

Student Perceptions of Open Pedagogy: An Exploratory Study

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Abstract

With the increasing development and adoption of Open Educational Resources, many researchers and practitioners are interested in more carefully examining pedagogies connected with their use. This study describes the perceptions of 173 students of implementations of various approaches to open pedagogy by nineteen instructors in post-secondary institutions in New Hampshire. Students were asked about their perceptions of several aspects of open pedagogy, including its influence on the mastery of core academic content, skills in collaborative learning, critical thinking and problem solving, effective communication, and learning how to learn. Students found value in open pedagogy and believed that open pedagogy had greater overall educational value than traditional educational activities. When students were asked if they would prefer to take a course with open pedagogy or traditional pedagogy, a majority preferred open pedagogy. Further research is necessary to determine the efficacy of open pedagogy beyond student perceptions, and also to determine which types of open pedagogy are most efficacious.

Keywords: Open Educational Resources, OER, Open Pedagogy, OER Enabled Pedagogy

Introduction

In recent years, Open Educational Resources (OER) have had a growing influence on the discourse within education circles. The term “Open Educational Resources” comes from the 2002 UNESCO Forum on the Impact of Open Courseware for Higher Education in Developing Countries, which defined OER as follows: “The open provision of educational resources, enabled by information and communication technologies, for consultation, use and adaptation by a community of users for non-commercial purposes” (UNESCO, 2002, p. 24). Thus, a clear goal related to OER is to have free and unfettered access to educational materials, with the purpose of improving teaching and learning.

Much of the research to date has focused on the processes, opportunities, and challenges of utilizing OER (e.g., Weller, 2014), or the efficacy of OER (e.g., Hilton, 2016). Given the increasing viability of OER, some are beginning to focus more attention on pedagogies that can be used in conjunction with OER. These pedagogies, often collectively referred to as “open pedagogy” have promise; however, there remains extensive debate regarding the definition of this term or what it actually looks like in practice. While the term “open pedagogy” has a long history (discussed below) little empirical research has been done on its current instantiation as being a form of student-centered pedagogy that is often connected to OER.

In the present study, we do not attempt to provide a concrete, narrow definition of open pedagogy; however, we do attempt to quantify student perceptions of a variety of instantiations of open pedagogy. The purpose of this paper is to provide an initial investigation into how students perceive the value of open pedagogy, rather to traditional methods. We describe our methodology following a review of literature.

Review of Literature

Prior to the widespread use of internet technologies Elliott (1973) simply describes open pedagogies as being connected with leading less formal discussions and students co-creating the context. Elliott’s contemporary, Mai (1978), similarly stated that “open pedagogy” is an “informal classroom where children might be trusted to learn by exploring according to their own interests, instead of being bored, demeaned, and alienated” (p. 231). Elliott and Mai comport with the idea that “Open Pedagogy” involves trusting students to lead the learning process. Mai suggests by inference that some benefits of these attributes will be a better learning environment for students. Dufeu (1992) explains that “Open Pedagogy” enables students to determine the composition and advancement of a course according to their needs and wants. Daniel (2004) also echoes the theme of student centered education describing an open pedagogy “that treats the student as an intellectual equal” (p. 9).

In recent years, researchers have focused on connections between Internet technologies and open pedagogy. One issue sometimes raised is the importance of students creating resources that can be reused, particularly those with an open license. Another is the inclusion of internet enabled byproducts as a component of open pedagogy, and the third is that internet technologies themselves are a part of open pedagogy.

David Wiley (2013) expanded the definition of open pedagogy stating, “This is the ultimate test of whether or not a particular approach or technique can rightly be called “open pedagogy” – is it possible without the free access and 4R permissions characteristic of open educational resources? If the answer is yes, then you may have an effective educational practice but you don’t have an instance of open pedagogy (Wiley 2013).” Later, Wiley expanded that definition to include a “5th R” of open educational resources (Wiley 2014). Thus, Wiley believes that open pedagogy includes the open sourcing of student work on key dimensions such as being free to access, reuse, revise, remix,

redistribute, and retain. More recently, Wiley and Hilton (2018) introduce a narrower term, “OER-enabled pedagogies,” as being “the set of teaching and learning practices that are only possible or practical in the context of the 5R permissions which are characteristic of OER.”

