



Students as Co-Authors: Achievement Emotions, Beliefs About Writing, and OER Publishing Decisions

RESEARCH ARTICLE

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ABSTRACT

Faculty interest in open educational resources (OER) and open pedagogy has grown over the past several years. The current study examined how achievement emotions and beliefs about writing influenced students' decisions to publish their work in an OER. Students in two online undergraduate psychology courses worked in groups to write papers on marginalized pioneering psychologists, with the option to contribute their work as chapters in an OER (hosted on Pressbooks). After the project, students ($N = 68$) completed a survey that included measures of achievement emotions, beliefs about writing, demographic items, and questions about their decision to publish. A majority (61.8%) of students decided to publish their work as chapters in the OER. Those who chose to publish reported significantly less shame and significantly more pride, enjoyment, and positive beliefs about writing. Overall, the findings are informative for faculty using writing-intensive forms of open pedagogy in their courses.

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Open Educational Resources (OER) have transformed access to educational materials by eliminating cost barriers and fostering inclusive learning environments (Biddle & Clinton-Lisell, 2023; Kelly et al., 2024). These resources, which are freely available and openly licensed, support innovative teaching approaches, including open pedagogy—a student-centered framework that encourages the co-creation and public sharing of academic work (Hilton, 2020). Central to open pedagogy are non-disposable assignments (NDAs), where student contributions hold lasting value beyond the classroom (Seraphin et al., 2018). While students often view open pedagogy positively (Clinton-Lisell, 2021), concerns such as writing apprehension might influence their engagement with open pedagogy. This study examined how students' achievement emotions and writing-related beliefs shape their experiences with co-authoring an OER textbook, using control-value theory as a guiding framework.

LITERATURE REVIEW

OER AND OPEN PEDAGOGY

Faculty awareness and use of Open Educational Resources (OER) in U.S. higher education courses has increased over the past decade, reaching its highest level to date in 2023 (Seaman, 2023). OER are “learning, teaching, and research materials in any format and medium that reside in the public domain or are under copyright, and that have been released under an open license that permits no-cost access, re-use, re-purpose, adaptation, and redistribution by others” (UNESCO, 2019, pg. 5). Compared to commercial textbooks, open licensing typically permits students to use OER without access fees (Green, 2017). Thus, the primary goal of OER is to improve teaching and learning by removing access barriers to educational materials (Hilton et al., 2019).

Initial research in open education focused on challenges with adopting and using OER and evaluating the efficacy of OER compared to commercial textbooks (Hilton et al., 2016; Clinton, 2019). More recent research has shifted to looking at *open pedagogy*, a form of student-centered pedagogy that is often paired with using OER (Hilton et al., 2019). Scholars have defined open pedagogy as teaching and learning practices that allow the open sourcing of student work along five key dimensions (i.e., the “5 R’s”), including whether the work is free to access, as well as reuse, revise, remix, redistribute, and retain (Wiley & Hilton, 2018). Others have adopted the term “open educational practices” to encompass pedagogical practices that center on creating, using, and reusing OER, along with openly sharing teaching practices (Cronin, 2017).

A key element of open pedagogy is the student creation of non-disposable (or renewable) assignments (NDA). NDAs are different from traditional “disposable assignments”, which are only submitted to and evaluated by a course instructor before eventually being discarded (Bloom, 2019; Seraphin et al., 2018). By contrast, NDAs provide meaning and value to others, are available to wider audiences, and may be openly licensed (DeRosa & Robison, 2017; Wiley & Hilton, 2018). Examples of commonly used NDAs include students creating TED-like YouTube videos, Pecha Kucha presentations, or infographics shared on social media. In each of these cases, students' work “adds value to the world” and is shared beyond the typical student-teacher dyad (Seraphin et al., 2018).

Students generally report positive perceptions of different instantiations of open pedagogy, with Hilton et al. (2019) noting that a majority felt open pedagogy had either equal or greater educational value than traditional pedagogy. Notably, more recent research in open pedagogy is grounded in established motivation frameworks, offering important connections between open pedagogy and existing literature. For instance, students report experiencing increased agency, competence, engagement, interest, value, and extrinsic motivation with various types of open pedagogy projects (Biddle & Clinton-Lisell, 2023; Clinton-Lisell & Gwozdz, 2023; Clinton-Lisell & Kelly, 2024a; Clinton-Lisell & Kelly, 2024b; Werth & Williams, 2021a; Werth & Williams, 2021b). Despite generally holding favorable perceptions of open pedagogy, research also points to potential student concerns, including reticence about public sharing (Werth & Williams, 2021b) and open pedagogy assignments being a source of stress, anxiety, and emotional cost for some students (Chen & Hendricks, 2023; Clinton-Lisell & Kelly, 2024a; Oakleaf & Dodd,

2022). Additionally, open pedagogy assignments are perceived differently in terms of benefits and educational value, highlighting the need to continue studying the effectiveness of various instantiations of open pedagogy (Hilton et al., 2020).

CONTROL-VALUE THEORY AND ACHIEVEMENT EMOTIONS

Achievement emotions are emotions related to activities and outcomes that are experienced in academic environments (Pekrun, 2006). For instance, emotions such as hope, pride, enjoyment, anger, shame/embarrassment, hopelessness, or boredom can occur in different academic contexts, including attending class, studying, or taking exams (Pekrun et al., 2011). Control-value theory (CVT) is the main theoretical framework used for understanding achievement emotions (Pekrun, 2006). CVT suggests that perceived value and perceived control predict which achievement emotions students experience within a specific academic context (Pekrun et al., 2007). CVT also highlights how achievement emotions influence various student outcomes including motivation, performance, engagement, and satisfaction (Pekrun et al., 2011). For instance, positive emotions such as pride and enjoyment may motivate students to persist in learning tasks and are related to greater perceptions of task success (Pekrun et al., 2011; Villavicencio & Bernardo, 2016), while negative emotions like shame and anxiety can inhibit student motivation and perceptions of task self-efficacy (Pekrun et al., 2011).

