



The Open Textbook Toolkit: Developing a New Narrative for OER Support

*Mira Waller, Will Cross, and Erica Hayes**

This paper focuses on IMLS-funded research we have done around the practices and needs of psychology instructors considering adopting or creating open educational resources (OER). Over the past year and a half, we have gathered information and developed a plan for creating a subject-specific, scalable “open textbook toolkit” that will meet the needs of instructors looking to adopt, adapt, or create OER. In this paper, we identify a set of themes for support of OER in psychology courses, as well as guidance for applying these results in other fields. It also provides a framework for librarians to develop their own research agenda in this area.

Introduction: Moving Open Education from “Good” to “Good Enough”

Open education is no longer an emerging trend. After a half decade of news articles, library workshops, and open educational resource (OER) programs—not to mention the previous decade’s work by funders and advocates to develop a robust suite of resources and repositories¹—OER is a reality. The efficacy of OER is also no longer an open question, as a body of literature has developed demonstrating that OER are as or more effective than traditional textbooks,² and that moving to OER has significant impact on student success, particularly nontraditional and at-risk students.³

Given the ubiquity and clear benefits of open education, the question is why faculty members have not adopted OER more widely. As the impact of high costs on student success has become increasingly well recognized, institutions have clear incentives to engage with OER. The rise of open pedagogy likewise suggests opportunities for open education to empower faculty instructors in exciting ways. Nevertheless, OER often remains an untapped resource, particularly at four-year colleges and universities.⁴

A major reason for this incremental growth is that while OER is often better known than it was a half-decade ago, is often not better understood. As the 2018 Babson Report indicates, “[o]verall awareness of OER is at about 46 percent [of faculty surveyed], so while most faculty have real concerns about the cost of course materials and use textbooks in a manner that is best supported by OER, slightly more than half remain unaware of the OER alternative.”⁵

Faculty are often quite aware that textbook costs have a significant impact on student success and recognize the value of both digital and open resources, which align with their academic values and support the revision and remixing they may already be doing with their own materials. Because institutional level initiatives around OER are limited, however, faculty often feel that they have been left on their own to find solutions.

When faculty instructors have engaged with OER, they have not always found resources that meet their needs. The Babson Survey Research Group has identified a relatively stable set of barriers to OER adoption across a half-decade of reports. In 2014 the *Opening the Curriculum: Open Educational Resources in Higher Education*⁶ report noted that “the most significant barrier to wider adoption of OER remains a faculty perception

* *Mira Waller, Department Head, Research Engagement, NCSU Libraries, mpark@ncsu.edu. Will Cross, Director, Copyright & Digital Scholarship Center, NCSU Libraries, wmcross@ncsu.edu. Erica Hayes, NCSU Libraries Fellow, NCSU Libraries, eyhayes@ncsu.edu*

of the time and effort required to find and evaluate it.” The 2015—16 report echoed these findings, noting that “the barriers to adopting OER most often cited by faculty are that ‘there are not enough resources for my subject’ (49%), it is ‘too hard to find what need’ (48%) and ‘there is no comprehensive catalog of resources’ (45%).”⁷

More recent surveys continue to reflect these common and ongoing barriers and in 2019 it is clear that, however interested in OER faculty may be in the abstract, they need better support in three core areas: discovery, quality, and time. Faculty overwhelmingly report that they cannot find OER that fit their course and teaching style, and when they do find resources those resources are often not of sufficient quality to earn their trust. Further, faculty report that they do not have the time needed to revise OER to meet their needs, much less to unlock the potential of 5R (Retain, Reuse, Revise, Remix and Redistribute) openness⁸ that many OER advocates tout. If OER are to become the default resources for the majority of faculty, they need support that moves OER from “good” to “good enough.”

This paper describes our efforts to understand those barriers so that we can develop resources that bridge this gap in one particular discipline: psychology. It introduces our project—the Open Textbook Toolkit—and offers it as a case study of barriers to OER adoption in that discipline. Next, this paper describes our findings and identifies a set of themes for supporting OER in psychology courses. Finally, this paper offers a roadmap for developing a research agenda in other disciplines. By using this project as a model, librarians, publishers, or even faculty instructors themselves can better-understand the needs of any discipline or domain so they will be prepared to develop the support needed to make OER the widely-adopted, transformative resources they have the potential to be.

