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Integrating Digital Technologies in Accounting Preservice Teacher Education:
A Case Study in Portugal

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ABSTRACT

The importance of developing technological skills at the undergraduate level to form better professionals is no longer questionable, assuming a particular role in subjects as accounting education. However, it appears that technologies are still weakly used in education and training. This article intends to analyse 1) how students' technological skill development can be promoted, 2) in what way the integration of digital technologies in the curriculum is managed, and 3) what influence teaching, assessment, and learning methods have in the development of generic skills, especially technological skills. It presents a case study in the Master's degree in Economics and Accounting Teaching that forms teachers to vocational secondary education in this area. A qualitative approach was used with the support of participant observation and a questionnaire to finalist students. The case study is based on the active teacher training model that promotes technological skills using teaching and assessment methods for active learning.

KEYWORDS

Accounting Education, Active Learning, Assessment, Curriculum, Didactics, Generic Skills, High Education, Preservice Teacher Education, Secondary Education, Teaching, Technological Skills

INTRODUCTION

The accounting literacy plays an increasingly important role in the training of qualified professionals at various areas and levels of education promoting the democratic participation of citizens (Karatzimas, 2020). However, there is still a lack of training at this level, particularly in Portugal. Hence the importance of studying this issue at the various levels of education and also with regard to teacher education (OECD, 2020; Rodrigues, 2020).

In accounting education, in addition to issues associated with values and ethics, it is also important to analyse issues related to generic skills, which include technological skills. Assuming that technical and scientific knowledge of accounting is ensured with rigour and quality, these skills complement the knowledge required by employers, which often not being adequately taught in accounting degree programs (Jackling & De Lange, 2009).

Following the COVID-19 pandemic, the importance of technological skills in education was further emphasised. As conventional schooling was interrupted by nation-wide school closures in most Organization for Economic Cooperation and Development (OECD) and partner countries. The impact on students that have had to rely on their own resources to continue learning remotely and in teachers to adapt to new pedagogical concepts and modes of teaching delivery, was significant (OECD,

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2020). Despite the negative impact of COVID-19 in several aspects in accounting Education, this may have been positive in creating opportunities to realign different learning and teaching strategies from traditional formats (Sangster et al., 2020).

Nowadays, the development of generic skills and the integration of technologies are an unavoidable reality both in education and organizations, and society in general (OECD, 2018). This technological transformation is required in the job market, for future accounting professionals, and should start in their education and training, and also in the education of preservice teachers.

In this sense, this study aims to analyse how the development of students' technological skills can be promoted through active teaching, assessment and learning methods, with the integration of digital technologies in the curriculum.

In addition to the literature review, a qualitative approach was used, supported by a case study, developed between 2017 and 2020 on a preservice teacher education program in Economics and Accounting in Portugal. The case study used was complemented with participant observation using a field diary and a questionnaire of finalist students performed in July 2020 (after the schools closed due to the COVID-19 pandemic) as data collection instruments.

Therefore, the objectives of this study are to analyse i) how the construction and development of students' technological skills are promoted, ii) in what way the integration of digital technologies in the curriculum is planned and managed, and iii) what influence the teaching, assessment and learning methods have, on the development of generic skills, especially technological skills.

In this empirical study, the International Education Standards for Professional Accountants were considered (International Education Standards, 2019) and it was based on the Active Teacher Training (ATT), in which the use of learner-centred teaching methods allows the development of students' generic skills (Rodrigues, 2020).

DEVELOPMENT OF GENERIC AND TECHNOLOGICAL SKILLS IN ACCOUNTING EDUCATION

The Accounting Education Field Accounting Education is a field of study that is still underdeveloped, with relatively few teachers with training in the pedagogical area and few publications in papers. There is some weakness in the available research, with gaps not covered in research, mainly in Portugal (Rodrigues, 2019).

According to the literature review carried out by Apostolou et al. (2013), there is a tendency to study unique cases with valid results only in this case, making it difficult to generalise the results. The importance of developing research about associated professional skills was mentioned, as well as critical thinking, for example, both in terms of the best ways to teach or learn these skills, and in relation to how these skills should be acquired or honed. The value of practical experiences and opportunities to interact with professionals was also confirmed, namely through professional internships, which are relevant to the construction and development of skills.

At this point, they highlighted the fact that students' learning can take place inside and outside the classroom, given the relevance assumed today by technologies and distance learning. Was also included the possibility of online learning assessment and the consistent study of the interaction between curriculum, technology, incentives for teachers and student motivation. As such, it will be essential to analyse how online teaching can affect and maximise learning and how the evolution of technology can lead accounting teachers to create better online content and identify the most appropriate ones.

In the subsequent literature review, Apostolou et al. (2015) recommend a review of the curricula, proposing the crossing with interdisciplinary or technical knowledge areas with development of skills and, also, that the technologies and online teaching are more exploited by accounting teachers using teaching-learning methods and the construction of more innovative teaching models.

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