

DEVELOPMENT OF STEAM-BASED SCIENCE LEARNING MODEL TO IMPROVE CREATIVE THINKING SKILLS AND STUDENT LEARNING OUTCOMES AT SMP NEGERI 01 SAJAD

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Abstract

The purpose of this study is to determine the level of validity of learning tools and learning tools that can be used as a reference in the STEAM-based integrated science learning process (Science, Technology, Engineering, Art and Mathematics). The subject of this research is an education practitioner at SMP Negeri 01 Sajad. This type of research is Research and Development using the Borg and Gork model of 6-step modification to the practitioner evaluation stage. The data collection technique is with unstructured interviews, questionnaire sheets and documentation. The data analysis technique used consists of two techniques, the first is quantitative in the form of the results of the validation percentage of learning tools and the second technique is qualitative which comes from the comments and suggestions of validators. The results of the research on the development of an integrated science learning model based on STEAM have the potential to improve the creative thinking skills and learning outcomes of grade VIII students, showing that the results of the validation of experts and education practitioners are as follows: Syllabus 84.37%, RPP 80.10%, Module 84.63%, LKPD 82.50%. While the validation results from the education practitioner validators as follows the syllabus has a validation of 90.87%, the category is very valid with a small revision, the RPP has a validation of 93.16%, the category is very valid used with a small revision, for LKPD it has a validation of 89.75%, the category is very valid and with a small revision, while for the module it has a validation of 94.22% with a small revision. Based on the results of the research, it can be concluded that the learning tools developed have a high level of validation with very feasible categories and can be used as a reference for STEAM-based learning (Science, Technology, Engineering, Art and Mathematics).

Keywords: Learning Tools, STEAM, Creative Thinking Skills and Learning Outcomes

INTRODUCTION

Awareness of the importance of education can provide hope and better possibilities in the future. This awareness is able to encourage various efforts and attention by the entire community to every step and development of the world of education (Eriyanto, 2019; Gemnafle & Batlolona, 2021). The essence of this goal is that education is a very important capital in living a social life. Indonesia itself through education everyone can gain a lot of knowledge such as morals, religion, discipline and many others (Ardini et al., 2021).

Various problems arise not only in the problem of education concepts, regulations, and budgets, with the implementation of education from various aspects also adding to the