**Pengembangan Media Pembelajaran Pada Pengenalan Bentuk Dan Warna Dengan
Memanfaatkan Teknologi Ar Menggunakan
Pendekatan Kuantitatif**

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ABSTRACT

This study aims to develop interactive learning media utilizing Augmented Reality (AR) technology to introduce shapes and colors to early childhood learners. AR technology integrates real environments with three-dimensional virtual objects in real time, creating immersive, enjoyable, and interactive learning experiences. A quantitative approach with a descriptive correlational method was applied, involving 30 kindergarten children as research subjects.The application was developed using Unity and Vuforia, with 3D assets modeled in Blender. Its main features include an AR mode that displays various 3D shapes through markers and a quiz mode with three difficulty levels to assess children's understanding of colors. Functional testing was conducted through black-box testing, and effectiveness was evaluated using orally delivered observational questionnaires. Validity testing used the Pearson Product-Moment correlation, and reliability was measured using Cronbach's Alpha.The results show that the application functioned well and met all expected features. The evaluation instruments were proven to be valid and reliable (α = 0.931). The learning media was found to be very effective in improving children's motivation, participation, and interest in learning, with an effectiveness score of 92.67%. Therefore, this media is considered suitable for use as a learning tool in early childhood education.

Keywords: Augmented Reality, Early Childhood Education, Shapes and Colors, Interactive Media, Kindergarten Learning.