

ABSTRACT

Meiranda Yani Simanullang, NIM 4183151806. The Development Of Students' Worksheet Based On STEM (Science, Technology, Engineering, Mathematics) To Improve Critical Thinking Ability On Human Excretion System Materials At Class VIII SMP.

This study aims to see the feasibility based on the assessment of material experts, linguists & education experts, the responses of educators and students as well as the effectiveness of the STEM (Science, Technology, Engineering, Mathematics) based students' worksheet to improve the critical thinking skills at VIII SMP students. The sample of this study was students of class VIII-10, totaling 30 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, linguist & education expert, a questionnaire for educators and students' responses. The test is in the form of an essay to measure the level of students' critical thinking skills on the human excretory system material. Based on the results of the study obtained data from material expert validation of 70.16, validation of linguists & education experts 69.04 with each in the appropriate category. The response of students in the small group trial with a sample of 3 people was 75.97%, while in the limited group trial the percentage of student responses with a sample of 30 people was 77.79% with each criterion very feasible, 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 improve students' critical thinking skills, the results of students' critical thinking skills are obtained with an average N-Gain value of 0.77 with high criteria.

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