To our knowledge, only one known study (Clinton-Lisell & Kelly, 2024a) has examined achievement emotions within the context of open pedagogy. Students completed an open pedagogy project and were randomly assigned to either a public-sharing or course-sharing condition. Pride and anxiety did not differ between conditions, contrary to what was expected. However, the public sharing aspect of the project was only emphasized in the project instructions, so some students may not have been aware that their work could be publicly shared (Clinton-Lisell & Kelly, 2024a). Thus, it is useful to look at achievement emotions within the context of an assignment with a more meaningful form of public sharing—such as student co-creation of an OER textbook.

STUDENT BELIEFS ABOUT WRITING

Some forms of open pedagogy are more writing-intensive, such as having students write educational materials or co-author chapters in open textbooks (Baran & AlZoubi, 2020; Chen & Hendricks, 2023; Hollister, 2020). Given this, attitudes and beliefs about writing are important to examine in relation to open pedagogy, as writing-related beliefs influence students' experiences with writing (Sanders-Reio et al., 2014). In particular, writing self-efficacy, or beliefs about one's writing skills (Shell et al., 1989), and writing apprehension, or the tendency to approach or avoid situations involving the evaluation of one's writing (Daly & Miller, 1975), are related to students' engagement with writing tasks (Pajares & Johnson, 1994).

In general, students with higher writing self-efficacy experience less writing apprehension, have better writing performance, and engage in more help-seeking behaviors concerning their writing (Sanders-Reio et al., 2014; Singh & Rajalingham, 2012; Shell et al., 1989; Vanhille et al., 2017). Writing apprehension is a bi-dimensional construct that includes both positive (i.e., writing enjoyment) and negative affect (i.e., writing discomfort) for writing (Daly & Miller, 1975). Writing discomfort is often rooted in students' fear of evaluation, lack of mastery, and poor past experiences with writing (Wachholz & Etheridge, 1996). Students with more writing apprehension further endorse more writing avoidance goals (Limpo, 2018) and delay academic writing tasks (Onwuegbuzie & Collins, 2001). By contrast, higher writing enjoyment is associated with more positive and successful experiences with writing (Wachholz & Etheridge, 1996) and more consistent writing practice (Zorbas, 2015).

Writing self-efficacy and writing apprehension have the potential to influence students' decisions to contribute their work to an OER. Lower confidence in writing ability and greater discomfort with writing could shape students' perceptions of the quality of their work (Singh & Rajalingham, 2012). In turn, concerns about quality may lead students to decide not to contribute their work to an OER. Indeed, uncertainty about work quality is commonly reported as both a downside of open pedagogy and a reason students choose not to publicly share their work (Chen & Hendricks, 2023; Clinton-Lisell & Kelly, 2024b; Werth & Williams, 2021b).

The purpose of the current study is to build on the existing open pedagogy literature by examining whether achievement emotions and beliefs about writing relate to students' decisions to publish their work in an OER. Since some of the prior research on open pedagogy lacks grounding in established theoretical frameworks (Clinton-Lisell, 2021), the current study used CVT as a lens to examine students' experiences with open pedagogy. Further, student co-creation and public sharing are key features of open pedagogy, so it is critical to continue to identify the factors that underlie students' decisions to contribute their work to an OER. By doing so, faculty are better able to make informed decisions about how to best use open pedagogy in their courses. Overall, the following research questions were addressed:

1. How would students' achievement emotions relate to their decision to publish their work in an OER?
2. How would students' writing self-efficacy and writing apprehension relate to their decision to publish their work in an OER?
3. What other factors (via open-ended self-report data) impact students' decisions to publish their work in an OER?

METHODS

RESEARCH METHOD AND DESIGN

This study used survey research methodology. Author 1 created the survey, which included measures of writing self-efficacy, writing apprehension, achievement emotions, demographic items, and open-ended questions. A quasi-experimental nonequivalent groups research design was used in this study, in that all students were eligible to participate in the study, but they were not randomly assigned to conditions (Price et al., 2015).

SAMPLING

The current study involved students enrolled in two History of Psychology courses. One course (PSYC 405) was an online asynchronous course at a mid-sized Midwestern public university taught by Author 1. The other course (PSYC 308) included one online asynchronous section at a mid-sized Western public university taught by Author 2. All courses were taught during the spring 2023 semester.

All students enrolled in both courses were eligible to participate in the study. A total of 75 students responded to the survey. However, seven participants from PSYC 308 were removed for only completing half of the survey and not answering the decision to publish question. Thus, the final sample included 68 participants ($n = 46$ in PSYC 405 and $n = 22$ in PSYC 308). Of these, 53 were women, 12 were men, and three reported a non-binary gender identity. Most participants (69%) were White, with the remaining racial/ethnic identities including Hispanic/Latinx (12%), biracial or multiracial (12%), Native American (3%), Asian American/Pacific Islander (2%), and Black/African American (2%). Participants' average age was 23.67 years ($SD = 6.39$), and 24% reported first-generation status. Finally, participants were a mixture of third-year ($N = 13$) or fourth-year ($N = 55$) undergraduate psychology students. Before data collection, the authors obtained approval from their institutional review boards, and an exempt protocol was granted (IRB0005318).

