# HAYNAYAN AR: AN AUGMENTED REALITY-BASED LESSON FOR THE IMPROVEMENT OF LEARNING ACHIEVEMENT IN CELL BIOLOGY FOR THE STEM CURRICULUM

**JOEL BAUTISTA**
jtbautista@pshs.edu.ph
Knowledge and Innovation Division, DOST Philippine Science High School System, Quezon City, National Capital Region 1104 Philippines

## ABSTRACT

ICT-infused lessons have been proven to significantly enhance the learning achievements in various disciplines. The pandemic has caused disruption in the learning of the students. Most schools have adopted blended and remote learning. In Education 4.0, schools are relying on technology and among these educational technologies are Augmented Reality and Mobile-based Learning. The aforementioned educational technologies are gaining popularity given their accessibility and advantages. This study sought to design and develop an Augmented Reality-based Learning Tool for Cell Biology and Basic Microscopy. It aimed to assess the developed learning tool in terms of learning achievement. Our findings conclude that Augmented-Reality based learning tools significantly enhance the learning achievement of students. The study suggests that capability training for teachers on the use of such emerging technologies will be beneficial.

*Keywords: cell biology, education, augmented reality, educational technology*