Several authors introduce byproducts of internet technologies as part of open pedagogy. For example, Hodgkinson-Williams and Gray (2009) use open pedagogy to refer to “the opening up of educational processes...enabled by Web 2.0 technologies.” Likewise, Weller (2013) draws a similar conclusion stating that open pedagogy “makes use of...abundant, open content (such as open educational resources, videos, podcasts), but also places an emphasis on the network and the learner’s connections within it” (p. 10). DeRosa and Robison (2017) describe internet technology by-products such as OER, “as a jumping-off point for remaking our courses so that they become not just repositories for content, but platforms for learning, collaboration, and engagement with the world outside the classroom” (p. 117).

Several authors have included instantiations of Internet technologies themselves as part of the definition of open pedagogy. For example, the term open pedagogy has often been associated with student-centered approaches connected with new technologies (Hodgkinson-Williams & Gray, 2009; Mackintosh, McGreal, & Taylor, 2011; Hegarty, 2015). A 2011 white paper from Athabasca University associates open pedagogy with learning digital literacies (Day et al., 2011). Hegarty (2015) defines participatory technologies as a critical attribute of Open Pedagogy, citing Blackall (2011) who wrote, “Technically speaking it is the use of blogs; wikis; video, photo, and audio sharing sites; forums, chats, and even email, that combine into what more interestingly becomes socially constructed media” (Blackall, 2011, para. 48).

As the definition of “open pedagogy” continues to evolve, other terms, such as open educational practices can overlap the expanded definitions of open pedagogy. For example, Cronin (2017) defines as open educational practices as “a broad descriptor of practices that include the creation, use, and reuse of open educational resources (OER) as well as open pedagogies and open sharing of teaching practices.” Likewise, The Open Educational Quality Initiative (2011) defines open educational practices as

“a set of activities around instructional design and implementation of events and processes intended to support learning. They also include the creation, use and repurposing of Open Educational Resources (OER) and their adaptation to the contextual setting. They are documented in a portable format and made openly available” (p. 13).

While overlap is occurring, other definitions are creating distinctions from open pedagogy.

This brief overview demonstrates that consensus definition for open pedagogy does not yet exist. Furthermore, as internet technologies have expanded the definition of open pedagogy, it is no longer clear what does or does not constitute open pedagogy. Notwithstanding this lack of consensus, many proponents of various forms of open pedagogy have postulated or asserted that students will find value in it. However, we are not aware of any published study that measures student perceptions of instantiations of open pedagogy. The purpose of the present study is to begin to address this large gap in the literature. We seek to answer the following question: What do students perceive to be the educational value of open pedagogy, broadly defined, relative to traditional teaching approaches?

Method

During the 2017-2018 school year, nineteen instructors in The University System of New Hampshire (USNH) participated in an Academic Technology Institute (ATI) and in connection with this experience

chose to begin or continue a focus on open pedagogy. For the purposes of this project, the ATI defined open pedagogy as embodying four common principles:

- Focuses on access, broadly conceived;
- Emphasizes learner-driven curricula and educational structures;
- Stresses community and collaboration over content;
- Sees the university in the context of a wider public.

Given this broader definition of open pedagogy, a variety of approaches were involved. For example, students in some classes used OER-enabled pedagogies, such as revising an open textbook or creating quiz banks for OER (Wiley & Hilton, 2018). Other instructors adopted a broader version of open pedagogy and had their students create the syllabus, learning outcomes, assignments, rubrics and/or class structures (with varying degrees of instructor guidance). Others focused on students participating openly in class by posting responses or assignments on blogs or social media. At the end of the semester, students in each of these classes were given a survey regarding their experiences with the open pedagogy of the course (see Appendix for the survey).