Overview of Project: The Open Textbook Toolkit

Large-scale surveys like those conducted by Babson are useful, but may miss significant nuances in the discipline-specific needs and practices of instructors. In order to narrow our focus and identify actionable themes and supports, we chose to focus on a single discipline: psychology. We chose to focus on psychology for several reasons. We felt this was a promising area of study because psychology is often taught in large introductory courses that are taken by many non-majors; so many students would be impacted by the adoption of OER. Further, as a STEM field, psychology courses often have particularly expensive textbooks, so cost-savings may be particularly dramatic.

At the same time, psychology is unusual in the STEM fields in that there is a significant emphasis on teaching and learning, which we hoped would make discussion about the power of open resources that leverage the 5Rs more appealing. Finally, psychology’s recent engagement with open culture through the so-called reproducibility crisis⁹ suggested that we might find a more fertile space for supporting open practice in terms of educational resources.

Having identified psychology as a promising discipline to engage, we developed an approach to help us better-understand the needs of faculty and students. In order to support this project we applied for and were awarded an Institute of Museum and Library Services (IMLS) Planning Grant (LG-72-17-0051-17) to fund our research. The grant provided significant resources for our travel to psychology conferences as well as to offer incentives for participation and to fund a graduate student to transcribe focus groups and interviews. We also felt that support from the IMLS lent the project some additional credibility as we entered a mostly-unfamiliar community where most members were unaware of our work.

First, we developed two national surveys, one aimed at psychology faculty and the second at psychology students. We worked to develop these surveys in partnership with stakeholders in psychology, and received particularly generous support from Rajiv Jhangiani, a psychology professor who is also recognized as a leader

in open education. These surveys were vetted by peers, reviewed by our Institutional Review Board (IRB) and entered into Qualtrics. Responses to the surveys are discussed below.

Using initial data from those surveys, we prepared a series of focus group questions to dig more deeply into the needs of faculty instructors and their perceptions of student needs. We identified the American Psychology Association's Society for Teaching Psychology (APA-STP) as a promising venue and hosted focus groups at their annual conference in San Antonio, TX and at regional STP conferences in Philadelphia, PA and Chicago, IL. We also hosted a focus group at the Eastern Teaching of Psychology Conference held in Staunton, VA.

We brought results from our surveys and information from these focus groups together to develop discussion points for a series of follow-up interviews with survey participants who volunteered to speak with us for a half-hour telephone call. These follow-up interviews reflected a convenience sample and included a disproportionate number of faculty from community colleges, but shed excellent light on several issues identified in the rest of the data. These interviews also filled an important gap, since most of our focus groups were held at academic conferences, which included relatively few community college faculty instructors.

Finally, we supplemented this information with a series of opportunistic research at other academic conferences. We attended the leading open education conference in 2017 and 2018 (OpenEd17 and 18) and led roundtables at each where we solicited information about the project and responses to the data we had gathered at the time of the event. We also led discussions at the Charleston Conference in the fall of 2018 where we asked a group of librarians, publishers, and vendors about their experience supporting OER and how it aligned with our findings and spoke with faculty members on our own campus throughout the project to get their impressions of the issue and our findings.

Findings and Recommendations

While our research into the needs and behaviors of psychology instructors and students included national surveys and focus groups, this paper will focus on our survey findings. Preliminary recommendations based upon our survey findings will also be included. Future writings and presentations will include more robust information and recommendations that include findings from the focus groups and survey follow up interviews.

As noted above, we created two surveys; one focused on faculty while the other focused on students, and launched them early October of 2017. The student survey was sent to the following listservs: Psi Beta, a community college national honor society in psychology and Psi Chi, an International honor society in psychology, as well as through the American Psychological Association of Graduate Students. The instructor survey was distributed through the following channels: the Society for the Teaching of Psychology Early Career Psychologists Committee and PsychTeacher, a discussion list through the Society for the Teaching of Psychology. Both surveys were closed after the final focus group in the spring of 2018.

