

ASYNCHRONOUS ONLINE DISCUSSIONS AS REPLACEMENT TASKS IN HIGHER EDUCATION

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Abstract

After years of online teaching, universities are now trying to get students to return to campuses. To motivate student attendance, teachers can adopt methods such as giving extra points for attendance or making attendance compulsory. Especially in situations where the role of attendance is to encourage students to discuss and work together, making attendance compulsory can be attractive. This introduces a new dilemma. How should teachers proceed when students are absent? Teachers can cope with students' absences, for example, by lowering attendance requirements or by offering replacement tasks. Of these, the replacement tasks are often more efficient in ensuring that absent students meet the learning objectives. However, reviewing written replacement tasks can be laborious for teachers. Thus, student-student asynchronous online discussions (AODs) could act as a good alternative. Prior research has identified both strengths and weaknesses when it comes to the use of AODs in higher education, but these studies have not examined their use specifically as replacement tasks. Thus, in this paper, we aim to identify the pros and cons of the use of AODs as replacement tasks. We analyzed two implementations of the same course where six out of seven compulsory attendances could be replaced with weekly AODs. The analysis of the pros and cons consisted of systematic reviews of the posts written by the students and an analysis of students' learning diary assignments. Our analysis revealed mixed results for the use of AODs as replacement tasks. At the start of the course, students were very active in their discussions and effectively reflected on the role of online discussions in their learning diaries. However, at the end of the course, the discussions became more superficial, and the consideration of the AODs in the learning diaries became insufficient. This suggests that although AODs can function well as replacement tasks, using them extensively may encourage task completion rather than in-depth learning. This is particularly problematic because students can now use generative AI to complete discussion assignments, leaving teachers with little ability to ensure that students have internalized the course topics. Thus, while AODs reduce the workload of the teacher, they should be used cautiously.

Keywords: *Asynchronous online discussion, higher education, compulsory attendance, replacement task.*

1. Introduction and related research

Student attendance has long been a relevant topic in higher education research (Gump, 2005). Both arguments justifying and questioning compulsory attendance, ranging from teaching students to be accountable members of society to emphasizing the need for academic freedom, have been presented (Macfarlane, 2013). To strike a balance between these occasionally contradictory demands, teachers can, for example, provide alternatives to attendance. Replacement tasks, which students can complete independently either individually or together with other students, can help teachers ensure that students familiarize themselves with the topics presented during learning events without demanding attendance. They provide flexibility (Douglas, James, Earwaker, Mather, & Murray, 2020) while helping teachers ensure that students missing from class are not left behind in their learning.

Replacement tasks for compulsory learning events, however, have disadvantages. For teachers, they add to the workload because replacement tasks need to be evaluated. Some types of learning objectives can also be difficult to achieve without attendance. (Fehrman & Watson, 2021) Some assignments, however, can be quite easily transformed from classroom activities to replacement tasks. For example, group discussions in a classroom have an asynchronous option that can be utilized as a replacement task, i.e., asynchronous online discussions (AODs). AODs are online learning spaces where students can choose where, and often when, they work on given assignments, while also encouraging interaction and knowledge building within a community (Gerosa, Filippo, Pimentel, Fuks, & Lucena, 2010).

AODs can be student-student interactions or staff-student interactions (Osborne, Byrne, Massey, & Johnston, 2018). While student-student interactions emphasize collaboration and knowledge construction among the students (Gao, Zhang, & Franklin, 2013), staff-student interactions focus on teacher feedback and presence in the discussion forums (Tibi, 2018). AODs can also be categorized as structured and unstructured AODs. Of these research tends to emphasize the benefits of a structured approach, as learning outcomes tend to be better when AODs have a clear purpose and clearly defined expectations (Fehrman & Watson, 2021; Peddibhotla & Jani, 2019).

AODs are used extensively in online courses in higher education (Douglas et al., 2020), as they create opportunities for students to interact even in situations where physical interaction is not possible (Fehrman & Watson, 2021). AODs have been found to help students deepen their understanding of the course materials, improve communication with group members, provide students with various viewpoints, and help create community within online courses (Decker & Beltran, 2016).

Despite their extensive use, AODs have been criticized because it can be difficult for teachers to evaluate whether students are engaged in the AODs (Douglas et al., 2020). While AODs enable student-student connections, actual interaction and collaboration can be lacking (da Silva, Barbosa, & Gomes, 2019). Da Silva et al. (2019) identified that students tend to engage in AODs only if their posts were graded. Thus, it appears that the primary motivation for posting in AODs is the grade rather than learning (da Silva et al., 2019). Despite the identified challenges, there seems to be little research on the alternative approaches to AODs.

