ABSTRACT

The learning landscape in Indonesia still rarely incorporates cutting-edge technology, especially in learning simulations, where the utilization of technologies like Virtual Reality can significantly reduce simulation-related costs. Creating Virtual Reality content necessitates the involvement of Game Developers, who act as designers and developers of said Virtual Reality content. The role of a Game Developer in the Occupational Health and Safety (K3) Simulation Project for Offices at PT. Telekomunikasi Indonesia Tbk is that of a content developer. The Virtual Reality content developed will subsequently be used by offices to facilitate employees' understanding of K3 functions and the importance thereof. Hence, the author was assigned by PT. Telekomunikasi Indonesia (Persero) Tbk as a Game Developer to devise Virtual Reality content concepts and implement them into the Oculus Quest 2 Virtual Reality headset. This content product serves to enhance the visualization of simulation-based learning by employing diverse 3D objects, thereby aiding users in comprehending the material more effectively. The development of the K3 Simulation Project follows the Design Thinking methodology and employs the Unity software technology. The resulting platform is in the form of an Android application. The validation testing phase is crucial for gauging the product's market needs, and the test results demonstrate that the product effectively aids in the learning simulation process.

Keywords: Virtual Reality, Unity, Oculus Quest 2