

ABSTRACT

Ade Sara Sabila Nasution, IDN 4203151001. Development of Student Worksheets Based on PjBL Using Liveworksheet on Temperature and Heat Material to Increase Student Learning Outcomes SMP Negeri 29 Medan T.P 2023/2024.

This study aims to see the feasibility based on the assessment of material experts, language and learning experts, design experts, the responses of educators and students as well as the effectiveness of the Student Worksheets Based on PjBL Using Liveworksheet on Temperature and Heat Material to Increase Student Learning Outcomes at VII Junior High School students. The sample of this study was students of class VII-5, totaling 32 people. This type of research is Research and Development (R&D) using the ADDIE model. The instrument used in this study consisted of a material expert validation questionnaire, language and learning experts, design experts, a questionnaire for educators and students' responses. The test is in the form of an essay to measure the level of students' learning outcome on Temperature and Heat material. Based on the results of the study obtained data from material expert validation of 84%, validation of language and learning experts 97,33% and validation of design experts 82,66% with each in the strongly feasible category. The response of students with 32 people was 85,33% and teacher response was 92% in the strongly feasible category. So based on the results of the students' worksheet validation, this is suitable for use in the learning process. Students' worksheet which is designed effectively to increase students' learning outcomes, the results of students' learning outcomes are obtained with an average N-Gain value of 0.72 with high criteria.

Keywords: PjBL, Liveworksheet, Learning Outcomes

