


Chapter 12


Distance Learning Tools in Health Sciences: A Training Course for Higher Education Faculty

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ABSTRACT

Higher education is rapidly shifting towards distance learning, particularly in health sciences. However, many educators feel unprepared for effective digital tool integration, leading to challenges in teaching quality. The COVID-19 pandemic highlighted this gap, emphasizing the need to equip teachers with both technical and pedagogical digital skills to create engaging learning environments. To address this, the “Technological Modernization in Health: Digital Tools for Distance Learning in Health Education” course was developed. This month-long program covered 5 essential modules and included both formative and summative assessments. Of the 32 participants, 25 successfully completed the course, demonstrating strong interest in utilizing digital resources. This initiative not only helps educators adapt but also drives pedagogical evolution. By enhancing educators' digital fluency, the program aims to democratize access to education, encourage new teaching approaches, and ultimately improve outcomes in health sciences.

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INTRODUCTION

In recent years, higher education has seen a significant transformation in how teaching and learning are provided. The need for change in training provision and educational practices on the part of Higher Education Institutions (HEIs) stems from current challenges on a global scale, such as the climate crisis and the sustainability of the planet, tensions between political blocs and divergent social interests, migratory movements and problems of social inclusion and cohesion, inequalities in access to education as a support for social and economic development, digitalization and the impact of technologies on production and the labour market, globalization of markets or transdisciplinarity (Almeida et al, 2022). In all these areas, higher education can take on a leading role in the research and innovation it ensures, as well as in the human and technical training of young people and people throughout their lives. However, we live in an age in which information is vast and easily accessible, questioning the traditional role of the educator as the depository of knowledge. The pedagogy of transformation challenges the traditional model of education, proposing teaching that not only diffuses knowledge, but also empowers students to transform the reality around them (Libâneo, 2001). Implementing this pedagogy requires methods that value students' experience and socio-cultural context, recognizing them as co-creators of knowledge. Indeed, the urgency of an educational transformation is unavoidable. Learning must go beyond the mere acquisition of fact-based knowledge, i.e. it must involve students in enriching experiences that foster skills such as collaboration, effective communication and the capacity for autonomous and continuous learning.

The integration of digital technologies into education represents one of the most significant transformations in the teaching and learning process in the 21st century. This evolution is not only a response to the widespread digitalisation of society, but also an opportunity to rethink pedagogical practices and promote a more interactive, collaborative, and learner-centred education. Marc Prensky, in *Digital Natives, Digital Immigrants* (2001), introduced an important distinction between students, who are born into and immersed in the digital age, and educators, who are often less familiar with digital technologies. This gap highlights the need to adapt teaching methods that capitalise on students' innate digital competencies. At the same time, James Paul Gee, in his work *What Video Games Have to Teach Us About Learning and Literacy* (2003), explores how video games can be used to foster complex cognitive skills, such as problem-solving and strategic thinking.

Indeed, digital technologies, from online learning platforms to augmented reality tools and educational video games, can be integrated into pedagogy to create rich, engaging, and personalised learning environments (Selwyn, 2016). However, it is imperative to reflect on the challenges associated with the digitalisation of education,

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