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ASYNCHRONOUS DISCUSSION FORUMS: FIVE LEARNING DESIGNS

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On-Campus and Blended Learning Scenarios

Abstract

This working document is for practitioners designing for blended or online learning modalities and using discussion forums to engage students in collaborative knowledge-building. Five learning designs and approaches for the reader's consideration are illustrated. Each approach highlights some possibilities, requirements, challenges, possible scenarios, and related literature references. With each scenario, consideration for context (class size, location, etc.), pedagogical approach, and resource accessibility is recommended.

Keywords: blended learning, online learning, instructional design, practitioners, higher education

On-Campus and Blended Learning Scenarios

Overview

A common learning task in online courses requires students to post written responses using a discussion forum within a course learning management system (LMS) and then respond to their peer's discussion posts. For example, a review of Fall 2020 and Winter 2021 course outlines in Undergraduate Programs in Education at the Werklund School of Education showed that 67% of the outlines included discussion forums as a learning activity with an average grade weighting of 20-25%. In 75% of these courses, students were required to post a minimum of once per week, with 11% requiring more than one post per week. Responding to two or more peer responses per week was required in 43% of courses, and 19% required three to five peer responses per week. Discussion forums can provide the opportunity for students to expand their knowledge, reflect on and connect learning materials to personal experiences, and connect with peers (Dixson, 2015), and can support learners to co-construct knowledge and meaning together (Salmon, 2013). However, the process of writing and grading discussion posts and peer responses is time-consuming. If discussion forum assignments are not designed and prepared well, this can exacerbate student disengagement (Page et al., 2020). This working document explores five ways to utilize the discussion forums and other participatory technologies in learning designs. Each approach highlights some possibilities, challenges, possible scenarios, and related literature references. The document does not include all possible learning designs or scenarios within a design but can be useful for dialogue with colleagues. With each scenario, consideration for context (class size, class location, etc.), pedagogical approach, and resource accessibility is recommended.

Guiding Questions

Guiding questions have been provided. These may be used to facilitate discussion and foster contemplation when interacting with the scenarios provided.

- What are the benefits or challenges described in the scenario?
- Are there other benefits or challenges with the scenario or with this approach that have not been identified?
- If the scenario describes a challenge, what are some strategies that could be employed to avoid or limit the challenge described in the scenario?
- If the scenario describes a benefit, what are some strategies that could be employed to enhance or extend the benefit described in the scenario?
- What are other scenarios that might be expected when using this approach?
- What supports would you need to help you with this approach?
- What other questions have emerged from the discussion of this approach?

Course Delivery Approach #1: Integrating Multimedia Options

Discussion forums are designed to allow for individual student responses and often these responses are text-based. While a course may require a particular level of formal academic writing rigour, opportunities can be created for students to use different modes of communications to share and build knowledge and express ideas in the discussion forum. This can include audio or video reflections, a screencast with audio commentary, or using other audio annotation tools.

Benefits:

- Flexibility for learners in how they share knowledge
- The ability to see and hear one another could strengthen social connection among peers
- Method could foster creativity

The Challenges:

- Students may need tutorials on how to create alternative format responses
- Communications in different mediums
- Reliability of technology
- Student access to technology

Potential Scenarios:

1. Instructor assigns weekly student reflections on course content to be posted on the class LMS discussion forum. Students are required to alternate between written responses sharing thoughts and takeaways from readings and experiential audio posts that share a connection or opinion. Students are concerned that the prescribed nature of alternating between written and audio may not align with their reactions to course content. The instructor adjusts to require an overall response tally to be equal between written and audio.
2. Instructor assigns weekly student reflections on course content, identifying a different medium for each week. This includes a written response, audio track, video, and an annotated presentation. Students are required to respond in the same format for that week. Students find some of the formats difficult to navigate as they learn the required software. The instructor provides video tutorials for one software program for each medium and allows additional time to post, upon individual student request.
3. Instructor assigns one or two students each week to create a podcast providing a detailed overview and reflection on assigned course content. These weekly assignments are determined in the first week of class, so students have time to prepare. Students must pose two critical thinking questions in their podcast for peer response. Peers post written responses to posed questions. The instructor notices that in the first two weeks, peer responses to questions are low. During a scheduled synchronous session, expectations are reviewed. Students voice they have been focusing on preparing their podcasts. The instructor agrees to extend peer response deadlines from one week to two weeks and clarifies learning intentions.

Related Literature:

Page, L., Millea Hullett, E., & Boysen, S. (2020). Are you a robot? Revitalizing online learning and discussion boards for today's modern learner. *The Journal of Continuing Higher Education*, 68(2), 128-136, DOI: [10.1080/07377363.2020.1745048](https://doi.org/10.1080/07377363.2020.1745048)

Course Delivery Approach #2: Case Study Analysis or Problem Solving

In this approach, students are assigned a case or problem to solve related to course content. Using a discussion forum, the student, or group of students, apply course concepts and respond to guiding questions as they prepare to submit a formal case analysis or solution. This approach used the discussion forum as an open workspace to give and receive feedback.