The faculty survey received 141 responses, with some of our findings bringing new information and behaviors to light, while others confirmed conclusions from earlier research, such as the Babson report, and our own anecdotal experience. Our surveys reaffirmed the Babson findings that identified time, quality, and discoverability as key barriers to OER adoption. Respondents to our faculty survey indicated they were interested in OER, but had a difficult time finding relevant materials to use in their courses. Without a comprehensive catalog of resources, instructors found that it took too much time to systematically search for and locate appropriate materials. Instructors also indicated that they had little to no time to tailor materials, but that many OER they encountered were lacking in quality and would need a lot of customization, suggesting that each of these barriers further compounded the others. Our findings also indicated that time, quality, and discoverability are also seen as key areas of support/assistance that would enable development, adoption, and customization of OER. Provid-

ing support for these three key areas at the same time would substantially increase the likelihood of instructors adopting or adapting OER.

Two interesting characteristics that emerged from this research are that faculty reported that they are not averse to exploring new textbooks and they have some autonomy in selecting course materials. In other words, these instructors are not locked into doing things a particular way; this group is open to change. Furthermore, many in this population are independently responsible for making course material selections for at least some of their classes, and very few of them are required to use a specific publisher or resource when selecting course materials. While our research only engaged with the discipline of psychology, at least for this group, if we can get past the barriers of time, quality, and discoverability, they are interested in and have the latitude to use OER.

Our findings also reinforced the importance of cost as a reason that psychology faculty support OER, with participants taking the time to include comments that made it clear how much they sympathized with the high cost of textbooks and the financial burden borne by their students. As one survey respondent indicated, “the number one biggest reason I’m motivated to consider OER materials is to help students who may be disadvantaged. These disadvantages come from various forms of scarcity (e.g. financial, time).”

Another respondent expressed suspicion about the quality of OER, as well as the trend of moving to OER simply to reduce costs. “I am not convinced that the available OER material is on par with professional publishers. My impression is that cost is the driving choice by colleagues at other institutions (i.e., free or virtually cost free) which is not a reason to choose one resource over another.”

Although we were not surprised by some faculty perceptions that OER were not of as high quality as traditionally published materials, faculty offered a surprising variety of indices for what they meant by “quality.” Faculty identified markers of quality that included “consistency in voice and tone,” “comprehensive editing,” “peer endorsement,” and direct review of materials (i.e. “I want to see for myself”).

Anecdotal evidence from the past had led us to presume that faculty might assume that commercially published materials were of high quality simply based on the name of the publisher itself. In fact, we discovered that faculty responses focused much more on the values provided by publishers such as comprehensive editing, review, and polish before publishing — a very different situation than if a specific publisher’s name was understood as a marker of quality in and of itself. Faculty also indicated that another potential marker of quality is the mark of a community “brand” such as endorsement from the APA Society for Teaching Psychology.

Faculty respondents also emphasized the importance of supplementary materials such as test banks, lecture slides, and question banks. The need for ancillary materials should have been unsurprising, since adjuncts, post-docs, and graduate students teach many of the introductory psychology classes. These instructors often have severely limited time to devote to adapting and creating course materials and it is easy to see why published materials that come with instructor resources would be especially attractive. As a result, for many respondents, a lack of robust and “quality” supplementary materials represented a major barrier to adoption, particularly for the graduate and adjunct instructors who rely heavily on them.

Faculty who responded to our survey also identified a set of technical issues as a second set of barriers. These technical issues included challenges like lack of seamless integration with a course management system such as Moodle or optimization for mobile devices. Faculty also expressed frustration with technical challenges and the lack of technical support when trying to remix or adapt OER. Too often, an openly licensed resource was offered only as a PDF that they could not actually edit or remix. On the other hand, we also identified strong support for learning materials that were available in printed form, which leads us to believe that faculty would like any OER they adopt to be available in multiple formats.