DATA COLLECTION TOOLS

Writing Apprehension Scale (Blaine et al., 2001). In 2001, Blaine et al. updated Daly and Miller's (1975) Writing Apprehension Scale to include two subscales: Dislike of Writing and Enjoyment of Writing. The scale consists of 26 items examining dislike of writing (i.e., "I avoid writing") and enjoyment of writing (i.e., "I like to write my ideas down"). Items are measured on a 6-point Likert scale ranging from 1 = *Strongly Agree* to 6 = *Strongly Disagree*. Internal consistency was strong for both the Dislike of Writing Subscale ($\alpha = .917$) and the Enjoyment of Writing Subscale ($\alpha = .893$).

Situated Academic Writing Self-Efficacy Scale (SAWSES; Mitchell et al., 2021). Participants' writing self-efficacy was evaluated using the Situated Academic Writing Self-Efficacy Scale (SAWSES). The scale is a 16-item measure with three subscales: Writing Essentials, Relational Reflective Writing, and Creative Identity. The items are rated on a 5-point Likert Scale ranging from 1 = *Strongly Disagree* to 5 = *Strongly Agree*. Internal consistency for the scale was strong ($\alpha = 0.891$).

Achievement Emotions Questionnaire (AEQ; Pekrun et al., 2002). Participants' emotions related to academic achievement were measured using the Achievement Emotions Questions (AEQ). The AEQ is a 16-item measure to assess emotions related to academic achievement such as Hope (i.e., "I have an optimistic view toward writing"), Pride (i.e., "I am proud of my capacity"), Anxiety (i.e., "I get tense and nervous while writing"), Shame/Embarrassment (i.e., "I get embarrassed"), and Enjoyment (i.e., "I enjoy acquiring new knowledge"). Cronbach's alphas for each subscale were at good or acceptable levels (Hope $\alpha = 0.896$, Pride $\alpha = 0.894$, Anxiety $\alpha = 0.645$, Shame/Embarrassment $\alpha = 0.905$, and Enjoyment $\alpha = 0.863$).

Open-Ended Questions. Students also answered two open-ended questions about their perceptions of the open pedagogy project. These questions asked students to share the reasons they either decided or did not decide to publish their work in the OER. At the end of the survey, students completed several demographic items. A copy of the survey is available on the OSF project page (Kelly et al., 2024).

OPEN PEDAGOGY PROJECT INFORMATION

The open pedagogy project was completed in groups of 2–5 students. Each group wrote a historical figure paper on a pioneering figure in the field of psychology. Given the study authors sought to develop an OER focused on the lives and contributions of marginalized pioneering psychologists, each group selected either a pioneering woman in the field of psychology or a pioneering psychologist of color. Groups worked together to research and write a general biography of their figure, a listing of their significant contributions and important achievements, the historical context surrounding their figure's work, and the impact of their figure's contributions on the field of psychology.

To give adequate feedback and help with the final editing, groups turned in two drafts of their papers. The first draft was both peer-reviewed by another group and reviewed by course instructors, while the second draft was just reviewed by course instructors. Students were told about the option to publish their papers as chapters in an OER before starting their projects and made their decision when turning in their final copies. With this, students were told about the features of open licensing and the various types of Creative Commons (CC) licenses. To have their chapter published, students were required to acknowledge that their work would be openly licensed, agree to the selected CC license (CC-BY-NC), and indicate whether they wanted to be anonymous contributors or have full name attribution with their work. After the courses ended, Author 1 created the OER using the Pressbooks platform and added the papers of the groups that decided to publish their work. The completed OER can be accessed here: <https://pressbooks.pub/openhistoryofpsychology/>.

RESEARCH PROCEDURES

At the end of the semester, students were invited to complete the survey for bonus points in their courses. The survey was administered via Qualtrics and distributed through their course Learning Management System. An alternative assignment was available for students who did not want to complete the survey.

RESULTS

QUANTITATIVE ANALYSES

Before analysis, data were carefully inspected, coded, and cleaned. Preliminary analyses showed the assumptions of normality and homogeneity of variance were violated. As a result, nonparametric statistical tests were chosen for analyses, given they are less sensitive to assumption violations and can be used with smaller sample sizes. The final cleaned, coded, and de-identified dataset is available on the OSF project page (Kelly et al., 2024).

Overall, 42 students (61.8%) decided to publish their work as chapters in the OER. Of these, most students ($n = 35$) elected to publish with full name attribution, with the remaining students ($n = 7$) electing to publish their work anonymously. Kruskal-Wallis H Tests compared mean ranks for all dependent variables between the students who did and did not decide to publish their work. Overall, there were significant differences between groups for writing apprehension (specifically, the enjoyment of writing subscale), $\chi^2(1) = 3.685, p = .050$, pride, $\chi^2(1) = 8.222, p = .004$, shame, $\chi^2(1) = 7.449, p = .006$, and enjoyment, $\chi^2(1) = 4.231, p = .040$. Differences in writing self-efficacy, dislike of writing, hope, and anxiety between students who did and did not decide to publish were nonsignificant. Table 1 includes the mean ranks for all dependent variables.

