

## ABSTRAK

**Wahyuni, A.S.** (2023), *Pengaruh Model Pembelajaran Berbasis Proyek dengan Strategi Berdiferensiasi terhadap Keterampilan Berpikir Kritis dan Berpikir Kreatif Siswa pada Mata Pelajaran IPA*. Tesis, Pendidikan IPA, Program Pascasarjana, Universitas Pendidikan Ganesha.

Tesis ini sudah disetujui dan diperiksa oleh Pembimbing I : Prof Dr. I Wayan Redhana, M.Si dan Pembimbing II: Dr. I Nyoman Tika, M.Si.

Kata-kata kunci: berpikir kritis, berpikir kreatif, model pembelajaran berbasis proyek, berdiferensiasi.

Penelitian ini bertujuan mendeskripsikan dan menjelaskan: (1) perbedaan keterampilan kritis dan berpikir kreatif secara simultan antarkelompok siswa yang belajar menggunakan model pembelajaran berbasis proyek dengan strategi berdiferensiasi, model pembelajaran berbasis proyek, serta model pembelajaran konvensional, (2) perbedaan keterampilan berpikir kritis antara kelompok siswa yang belajar menggunakan model pembelajaran berbasis proyek dengan strategi berdiferensiasi, model pembelajaran berbasis proyek, dan model pembelajaran konvensional dan (3) perbedaan keterampilan berpikir kreatif antara kelompok siswa yang belajar menggunakan model pembelajaran berbasis proyek dengan strategi berdiferensiasi, model pembelajaran berbasis proyek, dan model pembelajaran konvensional pada mata pelajaran IPA. Jenis penelitian ini adalah kuasi eksperimen dengan desain *pretest – posttest non-equivalent control group design*. Teknik sampling yang digunakan adalah *cluster random sampling*. Populasi penelitian ini berjumlah 280 orang yang merupakan siswa kelas VIII di SMP PGRI 2 Denpasar tahun pelajaran 2022/2023 yang terbagi ke dalam 7 kelas dan sampel penelitian yang digunakan berjumlah 240 orang yang terbagi dalam 6 kelas dengan gaya belajar visual sebanyak 71 orang, auditori 49 orang, dan kinestetik 120 orang. Instrumen penelitian yang dipakai berbentuk angket gaya belajar, tes keterampilan berpikir kritis dan tes berpikir kreatif. Data yang diperoleh adalah jenis gaya belajar, nilai keterampilan berpikir kritis dan berpikir kreatif siswa pada materi usaha dan pesawat sederhana serta penerapannya dalam kehidupan sehari-hari. Data dianalisis dengan teknik analisis deskriptif dan MANCOVA. Tindak lanjut MANCOVA, dipergunakan *Least Significant Difference (LSD)* untuk mengetahui perlakuan mana yang memberikan hasil yang berbeda. Pengujian hipotesis dikerjakan dengan taraf signifikansi 5%. Sebelum uji hipotesis, data harus memenuhi prasyarat (normalitas, homogenitas, linearitas, kemiringan garis regresi, dan multikolinieritas). Berdasarkan hasil penelitian dapat disimpulkan sebagai berikut. (1) Model pembelajaran berbasis proyek dengan strategi berdiferensiasi lebih baik daripada model pembelajaran berbasis proyek dan model pembelajaran konvensional dalam meningkatkan keterampilan berpikir kritis dan berpikir kreatif siswa secara simultan dengan efek pengaruh sebesar 79,1%. (2) Model pembelajaran berbasis proyek dengan strategi berdiferensiasi lebih baik daripada model pembelajaran berbasis proyek dan model pembelajaran konvensional dalam meningkatkan keterampilan berpikir kritis dengan efek pengaruh sebesar 26,6%. (3) Model pembelajaran berbasis proyek dengan strategi berdiferensiasi lebih baik daripada model pembelajaran berbasis proyek dan model pembelajaran konvensional dalam meningkatkan keterampilan berpikir kreatif dengan efek pengaruh sebesar 77,3%.

## ABSTRACT

**Wahyuni, A.S. (2023)**, *The Effect of Project Based Learning with Differentiated Strategy towards Critical and Creative Thinking Skill of Students on Science Course*. Thesis, Science Education, Post-Graduate Program, Ganesha University of Education.

This thesis has been accepted and checked by First Supervisor : Prof Dr. I Wayan Redhana, M.Si and Second Supervisor : Dr. I Nyoman Tika, M.Si.

Key words : critical thinking, creative thinking, project-based learning, differentiation.

This research focused on describing and explaining: (1) differences of critical skill and creative thinking simultaneously between groups of student who learned by project-based learning with differentiated strategy, project-based learning, and conventional learning, (2) differences of critical thinking skill between groups of student who learned by project-based learning with differentiated strategy, project-based learning, and conventional learning, and (3) differences of creative thinking skill between groups of student who learned by project-based learning with differentiated strategy, project-based learning, and conventional learning on science course. This research was a quasi-experiment study with pretest – posttest non-equivalent control group design. The sampling technique used is cluster random sampling. Research population were 280 people who were eighth grade students of SMP PGRI 2 Denpasar in academic year 2022/2023 and research samples utilized were 240 people that were divided into six classes with 71 people in visual learning, 49 people in auditory learning, and 120 people in kinesthetic learning style. Research instruments deployed were learning style questionnaire, critical thinking skill test, and creative thinking test. The gathered data were kinds of learning style as well as scores of students' critical and creative thinking skill on Work and Simple Machine subject along with their implementations in daily life. The data were analyzed based on descriptive analysis and MANCOVA. As the follow-up towards MANCOVA, it was implemented *Least Significant Difference (LSD)* to recognize which treatment offers different result. Hypothesis test was carried out through a significance level of 5%. Before hypothesis test, the assumption was established (normality, homogeneity, linearity, slope of the regression line, and multicollinearity). Based on the research's results, it could be concluded as follows. (1) The project-based learning model with a differentiated strategy is better than the project-based learning model and conventional learning models in improving students' critical thinking skills and creative thinking simultaneously with an influence effect of 79.1%. (2) The project-based learning model with a differentiated strategy is better than the project-based learning model and conventional learning models in improving critical thinking skills with an effect of 26.6%. (3) The project-based learning model with a differentiated strategy is better than the project-based learning model and conventional learning models in improving creative thinking skills with an effect of 77.3%.