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VIRTUAL LEARNING ENVIRONMENTS IN EDUCATION

The aim of this study was to investigate effectiveness of virtual learning environments (VLEs) in terms of learning approach and outcomes.

There has always been a need to make learning resources more engaging and available on-line. Recently, various learning environments, which refer to systems that offer digitally-based solutions aimed at creating interactive and active learning environments, have been developed using such platforms as Active Worlds, Second Life, OpenSim, Traveler, Croquet, Adobe Atmosphere, and There [2]. The most commonly used examples of VLEs include Moodle and Blackboard.

Extending the space of the physical learning environment VLEs enhance existing educational practices and can be identified by the following features:

- 1) It is a designed information space.
- 2) It is a social space (educational interactions occur in the environment, turning spaces into places).
- 3) The virtual space is explicitly represented (the representation of this information/social space can vary from text to 3D immersive worlds).
- 4) Learners are not only active, but also actors (they co-construct the virtual space).
- 5) It is not restricted to distance education (it can also enrich classroom activities).
- 6) It integrates heterogeneous technologies and multiple pedagogical approaches.
- 7) Most virtual environments overlap with physical environments [1].

First developed for the purposes of entertainment and gaming, at present, these platforms also allow users to design interactive environments with the content they want, to view a given problem from different perspectives and can include virtual activities that are difficult to practice safely in real life, access virtual contents simultaneously, share information, receive multifaceted feedback, and conduct activities by interacting with objects and individuals from different locations.

There are different types of VLEs, which all perform the same function and can deliver the same learning materials. These integrated distance learning platforms can incorporate different learning tools that are external to the classroom experience (such as course materials, homework, tests, and assessments) and may also include social media tools that allow learners and educators to interact via chat or online discussion boards [4].

At the same time, while virtual worlds have many affordances to support applying different learning strategies, they also have some obstacles. For example,

Ho et al. (2009), in their study proved that role-playing approach was not well applied in virtual worlds since learners could not demonstrate their mimics and physical movements [3].

Additionally, though some international standards are aimed at facilitating the sharing of content between VLEs, it is not always organized in exactly the same way by each different VLE type. Thus, using VLEs does not guarantee effectiveness by itself, but must integrate with numerous learning strategies, which in their turn must profit from various facilitating features of VLEs.

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