


# Chapter 5

## Adaptive Learning Technologies for Higher Education: Exploring the Use of Interactive Online Learning Platforms for Higher Education

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### **ABSTRACT**

*The integration of adaptive learning technologies, particularly interactive online learning platforms, is transforming higher education to meet the demands of a digital age and socioeconomic challenges. These platforms foster active participation, critical thinking, and problem-solving skills, facilitating communication, collaboration, and information sharing across geographical boundaries. They enrich the learning experience, offering real-time interaction. E-learning platforms are notable for their adaptability and features, but challenges such as technological barriers and pedagogical concerns persist. The chapter discusses constructivism learning theory, focusing on interactive online learning platforms like Moodle, Google Classroom, Google Meet, Microsoft Teams, and Blackboard. It explores interactions, methods, challenges, and prospects, benefiting students, educators, researchers, business communities, and policymakers.*

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## **INTRODUCTION**

In the dynamic landscape of higher education, the incorporation of technology has transformed classical teaching methodologies (Smith, 2023; Alenezi, Saja, Wardat, Akour, 2023). A notable progression is the advent of interactive online learning platforms, which have rapidly gained popularity in academic circles. The platforms offer a comprehensive approach to education, which promote engagement, collaboration, and customised learning experiences. The integration of Interactive Online Learning Platforms (IOLP) presents a myriad of possibilities and obstacles for higher education institutions across the globe. These platforms satisfy the diverse needs of modern learners by boosting accessibility and encouraging active learning, while also facilitating innovative teaching practices.

Due to the increasing diversity of students in online learning environments, instructors must recognise and accommodate cultural differences through inclusive teaching practices (Sheridan & Gigliotti, 2023). According to research, connecting instructional materials with diversity-related learning goals promotes equality in learning outcomes for various student populations (Dawson, Kilgore, & Renee Rawcliffe, 2022). To optimise online learning for all students, a curriculum redesign approach incorporating Universal Design for Learning (UDL) principles, such as engagement, representation, and action/expression, is recommended (Sheridan, Gigliotti, 2023). Additionally, fostering online interaction, social presence, and self-regulation learning positively influences students' engagement, highlighting the significance of these factors in enhancing learning outcomes for diverse student populations. Through adopting culturally inclusive pedagogy, instructors can create equitable and engaging online learning experiences that cater to the diverse needs of all students in higher education. The online student's population is diverse, consisting of individuals who are predominantly employed, as well as younger learners who are adaptable and enthusiastic about technological advancements (Kumi-Yeboah, Dogbey, Yuan, & Smith, 2020; Kumi-Yeboah, 2018).

The chapter offers readers a comprehensive understanding of interactive online learning platforms, including their evolution, pedagogical underpinnings, features, and functionality. It also highlights effective practices and case studies that demonstrate successful implementations of interactive online learning platforms in higher education post Covid-19. Furthermore, the chapter address the challenges and considerations associated with the use of interactive online learning platforms. This will be achieved through the examination of interactive online learning by conducting a thorough analysis of their characteristics, advantages, and constraints; it aims to offer educators, administrators, and policymakers' valuable insights into leveraging the capabilities of these platforms to elevate teaching and learning outcomes.

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