

Encouraging Online Collaboration

Learnovate has compiled a series of guides to support Higher and Further Education lecturers and tutors. The purpose is to provide support in these challenging times to those providing teaching and assessment activities to their students through the use of digital tools and technologies.

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This report was created by Learnovate at Trinity College Dublin.

1. Context

In light of the recent COVID-19 global pandemic there has been an urgent need to move higher education teaching and learning online. Lecturers have been at varying levels of comfort with this requirement. As a leading learning technologies research centre, Learnovate has compiled a series of guides to support lecturers and tutors. The purpose is to quickly provide support to those providing teaching and assessment activities to their students through the use of digital tools and technologies. Learnovate may well follow these publications with more comprehensive resources in the future.

Learnovate, hosted by Trinity College Dublin, is an industry-led centre of excellence for research and innovation in learning technologies.

Learnovate boasts a multidisciplinary team of specialist researchers in learning sciences, computer science, user experience and user-interface design – as well as industry experts at the forefront of e-learning and EdTech innovation.

1.1. Online Collaboration

Collaborative Learning activities, synchronous and asynchronous, can be facilitated in an online environment, with a variety of tools available to educators. While the tools and technologies exist to facilitate collaborative learning, as with all approaches to learning and learning design, it is important to identify and define clearly the collaborative activities before addressing *how* to introduce that online approach. The same careful consideration that we would apply to the selection of collaborative techniques for our face to face teaching still needs to be applied when choosing appropriate online mechanisms. We shouldn't simply be led by the tool/technology that is most readily available to us.

We hope you will find this information useful.

For any further queries, please do not hesitate to contact us at Learnovate.

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2. What is it?

Collaborative learning involves learning with others.

It has been defined as an instructional method where students work together in small groups to pursue a common goal (Prince, 2004).

It should be distinguished from co-operative learning where people are adjusting their actions so that each person achieves their individual goals, whereas collaboration is about actions being adjusted in order to achieve a shared goal.

Although the student and instructor remain, there are some significant differences between the traditional classroom and the Online Learning Environments (OLEs) that require a different approach to learning design.

With this in mind, the aim of this paper is to offer guidelines on the effective use of Collaborative Learning in OLEs.

3. What it does

Collaboration has been shown to be beneficial to learning in a number of ways.

Palloff and Pratt (2005) found the following specific pedagogic benefits of collaborative learning:

- Development of critical thinking skills,
- Co-creation of knowledge and meaning,
- Reflection,
- Transformative learning.

In addition, skills gained from the experience of collaborative learning (such as sharing ideas, voicing opinions and teamwork) are highly transferable to team-based work environments.

Thus, Collaborative Learning promotes the following positive outcomes: active learning (aligning it with constructivist learning theory); the co-construction of knowledge; the simulation of real world/workplace requirements; social interaction and a learning community; and a sense of belonging (Haythornthwaite, 2019).

Collaborative Learning can come in many forms (Haythornthwaite, 2019).

Depending on the subject matter, the collaborative efforts of students might involve coordination where individual pieces of work are later assembled into a whole group artefact or they may be tasked with actively collaborating on joint work and building on their learning. As part of a Collaborative Learning task, students can be asked to apply existing knowledge or construct new knowledge.

However, implementing Collaborative Learning in OLEs is not without its challenges.

Simply asking two or more students to work together on the same task is not a guarantee for true collaboration. For collaboration, group members must actively communicate and interact with each other with the intention of establishing a common focus and achieving a common goal (Kirschner, Paas and Kirschner, 2009).

Online learners can view participation in Collaborative Learning as an impediment to their progress and often show reluctance or at best tolerate collaborative learning projects. Students may have reservations about their ability to work as part of a group and a particular effort should be made to address this issue (Harasim *et al.*, 1998).

In contrast to traditional learning environments, online learning requires learners to be confident in performing Internet-related actions and be willing and able to self-manage their learning process.

It has also been highlighted that putting in place Collaborative Learning in OLEs can be a lot more time-consuming than simply designing assignments and projects for individual students (Haythornthwaite, 2019). Haythornthwaite identifies building trust and an online community as two of the biggest, most time-consuming challenges in online Collaborative Learning.

4. Why for digital?

Collaborative Learning can help foster three of the key elements in effective online learning: social presence, cognitive presence, and teaching presence.

Social presence reflects the ability to connect with members of a community of learners on a personal level. Cognitive presence is the process of constructing meaning through collaborative inquiry. Finally, teaching presence is the crucial integrating force that structures and leads the educational process in a constructive, collaborative and sustained manner. Today's technology and the digital savvy of contemporary higher ed. students allows for these three elements to be continued online.

