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Sustainable Business, Environment & Society



[icar2023@kuptm.edu.my](mailto:icar2023@kuptm.edu.my)

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ARSHAD AYUB  
GRADUATE BUSINESS SCHOOL



## **EDUCATIONAL-ADVENTURE VIRTUAL REALITY GAME DEVELOPMENT USING UNREAL ENGINE 5 FOR ISLAMIC STUDIES: A CONCEPTUAL FRAMEWORK**

*<sup>1</sup>Muhammad Iqbal bin M Mohamed Hanifa <sup>1</sup>Dr. Ahmad Airuddin <sup>2</sup>Mohd Noor Azman Othman.  
University Poly-Tech Mara (UPTM)  
Selangor, Malaysia*

### **ABSTRACT**

Virtual Reality (VR) is a computer-generated environment with scenes and objects that appear to be real, making the user feel they are immersed in their surroundings and become one of the most important technologies in game development. Although there are several learning strategy frameworks for learning game making, there is still a lack of frameworks that focus on how educational-adventure games help in learning Islamic Studies subject. Therefore, the main objective of this research is to develop an Educational Adventure Virtual Reality Game Framework for Islamic Studies subject using Unreal Engine 5. This study will be conducted to determine the impact of Educational-Adventure Virtual Reality game in sustaining or upgrading the student's motivational level in the subject of Islamic studies. The Virtual Reality game is going to be developed based on a literature review and analysis. To validate the game, a quantitative experiment, and User Acceptance Test Case (UAT) will be conducted. Thirty-eight secondary students aged around 15 years old will be chosen to participate as the user to use the game for a trial of 4 sessions. There are 7 game development steps which are produced storyboard for the content, determine type of interaction required, develop Education-Adventure Virtual Reality game, test and evaluate, and use Educational-Adventure Virtual Reality game for Islamic studies. The game "Lets Learn Islam" will be developed to confirm whether the motivation of the students would improve after learning the Islamic Studies subject through the game. It will be measured through four game elements which are fidelity, constraint, fun and reward. The output of learning Islamic studies using Virtual Reality game give more impacts on knowledge, skills and understanding towards students compare to traditional way of teaching.

**Keywords:** *Virtual Reality, Islamic Studies, Educational-Adventure Game, Unreal Engine 5*



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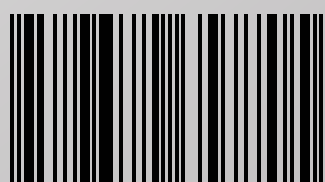
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[icar2023@kuptm.edu.my](mailto:icar2023@kuptm.edu.my)



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