Student Surveys: Perceptions of Open Pedagogy

The Educational Value of Open Pedagogy

A total of 173 students responded to survey questions regarding their learning experiences with open pedagogies (the total number of survey responses varied by question since students were not required to respond). Students answered questions like the following: “How did [insert open pedagogy assignment] help you [insert key learning outcome], compared to the way engaging in traditional learning activities (like writing essays or taking quizzes) would have?” Each question was personalized based on the open pedagogy assignment utilized in each specific class, and tailored based on a series of key learning outcomes. For example, “How did writing blog posts help you master core academic content, compared to the way engaging in traditional learning activities (like writing essays or taking quizzes) would have?” These key learning outcomes were selected by the researchers, and not necessarily specific to the course.

Student responses to these questions are summarized in Table 1.

Table 1. Student perceptions of differences in learning outcomes with open pedagogy as compared to traditional activities

Outcome	Greater with Open Pedagogy compared with traditional activities	Same with Open Pedagogy compared with traditional activities	Less with Open Pedagogy compared with traditional activities
Mastery of core academic content	79 (47%)	66 (40%)	21 (13%)
Skills in collaborative learning	80 (48%)	76 (46%)	10 (6%)
Critical thinking and problem solving	74 (45%)	83 (50%)	9 (5%)
Effective communication	62 (38%)	91 (55%)	12 (7%)
Learning how to learn	60 (37%)	90 (56%)	10 (7%)
Aggregate Learning Outcomes	43%	49%	8%

When directly asked to compare the overall educational value of open pedagogy versus traditional classroom activities, a majority of the 173 students who responded favored open pedagogy. In total 53% said open pedagogy had greater educational value than traditional learning activities. An additional 31% viewed both activities as having equal educational value and a minority (16%) felt that the educational value of open pedagogy was lower than that of traditional activities.

Those who felt that open pedagogy had greater educational value indicated that it led to increased knowledge of the material. For example, one student reported, "It allowed me to look through important course information, such as cases and related legal information, and synthesize it for the audience (my blog). This forced me to think of the information in terms of its importance relative to my topic and use it in a way that was meaningful to an audience that may not have the context to digest a lot of raw information. A traditional tool, like a test or quiz, would not achieve this same level of cognitive rigor in terms of how I used the course material." Another student wrote, "It really made you have to think about the material and understand it before publishing something that others would read and see. You want to make sure the information is correct, and [that] you are correct in what you are saying."

Many students also valued the open pedagogy because they found it to be more engaging and relevant in their lives. One wrote, "I felt that this approach was much better than traditional quizzes and tests because it was a new way for me to demonstrate my learning and understanding of my research topic." Another student said, "It was more hands-on. It didn't feel like 'traditional' learning. Rather, it was more interactive and felt more 'life-like' enabling me to learn the material, while also gaining real life skills.

Students also appreciated the personalization afforded by open pedagogy. One student said, "I was actually able to retain information due to applying the concepts to real world issues and writing something I was passionate about. This was more helpful than being worried about cramming for an exam to get a good [grade] and then forgetting all the information after." Another wrote, "By allowing students to have a hand in the construction of the course, we were given a sense of agency in our education. I feel as though this made us more invested in the assignments and in the material we discussed."

Those students who felt the educational value of open pedagogy was less than traditional learning activities tended to feel there was a lack of structure. One student said, "Nothing is set in stone and I am unaware of what to prioritize and what the goals of the class are." Another wrote that there was "less structure" which made it "easier to get distracted and not get work done."