Social presence, cognitive presence, and teaching presence are the three elements of a “community of inquiry” that can form the basis of the collaborative learning process.

In this way, Collaborative Learning helps build the very skills that students require to thrive in OLEs.

Collaborative Learning activities encourage students to be more active learners and not just passive learners. It has been shown that when students take a more active role, the learning is more effective.

5. Best practices

Before implementing Collaborative Learning, make students aware of the collaborative process, including the need to get to know others, create common goals, and establish their own communication practices. As part of this, students should be provided with learning resources on collaborative online skills such as managing online group meetings or organising topics in a discussion or chat tool.

According to Harasim (2012), for online collaborative learning there exist three phases of knowledge construction through discourse in a group:

- Idea generating: the brainstorming phase, where divergent thoughts are gathered
- Idea organizing: the phase where ideas are compared, analyzed and categorized through discussion and argument
- Intellectual convergence: the phase where intellectual synthesis and consensus occurs, including agreeing to disagree, usually through an assignment, essay, or other joint piece of work.

Harasim believes that the teacher or lecturer is critical to this knowledge construction, not only through facilitating the process and providing resources to the group, but also through ensuring that the core concepts and practices of the subject domain are fully integrated.

Welcoming students to the online environment is an important element of the experience; make sure they feel comfortable with the technology and ask them to share information and tips where relevant. This helps with developing a more collaborative environment and a friendly online space of sharing.

The following are some guidelines on designing collaborative learning activities:

On the task:

- Establish clear goals and objectives to save time and avoid ambiguity.
- Use real-world everyday problems when defining tasks to build engagement on the task.

- Focus on tasks that promote problem-solving and critical-thinking skills, where steps are clear: identify the objective, set criterias, gather data, generate options, evaluate options, reach a decision and implement that decision.
- Consider separating the assignment into subtasks and different group members with same topic discussion ideas between groups, those who will become experts on the matter.
- Use of varied learning scenarios such as brainstorming debates, collaborative writing projects and problem-solving.

On the team:

- Initiate with screening individual writing tasks to assess group capacity and different grades.
- Define groups midsize to 4-5 members to create diversity and avoid non-participant members.
- Apply diversity and demographics when selecting the team members, considering talents, backgrounds, experiences. Rotate groups in further activities regarding member performance.
- Define roles and tasks for maintaining the group interactions healthy: discussion rules, clarifying points, summarizing, reaching consensus, etc.
- Consider assigning rotative group roles for team members.

On the implementation:

- Foster respect and appreciation of everyone's viewpoints, value of different perspectives. Initiate with giving examples of how collaborative approaches successfully solved real-world problems through history.
- Establish flexible group norms to increase interactivity and avoid rigidity
- Start as a facilitator of direction and advisor, leaving the responsibility falling increasingly on the students side progressively.
- Perform as moderator when proceeding to next phases of the activity, when discussion of options, for example, is required.
- Monitor the on-going collaborative products and give advice as required. Define periodic reviews and schedule team meetings.
- Promote open communication to build trust and avoid emotional issues and interpersonal problems.

Source: <https://www.teachthought.com/pedagogy/20-collaborative-learning-tips-and-strategies/>

6. Tools to help

The following is a list of tools that could be used for online collaborative learning:

| Tool | Use | Comments |
|-------------------------|---|--|
| Blackboard Learn | Live Video Tutorials, Assessment | Functions such as voting in groups can be used during live tutorials. Online workbooks, e-portfolios as well as quizzing and MCQs can be used for group assignments or assessments. |
| Zoom | Live Video Tutorials, Group Discussions | Zoom allows for “break-out” rooms where groups can be sent to discuss a topic before returning to the plenary. |
| Padlet | Content Sharing | Padlet allows for quick and easy sharing of content during collaborative projects. |
| Slack | Communication | A very simple and easy-to-use tool in which communication can be organised by topic stream (or channel as it is called in Slack). |
| Trello | Project Management | Trello is an Agile PM tool that allows small or big collaborative projects to be easily managed. |
| Mural | Whiteboarding | An easy-to-use online collaborative whiteboarding tool. Best for small groups – maximum 10. |
| Blogger | Content Sharing | Allows groups to write collaborative blogs. |
| Google Suite | Document Sharing, Group Discussions | Google Drive, Docs and Spreadsheet offer an easy way to share files and work on documents collaboratively. Hangouts could be used for online group discussions. |
| Google Sites | Content Sharing | Google Sites allows groups to set up collaborative wikis. |
| Microsoft Teams | Live Video Tutorials, Communication, Document Sharing | MS Teams offers a fully integrated collaborative platform with a wide range of functionality. |

7. References

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