Thus, AODs might not be as useful as expected (Fehrman & Watson, 2021). For example, when online courses without AODs, student-student AODs and staff-student AODs were compared, it appeared that AODs did not lead to higher learning outcomes nor increase time spent on the course (Cho & Scott, 2016). Nonetheless, AODs are convenient ways to encourage student interaction, even though they might not always be the most effective tool for learning.

Most studies examine AODs as tools in online teaching. However, research has acknowledged that AODs can be used in other types of courses as well (Gao et al., 2013), either to enhance interaction outside the classroom or to substitute for classroom discussions when students cannot participate. However, for now, there is little research on how AODs work as replacement tasks for compulsory learning events. This motivates my research question: *What are the pros and cons of using AODs as replacement tasks?*

Thus, in this paper, I will present lessons learned from two implementations of a course where AODs were used as replacement tasks for compulsory learning events. By analyzing the online discussions and students' learning diaries, I show that engagement decreased over time and that students increasingly overlooked online discussions as part of their learning.

The paper continues with the presentation of the course analyzed and a description of the data analysis. Then the findings are presented. The paper concludes with a discussion and conclusion section.

2. Methodology

The study focuses on two implementations (2025 and 2026) of a course focused on digital transformation and information technology (IT) renewal intended for master-level students of information and knowledge management in Tampere University Finland. Most of the students taking the course are completing their intended major, but the course is open to other students as well. The objective of the course is to strengthen and deepen students' understanding of topics already familiar to them from other courses in information and knowledge management.

The course consists of seven learning events held once a week, a collection of academic papers, a group assignment, and a learning diary where the students are instructed to reflect on their learning related to the other assignments. The learning events are organized around one or two of the academic papers, which students are expected to use during classroom discussions and assignments. As the focus of the course is to deepen students' prior knowledge, the course is designed in a way that drives students to apply discussed topics in various assignments together with other students under the teacher supervision. Classroom discussions play a critical role in meeting the course learning objectives. Consequently, attendance at the learning events is compulsory.

To enhance course flexibility for students who are working full-time, students can replace their attendance with online assignments that were graded either as pass or fail. The replacement tasks of the course are released weekly, after every learning event, and they must be completed within one week of the missed learning event. Table 1 presents the list of tasks and a short overview of their core content. Of the replacement tasks, six out of seven were implemented as student-student online discussions, while the assignment number 3 was a written assignment evaluated and commented on by the teacher.

Table 1. The list of replacement tasks used in the course.

#	Assignment	Overview of the given assignment
1	Mind map and discussion	Create a mind map showing what you already know about digital transformation and IT renewal. Post the mind map in the discussion forum and then comment on at least two other mind maps. Focus especially on aspects that were new, surprising, or relatable.
2	Evaluation of a pre-reading case and a discussion	Read the provided case and start a discussion by giving a short summary of the case and then justify your view on whether the case was a successful digital transformation project. Comment on at least two other submissions.
3	Case analysis	Read the provided case and then write a maximum one-page essay where you present the case and give suggestions on how the case should be solved. Submit the assignment for teacher evaluation.
4	Creation of model of information system success and discussion	Read the provided pre-reading articles. Use the articles and other course materials to create a model of information systems success. Post your model and then comment on at least two other models. Focus on the strengths and suggestions for improvement.
5	Identification of prerequisites for digital transformation and discussion	Read the provided pre-reading articles. Start a discussion where you list a minimum of five prerequisites for digital transformation and give justifications for why these are the most critical to organizations. Comment on at least two other discussions with justifications.
6	Summary of one news article and discussion	Read the provided pre-reading articles. Find a news article about an organization that uses technology in a way that raises ethical considerations. Post a brief case description in the discussion area and then comment on at least two other posts.
7	Concluding mind map and discussion	Update your mind map of what you already know about digital transformation and IT renewal. Submit the updated mind map in the discussion forum and then comment on at least two other mind maps. Focus especially on aspects which were new, surprising or relatable.

Although the course is at the core of the major for the participating students and the learning events of the course are compulsory, many of the students taking the course tend to complete it without attending any of the learning events. In both implementations, approximately half of the students completed the course by only doing replacement tasks online. Thus, the course provides a good opportunity to analyze the pros and cons of these replacement tasks.

In the analysis of the pros and cons of the replacement tasks, both qualitative and quantitative approaches were used. First, the focus was on the discussions submitted by the students and their learning diaries. The discussions were read through, and initial posts and comments were compared to the given assignment and the learning objectives set for the particular week. Also, the word counts of the posts were calculated.

From the learning diaries, the author analyzed whether the students had mentioned either the learning events or online discussions, and in cases where the discussions were mentioned, whether the particular student reflected on their learning in this context. To encourage students to reflect on the discussions, the learning diary instructions emphasized that both classroom and online discussions should also be considered in the learning diary. To ensure students understood the meaning of reflection, the topic was discussed during the first learning event, and the learning event was video recorded for the students who could not attend.

