

Effectiveness of Kinect-Based Application in Gamification Approach for Preschooler: Case Study in Taska Permata Perpaduan, Kuantan, Pahang, Malaysia.

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ABSTRACT

The infusion of technology in education has become best practice to motivate student engagement as well as enhancing student performance in learning. Gamification approach is one of teaching strategy where use game elements in education which involves multi-sensory that help learner improves their understanding better and enhances the desires to learn. The multi-sensory involved are visual, auditory and kinesthetic. However, there are less number of tools or applications used in preschool which, applied for kinesthetic learners. It may lead towards underachievement outcome, such as low grade, slow learner and frustrated teacher. Thus, the Kinect - based application is proposed to be developed as a platform for teaching strategy which can be applied to different styles of learning. This paper aims to study about the effectiveness of Kinect-based application of the gamification approach for the preschooler in Kuantan. This paper aims to study about the effectiveness of Kinect-based application of the gamification approach for the preschooler in Kuantan. This paper aims to study about the effectiveness of Kinect-based application of the gamification approach for the preschooler in Kuantan. In this study, a mixed method research design is carried out to the 15 preschoolers who aged three and four years old in Taska Permata Perpaduan Kuantan, Malaysia, in order to validate the effectiveness of Kinect-based application of gamification approach. The quantitative part of this research is conducting a controlled experiment and a survey to preschool teachers. Meanwhile, the qualitative part of this research was based on the semi-structured interview session with the preschool teacher and a participant observation is conducted to student engagement. Based on the experiment result, it shows that the total number of preschoolers that increase after using Kinect-based application is high, at 73.3%. Hence, it proves that preschoolers are motivated to learn and improve their learning outcomes using gamification approach.

Keywords: Gamification; Kinect; preschooler teaching strategy; Multimedia; Computer Assisted Instruction.