

ABSTRAK

KEZYA FAOMASI GEA. (2025). **Peningkatan Kemampuan Penalaran Matematis dan *Self-regulated Learning* Siswa SMA melalui Model *CORE-based Learning* berbantuan *QuizWhizzer*.**

Tujuan penelitian ini adalah: 1) Untuk mengetahui peningkatan kemampuan penalaran matematis siswa yang memperoleh model *CORE-Based Learning* berbantuan *QuizWhizzer* lebih tinggi daripada siswa yang memperoleh model pembelajaran biasa; 2) Untuk mengetahui *Self-regulated Learning* siswa yang memperoleh model *CORE-Based Learning* berbantuan *QuizWhizzer* lebih baik daripada siswa yang memperoleh model pembelajaran biasa; 3) Untuk mengetahui terdapat korelasi positif antara kemampuan penalaran matematis dan *Self-regulated Learning* siswa yang memperoleh model *CORE-Based Learning* berbantuan *QuizWhizzer*; dan 4) Mengetahui efektivitas model *CORE Based Learning* berbantuan *QuizWhizzer* terhadap peningkatan kemampuan penalaran matematis siswa. Metode yang diterapkan pada penelitian ini adalah *quasi eksperiment* dengan *non-equivalent control group*. Subjek pada penelitian ini yaitu siswa kelas X SMAN 17 Bandung dengan sampel penelitian menggunakan 2 kelas yaitu kelas X-G sebagai kelas eksperimen dan kelas X-F sebagai kelas kontrol. Instrumen yang digunakan meliputi soal tes uraian untuk mengukur kemampuan penalaran matematis dan *non-tes* angket *Self-regulated Learning*. Instrumen divalidasi dan diujicobakan, hasilnya dinyatakan valid dan memenuhi kualitas kelayakan soal yang baik. Analisis data dilakukan dengan menggunakan uji-t, uji korelasi, dan uji efektivitas dibantu oleh *IBM SPSS 23 for Windows* dan situs *Good Calculator*. Hasil Penelitian menunjukkan: 1) Peningkatan kemampuan penalaran matematis siswa yang memperoleh model *CORE-Based Learning* berbantuan *QuizWhizzer* lebih tinggi daripada siswa yang memperoleh model pembelajaran biasa; 2) *Self-regulated Learning* siswa yang memperoleh model *CORE-Based Learning* berbantuan *QuizWhizzer* lebih baik daripada siswa yang memperoleh model pembelajaran biasa; 3) Terdapat korelasi positif antara kemampuan penalaran matematis dan *Self-Regulated Learning* siswa yang memperoleh model *CORE-Based Learning* berbantuan *QuizWhizzer*; dan 4) Efektivitas model *CORE-Based Learning* berbantuan *QuizWhizzer* terhadap peningkatan kemampuan penalaran matematis siswa berkategori sedang.

Kata Kunci: *CORE-Based Learning*, Kemampuan Penalaran Matematis, *Self-Regulated Learning*, *QuizWhizzer*.

ABSTRACT

KEZYA FAOMASI GEA. (2025). *Improving High School Students' Mathematical Reasoning Ability and Self-regulated Learning through CORE-based Learning Model Assisted by QuizWhizzer.*