Benefits:

- Encourages students to apply information to new contexts and interact with course material
- Tasks can be done individually or in teams, and engaging students in small group collaboration
- Engages students in higher order thinking and knowledge application to real-world scenarios
- Fosters the development of problem-solving skills, analytical skills, quantitative or qualitative analysis, and decision-making
- Opportunities to engage in formative assessment

The Challenges:

- High volume of responses/posts
- Prepare and set expectations for students to work in teams (e.g., team contract)
- Provide ongoing teamwork support (e.g., regular check-ins)

Potential Scenarios:

1. Instructor organizes students into groups of 3-5 students and provides each group with a case study and corresponding guiding questions (e.g., *What would you do in this situation? How did this challenge your existing knowledge on the topic? What data can you find to support or refute case findings?*). Instructor determines a time period to answer and discuss all case questions. Students are tasked with developing and posting a timeline to complete all requirements. Students work together to analyze the case or problem, using the discussion forum to write notes, post audio responses, or chat with one another about the issue. The instructor reviews the discussion forum contributions and provides formative assessment as students work through their case study or problem before students submit their final analysis for final assessment.
2. Instructor designs a case study task where each student is assigned an individual case to analyze, yet students are organized into smaller studio groups (3-5 students) in which cases have a connecting issue, theme, or concept. The instructor posts weekly open-ended questions for individual responses, and facilitates knowledge building by highlighting connections between studio group members, encouraging cross-case discussion and comparison. The discussion forum is used as one assessment, with a final case presentation to the whole class as a second.
3. Instructor assigns students to post problem-based prompts relevant to their experiences or course content. In responses, students must propose at least one solution, and compare advantages and disadvantages of each other's posted solutions. Instructor notices students are focusing more on the advantages and disadvantages, and connections to course content and learning objectives is limited. Instructor revises the task to require students to connect their solution to course material to re-direct the conversation to a more academic focus.
4. Instructor assigns content that illustrates contrasting perspectives on a topic. Following the parliamentary debate format, students are divided into teams and carry out an asynchronous debate. The instructor posts submission deadlines, which are to be in video format. Responses

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must be evidence-based and persuasive. A second workspace is assigned for team planning, resource sharing and collaboration. The instructor monitors this space and provides resources and suggestions, using this as formative assessment and feedback. Students from other debate groups provide comments, and using a rubric provide peer feedback. As part of the final grade, the video debate submissions are assessed by the instructor.

5. Instructor posts an idea, solution, theory, or concept that relates to course learning objectives. Students are tasked with assuming the role of a “critical friend,” to identify weaknesses or gaps. Students must cite evidence or reasoning for their position from course readings and additional resources. Instructor does not post weekly, rather when it is noticed the thread has been exhausted and a new prompt is required.

Related Literature:

Seethamraju, R. (2014). Effectiveness of using online discussion forum for case study analysis. *Education Research International*, 2014, 1–10. <https://doi.org/10.1155/2014/589860>

Course Delivery Approach #3: Integration of Participatory Tools

In this design, the instructor either substitutes the LMS discussion forum for a different shared digital space or adds a participatory technology as an additional method to build knowledge. This approach can be combined with other scenarios presented in this document.

Benefits:

- Fosters collaborative learning
- Automatic cloud saving
- Fosters critical thinking and collaboration skills
- Students have greater control of their learning environment

The Challenges:

- Students and/or instructor could lack familiarity with alternative tools
- Limited engagement can be discouraging
- Fear of publicly sharing information
- Updates or technical issues with a platform that is not institutionally provided/supported could impact use in the course

Potential Scenarios:

1. Instructor creates a digital sticky-note board using a free Web 2.0 platform (e.g., Google Jamboard, Padlet) where students can share ideas asynchronously. Privacy settings are reviewed to ensure the link is private. The instructor creates an initial sticky note providing post requirements and the initial response prompt. This includes guidelines addressing appropriate digital citizenship and scholarly input in a community of inquiry. The link is shared through email for student access and posted in the LMS. Along with their own post, students can view and comment on peer contributions. With 30 students, the instructor quickly notices more space is needed, so the class needs to be divided into smaller group to use the shared space. By random selection, an adjustment is made, and 15 students are shifted to a different collaboration space.
2. Instructor requires students to create a blog on a common platform and share their weblink with the class (e.g., Word Press, Blogger). At the beginning of the course, the instructor provides an overview of how to log in and publish content. The instructor also shows students how to hyperlink and add video or audio content. Throughout the course, students are required to publish five posts that respond to instructor prompts and connect to course materials. Prompts are not posted weekly, rather when it is noticed the thread has been exhausted and a new prompt is required. Students are required to respond to peers using the comment feature or can send an email to peers if they prefer not to post publicly.
3. A Twitter hashtag is shared with students. The instructor directs students to post one tweet each week sharing their most significant takeaway. Students are encouraged to attach a connecting image. The instructor is able to search for student tweets by searching the hashtag, but must also be conscious that the hashtag is public, and Twitter users from outside the class may also appear in search results. If a student is not comfortable using the social media platform, the tweet and corresponding media can be emailed directly to the instructor.

