

ABSTRACT

Trigonometry is one of the class X materials in mathematics which is often considered difficult for most students. The complexity in the material affects the effectiveness of student learning outcomes so that it becomes a problem in student learning outcomes. Research conducted at MAN 1 Indramayu shows that more than half of class X students have learning problems in effectiveness and learning outcomes in trigonometric materials, so an innovation is needed to improve learning. This research aims to implement Augmented Reality (AR) technology. This technological innovation is expected to be a solution to the problem in class X MAN 1 Indramayu, where this AR will be able to visualize trigonometric material so that it is easier for students to learn to understand trigonometric material. The design of Augmented Reality uses design thinking methods, namely emphasize, define, ideate, prototype and test. Then the feasibility of implementing this Augmented reality will be tested using the usability scale (SUS) system, whether this Augmented Reality is feasible and in accordance with the needs of the students or not. And the effectiveness and learning outcomes of the students will be determined through a comparative test by comparing samples A and B. In the end, the implementation of Augmented Reality is expected to be able to make a visualization of trigonometric objects with 3D so that it can provide attraction and interest for students in learning, so that it can provide a more effective, easy and understandable learning space.

Keywords: Trigonometric Learning, Augmented Reality, Design Thinking.