

## ABSTRACT

Mobile learning, often known as m-learning, is a type of online learning that allows sharing the right information with the right people at the right time in the right place utilizing portable learning devices. At the same time, academia predicts that immersive technology such as Virtual Reality and Augmented Reality, as one of the most recent technological developments in the Industry 4.0 era, will fuel a slew of initiatives aimed at improving technology-enhanced learning solutions for adult learners. When it comes to the usefulness of employing Augmented Reality in Online-Distance Learning, it has been proved that classes that use Augmented Reality do better than ones that do not.

Using the System Usability Scale (SUS) and User Experience Questionnaire (UEQ) techniques, the results of the preceding study showed that an AR-based mobile application for vocational high school students was well welcomed. However, while there has been a lot of research on the influence of Augmented Reality on high school education, there has been very little research on the impact of Augmented Reality education on adults. As a result, this study combines a questionnaire with SUS, UEQ, quantitative survey, as well as a qualitative approach through an interview with thematic and sentiment analysis to describe the usage of augmented reality in the learning process for adults.

Results from 31 participants show that Assemblr EDU got an SUS score of 59 out of 100, which is considered Low Marginal. However, UEQ provides a decent level of user experience, with all six UEQ variables receiving at least a Good rating. Furthermore, according to Pareto Analysis, the troublesome occurrence that occurs when using Assemblr EDU may be resolved by focusing just on three major issues. From interviews with 12 willing participants, 177 qualitative feedbacks were gathered, consisting of 85 positive sentiments, 69 negative sentiments, and 22 neutral sentiments, as well as 74 recommendations for improving the application. Feature Functionality, Interaction Design, Learning Curriculum, and Others are the subcategories of both feedback and suggestions.

**Keywords:** Augmented Reality (AR) - Mobile Learning (m-Learning) - Education for Adult - Usability Study - User Experience Analysis - Interview