

ABSTRACT

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This study aims to determine the feasibility of scientific approach based-module on coordination system material that can improve learning outcomes and the scientific abilities of high school students. This type of research is a Research and Development with a 4-D development model by Thiagarazan (1974). A random sampling technique was used in this study. The population of this research is all students of class XI which consists of 2 classes with a total of 59 students. The samples used in this study were all classes, namely class XI MIPA 1 and XI MIPA 2 with a total of 59 students. The research instrument used consisted of 5 questionnaires, 1 test, and 1 observation sheet. Questionnaires are used to measure the feasibility of the module. Tests are used to measure the N-gain of student learning outcomes, and observation sheets are used to measure students' scientific abilities. The results showed that the level of feasibility of the module according to material experts, learning experts, design experts, and biology teachers were 90 (very feasible), 78.2 (feasible), 100 (very feasible), 82.75 (very feasible). According to student responses, the module was very interesting with a score of 93.5. After the module was revised, the dissemination stage was carried out. From this stage, it was found that the N-gain learning outcomes and scientific abilities of the experimental class students were significantly greater than the N-gain learning outcomes and scientific abilities of the control class students.

Keywords: Scientific approach, modules, N-gain learning outcomes, and scientific abilities.

