ABSTRAK

Sutaryani, Luh Gede (2024), *Pengaruh model pembelajaran berbasis proyek terhadap keterampilan proses sains dan hasil belajar siswa kelas XI pada topik Fluida*. Tesis, S2 Pendidikan IPA, Program Pascasarjana, Universitas Pendidikan Ganesha.

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Kata-kata kunci: Model Pembelajaran Berbasis Proyek, Keterampilan Proses Sains, Hasil Belajar, Fisika.

Penelitian ini bertujuan untuk menganalisis pengaruh model pembelajaran berbasis proyek (MPBP) terhadap keterampilan proses sains dan hasil belajar siswa kelas XI pada topik fluida. Kajian ini termasuk penelitian kuasi eksperimen. Populasinya ialah siswa kelas XI IPA di SMA Negeri 1 Pupuan sebanyak 134 orang. Sampel ditentukan dengan teknik *simple random sampling* untuk memperoleh satu kelas eksperimen serta satu kelas kontrol. Tiap kelas berjumlah 36 orang. Instrumen yang dipergunakan berupa tes keterampilan proses sains serta tes hasil belajar. Data yang dikumpulkan adalah pretest serta posttest keterampilan proses sains dan hasil belajar. Analisa data mempergunakan Mancova satu jalur. Hasil penelitian ini ialah (1) terdapat perbedaan keterampilan proses sains antara kelas eksperimen dan kelas kontrol. Rata-rata skor post test kelas eksperimen (22,36) lebih tinggi dibanding dengan kelas kontrol (18,56); (2) terdapat perbedaan hasil belajar antara kelas eksperimen dan kelas kontrol. Rata-rata skor post test hasil belajar kelas eksperimen (16,61) lebih tinggi daripada kelas kontrol (13,75). Bisa ditarik simpulan bahwasanya MPBP lebih efektif dalam meningkatkan keterampilan proses sains dan hasil belajar siswa dibanding MPL. MPBP memungkinkan siswa berpartisipasi aktif pada kegiatan pembelajaran melalui proyek yang relevan dan kontekstual, sehingga meningkatkan keterlibatan dan motivasinya. Dengan demikian, MPBP bisa dianggap selaku metode belajar yang lebih efektif untuk meningkatkan hasil belajar siswa serta keterampilan proses sains siswa. Kajian ini berkontribusi terhadap literasi mengenai efektivitas model pembelajaran pada konteks pembelajaran fisika. Disarankan bagi lembaga pendidikan untuk lebih mendorong implementasi MPBP dalam kurikulum merdeka serta memberikan pelatihan yang memadai bagi guru dalam merancang dan mengimplementasikan pembelajaran berbasis proyek.

ABSTRACK

Sutaryani, Luh Gede (2024), *The Effect Of Project-Based Learning Model On Science Process Skills And Physics Learning Outcomes Of XI Grade Students On Fluid Topic***.** *Thesis, Science Education, Graduate Program, Ganesha University of Education.*

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Keywords: Project-Based Learning, Science Process Skills, Learning Outcomes, Physics

This study aims to analyze the effect of project-based learning model on science process skills and learning outcomes of grade XI students on the topic of fluids. This study included quasi-experimental research. The population is the XI science class students at SMA Negeri 1 Pupuan as many as 134 people. The sample was determined using simple random sampling technique to obtain one experimental class and one control class. Each class amounted to 36 people. The instruments used were science process skills tests and learning outcomes tests. The data collected were pretest and posttest of science process skills and learning outcomes. Data analysis used one-way Mancova. The results of this study are (1) there are differences in science process skills between the experimental class and the control class. The average post test score of the experimental class (22.36) was higher than the control class (18.56); (2) there were differences in learning outcomes between the experimental and control classes. The average post test score of the experimental class learning outcomes (16.61) is higher than the control class (13.75). It can be concluded that Project Based Learning is more effective in improving science process skills and student learning outcomes than Direct Learning. Project Based Learning allows students to actively participate in learning activities through relevant and contextual projects, thus increasing their involvement and motivation. Thus, Project ased Learning can be considered as a more effective learning method to improve students' learning outcomes and science process skills. This study contributes to the literacy regarding the effectiveness of learning models in the context of physics learning. It is recommended for educational institutions to further encourage the implementation of Project Based Learning in the independent curriculum and provide adequate training for teachers in designing and implementing project-based learning.