We received 103 responses to the student survey with many of our preliminary findings echoing what we had learned from the faculty survey. Students almost uniformly reiterated the negative impact of costly traditional textbooks. As one student participant put it, “I strongly support increasing accessibility of educational materials to people of all economic backgrounds. Textbook prices can be incredibly prohibitive to some people, and I know people who’ve struggled in their classes because they couldn’t afford the materials. Classroom reliance on expensive textbooks is not only unfair to individual students, but also contributes to socioeconomic inequality on a societal level.” Another student echoed this theme, writing, “I’m glad someone is researching this topic! It’s a major point of stress for me.”

With responses like these, it makes sense that this student survey group emphasized the importance of used book and rental markets, as an affordable alternative to purchasing costly new materials. Unfortunately, with many textbooks incorporating online single use components and/or moving entirely online with restricted access, the ability to substitute a used or affordable rented option is disappearing. And it is interesting to see the move to digital in light of both faculty and students reaffirming the value of having these resources available in both print and digital formats, with both also stressing the importance of these resources being integrated into Learning Management Systems.

Surprisingly, despite the challenges and costs around traditionally published education resources, many in our student respondent group were unfamiliar with OER and its transformative potential. It may be that this group of psychology students are outliers, but even if that is the case, further promotion and marketing of OER to students can only increase awareness and impact. Increased awareness from students could also lead to students advocating for more OER use by faculty.

Based on these survey findings, our preliminary recommendations center on the following themes:

- connecting to and partnering with key groups in the community,
- tackling the three barriers of time, quality, and discoverability in unison,
- increasing awareness of OER among students and faculty, and
- enabling multiple formats, while lowering technical barriers.

As we continue to unpack and dive deeper into our research finding from the surveys, focus groups, and follow up survey interviews, we anticipate additional reinforcement of these themes, as well as the potential for discover of barriers and needs outside of these identified areas. As we create the components of our OER toolkit for psychology, these themes will be the building blocks of this resource.

Conclusion: A Framework for Developing your own Research Agenda

We are excited to share our findings with the psychology community in psychology-facing journals and at conferences over the next year, and to develop partnerships that will make the Toolkit itself impactful in that community. In addition to these outcomes, we also hope that this project can be a model that can be reproduced by OER advocates working in other areas. We chose to focus on psychology, but similar resources would be valuable for instructors in every field, institution, and area of professional training. In order to support others who want to develop their own Open Textbook Toolkit, we want to offer this framework for developing a research agenda based on lessons learned from our project.

Identifying and Understanding your Community

The first step is obviously to identify a community that needs resources. We focused on an academic disciplinary community, but similar work could be done for another discipline or for a specific institution or region. Regardless of which population you want to understand, start with local needs and connections. If you are already

familiar with the community you begin with a head start, but as our own experience indicates, even limited connections with a community can be used to build a relationship.

Regardless of where you begin with your community, take some time to understand not just the needs around textbooks but the larger political context and climate. As we began our work in psychology, we quickly discovered that while the American Psychological Association (APA) is the leading professional organization in the field, many faculty expressed ambivalence or even outright hostility.

Likewise, we had a learning curve for understanding where psychology instructors meet and how to get in touch with them. No single gathering or listserv can connect you with a large academic community, so snowball sampling or a similar approach will be critical, as will using some amount of interview or focus group time to better-understand the community and how to engage. Identifying a champion from within the community can also help you better-understand and connect with the community.

Connecting with your Community

We highly recommend doing some form of both online and in-person outreach to establish a baseline for your community's needs. We chose to run two surveys to broad populations and to host focus groups at academic gatherings, but there are many options for engagement. No matter how you reach out, keep your instrument short and sweet. It may be tempting to ask every question you could possibly want answered, but a succinct ten minute survey with broad engagement will provide more, better information than a comprehensive twenty minute survey that is taken by only a few respondents and completed by even fewer.