Some students seemed to struggle with the technology aspect involved in specific open pedagogy assignments, such as creating a blog. One wrote, "I do not really understand how to format my page. This has made it difficult since that is the main aspect of this project." Another said, "It offered no education value at all unless I wanted to go into media or marketing then perhaps it is useful to know how to create a website." In some cases, students simply preferred traditional activities. One wrote, "I didn't get as much from this style of learning. I would rather take quizzes and exams to test what I know."

Student Perceptions of Open Pedagogy and Learning Outcomes

Students were asked, "Suppose that certain types of learning activities lead to certain learning outcomes. For example, reviewing flash cards might lead to memorizing facts. What types of learning outcomes do you think are the result of [insert specific open pedagogy used in the class]?" A total of 136 students described their perception of the learning outcomes of open pedagogy.

The largest category of their response clustered around responses related to deeper learning. One student said that open pedagogy required “Synthesizing multiple ideas and information”; another stated that open pedagogy provided a “deeper understanding of the topics covered in the course.” In total, 45 responses (33%) had similar descriptions of the learning outcomes. Other representative responses include the following: “Learning how to use facts and organize information to learn rather than just trying to absorb information and spit it out,” and “By spending a good chunk of your time writing a blog about a certain phylum for example, you research about them and learn so much. By paraphrasing articles for your blogs, you have to think about what your reading and how you can get the point across. I think this is more effective than just memorizing flash cards.”

Students also identified increasing student interest/engagement in a topic or course (mentioned by 24% of respondents) and learning real-world applications (23%) as important learning outcomes of open pedagogy. With respect to increasing interest, one student wrote, “People are more interested in what they are learning if they have a say in what they learn about.” Another responded, “You’re more involved as a student because you’re allowed to take control of your education.” Regarding real-world applications, one student stated that open pedagogy made it easier to “apply the information to the real world.” Another said, “It leads to a more well-rounded understanding of the particular subject. Rather than just memorizing terms, we are learning a real issue in our world and using our knowledge to solve or complete whatever task is given.”

Only five respondents (4%) provided learning outcomes that could be viewed as negative. For example, one student wrote that there was no learning because students were creating all of the learning materials so “they are horrible and probably wrong.” While certainly a minority view, it is important to note that some students struggled with more authority for directing learning being given to the students.

Changing Opinions of Instructors

Approximately 30% (51/171) of students who answered a question about whether their opinions of their instructors changed when open pedagogy was introduced said that their perceptions of faculty members did change. Of the forty-nine students who provided a description of how their perception of the instructor changed when open pedagogy was introduced, thirteen (27%) wrote about feeling that the faculty member was more aware of their needs. For example, one student wrote, “I felt as though the instructor wanted us to create a course that we would enjoy, so it made me appreciate the professor more. It would have been easier for the professor to just call all the shots, but instead, they allowed us to determine what we would actually be working toward on a day-by-day basis. That control is one of the best feelings I’ve had as a student.” Another student responded, “It made clear that the instructor expected us to make use of the material and engage with others related to that material versus simply memorizing or gaining a surface-level understanding.” It is interesting to note that although only six students (12%) reported a negative change in opinion about the professor, some who did so identified the same attribute (instructor giving more agency to students) but viewed it negatively. One student wrote, “I felt we were doing her job.”

Fourteen students (29%) viewed the instructor as being more open-minded and relaxed about the education process. A representative comment of this cohort of students was, “I thought that the instructor was very forward thinking and adaptable which is very valuable as a professor.”

Another student said, “I noticed my instructor was a lot more involved with her students and more open minded.”

Future Courses and Open Pedagogy

A total of 169 students responded to this question: “Imagine a future course you are required to take. If two different sections of this course were offered by the same instructor during equally desirable time slots, but one section had traditional learning activities (such as writing papers and taking tests), and the other used open pedagogy activities like you used in your class, in which section would you prefer to enroll?” In response, 52.7% preferred open pedagogy, 27.8% expressed no preference and 19.5% chose traditional learning activities.

