ADVANCING THROUGH INNOVATION



Social capital: A positive outcome of a COVID-19-induced dental course

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1 | PROBLEM

In 2020, the World Health Organisation recommended closure of universities due to COVID-19. Virtual learning platforms were adapted for didactic dental education. Although virtual learning is an effective alternative, creating a virtual course where cognitive development is underpinned by preclinical learning is challenging. However, could remote learning improve social capital through shared values and understanding between individuals engaged in remote learning context? This study describes the integration of educational technologies applied in a preclinical course (orthodontics) and examines mechanisms influencing social capital.

2 | SOLUTION

A constructively aligned 4-week online course was designed based on four principles of Instructional Systems Design through the FLIP model (flexible learning, intentional content, learning culture and professional education). It encouraged active learning in real-world scenarios, strengthened by teacher–student interactions (Figure 1). The aim was to provide a positive learning environment and develop social capital. Four modules were developed using blended learning strategies, with a learner-centred focus enabling active engagement, with asynchronous and synchronous learning. Asynchronous learning was self-paced independent study, followed by synchronise scheduled "real-time" facilitated discussion. Content included videos, problem-based scenarios and quizzes (Figure 2 – discipline flow).

The mixed method approach included all (24) undergraduate dentistry students enrolled in a preclinical orthodontic course at the State University of Rio de Janeiro, Brazil. The online questionnaire was followed by focus groups. The questionnaire included eight questions, comprising seven questions, measured on a five-point Likert scale (1, strongly disagree to 5, strongly agree). The final question related to perceptions of the course. Focus groups were conducted after each synchronised session. The aim of the survey was to understand student experiences of remote learning, gather feedback and continuously improve. The focus group aimed to gain insights into social capital.

3 | RESULT

All students contributed and engaged in all activities. Although students reported they experienced more anxiety (87.5%) and tiredness (58%) during the pandemic than before, they perceived the virtual course as an effective method to learn and helped in the learning process (92%). Note that 67% felt prepared for the future, although many (67%) had rarely experienced online learning. An unreliable Internet network connection was the most challenging aspect (42%).

The open-ended questions and focus groups revealed the online course provided a new experience of learning through the shared experience during COVID-19. The students reported that the course was engaging, promoted learning and was well organised with content specific and timely interactions. They also believed it built trust, mutual understanding of situations and support for learning.

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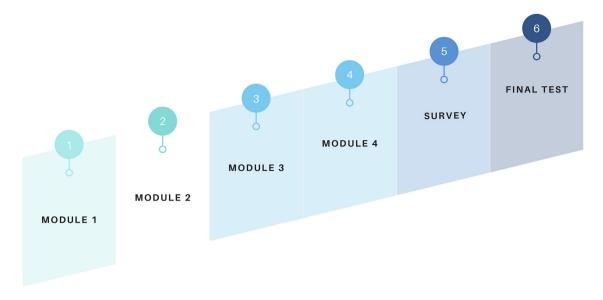


FIGURE 1 Course design

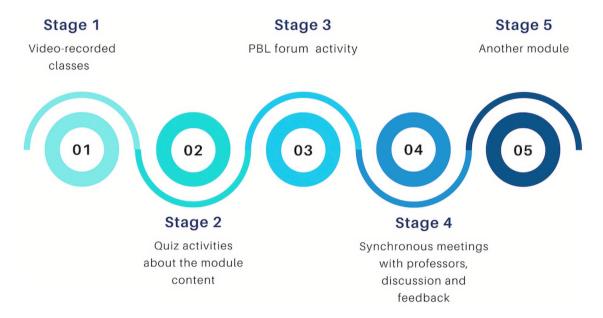


FIGURE 2 Course module design

4 | CONCLUSION

Despite the stressful situation induced by COVID-19, students had a positive learning experience that prepared them for future remote learning. The experience showed academics the value of developing social capital among dentistry students. Furthermore, social support showed to have an important role in the success of the course design. Therefore, it is recommended to explore opportunities to develop social capital, when designing dental courses.

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