10.3390/educsci9030195

Gil, P., Candelas Herias, F., Jara, C., Garcia, G., & Torres, F. (2013). Web-based OERs in computer networks. *International Journal of Engineering Education*, *29*, 1537–1550.

Greiner, T. (2012). "All textbooks in the library!" An experiment with library reserves. *Library Philosophy and Practice*, 1–9.https://digitalcommons.unl.edu/libphilprac/838/

Griggs, R. A., & Jackson, S. L. (2017). Studying open versus traditional textbook effects on students' course performance: Confounds abound. *Teaching of Psychology, 44*(4), 306–312. https://doi.org/10.1177/0098628317727641

Hardin, E. E., Eschman, B., Spengler, E. S., Grizzell, J. A., Moody, A. T., Ross-Sheehy, S., & Fry, K. M. (2019). What happens when trained graduate student instructors switch to an open textbook? A controlled study of the impact on student learning outcomes. *Psychology Learning & Teaching, 18*(1), 48–64. https://doi.org/10.1177/1475725718810909

Hare, S., Frye, J. M., & Samuelson, B. L. (2020). Open pedagogy as an approach to introducing doctoral students to open educational resources and information literacy concepts. *Library Trends, 69*(2), 435–468. https://doi.org/10.1353/lib.2020.0041

Hendricks, C., Reinsberg, S. A., & Rieger, G. W. (2017). The adoption of an open textbook in a large physics course: An analysis of cost, outcomes, use, and perceptions. *The International Review of Research in Open and Distributed Learning, 18*(4). https://doi.org/10.19173/irrodl.v18i4.3006

Hilton III, J. L., Gaudet, D., Clark, P., Robinson, J., & Wiley, D. (2013). The adoption of open educational resources by one community college math department. *The International Review of Research in Open and Distributed Learning, 14*(4). https://doi.org/10.19173/irrodl.v14i4.1523

Ikahihifo, T. K., Spring, K. J., Rosecrans, J., & Watson, J. (2017). Assessing the savings from open educational resources on student academic goals. *The International Review of Research in Open and Distributed Learning, 18*(7). https://doi.org/10.19173/irrodl.v18i7.2754

Jhangiani, R. S., Hardin, E. E., & Beers, M. J. (2019). Open educational practices: Perceptions and outcomes. *Psychology Learning & Teaching, 18*(1), 1–3. https://doi.org/10.1177/1475725718814354

Jhangiani, R. S., & Jhangiani, S. (2017). Investigating the perceptions, use, and impact of open textbooks: A survey of post-secondary students in British Columbia. *The International Review of Research in Open and Distributed Learning, 18*(4). https://doi.org/10.19173/irrodl.v18i4.3012

Kovacs, K. (2016, November 17). *Grad students' financial worries.* Inside Higher Ed. https://www.insidehighered.com/news/2016/11/17/report-finds-many-graduate-students-are-stressed-about-finances

Lin, H. (2019). Teaching and learning without a textbook. *The International Review of Research in Open and Distributed Learning, 20*(3). https://doi.org/10.19173/irrodl.v20i4.4224

Lindshield, B. L., & Adhikari, K. (2013). Online and campus college students like using an open educational resource instead of a traditional textbook. *Journal of Online Learning and Teaching, 9*(1), 26–38.

Magro, J., & Tabaei, S. V. (2019). Results from a psychology OER pilot program: Faculty and student perceptions, cost savings, and academic outcomes. *Open Praxis, 12*(1), 83–99. https://doi.org/10.5944/openpraxis.12.1.1007

Martin, M. T., Belikov, O. M., Hilton III, J., Wiley, D., & Fischer, L. (2017). Analysis of student and faculty perceptions of textbook costs in higher education. *Open Praxis, 9*(1), 79. https://doi.org/10.5944/openpraxis.9.1.432

McCarthy, J. (2022). *Provost McCarthy's annual promotion and tenure memo.* University of Massachusetts Amherst. https://www.umass.edu/provost/provost-mccarthys-communications

Miami University. (2022). *Guidelines for second promotion of TCPL faculty members.* Miami University. https://www.miamioh.edu/academic-affairs/admin-affairs/promotion-tenure/non-tenured-positions/tcpl-guidelines-2nd/index.html