An analysis of the comments from the twenty-seven students who provided an explanation of why they preferred traditional learning activities, two key themes emerged. First, many students felt that traditional activities were more familiar, and therefore more beneficial. One student wrote, “It’s something I’m used to, also, I’m better at listening than taking most responsibilities in my own hands.” Another student said, “I know how to answer questions in [traditional] classes and I feel I can get a better understanding for the material that way.” A second theme involved a feeling that traditional learning activities were more effective. A student stated that with traditional activities, “I would get the help I need as a special needs student,” implying that s/he did not get help expected. Another student stated that the “Traditional way makes you think and learn more even though it’s a lot harder.” Although these students expressed a minority viewpoint, their words indicate that some population of students will require more help and support than was present in the current iterations of open pedagogy that were utilized.

In contrast, three themes were highlighted by the eighty-two students who provided an explanation of why they preferred open pedagogy. First, students valued the ability to take ownership of their learning in creative ways. One student said, “I feel like I own my education more in this class option than the other.” Another responded, “I think it is a lot more beneficial for the students because we get to decide how our education is being controlled.” A second theme that emerged concerned feeling that open pedagogy was more enjoyable and less stressful. Representative comments included, “They are more enjoyable,” “It is more individualized and less stressful. There are not huge standards that induce anxiety,” and “It’s less stressful and a lot more fun.” The third theme involved deeper learning. One student wrote that open pedagogy activities “help the material stick. I probably couldn’t tell you exactly what I learned last semester in physics, but I could tell you many things from my [current science course] because we were able to take the time and learn about things we were interested in and learn it in depth.” Using similar words, another student wrote, “I feel like I learn more with open pedagogy activities. I learn actual real life situations! They “stick” better in my mind, rather than traditional memorization activities.”

Use of Open Licenses

One potentially problematic aspect of open pedagogy concerns the ethics of requiring, or even strongly encouraging, students to use open licenses with whatever resources they create (figure 1). Out of the 156 students who responded to a question about whether they created resources that were shared online or intended for reuse by others in the future, 93 (60%) said yes. Roughly one-third of these content-creators reported using an open license to license any of the work they created in the course. Across all students who created resources for class, 7% of students said that they felt pressured to license their work in a specific way.

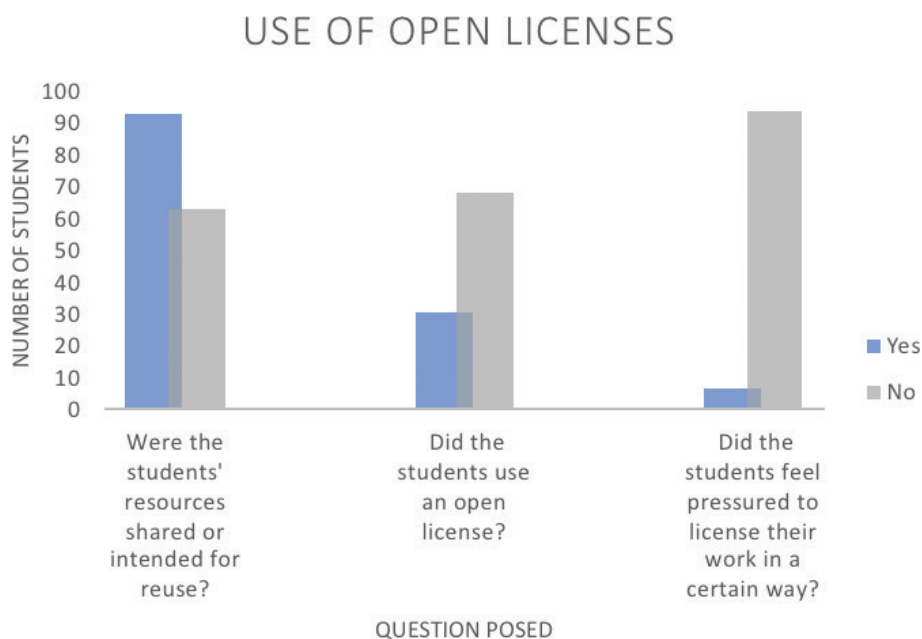


Figure 1: Use of Open Licenses.

