

A Proposed Framework for integrating IVR Technology in Architectural Design courses; Application on architectural schools in Egypt

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Abstract. Visual communication has a vital role in the architecture. Virtual reality (VR) is one of the various methods of visual communication and interaction, especially during pandemics. Although it has many benefits such as improved space perception and dimension visualization etc., it's not commonly used in Egyptian architectural schools. This research aims to investigate the integration of Immersive Virtual Reality (IVR) into the design curriculums in Egyptian architectural schools and to propose a framework for its integration. A mixed method approach was used in this study along with the literature data that was reviewed to identify the benefits, limitations and different IVR setups. First, an interview was conducted with one of the VRCAVE founders in an Egyptian private university to understand the effect of IVR and whether it has affected the students' outcome. This was followed by conducting an experiment including an IVR setup along with a 3D Virtual model, to conduct semi-structured interview with the participants to analyse the use of IVR in the design modules and whether its integration in the architecture schools design curriculum would be beneficial.

Keywords: Immersive Virtual Reality (IVR); Architectural Design education; VR in architecture; Architectural Design curriculum; Virtual reality; VR framework.