	DECISION TO PUBLISH	N	MEAN RANK
Writing Self-Efficacy Total	Yes	42	36.76
	No	26	30.85
	Total	68	
Dislike of Writing Subscale	Yes	42	31.74
	No	26	38.96
	Total	68	
Enjoyment of Writing Subscale	Yes	42	*38.12
	No	26	28.65
	Total	68	
Confidence Subscale Score	Yes	42	37.65
	No	26	29.40
	Total	68	
Pride Subscale Score	Yes	42	*39.73
	No	26	26.06
	Total	68	
Anxiety Subscale Score	Yes	42	32.49
	No	26	37.75
	Total	68	
Shame Embarrassment Subscale Score	Yes	42	29.55
	No	26	*42.50
	Total	68	
Enjoyment Subscale Score	Yes	42	*38.35
	No	26	28.29
	Total	68	

Table 1 Mean ranks of decision to publish for dependent variables.

Note: This table depicts the mean ranks for all dependent variables between the students who did and did not decide to publish their work.

* $p < .05$.

Even though differences based on the decision to publish were of primary interest in the current study, additional Kruskal-Wallis H Tests were run to see whether mean ranks for all dependent variables differed between courses. The only significant differences between courses were for writing apprehension (specifically, the enjoyment of writing subscale), $\chi^2(1) = 5.545, p = .019$, and enjoyment $\chi^2(1) = 6.724, p = .010$. Differences in writing self-efficacy, dislike of writing, hope, pride, anxiety, and shame were nonsignificant. Table 2 includes the mean ranks for all dependent variables.

	COURSE	N	MEAN RANK
Writing Self-Efficacy Total	PSYC 405	46	34.26
	PSYC 308	22	35.00
	Total	68	

(Contd.)

	COURSE	N	MEAN RANK
Dislike of Writing Subscale	PSYC 405	46	35.22
	PSYC 308	22	33.00
	Total	68	
Enjoyment of Writing Subscale	PSYC 405	46	30.60
	PSYC 308	22	*42.66
	Total	68	
Confidence Subscale Score	PSYC 405	46	34.40
	PSYC 308	22	34.70
	Total	68	
Pride Subscale Score	PSYC 405	46	33.37
	PSYC 308	22	36.86
	Total	68	
Anxiety Subscale Score	PSYC 405	46	33.01
	PSYC 308	22	37.61
	Total	68	
Shame Embarrassment Subscale Score	PSYC 405	46	36.18
	PSYC 308	22	30.98
	Total	68	
Enjoyment Subscale Score	PSYC 405	46	30.24
	PSYC 308	22	*43.41
	Total	68	

Table 2 Mean ranks of decision to publish for dependent variables by class.

Note: This table depicts the mean ranks for all dependent variables between the students who did and did not decide to publish their work between the courses. * $p < .05$.

QUALITATIVE ANALYSES

Students also answered open-ended questions about their decision to publish or not publish in the OER. Responses were coded using an inductive approach. In an inductive approach, sections of text are highlighted for commonly used phrases or sentences. Then a “code” is used to describe their content and assign a number for each code along with a description of each code/theme.

For those who decided to publish their work, the most frequent response themes included students wanting to help others, taking pride in their work, and not having a reason not to publish. See [Table 3](#) for a full list of the response themes and frequencies for students who decided to publish in the OER. For those who decided against publishing their work, the most frequent response themes were a lack of consensus, concerns about quality, and that it was easier not to publish. See [Table 4](#) for all response themes and frequencies for students who chose not to publish in the OER. The remainder of this section includes a more detailed discussion of each theme.

Decision to Publish: Helping Others

The most common theme for students deciding to publish their work was to help other students in the future. For instance, students mentioned that they decided to publish “so that others may learn about our historical figure” or because “we thought the work we had was helpful and it had useful information for future audiences.” These responses indicate that students felt that their work would have an impact on the broader student and professional communities. One student further responded, “I think it’s nice being able to see my work go to something good. I hope to see it happen more often.” Thus, for some students, sharing their research was fueled by the desire to contribute and make an impact.

Within this same theme of helping others, increased access to knowledge was also mentioned in student responses. One student noted, “It seems fair that we can provide an opportunity for other students to read about research we compiled. Some historical figures were difficult

to find sources for because they were so unrepresented. Some documents were often in other languages, therefore, providing accessibility to this research is important. It is also a rewarding feeling to be able to learn and contribute to the learning (of other future individuals).” This quote highlights that students recognized the importance of making research available to future learners, especially if the information can be difficult to find.

Decision to Publish: Pride

A second major theme for students deciding to publish was having a sense of pride in their work. Echoing the quantitative results, some students responded simply with “we were proud of it” or, “we thought we did a good job.” Pride also worked alongside student effort, with one student noting, “we worked hard and felt like we did well.” This highlights the importance of fostering pride in students’ work, as it not only motivates them to put in their best effort but also encourages them to share their work with others.

Decision to Publish: Why Not

Another common theme among students who decided to publish was a sense of “why not?” Many respondents expressed this sentiment directly, with statements such as “why not,” “didn’t have a reason not to,” or “Genuinely, my reason was why not.” Some elaborated further, tying this mindset to a desire to contribute, as one student explained: “I didn’t really see why not, and I wanted to make a contribution.” Another student described their indifference: “I was indifferent about publishing the work. It didn’t bother me if we did or didn’t, and if my name was on it or not.” Similarly, a student who was apathetic about publishing chose to support their group’s decision: “I honestly didn’t have a preference on whether we published it or not. One of my group members wanted to, so we all agreed.”

This “why not” mindset highlights how students may not feel strongly about publishing their work initially but remain open to the idea. These findings suggest that providing opportunities for publication, even without strong initial motivation, can foster collaboration and encourage students to decide to share their work.

