Five key factors for improving team learning in distance education

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Montse Guitert, researcher at the UOC, is the main author of this study Credit: UOC

Distance studying and working is on the rise and, especially now with the constant threat of lockdown, learning how to master it more pressing than ever. A team of researchers from the Research Group in Education and ICT (EDUL@B) at the Universitat Oberta de Catalunya (UOC), led by Montse Guitert, has conducted a study to improve collaborative learning online and has redesigned an online course that overcomes the principal challenges.

The data gathered in the *American Journal of Distance Education* show the success of the app and validate the design using qualitative and quantitative methods. The researchers emphasize the key elements in fostering cooperation among students and conclude that the five factors can be extrapolated to other learning contexts in distance higher education.

Fears overcome

There are few who doubt the advantages of cooperative work on projects in on-site environments. However, when this type of learning is done online, obstacles appear. These include teachers' lack of confidence in the system, students' resistance to collaborative learning techniques, and plagiarism.

Educationalist Montse Guitert, who co-authored the paper together with Teresa Romeu and Marc Romero, also from EDUL@B, explained that "more than ever, students have to learn to work as a team online completely asynchronously, which are key elements for professionals in the digital society."

Guitert added: "As the first online university and with 25 years' experience in distance education, the UOC had already designed a course so that students could acquire digital skills in an integrated way as a team, and it has steadily evolved over the years. Taking into account that around 100,000 students have studied on it, we have now conducted research to especially improve the experience of collaborative learning in online environments."

The researchers have redesigned the compulsory course in ICT Skills, studied by an average of 3,500 students a year in one semester, divided over 22 very diverse programs at the University, such as computer engineering, law and humanities.

The five key elements, improved

The course offers students the strategies to plan individual and group tasks and "successfully cooperate" in an online environment on the basis of a project that motivates them to learn while they acquire digital competence.The key elements that they detect are:

1. STUDENT-FOCUSED AND ACTIVE. The course has to be student-focused and foster their active role in each of the phases. Students feel freer to experiment, research and learn for themselves, making this focus a suitable methodology for higher education.
2. STRUCTURED IN PHASES. The course is structured in phases, which include a series of task- and/or challenge-based activities and their link with cooperative work. It is a model that requires a high degree of cooperation between the students throughout almost the entire process.
3. MULTI-FORMAT. The learning resources, which support the progress of the activities through the different phases, are designed to be consistent with the course skills and evolve to

meet the students' needs. The resources are in different formats (text, website, and video) to promote motivation and learning with different technological devices.

4. 360 ASSESSMENT. Assessment is continuous and linked to the group dynamic. It includes individual assessment, group reflection in every phase, self-assessment of the individual contribution to the group tasks, assessment of classmates' contributions with a peer assessment activity and global course assessment. The study concludes that 85% of students are satisfied with the continuous assessment model. According to Guitert, "we see that it leads them to reflect and allows them to be aware of the impact of their own work within the group." The students also value the improvement of the group dynamic as one of the most important benefits. In the words of one student, "at first, I didn't want to rate my classmates, but I realized that it helped us improve our own participation in the group."These assessments focus on the results and the processes and are carried out in the group spaces and the online classroom.
5. PROACTIVE ONLINE PROFESSOR. The role of the teacher is fundamental in the application of the methodology. Guitert claimed that "more than ever, teaching presence is key not only during the design of the activities, but also in the continuous monitoring of the groups' process and their assessment." A series of digital tools help to monitor the students (learning analytics using collaborative tools that leave a record), and detect plagiarism.

With the new design of online collaborative project-based learning, 77.4% of students passed the course, a figure that is notably higher than that of other first-year courses, which have an average pass rate of 66.8%. In addition, 90% of students say that they have acquired a high level of skill in online teamwork. In the anonymous control survey, one of the course participants replied that "with the multi-format resources,

the methodology by phases and the 360-degree assessment, I've learnt to cooperate very positively with my teammates. In fact, I've learnt to study online."

The five elements are transferable to other online training initiatives in higher education. Guitert concluded by saying "this research can enrich any training action based on projects or complex activities, where the students have to acquire different abilities in an integrated way, especially cross-disciplinary and instrumental skills."

More information: , Elementos clave para un modelo de aprendizaje basado en proyectos colaborativos online (ABPCL) en la Educación Superior, *American Journal of Distance Education* (2020). DOI: 10.1080/08923647.2020.1805225

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