ABSTRACT

This research aims to: (1) develop a problem-based SETS (Science, Environment, Technology, and Society) teaching module to improve student learning outcomes. (2) determine the feasibility of a problem-based SETS (Science, Environment, Technology, and Society) teaching module to improve student learning outcomes. (3) determine the effectiveness of a problem-based SETS (Science, Environment, Technology, and Society) teaching module to improve student learning outcomes. This development research uses the Borg and Gall model, which consists of seven stages of development: 1. Research and initial information collection, 2. Planning, 3. Initial product development, 4. Initial trial, 5. Product revision, 6. Field trial, 7. Final product revision. The subjects of this study were 99 students at SMAN 1 Sakra Timur. Data collection was conducted using a questionnaire, and data were analyzed using quantitative descriptive analysis techniques. Based on the results of data analysis and discussion, it can be concluded that the teaching module product with a problem-based SETS (Science, Environment, Technology and Society) approach to improve student learning outcomes is feasible and effective for use during the learning process. This feasibility can be seen from the validity coefficient obtained by 96.06% from material expert I, 90.04% from material expert II, and 92.08% from design experts, as well as student responses obtained a product feasibility percentage of 69.06% which is included in the very rich and feasible category. Then the effectiveness of the teaching module can be seen from the average N-Gain obtained from the experimental class field trial for the biodiversity material of 0.80, while for the virus material it was 0.83. Then the average N-Gain score obtained for the control class for the biodiversity material was 0.23, while for the virus material it was 0.18. Based on the average N-Gain obtained, it has high criteria with a very good level of effectiveness. Based on the average percentage of student worksheets using the problem-based SETS (Science, Environment, Technology, and Society) approach to improve student learning outcomes per group, it is shown that the problem-based SETS (Science, Environment, Technology, and Society) approach to improve student learning outcomes is in the very good category.

Keywords: Teaching Module, Science, Environment, Technology, and Society, Student Worksheet, Borg and Gall, Feasibility, Effectiveness, Biodiversity, Viruses, Learning Outcomes.