

DESIGN AND IMPLEMENTATION OF AUGMENTED REALITY AS A MEDIA FOR INTRODUCING ANATOMY OF HUMAN DIGESTIVE ORGANS FOR CHILDREN

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ABSTRACT

The human digestive organ is an important element in converting food into the energy needed by the body. It involves a number of organs such as the stomach, small intestine, large intestine, and pancreas. Understanding the complexity of this system at the elementary school level is recognized as a crucial basis. However, the learning methods currently applied are still limited to the use of textbooks and teaching aids, which can make the learning atmosphere less interactive because it is too focused on the teacher. To overcome this challenge, Augmented Reality / AR technology emerged as an innovative solution. AR brings virtual objects into the physical world, creating a deeper and more interactive learning experience. This AR technology combines digital content directly into the real world. One of the methods used in this technology is Marker-based Tracking, a technique where 2-dimensional markers with a certain pattern are read by a cellphone camera. By utilizing this technology, elementary school children can be helped in understanding the structure and function of the human digestive organs through a virtual display that displays these organs, thus facilitating their understanding of the human digestive system. Thus, an AR-based introduction to human digestive organs for elementary school children could be an effective solution.

Keywords: Augmented Reality, Marker-based Tracking, Elementary School, Digestive Organs.