The Impact of Learner Content and User Interface Design on E-Learning Quality:
Teaching in Times of Crises

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ABSTRACT

The purpose of the study reported on in this chapter is to investigate the impact of learner content and user interface design on improving e-learning quality and to harness the full potential of e-learning in Ghana at the basic school level. Against the background of cases on economics education and tools for educators, the main focus will be on the effective use of technologies, such as social media, movies, and TV shows, as well as, for example, music, team-based learning, think-pair-share, and other forms of active learning and computer-based learning in the classroom.

INTRODUCTION

This chapter provides a broad overview of the role of economics education in contemporary schooling, focusing on its prominence in the US curriculum. In many U.S. states, the significance of economics is underscored by its inclusion as a

graduation requirement or as an integral component of primary education. Yet, despite the subject's clear importance, educators often grapple with a lack of comprehensive resources to seamlessly incorporate economics into the classroom. The challenges of locating, validating, and integrating relevant materials can be daunting, especially when educators juggle multiple subjects. This chapter endeavors to simplify this task by collating essential teaching resources in this field.

Educational dynamics worldwide underwent a seismic shift due to the COVID-19 pandemic. UNESCO's 2020 report highlighted the magnitude of this impact, revealing that over 1.5 billion students across the globe were hindered from attending traditional classrooms. This disruption, affecting nearly 94% of the world's student population and hitting a staggering 99% in some lower-income countries (Goosen, 2008), prompted a swift pivot to technological solutions. The pandemic not only accentuated the value of technology in education (De Four-Babb, et al., 2022) but also accelerated the transition to virtual learning modalities (Demuyakor, 2021).

In these changing times, e-learning emerged as a robust and scalable alternative, capable of transcending geographical boundaries and serving diverse learners with relatively limited resources (Arkorful & Abaidoo, 2015). However, its adoption isn't without challenges. As highlighted by Weerathunga et al. (2021), student perceptions regarding e-learning vary widely, prompting the evolution of nuanced technology adoption theories. One of the critical pillars underpinning successful e-learning is interactivity. Gunesekera, et al. (2019) emphasized the importance of three central interactions in this domain: student-student, student-instructor, and student-content. These interactions, facilitated by Human-Computer Interaction (HCI) via user interfaces, are paramount for a smooth e-learning experience. Yet, the interconnection between student-content and the design of these interfaces, crucial for e-learning's efficacy, remains insufficiently explored.

While research on these interactions is sparse, especially in regions like Africa, the challenges and solutions might hold universal relevance. Developing countries, including Ghana, have confronted specific e-learning obstacles, from technological access to content creation (Maatuk et al., 2022). Insights from studies by Gherheş et al. (2021), Yakubu and Dasuki (2018), and Alhumaid et al. (2020) underscore the mounting reliance on e-learning and its pivotal role during crises like COVID-19.

This study, though rooted in the Ghanaian context, aims to uncover insights on the synergy between learner content and user interface design in e-learning that can be extrapolated and applied to classrooms worldwide, enhancing the global quality of virtual education.

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