Miller, G. (2008, August 14). *H.R.4137 - 110th Congress (2007-2008): Higher Education Opportunity Act (2007/2008)* [Legislation]. https://www.congress.gov/bill/110th-congress/house-bill/4137

Moore, J., & Reinsfelder, T. (2020). Current usage patterns of open educational resources in the engineering mechanics classroom and barriers to adoption. *Issues in Science and Technology Librarianship, 95.* https://doi.org/10.29173/istl65

Muggli, J. I. V., & Westermann, W. (2019). Effectiveness of OER use in first-year higher education students' mathematical course performance. *The International Review of Research in Open and Distributed Learning, 20*(2). https://doi.org/10.19173/irrodl.v20i2.3521

National Center for Education Statistics. (2022). *College navigator—The Pennsylvania State University.* U.S. Dept. of Education. https://nces.ed.gov/collegenavigator/?pg=2&id=495767

Nipa, T. J., & Kermanshachi, S. (2020). Assessment of open educational resources (OER) developed in interactive learning environments. *Education and Information Technologies, 25*(4), 2521–2547. https://doi.org/10.1007/s10639-019-10081-7

doi:10.13001/joerhe.v1i1.7205   32   Journal of Open Educational Resources in Higher Education

Nusbaum, A. T. (2020). Who gets to wield academic mjolnir?: On worthiness, knowledge curation, and using the power of the people to diversify OER. *Journal of Interactive Media in Education, 2020*(1), 4. https://doi.org/10.5334/jime.559

Nusbaum, A. T., Cuttler, C., & Swindell, S. (2020). Open educational resources as a tool for educational equity: Evidence from an introductory psychology class. *Frontiers in Education, 4,*152. https://doi.org/10.3389/feduc.2019.00152

Petrides, L., Jimes, C., Middleton‑Detzner, C., Walling, J., & Weiss, S. (2011). Open textbook adoption and use: Implications for teachers and learners. *Open Learning: The Journal of Open, Distance and e-Learning, 26*(1), 39–49. https://doi.org/10.1080/02680513.2011.538563

Pfannenstiel, A. N., Redcay, A., & Albert, D. (2020). Student perceptions of textbooks: Prior behaviors and beliefs can influence zero textbook cost (ZTC) adoption impact. *Open Praxis, 12*(4), 555–567. https://doi.org/10.5944/openpraxis.12.4.1119

Pitt, R., Ebrahimi, N., McAndrew, P., & Coughlan, T. (2013). Assessing OER impact across organisations and learners: Experiences from the Bridge to Success project. *Journal of Interactive Media in Education, 2013*(3), 1–16. https://doi.org/10.5334/2013-17

Raish, V., Holobar, C., & Highbaugh, K. (2018). Chapter 6 – Beyond OER: Library licensed e-books as a proactive course reserves model and collections development tool In K. Jensen & S. Nackerud, (Eds.). *The evolution of affordable content efforts in the higher education environment: Programs, case studies, and examples.* University of Minnesota Libraries. https://open.lib.umn.edu/affordablecontent/chapter/beyond-oer-library-licensed-e-books-as-a-proactive-course-reserves-model-and-collections-development-tool/

Reinsfelder, T. L., & Moore, J. P. (2020). Power dynamics in a complex OER environment: Who is leading the way?. *Library Trends, 69*(2), 370–394. https://doi.org/10.1353/lib.2020.0038

Riehman-Murphy, C., Raish, V., Mross, E., Pritt, A., & Nelson, E. (2020). Bridges to affordability: Adopting a university OAER mandate with local implementation. *Reference Services Review, 48*(3), 339–352. https://doi.org/10.1108/RSR-03-2020-0010

Ross, H. M., Hendricks, C., & Mowat, V. (2018). Open textbooks in an introductory sociology course in Canada: Student views and completion rates. *Open Praxis, 10*(4), 393–403. https://doi.org/10.5944/OPENPRAXIS.10.4.892

Saldaña, J. (2021). *The coding manual for qualitative researchers* (4th ed.). SAGE.

