

## ABSTRAK

Isrok'atun (2013). *Situation-Based Learning* untuk Meningkatkan Kemampuan *Creative Problem Solving* Matematis Siswa

Fokus utama penelitian ini adalah mengenai kemampuan *Creative Problem Solving* (CPS) matematis siswa Sekolah Menengah Atas (SMA). Rendahnya kemampuan ini disinyalir terjadi antara lain karena proses pembelajaran kurang memberikan kesempatan kepada siswa untuk meningkatkan kemampuan berpikir tersebut. Salah satu model pembelajaran yang dapat diterapkan guna meningkatkan kemampuan CPS matematis adalah *Situation-Based Learning* (SBL). Tujuan penelitian ini adalah untuk mengetahui peningkatan kemampuan CPS matematis dan kemandirian belajar siswa sebagai akibat dari pembelajaran SBL.

Penelitian ini adalah kuasi eksperimen yang menerapkan dua model pembelajaran yaitu pembelajaran SBL dan pembelajaran konvensional. Populasi dalam penelitian ini adalah siswa SMA di Provinsi Jawa Tengah. Pengambilan sampel dilakukan secara *stratified purposive random sampling*, dan diperoleh SMA N 1 Tegal mewakili sekolah peringkat tinggi dan SMA N 3 Brebes mewakili sekolah peringkat sedang. Guna kepentingan analisis, masing-masing kelas penelitian dibedakan menurut Pengetahuan Dasar Matematika (PDM: tinggi, sedang, rendah) dan perbedaan gender (pria, wanita). Instrumen penelitian yang digunakan adalah tes kemampuan CPS, skala kemandirian belajar, tes PDM, lembar observasi, lembar isian untuk guru, serta daftar wawancara guru dan siswa.

Analisis data menggunakan uji-*t*, uji *Mann-Whitney*, uji *Kruskal-Wallis*, analisis grafik, dan analisis deskriptif. Analisis data ditinjau berdasarkan data keseluruhan, peringkat sekolah, level PDM, dan gender siswa. Berdasarkan hasil analisis tersebut diperoleh kesimpulan: 1) peningkatan kemampuan CPS matematis siswa yang mendapat pembelajaran SBL lebih baik daripada siswa yang mendapat pembelajaran konvensional ditinjau dari keseluruhan, peringkat sekolah, level PDM, dan gender siswa; 2) kemandirian belajar siswa yang mendapat pembelajaran SBL lebih baik daripada siswa yang mendapat pembelajaran konvensional ditinjau dari keseluruhan, peringkat sekolah, level PDM, dan gender siswa; 3) tidak terdapat interaksi antara pembelajaran dan faktor-faktor (peringkat sekolah, level PDM, dan gender siswa) terhadap peningkatan kemampuan CPS matematis; 4) terdapat interaksi antara pembelajaran dan faktor-faktor (peringkat sekolah, level PDM, dan gender siswa) terhadap kemandirian belajar siswa; serta 5) tanggapan positif dari siswa terhadap pembelajaran SBL.

**Kata Kunci:** *Situation-based learning*, *Creative problem solving* matematis, dan Kemandirian belajar

## ABSTRACT

Isrok'atun (2013). Situation-Based Learning for Enhancing Students' Mathematical Creative Problem Solving Ability

This research is focused on students' mathematical Creative Problem Solving (CPS) ability in Senior High School. This weakness is due to the teaching and learning process which does not enhance thinking ability. One of strategies for enhancing mathematical CPS ability is Situation-Based Learning (SBL). The purpose of this research is to comprehensively describe the enhancement of students' mathematical CPS ability and their self-regulated learning as a result of SBL.

This research is a quasi-experimental study that applies two learning models: SBL and conventional learning. Population of this research is all Senior High School students in Central Java Province. Sampling used by stratified purposive random sampling, SMA N 1 Tegal represents high level school and SMA N 3 Brebes represents medium level school. Each class is grouped based on Mathematical Prior Knowledge (MPK: upper, middle, lower levels) and gender (male, female). Research instruments are CPS test, self-regulated learning scale, MPK tests, observation sheet, teachers' sheet, teachers and students' interview guide.

Data analysis applies t-test, Mann-Whitney test, Kruskal-Wallis test, graphic analysis, and descriptive analysis. Data analysis is based on the whole students, school level, level of MPK, and gender. The results obtained are: 1) the enhancement of students' mathematical CPS ability who were taught under SBL learning is higher than those who were taught under conventional learning at the whole students, school level, level of MPK, and gender; 2) self-regulated learning of students who were taught under SBL learning is better than those who were taught under conventional learning at the whole students, school level, level of MPK, and gender; 3) there is no interaction between learning model and school level, between learning model and MPK, and also between learning model and gender on enhancement of students' mathematical CPS ability; 4) there is an interaction between learning model and school level, between learning model and MPK, and also between learning model and gender on students' self-regulated learning; and 5) a positive response from students toward SBL learning.

**Keywords:** Situation-based learning, mathematical creative problem solving ability, and self-regulated learning