Related to this point, it is important to provide an opportunity for members of your community to review and comment on your instruments before they go live. Any review is likely to strengthen your instruments, but community members can be especially helpful in identifying terms, phrasing, or ideas that do not resonate with the community. Community members can also provide a final gut check on how a survey reads or how focus group questions will be received. Our work in psychology gave us a particularly keen appreciation for this process since designing survey instruments is a key part of the study of psychology itself. Even though we polished the surveys and solicited input from several external parties, we still received suggestions for improvement from psychology faculty in the comments section of our survey. Polish your instruments repeatedly. Then polish them some more.

Similarly, leading focus groups or follow up interviews involves intense preparation to be sure you are speaking the right language and asking questions in a way that will resonate with that community. With these more interactive sessions it is crucial to be a diligent timekeeper and facilitate respectful discussion so all participants are comfortable and have a chance to participate. While it can be tempting to keep a tight rein on the substance of the proceedings, we recommend a light touch so that you do not skew the results or influence participants to give you the answers they think you are hoping for or expecting.

Sharing Back with your Community—and Beyond

Once you have connected with the community and gathered your data, sharing openly is the best way to maximize the impact of your research and model the open practice at the heart of open education. We benefited tremendously from openly licensing our work as well as working in the open by iteratively sharing our results at conferences, workshops, and other events as we moved through our research.

Obviously one of the primary audiences for your data is the community you have been working to understand and support. Individuals who participated in focus groups, follow-up interviews or otherwise contributed will appreciate you sharing the results of that work, as will any mentors or champions from the field. You will also

want to return to any conferences or gatherings where you have established a relationship as well as publishing your results on discipline specific journals or similar publications.

If your focus is institutional or regional, you should identify other channels for outreach such as administrative emails, newsletters, or meetings. This is also an opportunity to start building the partnerships that will make your full toolkit successful. Your results should be valuable to professional organizations, funders, and administrative decision-makers, so sharing and beginning a discussion about next steps can help turn your recommendations into action.

It is also important to engage with the open education community. Experts in open licensing, publishing, evaluation, and sustainability will all make your project stronger and inform your next steps. Everyone in the open community will also appreciate your insights, which may shed light on open practice generally and help triangulate supports and services across the field. Our contact information is included in this article, and we would love to hear about your project.

We hope that this paper has helped you better-understand how to develop support for open education in your own community and those you engage with.

Endnotes

1. Bliss, T J and Smith, M. 2017. A Brief History of Open Educational Resources. In: Jhangiani, R S and Biswas-Diener, R. (eds.) *Open: The Philosophy and Practices that are Revolutionizing Education and Science*. Pp. 9–27. London: Ubiquity Press. DOI: <https://doi.org/10.5334/bbc.b>. License: CC-BY 4.0
2. Open Education Group: Publication. (2019, February 8). Retrieved from <https://openedgroup.org/publications>
3. Colvard, N. B., Watson, C. E., & Park, H. (2018). The Impact of Open Educational Resources on Various Student Success Metrics. *International Journal of Teaching and Learning in Higher Education*, 30(2), 262–276.
4. Seaman, J., & Seaman, J. (2018). *Freeing the Textbook: Educational Resources in U.S. Higher Education, 2018*. Babson Survey Research Group. Available under a CC BY-SA license at: <http://www.onlinelearningsurvey.com/oer.html>.
5. Ibid.
6. Allen, I. E., & Seaman, J. (2014). *Opening the Curriculum: Open Educational Resources in U.S. Higher Education, 2014*. Babson Survey Research Group. Available at: <http://www.onlinelearningsurvey.com/reports/openingthecurriculum2014.pdf>
7. Allen, I. E., & Seaman, J. (2016). *Opening the Textbook: Educational Resources in U.S. Higher Education, 2015-16*. Babson Survey Research Group. Available at: <https://www.onlinelearningsurvey.com/reports/openingthetextbook2016.pdf>
8. Wiley, D. (2016, February 8). Defining the “Open” in Open Content and Open Educational Resources. Retrieved from <http://opencontent.org/definition/>
9. Reproducibility Project: Psychology. (2016, February 8). Retrieved from <https://osf.io/ezcu/>