One student explained the coercion that was experienced: “I felt that since my class was open pedagogy I had to license my work so that others would be free to use it in any way they wish to. While I understand the reasons behind doing this, I felt like it was something that my class was expected to do even though it was optional.” Another student expressed concern about being asked to openly publish class work stating, “Everyone could see them and I didn’t know if they were right.” While this appears to have affected a small minority of students, it highlights an important issue for faculty members using open pedagogy to be aware of.

Discussion

A majority of students (53%) said open pedagogy had greater educational value than traditional learning activities. An additional 31% viewed both activities as having equal educational value and a minority (16%) felt that that the educational value of open pedagogy was lower than that of traditional activities. Factors such as increased knowledge, relevance, and personalization seemed to drive the preference for open pedagogy. While only 30% of students changed their opinions about their instructors based on the pedagogy used, for those who did the change was overwhelmingly positive.

Notwithstanding the general positive opinions, it is important to note that a minority of students (20%) stated that they would prefer to be in classes that used traditional pedagogy and 16% of students felt the educational value of open pedagogy was lower than traditional pedagogy. These students appear to desire more structure in their course and may have struggled with aspects of open pedagogy related to technology. In addition, a minority of students (7%) felt pressured to license their work in a specific way. While these numbers clearly do not represent a majority perspective, they are important to keep in mind when creating courses that utilize open pedagogy.

Limitations and Future Research

This study represents an important initial step in quantifying student perceptions of open pedagogy; however, it has many limitations. First, as explained in the Method section, this study focused on

a broad definition of open pedagogy, allowing for many different types of approaches. This has the significant disadvantage of making it very difficult to compare this empirical study to future studies of open pedagogy. Future research should focus on a more limited set of pedagogies (preferably one instantiation of open pedagogy) to better inform what is being actual measured by the students.

An important limitation in the present study may be found in the fact that our survey questions utilize what could be considered the value-laden terms “open” and “traditional.” While “open” and “traditional” were presented in neutral ways in the survey as descriptors of assignments, it is possible that the research instrument has an inherent bias, thus limiting to value of the overall results. Furthermore, it is not clear what students have in mind when they hear “traditional” assignments. Many of the student quotes make it clear that they viewed “tests” as the alternative option. Perhaps if they had viewed “Essays” or “Group projects,” which are not exclusive to open pedagogy they would have altered their rankings.

An additional limitation is that these classes were for the most part quite small. Additional research could focus on open pedagogy in larger classrooms. More significantly, the present study is limited in that it focused solely on student perceptions. Further research is needed to examine the actual efficacy of the open pedagogy, to learn what educational impact it had. Moreover, additional studies should examine how faculty members viewed their experiences with open pedagogy, including the amount of time they needed to spend, and their assessments of student learning. Although this study is certainly not conclusive, the fact that the most students in the present study felt that open pedagogy was as good as or better than traditional teaching techniques suggests that at a minimum, open pedagogy has promise.

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Appendix: Survey Taken by Students

The following are general questions related to you and your courses at the college.

Q1. How many terms/semesters have you completed in college?

- Less than 1 (1)
- 1-2 (2)
- 3-4 (3)
- 5-6 (4)
- 7-8 (5)
- 9-10 (6)
- More than 10 (7)

Q2. What is your cumulative college Grade Point Average (GPA) on a 4.0 scale?

- 0.0 - 1.4 (1)
- 1.5 - 2.0 (2)
- 2.1 - 2.5 (3)
- 2.6 - 3.0 (4)
- 3.1 - 3.5 (5)
- 3.6 - 4.0 (6)
- This is my first term (7)
- I don't know

Q3. In general, how often do you *rent* the required course materials for the courses you take?