THEME	THEME DESCRIPTION	FREQUENCY
Help Others	Mentions publication being helpful to others in the future	11
Proud	Mentions group members being proud of their work	8
Why Not	Mentions publishing simply because they had no reason not to	10
No Preference	Mentions not having a preference and publishing only because other group members chose to	2
Publication Credit	Mentions liking the opportunity of publishing and having their name on something	6
Resume	Mentions publication being good for a resume or CV	6
Miscellaneous	Other unlisted reason	3

Table 3 Frequency of themes for why students chose to publish their work.

Deciding Not to Publish: Lack of Group Consensus

For those who decided not to publish their work, one of the most common reasons was a lack of group consensus. In some cases, if one group member expressed a desire not to publish, the group opted not to proceed. One student reflected, “We left it up to one of our group members, as another group member and I did not really have a preference.” Another remarked, “We didn’t build the rapport that made me feel comfortable publishing material with the group.” Similarly, a third student explained, “We kind of just didn’t do it with no reasoning behind it. I wasn’t opposed, but I was the last member to respond in the group chat, and it seemed like they didn’t want to.” These responses highlight how the lack of early group cohesion or rapport can impact the decision to publish. When strong connections are not established within the group, discussions about publishing may stall or be deprioritized.

Deciding Not to Publish: Not Good Enough

Another frequent theme for not publishing was a lack of pride in the work, with students feeling their project was not worthy of sharing. Students expressed sentiments such as, “Wasn’t proud of it,” “We did a good job but not a fantastic job, nothing we were super impressed with,” “I believe we chose not to publish it because we felt our work could have been better,” and “We never really talked about it and did not think it was good enough.” These quotes illustrate how a lack of pride or confidence in the quality of the work led students to forgo publication. Additionally, another student noted, “I felt confident in my portion but did not feel confident in the overall paper. I also knew we would have to do extra edits and did not want to focus on that when I have work in other classes plus work.” This highlights how doubts about group members’ contributions and a lack of teamwork can discourage publication.

Deciding Not to Publish: Easier Not To

A final common theme influencing the decision not to publish was that it was simply easier not to. This mirrors the “why not” mindset for publishing but in reverse. Students remarked, “We were busy with other things,” “It was easier not to,” and “We were stressed about the end of the semester and did not want the extra work and stress of looking over and revising the paper.” These comments highlight how competing demands and stressors can discourage students from investing the additional effort required to prepare a project for publication. One student shared a different perspective: “I wanted to publish as I felt it could be a good addition to my resume. I tried to contact my group members twice about the decision after I turned in our final draft, and neither of them answered, so I assumed their responses would be no.” This suggests that offering flexibility in group projects—such as allowing students to publish independently or enabling some group members to publish while others opt out—could address these challenges.

THEME	THEME DESCRIPTION	FREQUENCY
Not Good Enough	Mentions feeling their work was not quality enough to publish	6
Easier Not To	Mentions feeling that it was easier to not publish	3
Stress	Mentions not wanting the extra work and stress that might come from publishing	1
No Preference	Mentions not having a preference, but other group members chose not to publish	3
Lack of Consensus	Mentions lack of consensus among group members around publishing	6
Did Not Want To	Mentions not wanting to publish but not providing any specific reasons	2

Table 4 Frequency of themes for why students chose not to publish their work.

DISCUSSION

The current study contributed to the open pedagogy literature by further examining factors that impact students’ decisions to publish their writing in an OER. Overall, a majority (61.8%) of the students in this study opted to publish their work, which is consistent with other open pedagogy studies focused on student co-creation of course materials (Chen & Hendricks, 2023). Further, students’ beliefs about writing and achievement emotions significantly influenced their decision to publish. Students who decided to publish their work had more positive beliefs about writing and reported feeling greater pride in and less shame/embarrassment toward their work. Additionally, students who decided to publish their work enjoyed the open pedagogy project more. These findings are not surprising, given positive achievement emotions generally have a positive effect on student motivation, engagement, and satisfaction (Wu & Yu, 2022). It appears this effect may also extend to student experiences with co-creating course materials. Further, students who decided to publish may have experienced more positive achievement emotions due to the open pedagogy project having higher perceived value, as predicted by the control-value theory (Pekrun, 2006). Indeed, a few themes from the open-ended data underscored the perceived benefits of publishing, which could be viewed as indicators of the perceived value of the project.

Findings from the current study further suggest that instructors seeking to have students co-create textbooks or other course materials should find ways to help students regulate negative achievement emotions (e.g., shame/embarrassment or anxiety) and negative attitudes toward writing. Doing so should increase the likelihood of students opting to publish their work. One possible avenue could be delivering a brief classroom intervention to alleviate writing anxiety or improve writing self-efficacy beliefs before beginning a writing-intensive open pedagogy project (Martinez et al., 2011; McGee, 2019). Scaffolding the project and giving opportunities for feedback are further recommended, as these practices have been shown to reduce writing apprehension (Bolourchi & Soleimani, 2021).

As indicated in the open-ended data, some students reported their decision to publish was driven by the publication benefitting their future goals (e.g., graduate school or employment) and their work in the OER being helpful to others in the future. On the other hand, students who decided not to publish were most likely to report a lack of group consensus, concerns about their work being good enough, and it being easier not to publish as factors involved in their decision. These findings are consistent with other studies on OER co-creation, with students reporting that publishing decisions were influenced by public recognition of their work, the motivation to help others, concerns about the quality of their work, and challenges with group members (Chen & Hendricks, 2023; Lazzara et al., 2024; Werth & Williams, 2021b). Taken together, these findings are important for faculty to consider when implementing this type of open pedagogy in their courses. Importantly, given the variability in students' experiences with the current study's OER project, we recommend that future instructors give students the option to publish (rather than require it) or to publish anonymously.

