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RESEARCH ARTICLE

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Virtual campus environments: A comparison between interactive H5P and traditional online activities in master teaching

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Abstract

Traditional face-to-face learning and teaching methodologies are currently being replaced or combined by virtual and digital campuses. In fact, a variety of online activities are available for virtual classrooms, becoming more interactive and creative teaching strategies. Among them, H5P is a free and open source platform that allows the creation of interactive content to be embedded in virtual campuses. This paper presents a comparison between traditional online and interactive H5P activities. The case study was carried out on the Wind Energy subject, within the MSc in Renewable Energies, assessing the impact on students and teachers through different indicators. The mean score of students who participated in the traditional online activity was 7.4/10, slightly lower than that of students who participated in the interactive H5P activity, which was 8.4/10. Actually, the statistical analysis showed that the proposed interactive H5P activity did not present a significant improvement on the average grade, in comparison to the traditional online activity. In terms of the students' perception, 75% found the interactive H5P activity easy to do, and 55% felt more motivated compared to traditional online activities. Moreover, teachers pointed out that the activity positively influenced students in terms of participation and motivation. These results confirm that the digital environment is here to stay, combined with other activities to fulfill all the skills and competences to be achieved.

KEYWORDS

e-learning, H5P, interactive activities, online learning, online teaching, virtual campus

1 | INTRODUCTION

Nowadays, information and communication technologies (ICTs) are considered as necessary for mostly all day-to-day activities [2]. In fact, ICTs are currently used to chat with friends, date, play games, pay bills, organize meetings, plan trips, shopping ..., and even learn [1, 42]. In parallel, the convergence of education and digital technology has resulted in the emergence of intelligent educational systems, benefitting both students and educators.

Abbreviations: GC, general competences; ICT, information and communication technologies; LMS, learning management systems; SC, specific competences; TC, transversal competences; VC, virtual campus.

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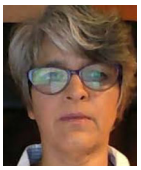

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