- Never (1)
- Rarely (2)
- About Half the Time (3)
- Often (4)
- Always (5)

Q4. In general, how often do you *purchase* the required course materials for the courses you take?

- Never (1)
- Rarely (2)
- About Half the Time (3)
- Often (4)
- Always (5)

Q5. Have you ever not purchased course materials for a class because of the cost of the course materials?

- a. No
- b. Yes

Q6. (If yes to 5) Do you think that not purchasing the course materials influenced your grade in the course in a negative way?

- a. No
- b. Yes

Q7. (If yes to 5) Has not purchasing course materials contributed to your decision to drop a course?

- a. No
- b. Yes

Q8. (If yes to 5) Has not purchasing course materials ever caused you to fail or withdraw from a course?

- a. No
- b. Yes

Q9. Have you ever delayed purchasing course materials for a class because the cost of the course materials?

- a. No
- b. Yes

Q10. (if yes to 9) Do you think that delaying purchasing the course materials influenced your grade in a negative way?

- a. No
- b. Yes

Q11. Have you ever registered for fewer courses because of course materials costs?

- a. No
- b. Yes

Q12. Have you ever not registered for a specific section of a course because of course materials costs?

- a. No
- b. Yes

Your instructor included the following open pedagogy activity in your course: [insert open pedagogy phrase]. The following questions relate to your participation in the course's [insert open pedagogy phrase] in which [**insert description of open pedagogy used**]. In the questions below this is referred to as "the course's [insert open pedagogy phrase]."

Q13. Have you ever completed an assignment similar to participating in the course's [insert open pedagogy phrase] in another class?

Q14. Was the educational value of participating in the course's [insert open pedagogy phrase] BETTER, WORSE, or the SAME AS that of traditional learning activities (e.g., writing papers, taking quizzes, etc.).

- A. Better
- B. Same
- C. Worse

14.1 [if Better in 14] in what ways was it better?

14.2 [if Same in 14] in what ways was it the same?

14.3 [if Worse in 14] in what ways was it worse?

Q15. When your instructor asked you to participate in the course's [insert open pedagogy phrase], did this change your opinion of your instructor?

- a. yes
- b. No

Q16. [if yes to 15] How did your perception of your instructor change?

Q17. Suppose that certain types of learning activities lead to certain learning outcomes. For example, reviewing flash cards might lead to memorizing facts. What types of learning outcomes do you think are the result of participating in the course's [insert open pedagogy phrase]?

Q18. Imagine a future course you are required to take. If two different sections of this course were offered by the same instructor during equally desirable time slots, but one section had traditional learning activities (such as writing papers and taking tests), and the other used learning activities like participating in the course's [insert open pedagogy phrase], in which section would you prefer to enroll?

- I would enroll in the section with TRADITIONAL LEARNING ACTIVITIES
- I would enroll in the section with ACTIVITIES LIKE PARTICIPATING IN AN [insert open pedagogy phrase]
- I would have no preference

Q18.1. [if TRADITIONAL] Why would you choose a class with traditional learning activities?

Q18.2. [if ACTIVITIES LIKE PARTICIPATING IN AN [insert open pedagogy phrase]] Why would you choose a class with activities like participating in [insert open pedagogy phrase]?

Q19. In this course, did you create any resources that were shared online or intended for reuse by others in the future?

Q19.1. (if Yes to Q19) Did you use an open license, like a Creative Commons license, to license any of the resources you created for this course?

- Yes
- No

Q19.2. (if Yes to Q19) Did you feel pressured to license your work in a certain way?

- Yes
- No

Q19.3. (if Yes to Q19.2) Please share how you felt pressured to license your work and how this impacted you.

Q20. How did participating in the course's [insert open pedagogy phrase] help you master core academic content, compared to the way engaging in traditional learning activities (like writing essays or taking quizzes) would have?

