

ABSTRACT

Siti Naili Rohmah (2021) "Development of Biodiversity Teaching Materials Based on Socio Scientific Issues to Improve Students' Science Literacy. Thesis. Natural Science Education Study Program, Postgraduate Program, Semarang State University. Advisor I. Prof. Dr. Retno Sri Iswari, S. U., Advisor II. Dr. Sigit Saptono, M. Pd.

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This study aims to analyze the characteristics, validity, legibility, practicality, and effectiveness of teaching materials. This research is a Research and Development (R&D) research with the ADDIE model. The research design is one group pretest-posttest design. The research subjects were 125 students of class X MIPA in Kudus. Data collection techniques were carried out through expert validation questionnaires, readability and practicality questionnaires for teaching materials, and 20 multiple choice questions based on scientific literacy. The product developed has characteristics, consisting of seven main columns, namely apperception contained in the column "Let's learn", five columns for SSI-based learning activities, namely "What is happening to our environment?", "Dig for more information!", "Think about it." again", "Discussion and Evaluation", "Let's discuss", and "Let's think about it", as well as the column "Actually I understand". The data from the validation of material experts is 85.14%, media experts are 94.71% and practitioners are 95.14% so that teaching materials are declared very valid and suitable for use in learning. The data from the results of the readability assessment by the teacher obtained an average score of 94.35%, by the students by 81.75%, with a very good category, meaning that the teaching materials are easy to understand and read very well. The data obtained from the practicality study by teachers obtained an average score of 94.58%, by students 85.56%, with a very practical category, meaning that the teaching materials developed are easy to use and very helpful for students in studying biodiversity materials. The effectiveness of teaching materials is determined based on the value of classical completeness, N-gain and a conservation attitude questionnaire. Classical completeness of student learning outcomes after using teaching materials in the learning process is 87.2%, which means classically complete. The N-gain test obtained is 0.50 with moderate criteria, meaning that teaching materials are effective in increasing students' scientific literacy skills. The conservation attitude assessment obtained is very good with a mean score of 3.56. The conclusion of this study is that the socio-scientific issue-based biodiversity teaching materials are very valid and appropriate to be used as teaching materials in learning and are effective in improving learning outcomes, literacy skills and conservation attitudes of students.