LIMITATIONS AND FUTURE DIRECTIONS

The current study was limited by a small sample size that included predominantly women in upper-level psychology courses. It is unclear whether findings generalize to courses in other disciplines or to students in lower-level undergraduate courses. Most students in the current study were upper-level psychology majors, so they may have been more motivated or engaged with the open pedagogy project. Care should also be taken when extrapolating findings from the current study to other instantiations of open pedagogy, given student experiences and outcomes may vary based on the form of open pedagogy used (Hilton et al., 2020). Future open education research would further benefit from finding ways to assess whether contributing to an OER benefits students' learning and academic performance. Most research has focused on students' perceptions of learning with open pedagogy (Clinton-Lisell & Kelly, 2024a; Hilton et al., 2019), but an objective measure of learning would offer more compelling support for open pedagogy over traditional pedagogy. Finally, while this study focused on OER creation, future research should explore students' perceptions of revising OER textbooks, given revision is a key aspect of open education (Chen & Hendricks, 2023; Wiley, 2013).

CONCLUSIONS

Open pedagogy allows students to create materials that have value and purpose beyond a course. This study built on prior open pedagogy research by examining students' decisions to publish their work in an OER through the lens of the control-value theory of achievement emotions. This study further underscored the role that individual differences can play in students' experiences with open pedagogy, namely beliefs about writing. Altogether, students with positive attitudes toward writing and positive achievement emotions within the context of a writing-intensive project are more likely to contribute chapters to an OER textbook.

DATA ACCESSIBILITY STATEMENT

The datasets generated and/or analyzed during the current study are available on the Open Science Framework: https://osf.io/mnx9y/?view_only=35393ff174e44527b4b525367d740c4c.

ETHICS AND CONSENT

The authors obtained research ethics approval from their institutional review boards prior to data collection.

The authors have no competing interests to declare.

AUTHOR CONTRIBUTIONS (CRediT)

Alison E. Kelly: Conceptualization, Formal analysis, Investigation, Methodology, Supervision, Visualization, Writing – original draft, Writing – review and editing. Brittany N. Avila: Conceptualization, Formal analysis, Investigation, Methodology, Visualization, Writing – original draft, Writing – review and editing. Alissa C. Schell: Data curation, Formal analysis, Writing – review and editing. All authors have read and agreed to the published version of the manuscript.

SUSTAINABLE DEVELOPMENT GOALS (SDGs)

This study is linked to the following SDGs: Quality education (SDG 4) and Gender equality (SDG 5).

AUTHORS NOTES

Based on *Academic Integrity and Transparency in AI-assisted Research and Specification Framework* (Bozkurt, 2024), the authors acknowledge that this paper was reviewed, edited, and refined with the assistance of Grammarly, Version 8.912.0 complementing the human editorial process. The human authors critically assessed and validated the content to maintain academic rigor. The authors also assessed and addressed potential biases inherent in the AI-generated content. The final version of the paper is the sole responsibility of the human authors.

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REFERENCES

- Baran, E., & AlZoubi, D. (2020). Affordances, challenges, and impact of open pedagogy: Examining students' voices. *Distance Education*, 41(2), 230–244. <https://doi.org/10.1080/01587919.2020.1757409>
- Biddle, A. M., & Clinton-Lisell, V. (2023). "The pictures allowed me to connect to the material more": Student perceptions of a diversity-focused open pedagogy assignment. *Scholarship of Teaching and Learning in Psychology*, 9(4), 405–418. <https://doi.org/10.1037/stl0000385>
- Blinc, D., Lowe, D. R., Meixner, W. F., Nouri, H., & Pearce, K. (2001). A research note on the dimensionality of Daly and Miller's writing apprehension scale. *Written Communication*, 18(1), 61–79. <https://doi.org/10.1177/0741088301018001003>
- Bloom, M. (2019). Assessing the impact of "open pedagogy" on student skills mastery in first-year composition. *Open Praxis* 11(4), 343–353. <https://doi.org/10.5944/openpraxis.11.4.1025>
- Bolourchi, A., & Soleimani, M. (2021). The impact of peer feedback on EFL learners' writing performance and writing anxiety. *International Journal of Research in English Education*, 6(1), 1–15. <https://doi.org/10.52547/ijree.6.1.1>
- Bozkurt, A. (2024). GenAI et al.: Cocreation, authorship, ownership, academic ethics and integrity in a time of generative AI. *Open Praxis*, 16(1), 1–10. <https://doi.org/10.55982/openpraxis.16.1.654>
- Chen, D., & Hendricks, C. (2023). Open pedagogy benefits and challenges: Student perceptions of writing open case studies. *Open Praxis*, 15(1), 27–36. <https://doi.org/10.55982/openpraxis.15.1.518>
- Clinton, V. (2019). Cost, outcomes, use, and perceptions of open educational resources in psychology: A narrative review of the literature. *Psychology Learning & Teaching*, 18(1), 4–20. <https://doi.org/10.1177/1475725718799511>
- Clinton-Lisell, V. (2021). Open pedagogy: A systematic review of empirical findings. *Journal of Learning for Development*, 8(2), 255–268. <https://doi.org/10.56059/jl4d.v8i2.511>

