

Development of Augmented Reality-Based In Early Childhood Education Learning Media.

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INTRODUCTION



Entering the industrial era 4.0, teachers should be creative and innovative by following the demands of the times to be aware of renewable technology. Of course, the teacher's role is to stimulate children's development as best as possible so that children grow and develop optimally. However, the reality is that there are still many teachers who provide monotonous learning to children. This problem is caused by less effective learning media. Integrating AR in learning media allows students to be more enthusiastic in participating in class learning. In the studies reviewed only about 5% implemented AR in early childhood education (Chen et al., 2017). About this problem, the author wants to know the urgency, integration process, and impact of augmented reality as a learning medium in childhood education.





THEORY & METHODOLOGY

The research method used was a literature study. The data collection technique used is by collecting previous research that can answer the urgency, integration process, and effects of learning media with AR. Furthermore, previous research is collected, analyzed, and concluded to obtain conclusions regarding the development of learning media using Augmented Reality (AR) in childhood education.



FINDINGS & DISCUSSION



Augmented Reality-based Learning Media



Multimedia is known to be more interactive in improving children's ability to recognize image elements and colors (Handayani, n.d.). Learning media is a message carrier technology that can be used for learning purposes, learning media is a physical means for conveying lesson material. Augmented reality is media or applications that are representations of imaginary objects into real objects and can create interaction between students with the resulting visualization.

The urgency of developing AR-based learning media

Based on literature studies, technology encourages investment and international trade as well as increasingly efficient production processes (Lucya & Anis, 2019). Everyone can now live a life that fulfills their hopes with the help of technology (Wahyuni et al., 2021). Therefore, so that children can survive and compete in the digital era and even the future, they need to learn technology from an early age. Using a science-themed curriculum and applying Augmented Reality technology, can be the answer to improving the quality of education in the era of Industrial Revolution 4.0 which is characterized by the use of technology, digital and LoT.

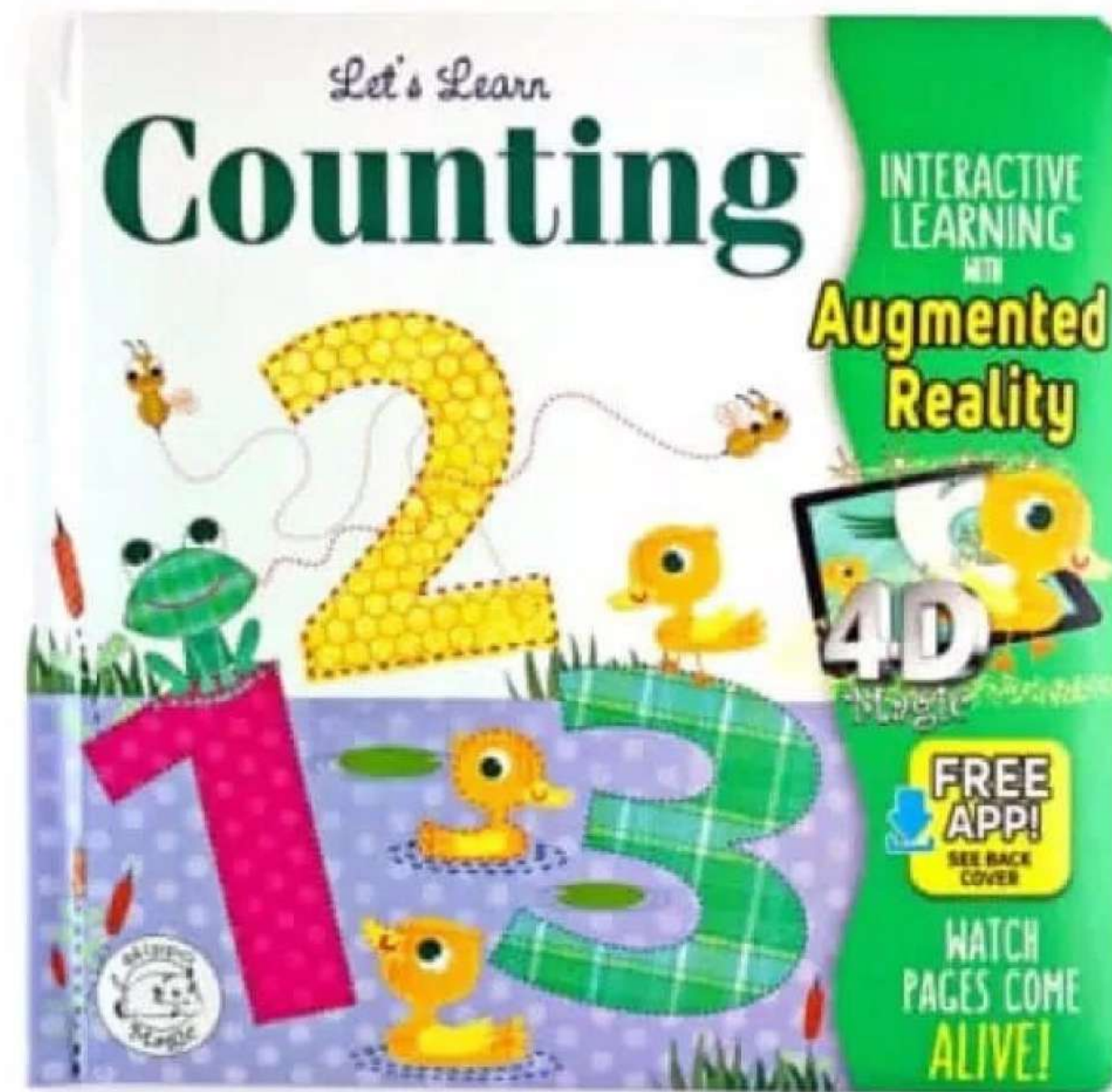


Examples of AR utilization in learning media

- AR-based recognition of numbers and lettersrecognition of numbers and letters formed with 3D animation using AR.



- Magic book AR learning media



Benefits of Augmented Reality in learning media

The use of Augmented reality in learning media has a good effect on students. Children become more motivated and enthusiastic about organizing learning. This is proven by the increase in student learning outcomes and the increase in students' ability patterns in constructing knowledge based on their learning experiences after using Augmented Reality media (Negeri et al., 2023). Apart from that, the results of implementing the augmented reality application are that it can increase teacher competence in using digital media and provide digital learning infrastructure. Using AR media in learning has a positive impact on teachers and students because it can create active and interactive learning.





CONCLUSION & SUGGESTION

The use of Augmented Reality in learning media is important because Augmented Reality is part of technology. Young children need to be introduced to technological devices so that they can survive and compete in the future. The development of AR in learning media can be integrated into childhood education, for example in the recognition of numbers and letters, and the "Magic Book" learning media. The use of educational media using Augmented Reality can stimulate students' thinking patterns in critical thinking, creating active learning because children are very motivated.

Thus, it is highly recommended to develop Augmented Reality in learning media. Because the integration of AR in learning models, teaching materials, and learning devices can encourage students' achievement of abilities effectively and efficiently.



Thank You

