



hybot Enhancing hybrid teaching in higher education through chatbots

Building a sustainable Hybrid Learning environment in Cognitive Ergonomics at the University of Genoa



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INTRODUCTION

The University of Genoa allowed 50% of their students to come back to the classroom and kept the other half online. Although this was a challenge for the teachers involved, some of them agreed that hybrid teaching could be sustained even after the restrictions were lifted.

GENERAL CONTEXT OF THE HYBRID TEACHING PRACTICE

- Implementer: University of Genoa (Genoa, Italy)
- Faculty: Cognitive Ergonomics
- Course: Digital Humanities (Master degree)
- Lifetime: September 2021 February 2022
- Reference: Based on an interview with Professor Fabrizio Bracco
- Compiled and structured by Université Côte d'Azur

PARTICIPANTS AND THEIR PREVIOUS EXPERIENCE

This hybrid teaching practice was carried out at University of Genoa (UNIGE) in the context of a full-time Master's degree in Digital Humanities within the field of Engineering and Humanities.

The practice started in the beginning of September 2021. There were 37 students enrolled, however, there was a physical attendance of seven students and eight or ten online. Most of the students were Italian, and no special needs were reported in particular with the exception of some students who declared to have dyslexia posterior to the planning of the methodology.

Most of the teachers' experience in this field was acquired during the pandemic and lockdown due to COVID-19. The interviewee in question was a faculty development vice-rector who conducted seminars in teaching innovation and now in hybrid teaching. It was stated by the interviewee that most teachers had a positive perception of hybrid teaching as long as there was enough preparation.

INITIAL SITUATION

The main reason for implementing hybrid teaching were the restrictions caused by COVID-19. The directives from the university was to not force students to take the vaccination or transportation to attend on-site lessons.

CURRENT REASON FOR HYBRID TEACHING

The reason to follow a hybrid course format was due to the pandemic restriction of classroom teaching in the second year of the pandemic. Due to experience and perspective,





there was not an initial consensus to use hybrid teaching. According to the interviewee, there was resistance from some teachers to hybrid teaching since there had not been previous preparation. Training was needed but the general feeling was that teachers were forced to comply with directions of the institution.

OBJECTIVES OF THE PRACTICE

The main goal pursued by teachers while introducing hybrid teaching scenario was to engage the highest number of students and not leave anyone behind in their studies. According to the Italian law at that moment, classrooms were only allowed to operate at 50 percent capacity. The course's goals remained as usual. The teacher stated that there was no adaptation to the regular learning outcomes.

HYBRID TEACHING SCENARIO

For every regular lesson students could attend synchronous courses, which the teacher conducted with a part of the students on site at the regular learning locations. Other students were not physically present and participate synchronously via video stream or digital tools. Also, students could attend synchronous or asynchronous courses, the course took place in parts at the regular learning locations and was implemented digitally in parts.

INTERACTION

Students and teachers interacted with each other synchronously and/or asynchronously, depending on the setting. Furthermore, there was an increase in work done on the LMS, which allowed students to have easy access to past, current, and future content.

The students and teacher interacted through Microsoft Teams and on the LMS Moodle in both ways, asynchronously and synchronously. There were groups dedicated to specific tasks on Microsoft Teams and on Moodle. Microsoft Teams was used to make announcements and stay constantly in touch with the teacher and among students. Wooclap (an interactive digital platform to create polls and questionnaires) was deployed to obtain instant answers from both online and onsite students at a micro-level at any moment. In this master program, there was a declaration of disabilities available so that educators could act upon individual needs, but there were no reports submitted by students. At this point, no tools or strategies of inclusive or diverse education were used.

SOFTWARE AND HARDWARE USED

The rooms in which the hybrid teaching practice was carried out were equipped with two or three computers, webcams, microphones and speakers. The educators used Microsoft Teams for video conferencing and asynchronous communications, Wooclap for class interaction, and Moodle as the main LMS where the digital content was placed. The contents





comprised videos, lesson recordings, images, pdfs, slides, papers, links, and H5P activities. No chatbots were used and there was no previous experience on hybrid teaching.

ASSESSMENT

The assessment strategy remained the same and included the formative and summative assessment. During the course, two assessments were implemented, one connected to assignments and the other to formal content evaluations. The final assessment combined an oral exam with a course project.

Assessment feedback was partly done in person and partly online. However, given the fact that feedback sessions tended to be short, the online assessment was preferred by students. The assessment criteria were written on the LMS and discussed on Teams. The rubrics for the exams and projects were also uploaded to Moodle.

STUDENT EVALUATION

The students, especially those who lived far from the university during lockdown, in general appreciated the implementation of hybrid teaching. Other students declared that they appreciated saving money from transportation. On the other hand, on-site students complained about interaction between them and online students. Sometimes, the communication between on-site and online students was challenging due to individual network quality.

TEACHER EVALUATION

The teacher mentioned that the flipped classroom approach was optimal and compatible with hybrid teaching. It has also been evidenced by other teachers of the university that hybrid teaching was manageable with the appropriate number of students. If there were too many students, the implementation of hybrid scenarios became more difficult in terms of online students' engagement who became absent. The teacher actively fostered interaction but students found it hard to collaborate in hybrid settings. Among the factors that hampered the interaction, the following were mentioned by the interviewed teacher:

- privacy issues, for example, turning on the camera;
- some subjects might be not suitable for hybrid teaching, even if the effort was done to adapt content that was normally seen on site to the online context;
- sound problems that caused the interruptions.

The teacher emphasized that keeping the regular content workload might be overwhelming for the asynchronous stages of studies. Therefore, the teachers agreed upon the reduction of the course contents.





QUALITY ASSURANCE

From an institutional point of view, transversal meetings with other teachers were the default mechanism to exchange ideas regarding hybrid teaching practices. Each teacher held feedback sessions with their students within their lessons to listen to their suggestions. Additional teacher-students online or on site meetings and tutorships were offered in case that a student struggled with the dynamic of hybrid teaching.

TRANSFERABILITY AND SUSTAINABILITY

Although HT is not institutionally mandatory or set as the main approach and that it is uncertain that any policy can guarantee future implementation in this practice, the interviewed teacher declared that the practice itself seemed appropriate for tutorships, feedback sessions, and master lectures. This brought up the question of whether HT can be used as a sustainable methodology all year long regardless of the restrictions for mesolevel course curriculum or module planning. In general, the interviewed teacher declared that the advantages that HT brought to the classroom should not be ignored and perhaps the university should consider giving the liberty to teachers to implement a partial and sustainable HT practice.

HIGHLIGHTS

In general, hybrid teaching was broadly accepted after some time experiencing it firsthand. From the students' perspective, there were no complaints about the implementation of hybrid teaching. Though, due to their lack of experience, trying to follow the same workload was overwhelming since cooperative learning was not as easy as normally. Even though the students had each other's' contact information to work together, collaborative work needed to be re-planned. Therefore, individual work became the most common type of practice to avoid problems in contacting classmates.

STRENGTHS

During the feedback sessions students reported that it was beneficial for them to re-watch recordings as many times as needed to better understand a topic or assignment.

WEAKNESSES

Although the teacher provided plenty of time to complete assignments, a disadvantage he found was that hybrid teaching might foster procrastination.





GOOD PRACTICE ADVICES

- Engage students in active learning through, for instance, using Wooclap, real time interaction, small groups including online and onsite, flipped classroom;
- Avoid mono-directional class.