

## ABSTRAK

**Yanti, Ida Mareta (2023)**, Pengaruh Model PjBL-STEAM Berbantuan *Scaffolding* Terhadap Hasil Belajar, Keterampilan Berpikir Kritis, dan Motivasi Berprestasi Peserta Didik

Tesis ini sudah disetujui dan diperiksa oleh pembimbing I: Prof. Dr. I Redhana, M.Si dan Pembimbing II: Prof. Dr. I Wayan Suastra, M.Pd.

**Kata Kunci:** PjBL-STEAM; Keterampilan Berpikir Kritis; Motivasi Berprestasi; *Scaffolding*; *Project based learning*.

Penelitian ini merupakan penelitian kuantitatif dengan desain penelitian *nonequivalent pretests-posttest control group design* yang bertujuan mendeskripsikan dan menjelaskan: (1) perbedaan secara simultan hasil belajar, keterampilan berpikir kritis, dan motivasi berprestasi peserta didik yang belajar menggunakan model PjBL-STEAM berbantuan *scaffolding* dan model PjBL pada pembelajaran IPA, (2) perbedaan hasil belajar peserta didik yang belajar menggunakan model PjBL-STEAM berbantuan *scaffolding* dan model PjBL pada pembelajaran IPA, (3) perbedaan keterampilan berpikir kritis peserta didik yang belajar menggunakan model PjBL-STEAM berbantuan *scaffolding* dan model PjBL pada pembelajaran IPA, (4) perbedaan motivasi berprestasi peserta didik yang belajar menggunakan model PjBL-STEAM berbantuan *scaffolding* dan model PjBL pada pembelajaran IPA. Teknik pengambilan sampel yang digunakan adalah cluster random sampling dengan jumlah sampel terdiri dari 159 peserta didik kelas VII A, VII B, VII D, dan VII F di SMP Negeri 5 Denpasar. Instrumen penelitian yang digunakan berupa tes hasil belajar, tes keterampilan berpikir kritis dan kuesioner motivasi berprestasi. Analisis data menggunakan *Multivariate Analysis of Covariance* (MANCOVA). Pengujian hipotesis dilakukan menggunakan taraf signifikansi 5%, uji hipotesis dilakukan setelah uji asumsi (uji normalitas, uji homogenitas varian, uji homogenitas varian kovarian, uji linieritas, uji multikolinieritas, uji homogenitas kemiringan garis regresi). Berdasarkan analisis data tersebut, hasil penelitian menunjukkan bahwa (1) terdapat perbedaan secara simultan terdapat perbedaan hasil belajar, keterampilan berpikir kritis, dan motivasi berprestasi peserta didik yang belajar menggunakan model PjBL-STEAM berbantuan *scaffolding* dan model PjBL pada pembelajaran IPA, (2) terdapat perbedaan hasil belajar peserta didik yang belajar menggunakan model PjBL-STEAM berbantuan *scaffolding* dan model PjBL pada pembelajaran IPA, (3) terdapat perbedaan keterampilan berpikir kritis peserta didik yang belajar menggunakan model PjBL-STEAM berbantuan *scaffolding* dan model PjBL pada pembelajaran IPA, (4) perbedaan motivasi berprestasi peserta didik yang belajar menggunakan model PjBL-STEAM berbantuan *scaffolding* dan model PjBL pada pembelajaran IPA.

## ABSTRACT

**Yanti, Ida Mareta (2023)** The Effect of Scaffolding Assisted PjBL-STEAM Model on Learning Outcomes, Critical Thinking Skills and Student Achievement Motivation

This thesis has been approved and examined by educator I: Prof. Dr. I Redhana, M.Si and educator II: Prof. Dr. I Wayan Suastra, M.Pd.

**Keywords:** PjBL-STEAM; Critical Thinking Skills; Achivment Motivation; Multiple Scaffolding; Project based learning.

This research is a quantitative research with nonequivalent pretest-posttest control group design which aims to describe and explain: (1) simultaneous differences in learning outcomes, critical thinking skills, and achievement motivation of students who learn using the PjBL-STEAM model assisted by scaffolding and PjBL model in science learning, (2) differences in learning outcomes of students who learn using the PjBL-STEAM model assisted by scaffolding and the PjBL model in science learning, (3) differences in critical thinking skills of students who learn using the PjBL-STEAM model assisted by scaffolding and the PjBL model in science learning, (4) differences in achievement motivation of students who learn using the PjBL-STEAM model assisted by scaffolding and the PjBL model in science learning. The sampling technique used was cluster random sampling with a total sample consisting of 159 students in class VII A, VII B, VII D, and VII F at SMP Negeri 5 Denpasar. The research instruments used were learning achievement tests, critical thinking skills tests and achievement motivation questionnaires. Data analysis used Multivariate Analysis of Covariance (MANCOVA). Hypothesis testing was carried out using a significance level of 5%, hypothesis testing was carried out after the assumption test (normality test, variant homogeneity test, covariance variance homogeneity test, linearity test, multicollinearity test, regression line homogeneity test). Based on the data analysis, the results of the study show that (1) there are simultaneous differences in learning outcomes, critical thinking skills, and achievement motivation of students who learn using the PjBL-STEAM model assisted by scaffolding and the PjBL model in science learning, (2) there are differences in the learning outcomes of students who learn using the PjBL-STEAM model assisted by scaffolding and the PjBL model in science learning, (3) there are differences in the critical thinking skills of students who learn using the PjBL-STEAM model assisted by scaffolding and the PjBL model in science learning, (4) differences in achievement motivation of students who learn using the PjBL-STEAM model assisted by scaffolding and the PjBL model in science learning.