3. Findings

The analysis of the online discussions and learning diaries indicated mixed results regarding the use of AODs as replacement tasks. Although AODs offered flexibility and ensured at least some engagement with course topics, they provided little control over whether students completed tasks as intended.

Based on the analysis of the online discussions, students' motivation to actively participate in the online discussions decreased as the course advanced. For example, when replacement tasks of the learning events 1 and 7 were compared, in the 2026 implementation, the length of the post decreased from an average of 436 words to 241 words, even though the format in both assignments was similar, a mind-map creation. Considering that the students were more knowledgeable about the topic at the end of the course and thus would have been more equipped to have discussions, the decrease in the length of the posts is dramatic. A similar comparison could not be made from the year 2025, as the minimum word count requirement was added there only after realization that without minimum word requirement the posts were very short and lacking in their content. After the introduction of a minimum word count, the average length of the posts decreased steadily from 306 words (2nd replacement task) to 222 words (7th replacement task).

When the posts were qualitatively analyzed, it appeared that even in AODs where students were instructed to focus on strengths and improvements, they tended to focus on describing the initial post, while the strengths and improvements were done as an afterthought. Of course, there were also some students who had clearly put effort into their posts, but students who did only the minimum required were in the majority.

From the discussions, it was also apparent that while students were instructed to do their initial post soon after the release of the replacement task so that other students could comment on their points, many of them submitted their initial post just before the deadline, making it difficult for the active students to comment on other posts. The discussion centralized around the first post and became repetitive instead of enhancing realization of multiple perspectives.

While the AODs were more time efficient compared to the written assignment evaluated by the teacher, it was clear that the students put more effort into assignments submitted to the teacher. This would indicate that the students did not necessarily see the value of the online discussions for their learning, but only as compulsory tasks to be completed for them to pass the course.

The analysis of the learning diaries indicates similar findings. Based on the analysis of the learning diaries, most students saw value in the classroom discussions, as in the 2025 implementation, 16 out of 17 students who attended three or more learning events reflected on the role of learning event discussions in their learning, while only seven out of 16 students who mainly or only did replacement tasks even mentioned online discussions in their learning diary. In the 2026 implementation, eight out of nine students who attended three or more learning events discussed the classroom discussions in their learning diary, while only two out of seven students who completed the course mainly online mentioned online discussions. While the students who discussed classroom discussions emphasized their importance in gaining new perspectives on the course topics, the students who reflected on the online discussions mainly felt that the discussions only provided them lists and points of view that they already knew.

This was the case even though the learning diary instructions instructed the students to reflect on the academic papers, learning events, or online discussions and group work in the learning diary. These patterns suggest two possibilities. Students may have gained fewer benefits from online discussions than from classroom discussions, or they may have experienced the replacement tasks as a punishment for absence rather than as a meaningful alternative for attendance.

4. Discussion and conclusions

Our findings are in line with previous studies indicating that students understand the minimum requirements for AODs and rarely do more than is required of them (da Silva et al., 2019). In contrast with the prior studies emphasizing the potential of AODs (Gao et al., 2013), this case indicates that this potential is not always realized. Overall, this case suggests that AODs can provide time-efficient flexibility, but they do not necessarily support learning or serve as sufficient alternatives to classroom discussions.

As the assignments were graded as pass-fail, the grading encouraged the students to fulfill only the minimum requirements of the assignment. This is also in line with the findings of da Silva et al. (2019). This suggests that using AODs as replacement tasks without graded incentives may not be an effective way to increase flexibility for students. However, adding grading responsibility to the teacher would most likely increase the workload of the teacher.

From some posts, suspicion of AI-generated content also rose. In particular, the summaries of other students' posts and the language used suggested that generative AI tools might have been used. However, no student reported AI use in their posts even though the use of AI was allowed if it was sufficiently reported. This indicates that while generative AI tools have become everyday technology for students, teachers have even less control over the learning processes of students. This case does not explain why students did not report AI use. One possibility is that students did not view their AI use as something that needed reporting if they had used AI only to improve their text after writing it. Another is that they did not want peers to know they had used AI.

This case indicates that while AODs are, in principle, great options as replacement tasks, their large-scale use can encourage task completion instead of in-depth learning. The case also provides a warning regarding the growing use of generative AI among students. As students can use generative AI in completing discussion assignments, it leaves teachers with little power to ensure that students have obtained intended learning outcomes. Thus, while AODs reduce the workload of the teacher, they should be used cautiously.

Like any study, this has its limitations. Because this study covers only two implementations of a single course, the data is limited for drawing broad conclusions about the pros and cons of using AODs as replacement tasks. Due to the limited number of students, aspects such as the group dynamics of the course can have a greater-than-expected impact on the findings. Because the course and assignments were designed primarily for teaching rather than for data collection, the specific assignment instructions may have influenced the study outcomes.

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