- Clinton-Lisell, V., & Gwozdz, L. (2023). Understanding student experiences of renewable and traditional assignments. *College Teaching*, 71(2), 125–134. <https://doi.org/10.1080/87567555.2023.2179591>
- Clinton-Lisell, V., & Kelly, A. E. (2024a). Are scientific memes motivating and does public sharing affect motivation? *Psychology Learning & Teaching*, 23(1), 26–42. <https://doi.org/10.1177/14757257231197359>
- Clinton-Lisell, V., & Kelly, A. E. (2024b). The role of open education and faculty gender in shaping student perceptions. *Open Praxis*, 16(4), 567–582. <https://doi.org/10.55982/openpraxis.16.4.733>
- Cronin, C. (2017). Openness and praxis: Exploring the use of open educational practices in higher education. *The International Review of Research in Open and Distributed Learning*, 18(5). <https://doi.org/10.19173/irrodl.v18i5.3096>
- Daly, J. A., & Miller, M. D. (1975). The empirical development of an instrument to measure writing apprehension. *Research in the Teaching of English*, 9, 242–249. <https://doi.org/10.58680/rte197520067>
- DeRosa, R., & Robison, S. (2017). From OER to open pedagogy: Harnessing the power of open. In R. Jhangiani & R. Biswas-Diener (Eds.), *Open*. London: Ubiquity Press. <https://doi.org/10.5334/bbc.i>
- Green, C. (2017). Open licensing and open education licensing policy. In R. S. Jhangiani & R. Biswas-Diener (Eds.), *Open: The philosophy and practices that are revolutionizing education and science* (pp. 29–41). Ubiquity Press. <https://doi.org/10.5334/bbc.c>
- Hilton, J. (2020). Open educational resources, student efficacy, and user perceptions: A synthesis of research published between 2015 and 2018. *Educational Technology Research and Development*, 68(3), 853–876. <https://doi.org/10.1007/s11423-019-09700-4>
- Hilton, J., Hilton, B., Ikahihifo, T. K., Chaffee, R., Darrow, J., Guilmett, J., & Wiley, D. (2020). Identifying student perceptions of different instantiations of open pedagogy. *The International Review of Research in Open and Distributed Learning*, 21(4), 1–19. <https://doi.org/10.19173/irrodl.v21i4.4895>
- Hilton III, J., Fischer, L., Wiley, D., & Williams, L. (2016). Maintaining momentum toward graduation: OER and the course throughput rate. *International Review of Research in Open and Distributed Learning*, 17(6), 18–27. <https://doi.org/10.19173/irrodl.v17i6.2686>
- Hilton, J., Wiley, D., Chaffee, R., Darrow, J., Guilmett, J., Harper, S., & Hilton, B. (2019). Student perceptions of open pedagogy: An exploratory study. *Open Praxis*, 11(3), 275–288. <https://doi.org/10.5944/openpraxis.11.3.973>
- Hollister, C. (2020). Using open pedagogy to engage LIS students: A case study. *Journal of Librarianship and Scholarly Communication*, 8(1), eP2357. <https://doi.org/10.7710/2162-3309.2357>
- Kelly, A. E., Avila, B. N., & Schell, A. C. (2024). Students as co-creators: Achievement emotions, beliefs about writing, and OER publishing. https://osf.io/mnx9y/?view_only=35393ff174e44527b4b525367d740c4c
- Kelly, A. E., Laurin, J. N., & Clinton-Lisell, V. (2024). Making psychology's hidden figures visible using Open Educational Resources: A replication and extension study. *Teaching of Psychology*, 51(3), 251–259. <https://doi.org/10.1177/00986283221108129>
- Lazzara, J., Bloom, M., & Clinton-Lisell, V. (2024). Renewable assignments: Comparing faculty and student perceptions. *Open Praxis*, 16(4), pp. 514–525. <https://doi.org/10.55982/openpraxis.16.4.706>
- Limpo, T. (2018). Development of a short measure of writing apprehension: Validity evidence and association with writing frequency, process, and performance. *Learning and Instruction*, 58, 115–125. <https://doi.org/10.1016/j.learninstruc.2018.06.001>
- Martinez, C. T., Kock, N., & Cass, J. (2011). Pain and pleasure in short essay writing: Factors predicting university students' writing anxiety and writing self-efficacy. *Journal of Adolescent & Adult Literacy*, 54(5), 351–360. <https://doi.org/10.1598/JAAL.54.5.5>
- McGee, K. (2019). Reducing writing anxiety by improving self-efficacy beliefs. *Learning to Teach Language Arts, Mathematics, Science, and Social Studies Through Research and Practice*, 8(1), 1–7. <https://openjournals.utoledo.edu/index.php/learningtoteach/article/view/305>
- Mitchell, K. M., McMillan, D. E., Lobchuk, M. M., Nickel, N. C., Rabbani, R., & Li, J. (2021). Development and validation of the Situated Academic Writing Self-Efficacy Scale (SAWSES). *Assessing Writing*, 48, 100524. <https://doi.org/10.1016/j.asw.2021.100524>
- Oakleaf, L., & Dodd, R. (2022). By students, for students: Student-created open educational resources. *SCHOLE: A Journal of Leisure Studies and Recreation Education*, 37(1–2): 97–99. <https://doi.org/10.1080/1937156X.2020.1850190>
- Onwuegbuzie, A. J., & Collins, K. M. T. (2001). Writing apprehension and academic procrastination among graduate students. *Perceptual and Motor Skills*, 92(2), 560–562. <https://doi.org/10.2466/pms.2001.92.2.560>
- Pajares, F., & Johnson, M. J. (1994). Confidence and competence in writing: The role of self-efficacy, outcome expectancy, and apprehension. *Research in the Teaching of English*, 28(3), 313–331. <https://doi.org/10.58680/rte199415378>
- Pekrun, R. (2006). The control-value theory of achievement emotions: Assumptions, corollaries, and implications for educational research and practice. *Educational Psychology Review*, 18(4), 315–341. <https://doi.org/10.1007/s10648-006-9029-9>