Course Delivery Approach #4: Design Interactive Text

In this model, students access a digital file and add contributions, providing a contextualized and focused discussion on learning materials. Discussions become anchored within specific content. This can be completed through text, video, audio or image. Once contributions are complete, the file can be shared for additional contributions or reflections. The digital file can be designed to be completed individually or as a group.

Benefits:

- Fosters collaborative learning
- Opportunities to engage in formative assessment
- Allows for in-depth and focused discussions on specific readings

The Challenges:

- Communication in different mediums
- Synthesis of ideas across readings can provide challenge
- Consider reliability of technology
- Prepare and set expectations for students to work in teams

Potential Scenarios:

1. Instructor designs the discussion forum in two-week cycles. In the first week, students produce a graphic organizer highlighting their learning and questions from the week. Students have choice, such as a mind map, Venn diagram, t-chart, or sketchbook page. In the second week, students are tasked with answering each other's questions and adding, in a different colour, to their graphic organizers what they found on their peers' responses. Students reference one another in their additions as well as original sources to ensure academic integrity.
2. Instructor divides students into small groups and posts an article or course reading for each group in a shareable word or Google Doc format. Students annotate the article using the commenting features of word or Google docs. The instructor responds to comments and provides prompts to extend thinking. Several students resolve comment threads, resulting in the knowledge building process being deleted. The instructor restores an earlier version of the document to have comment threads re-appear, but some collaboration is lost in the transition.
3. Instructors creates a Google Slides template and shares it on the course LMS. Privacy settings are restricted so only users added to the slide deck can access. The template includes a topic page, instructions, and a slide of prompts based on course content for students to answer. Students duplicate the slide and insert their responses. If they require more space, a separate file – text, video or audio – can be inserted. Because the slide deck is an interactive notebook, each student has his/her/their own slide, but can see and comment on others' contributions.

Related Literature:

- Gao, F., Zhang, T., & Franklin, T. (2013). Designing asynchronous online discussion environments: Recent progress and possible future directions. *British Journal of Educational Technology*, 44(3), 469–483. <https://doi.org/10.1111/j.1467-8535.2012.01330.x>
- Lieberman, M. (2019, March 27) Discussion boards: Valuable? Overused? Discuss. *Inside Higher Ed*. <https://www.insidehighered.com/digital-learning/article/2019/03/27/new-approaches-discussion-boards-aim-dynamic-online-learning>

Course Delivery Approach #5: Student-Led Discussion Forums

In this model, students are tasked to lead course discussions for a length of time determined by the instructor and for assigned readings/content. During these student-led discussions, the instructor maintains a minimal facilitative role as students work to co-construct knowledge and engage in metacognition with peers.

The Benefits:

- Fosters collaborative learning
- Opportunities to engage in formative assessment
- Students can choose their facilitation strategy
- Peer facilitation can increase student cognitive presence

The Challenges:

- Prepare and set expectations for students to work in teams
- Provide ongoing teamwork support
- Model how to moderate a discussion thread as students may have minimal experience leading online discussions.
- May work better in contexts where students are critically analyzing content

Potential Scenarios:

1. Instructor provides the option to schedule a live session for 3-5 students. A set time frame is communicated (e.g., 30 minutes). Prior to the session, students are required to read the text and formulate one question to encourage peer discussion. During the live session, questions are discussed. The live session is recorded and posted to the LMS, which becomes their post for the week. All students must prepare responses to two peer posts.
2. Instructor organizes the class into small studio groups of 4 students. Every week, the students take turns leading the discussion with clear guidelines on how to facilitate discussion. The schedule is determined in the first week of class. The leader is responsible for posting a discussion question and moderating the responses. The instructor monitors the discussion and provides support when required. At the end of the week, the discussion leader writes or records a one-paragraph reflection.
3. In the course syllabus, the instructor provides a bi-weekly topic list as well as guidelines for student-led discussions including expectations. Specific directions include reading content in advance of assigned weeks, introducing discussion topics, posing discussion questions, encouraging participation, and summarizing discussion highlights in two paragraphs. In the first week of class, students are directed to email the instructor their first, second, and third choices to facilitate. Students who do not email by the required date are assigned at random. The instructor organizes and distributes a schedule both through the course LMS and by email. In the second and third weeks of the course, the instructor leads online discussions, providing a model for students to follow.
4. Instructor divides students into podcasting groups and provides information on the topics to discuss, co-create podcast expectations with students, and deadlines for episodes. Students can work in their groups to record podcasts through their chosen platform (e.g., Zoom, Garageband) and then save the audio file for submission to the instructor and/or posting in the discussion forum to share with peers. All students could be asked to prepare responses 1-2 posts.

Related Literature:

- Baran, Evrim & Correia, Ana-Paula. (2009). Student-led facilitation strategies in online discussions. *Distance Education*, 30. 339-361. DOI: [10.1080/01587910903236510](https://doi.org/10.1080/01587910903236510)
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