

ABSTRACT

DESIGN AND CONSTRUCTION OF DECORATIVE INTERACTIVE LEARNING MEDIA USING THE MULTIMEDIA DEVELOPMENT LIFE CYCLE (MDLC) METHOD (CASE STUDY: SMP TELKOM PURWOKERTO)

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This research aims to describe the effectiveness of using interactive learning media in the form of applications in overcoming student boredom caused by learning methods that are still dominant in theoretical and practical understanding. This problem is the background for the development of interactive multimedia-based learning media as an innovative solution. This research specifically develops an interactive multimedia application for class VIII Fine Arts lessons at Telkom Purwokerto Middle School, using the Multimedia Development Life Cycle (MDLC) development method which consists of six stages: concept, design, material collection, assembly, testing and distribution. The effectiveness of this application was tested using two approaches, namely the Paired Sample t-Test and the N-Gain test. Previously, application functionality testing was carried out using Black Box Testing, which showed 100% success in accordance with predetermined expectations. The analysis results show that the average pretest score is 60 and the posttest increases to 70, with a fairly representative data distribution. The normality test ensures that the Shapiro-Wilk data is normally distributed, allowing the use of Paired Sample t-Test, which shows the value of $t_{hit} = 6.682 > t_{table} = 1.746$, so that H_0 is rejected. This proves that interactive learning media has a significant impact on student learning outcomes. Apart from that, the N-Gain test shows an average increase of 0.76 (medium category) with an N-Gain percentage of 76.2%, indicating that this method is quite effective in improving student understanding.

Keywords: Multimedia Applications, MDLC, Black Box, Paired Sample t-Test, N-Gain Test