- Pekrun, R., Frenzel, A. C., Goetz, T., & Perry, R. P.** (2007). The control-value theory of achievement emotions: An integrative approach to emotions in education. *Emotion in Education*, 13–36. <https://doi.org/10.1016/B978-012372545-5/50003-4>
- Pekrun, R., Goetz, T., Frenzel, A. C., Barchfeld, P., & Perry, R. P.** (2011). Measuring emotions in students' learning and performance: The Achievement Emotions Questionnaire (AEQ). *Contemporary Educational Psychology*, 36(1), 36–48. <https://doi.org/10.1016/j.cedpsych.2010.10.002>
- Pekrun, R., Goetz, T., Titz, W., & Perry, R. P.** (2002). Academic emotions in students' self-regulated learning and achievement: A program of qualitative and quantitative research. *Educational Psychologist*, 37(2), 91–105. https://doi.org/10.1207/S15326985EP3702_4
- Price, P., Jhangiani, R., & Chiang, I.** (2015). *Research Methods of Psychology – 2nd Canadian Edition*. Victoria, BC: BCCampus. Retrieved from: <https://opentextbc.ca/researchmethod>
- Sanders-Reio, J., Alexander, P. A., Reio, T. G., & Newman, I.** (2014). Do students' beliefs about writing relate to their writing self-efficacy, apprehension, and performance? *Learning and Instruction*, 33, 1–11. <https://doi.org/10.1016/j.learninstruc.2014.02.001>
- Seaman, J.** (2023, December). *Beyond print: The 2023 rise of OER*. <https://openstax.org/blog/increased-oer-use-2023>
- Seraphin, S. B., Grizzell, J. A., Kerr-German, A., Perkins, M. A., Grzanka, P. R., & Hardin, E. E.** (2018). A conceptual framework for non-disposable assignments: Inspiring implementation, innovation, and research. *Psychology Learning & Teaching*. <https://doi.org/10.1177/1475725718811711>
- Shell, D. F., Murphy, C. C., & Bruning, R. H.** (1989). Self-efficacy and outcome expectancy mechanisms in reading and writing achievement. *Journal of Educational Psychology*, 81(1), 91–100. <https://doi.org/10.1037/0022-0663.81.1.91>
- Singh, T. K., & Rajalingam, S. K.** (2012). The relationship of writing apprehension level and self-efficacy beliefs on writing proficiency level among pre-university students. *English Language Teaching*, 5(7), 42–52. <https://doi.org/10.5539/elt.v5n7p42>
- UNESCO** (2019, November). Recommendation on open educational resources. <https://unesdoc.unesco.org/ark:/48223/pf0000373755/PDF/373755eng.pdf.multi.page=3>
- Vanhille, J., Gregory, B., & Corser, G.** (2017). The effects of mood on writing apprehension, writing self-efficacy, and writing performance. *Psi Chi Journal of Undergraduate Research*, 22(3), 220–230. <https://doi.org/10.24839/2325-7342.JN22.3.220>
- Villavicencio, F. T., & Bernardo, A. B. I.** (2016). Beyond math anxiety: Positive emotions predict mathematics achievement, self-regulation, and self-efficacy. *The Asia-Pacific Education Researcher*, 25, 415–422. <https://doi.org/10.1007/s40299-015-0251-4>
- Wachholz, P. B., & Etheridge, C. P.** (1996). Writing self-efficacy beliefs of high- and low-apprehensive writers. *Journal of Developmental Education*, 19(3), 16–24. <http://files.eric.ed.gov/fulltext/ED403563.pdf>
- Werth, E., & Williams, K.** (2021a). What motivates students about open pedagogy? Motivational regulation through the lens of self-determination theory. *The International Review of Research in Open and Distributed Learning*, 22(3), 34–54. <https://doi.org/10.19173/irrod.v22i3.5373>
- Werth, E., & Williams, K.** (2021b). Exploring student perceptions as co-authors of course material. *Open Praxis*, 13(1), 53–67. <https://doi.org/10.5944/openpraxis.13.1.1187>
- Wiley, D.** (2013, October 21). *What is open pedagogy?* <https://opencontent.org/blog/archives/2975>
- Wiley, D., & Hilton, J.** (2018). Defining OER-enabled pedagogy. *International Review of Research in Open and Distance Learning*, 19(4). <https://doi.org/10.19173/irrod.v19i4.3601>
- Wu, R., & Yu, Z.** (2022). Exploring the effects of achievement emotions on online learning outcomes: A systematic review. *Frontiers in Psychology*, 13, 977931. <https://doi.org/10.3389/fpsyg.2022.977931>
- Zorbaz, K. Z.** (2015). Effects of variables about reading-writing frequency on the education faculty freshmen's writing apprehension levels. *International Online Journal of Educational Sciences*, 7(2), 71–80. <https://doi.org/10.15345/iojes.2015.02.004>

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