

**STUDI KOMPARASI PENERAPAN MODEL PEMBELAJARAN
BERBASIS TANTANGAN-ISU SOSIOSAINS-ARGUMEN TANDINGAN
DAN MODEL PEMBELAJARAN BERBASIS MASALAH UNTUK
MENINGKATKAN PENGUASAAN KONSEP KIMIA DAN
KETERAMPILAN BERPIKIR KREATIF SISWA SMA**

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ABSTRAK

Penelitian ini bertujuan menjelaskan dan mendeskripsikan perbedaan penguasaan konsep dan keterampilan berpikir kreatif siswa yang diajarkan menggunakan model pembelajaran berbasis tantangan-isu sosiosains-argumen tandingan dengan model pembelajaran berbasis masalah. Jenis dan rancangan penelitian berupa *quasi experiment* dan *nonequivalent pretest-posttest control group*. Populasi penelitian adalah siswa kelas XI MIPA di SMA Negeri 4 Singaraja, Bali. Sampel penelitian terdiri atas empat kelas, yaitu XI G, XI H, XI J, dan XI M, yang masing-masing berjumlah 48 siswa. Kelompok kontrol dan eksperimen ditentukan menggunakan teknik *cluster random sampling*. Data dikumpulkan melalui metode tes dan non-tes. Tes diperoleh dari hasil penguasaan konsep dan keterampilan berpikir kreatif, sedangkan kuesioner menilai pendapat siswa terhadap pembelajaran. Analisis data menggunakan statistika deskriptif dan inferensial. Untuk analisis statistika inferensial, digunakan statistika *Multivariate Analysis of Covariance* (Mancova). Hasil penelitian menunjukkan bahwa terdapat perbedaan yang signifikan dalam penguasaan konsep dan keterampilan berpikir kreatif siswa yang diajarkan dengan model pembelajaran berbasis tantangan-isu sosiosains-argumen tandingan dengan model pembelajaran berbasis masalah. Kelompok eksperimen menunjukkan hasil yang lebih tinggi dalam penguasaan konsep, berpikir kreatif, dan pendapat siswa dengan skor rata-rata masing-masing sebesar 72,20; 77,95; dan 79,76. Sementara itu, kelompok kontrol memperoleh skor rata-rata sebesar 65,95; 73,94; dan 73,94.

Kata Kunci: argumen tandingan, isu sosiosains, keterampilan berpikir kreatif, model berbasis tantangan, penguasaan konsep

**A COMPARATIVE STUDY OF THE IMPLEMENTATION OF THE
COUNTER-ARGUMENT-SOCIOSCIENTIFIC-ISSUES-CHALLENGE-
BASED LEARNING MODEL AND THE PROBLEM-BASED LEARNING
MODEL TO IMPROVE THE MASTERY OF CHEMISTRY CONCEPTS
AND CREATIVE THINKING SKILLS OF SENIOR HIGH SCHOOL
STUDENTS**

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ABSTRACT

This study aims to explain and describe the differences in concept mastery and creative thinking skills of students taught using a learning model based on the counter-argument-socioscientific-issues-challenge-based learning model compared to the problem-based learning model. This study design was quasi-experimental with a nonequivalent pretest-posttest control group. The population of this study consisted of XI MIPA students at SMA Negeri 4 Singaraja, Bali. The study sample consisted of four classes, namely XI G, XI H, XI J, and XI M, each totaling 48 students. The control and experimental groups were determined using a cluster random sampling technique. Data were collected through both tests and non-test methods. Test assessed students concept mastery and creative thinking skills, while questionnaire gathered students' opinions on the learning process. Data analysis involved descriptive and inferential statistics analysis. For inferential statistics analysis, Multivariate Analysis of Covariance (Mancova) was used. The results indicated significant differences in concept mastery and creative thinking skills between students taught using counter-argument-socioscientific-issues-challenge-based learning model and those taught using the problem-based learning model. The in-experimental group showed higher results in concept mastery, creative thinking, and student opinions with average scores of 72.20; 77.95; and 79.76, respectively. Meanwhile, the control group obtain average scores of 65.95; 73.94; and 73.94.

Keywords: counter-argument, socioscientific-issues, creative thinking skills, challenge-based model, concept mastery