The objectives of this study are: 1) To determine whether the improvement in students' mathematical reasoning ability who received the CORE-Based Learning model assisted by QuizWhizzer is higher than those who received conventional learning models; 2) To find out whether the self-regulated learning of students who received the CORE-Based Learning model assisted by QuizWhizzer is better than that of students who received conventional learning models; 3) To investigate whether there is a positive correlation between mathematical reasoning ability and self-regulated learning among students who received the CORE-Based Learning model assisted by QuizWhizzer; and 4) To examine the effectiveness of the CORE-Based Learning model assisted by QuizWhizzer in improving students' mathematical reasoning ability. The method used in this study is a quasi-experiment with a non-equivalent control group design. The subjects of this study were Grade X students of SMAN 17 Bandung, with two classes selected as the research sample: class X-G as the experimental class and class X-F as the control class. The instruments used include essay test items to measure mathematical reasoning ability and a non-test questionnaire to measure self-regulated learning. The instruments were validated and tested, with the results indicating that they were valid and met the criteria of good item quality. The data analysis was conducted using t-tests, correlation tests, and effectiveness tests, with the assistance of IBM SPSS 23 for Windows and the Good Calculator website. The results of the study showed: 1) The improvement in mathematical reasoning ability of students who received the CORE-based Learning model assisted by QuizWhizzer was higher than that of students who received conventional learning models; 2) Students' self-regulated learning in the group that received CORE-based Learning assisted by QuizWhizzer was better than that of the group that received conventional learning; 3) There is a positive correlation between mathematical reasoning ability and self-regulated learning among students who received the CORE-based Learning model assisted by QuizWhizzer; and 4) The effectiveness of the CORE-based Learning model assisted by QuizWhizzer in improving mathematical reasoning ability is categorized as moderate.

Keyword: CORE-Based Learning, Mathematical Reasoning Ability, Self-Regulated Learning, QuizWhizzer.

RINGKESAN

KEZYA FAOMASI GEA. (2025). *Ningkatkeun Kamampuhan Nalar Matematis sareng Self-regulated Learning siswa SMA ngaliwatan Modél CORE-based Learning kalayan bantosan QuizWhizzer.*

Tujuan tina panalungtikan ieu nyaeta: 1) Pikeun ngartos naha kamampuhan nalar matematis siswa anu diajar ku modél CORE-Based Learning kalayan bantosan QuizWhizzer langkung luhur tibatan siswa anu diajar ku modél pembelajaran biasa; 2) Pikeun ngartos Self-regulated Learning siswa anu diajar ku modél CORE-based Learning kalayan bantosan QuizWhizzer langkung saé tibatan siswa anu diajar ku cara biasa; 3) Pikeun nalungtik hubungan anu positif antara kamampuhan nalar matematis sareng Self-regulated Learning siswa anu diajar ku modél CORE-based Learning kalayan bantosan QuizWhizzer; and 4) Pikeun ngukur éfektivitas modél CORE-based Learning kalayan bantosan QuizWhizzer kana kamampuhan nalar matematis siswa. Métode anu dianggo dina ieu panalungtikan téh nyaéta quasi eksperimen kalayan desain non-equivalent control group. Subjek panalungtikan nyaeta siswa kelas X di SMAN 17 Bandung, kalayan dua kelas dijadikeun sampel panalungtikan: kelas X-G salaku kelas kelas éksperimén sareng kelas X-F salaku kelas kontrol. Instrumen anu dipaké di antarana soal tes uraian pikeun ngukur kamampuhan nalar matematis, sarta angket pikeun ngukur Self-Regulated Learning siswa. Instrumén anu dianggé ngawengku soal tés déskriptif pikeun kamampuhanan solusi pikeun masalah matematis sareng non-tes angkét kamampuhan diri. Instrumén divalidasi tur diuji, hasilna dinyatakeun valid tur minuhan sarat kualitas soal alus. Panalungtikan data kalaksanakeun ku ngamangpaatkeun uji-t, uji korelasi, sareng uji efektivitas kalayan pangrojong ti program IBM SPSS 23 for Windows ogé rujukan tina situs Good Calculator. Hasil panalungtikan nunjukkeun: 1) Aya paningkatan kamampuhan nalar matematis siswa anu diajar ku modél CORE-Based Learning kalayan bantosan QuizWhizzer, anu langkung saé tibatan nu diajar ku modél biasa; 2) Self-Regulated Learning siswa ogé langkung saé ku perlakuan modél kasebut; 3) Aya hubungan anu positif antara kamampuhan nalar matematis sareng Self-regulated Learning; jeung 4) Éfektivitas modél CORE-based Learning kalayan bantosan QuizWhizzer kana paningkatan kamampuhanan nalar matematis siswa kaasup kana kategori sedeng.

Kecap Konci: CORE-based Learning, Kamampuhanan Nalar Matematis, Self-regulated Learning, QuizWhizzer.