Sallie Mae Bank, & Ipsos Public Affairs. (2018). *How America pays for graduate school: Sallie Mae's national study of graduate school students, 2017.* Sallie Mae Bank. https://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED594431&site=ehost-live

Skidmore, J. M., & Provida, M. (2019). *A place for policy: The role of policy in supporting open educational resources and practices at Ontario's colleges and universities* (p. 33). eCampus Ontario. https://www.ecampusontario.ca/wp-content/uploads/2019/08/2019-08-07-skimore-oe-policy-report.pdf

Szeri, A., & Mukherjee-Reed, A. (2020). *Guide to reappointment, promotion and tenure procedures at UBC.* The University of British Columbia. https://hr.ubc.ca/sites/default/files/documents/SAC%20Guide.pdf

Tillinghast, B., Fialkowski, M. K., & Draper, J. (2020). Exploring aspects of open educational resources through OER-enabled pedagogy. *Frontiers in Education, 5,* 76. https://doi.org/10.3389/feduc.2020.00076

Todorinova, L., & Wilkinson, Z. T. (2019). Closing the loop: Students, academic libraries, and textbook affordability. *The Journal of Academic Librarianship, 45*(3), 268–277. https://doi.org/10.1016/j.acalib.2019.03.010

Todorinova, L., & Wilkinson, Z. T. (2020). Incentivizing faculty for open educational resources (OER) adoption and open textbook authoring. *The Journal of Academic Librarianship, 46*(6), 1–10. https://doi.org/10.1016/j.acalib.2020.102220

University of Guelph Library. (2020). *Commercial textbooks present challenges in a virtual environment.* University of Guelph. https://www.lib.uoguelph.ca/news/commercial-textbooks-present-challenges-virtual-environment

Vojtech, G., & Grissett, J. (2017). Student perceptions of college faculty who use OER. *International Review of Research in Open and Distributed Learning, 18*(4), 155–171. https://doi.org/10.19173/irrodl.v18i4.3032

Wiley, D. (2014). *The access compromise and the 5th R – improving learning.* https://opencontent.org/blog/archives/3221

Wynants, S. A. (2022). Redesigning a research methods course with personalized, interactive OER: A case study of student perceptions and performance. *Journal of the Scholarship of Teaching and Learning, 22*(1). https://doi.org/10.14434/josotl.v22i1.31706

Appendix

Appendix A. Interview Questions

Demographic Questions

1. Please tell me a little about your degree program and what year you are in.
2. What's your pronoun?

Textbook Needs and Usage

3 Among courses you have taken, what courses required commercial textbooks?

4. How did you obtain access to the required commercial textbook?
   a. Purchased a copy
   b. Rented a copy
   c. Borrowed from a library
   d. Borrowed or obtained a free copy from someone
   e. Other (describe)

5. Why did you acquire access that way?

Impact of Required Textbooks

6. How have textbook requirements affected your course selection?

7. How have textbook requirements affected your perception of the instructional faculty?

Reflections on the Future of Textbooks

8. What do you want to see happen in terms of required textbooks in the future?
   a. The library purchase required textbooks
   b. Increased availability of open textbooks (for long-term and more flexible use)
   c. Other

9. What other thoughts do you have for the future of textbooks?

Appendix B. Coding Scheme

Textbook Needs and Usage

- Courses requiring commercial textbooks
      Quantitative method / statistics
      Qualitative method / statistics
      Theories
      Other

- Access method
      Purchased
      Rented
      Borrowed print copy from library
      Accessed online
      Instructor provided
      Borrowed or obtained a free copy from someone
      Other

- Reason for the access method
      Cost
      Time / Convenience
      Print preference
      Digital preference
      Long-term needs
      Other

Impact of Required Textbooks

- Impact on course selection
      Impact
      No impact

- Impact on perception of the instructional faculty
      Negative
      Positive

Reflections on the Future of Textbooks

- Desires
      Equity / free / open
      Instructor role
      Library role

- Challenges with open textbooks
    - Online reading difficulty
    - Prestige / legitimacy
    - Philosophical issues, e.g., author compensation

- Future of textbooks
    - Role of textbooks
    - Articles, chapters, and other alternatives
    - Open textbooks opportunities

- Involvement in open textbooks