


Chapter 6

Designing Adaptive Learning Space by Integrating Technology to a Sustainable Classroom

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Designing Adaptive Learning Space by Integrating Technology

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ABSTRACT

It is imperative to consider what adaptive and innovative learning spaces should include if higher education institutions want their students to be open to learning, creative thinkers and digitally literate. This chapter of the book starts with a review of sustainable learning spaces and continues with the introduction of technological developments (AI, IoT, Hybrid Education, VR, etc.) that transform traditional learning spaces into innovative spaces that better meet the needs of learners in terms of pedagogy, interaction, progress, measurement and assessment. Finally, the meta-classroom model, developed as a result of a project by authors from different disciplines such as educational technology, architecture, computer science, etc., is presented as an adaptive learning space model for higher education. This model prioritises diverse learning needs, takes into account the thermal comfort and indoor air quality of stakeholders in the classroom, enables lifelong learning and encourages learners' creative thinking and problem-solving skills in a collaborative learning environment.

INTRODUCTION

Innovative teaching methods, developing technology and the need for green campuses establish important reasons for redesigning old-fashioned learning spaces to provide quality education in higher education. Decision-makers can see building learning spaces as a redesign and construction process if they think only about the physical and manipulative parts of learning spaces. However, stakeholders using learning spaces are social and emotional beings, so evidence-based scientific research studies about learning spaces are quite necessary since they are limited

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