- Participating in the course's [insert open pedagogy phrase] helped me master MORE core academic content than traditional learning activities would have
- Participating in the course's [insert open pedagogy phrase] helped me master THE SAME AMOUNT of core academic content as traditional learning activities would have
- Participating in the course's [insert open pedagogy phrase] helped me master LESS core academic content than traditional learning activities would have

20.1. [If more] – Why did participating in the course's [insert open pedagogy phrase] help you master MORE core academic content than traditional learning activities would have?

20.2. [if less] – Why did participating in the course's [insert open pedagogy phrase] help you master LESS core academic content than traditional learning activities would have?

Q21. Reflect on the collaborative nature of the [insert open pedagogy phrase]. Select one of the following:

- Participating in the course's [insert open pedagogy phrase] helped me become a MORE collaborative learner than traditional learning activities would have
- Participating in the course's [insert open pedagogy phrase] helped me collaborate with other learners THE SAME AMOUNT that traditional learning activities would have
- Participating in the course's [insert open pedagogy phrase] helped me become a LESS collaborative learner than traditional learning activities would have

- 21.1. [If more] – Why did participating in the course’s [insert open pedagogy phrase] help you become a MORE collaborative learner than traditional learning activities would have?
- 21.2. [If less] – Why did participating in the course’s [insert open pedagogy phrase] help you become a LESS collaborative learner than traditional learning activities would have
- Q.22. Reflect on how the [insert open pedagogy phrase] helped you learn to think critically or solve complex problems. Select one of the following:
- Participating in the course’s [insert open pedagogy phrase] helped me become a MORE critical thinker and better problem solver than traditional learning activities would have
 - Participating in the course’s [insert open pedagogy phrase] helped my critical thinking or problem solving skills THE SAME AMOUNT that traditional learning activities would have
 - Participating in the course’s [insert open pedagogy phrase] helped me become a LESS critical thinker and worse problem solver than traditional learning activities would have
- 22.1. [If more] – Why did participating in the course’s [insert open pedagogy phrase] help you learn to think critically or solve complex problems MORE than traditional learning activities would have?
- 22.2. [If less] – Why did participating in the course’s [insert open pedagogy phrase] help you learn to think critically or solve complex problems LESS than traditional learning activities would have?
- Q23. Reflect on how the [insert open pedagogy phrase] helped you learn to communicate effectively. Select one of the following:
- Participating in the course’s [insert open pedagogy phrase] helped me become a MORE effective communicator than traditional learning activities would have
 - Participating in the course’s [insert open pedagogy phrase] helped my critical thinking or problem solving skills THE SAME AMOUNT that traditional learning activities would have
 - Participating in the course’s [insert open pedagogy phrase] helped me become a LESS critical thinker and worse problem solver than traditional learning activities would have
- 23.1. [If more] – Why did participating in the course’s [insert open pedagogy phrase] help you become a MORE effective communicator than traditional learning activities would have?
- 23.2. [If less] – Why did participating in the course’s [insert open pedagogy phrase] help you become a LESS effective communicator than traditional learning activities would have?
- Q24. Reflect on how the [insert open pedagogy phrase] helped you learn more effectively. Select one of the following:
- Participating in the course’s [insert open pedagogy phrase] helped me learn MORE effectively than traditional learning activities would have
 - Participating in the course’s [insert open pedagogy phrase] helped me learn THE SAME AMOUNT that traditional learning activities would have
 - Participating in the course’s [insert open pedagogy phrase] helped me learn LESS effectively than traditional learning activities would have
- 24.1. [If more] – Why did participating in the course’s [insert open pedagogy phrase] help you learn MORE effectively than traditional learning activities would have?
- 24.2. [If less] – Why did participating in the course’s [insert open pedagogy phrase] help you learn LESS effectively than traditional learning activities would have?

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