

PENGARUH PENERAPAN MODEL PEMBELAJARAN *COOPERATIVE INTEGRATED READING AND COMPOSITION* (CIRC) BERBASIS MASALAH KONTEKSTUAL TERHADAP KEMAMPUAN KOMUNIKASI MATEMATIS SISWA KELAS VIII SMP

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ABSTRAK

Penelitian ini bertujuan untuk menguji pengaruh model pembelajaran *Cooperative Integrated Reading and Composition* (CIRC) berbasis masalah kontekstual terhadap kemampuan komunikasi matematis siswa. Jenis penelitian ini adalah *quasi experiment* dengan desain *post-test only control group*. Populasi penelitian meliputi seluruh siswa kelas VIII SMP Negeri 4 Singaraja pada semester genap tahun ajaran 2025/2026 yang terdiri dari kelas VIII A sampai VIII K dengan jumlah 409 siswa. Pengambilan sampel dilakukan menggunakan teknik *cluster random sampling*. Dua kelas dipilih secara acak dari seluruh kelas VIII untuk dijadikan sampel penelitian, yaitu kelas VIII A sebagai kelas eksperimen dan kelas VIII C sebagai kelas kontrol. Instrumen penelitian berupa tes uraian kemampuan komunikasi matematis sebanyak enam butir soal yang telah dinyatakan valid dan reliabel dengan koefisien reliabilitas sebesar 0,905. Data dianalisis menggunakan uji t (*independent samples t-test*) satu ekor setelah memenuhi uji prasyarat, yaitu uji normalitas dan uji homogenitas. Hasil analisis data menunjukkan bahwa rata-rata nilai tes akhir kelas eksperimen sebesar 73,444, sedangkan kelas kontrol sebesar 58,842. Hasil uji hipotesis menunjukkan nilai statistik t sebesar 5,073 dengan nilai signifikansi 0,001 yang lebih kecil dari 0,05. Hal ini menunjukkan bahwa kemampuan komunikasi matematis siswa yang mengikuti model pembelajaran CIRC berbasis masalah kontekstual lebih tinggi daripada kemampuan komunikasi matematis siswa yang mengikuti model pembelajaran konvensional. Dengan demikian, dapat disimpulkan bahwa penerapan model pembelajaran CIRC berbasis masalah kontekstual memiliki pengaruh signifikan terhadap kemampuan komunikasi matematis siswa kelas VIII SMP Negeri 4 Singaraja.

Kata Kunci: kemampuan komunikasi matematis, masalah kontekstual, model pembelajaran CIRC

**THE EFFECT OF THE COOPERATIVE INTEGRATED READING AND
COMPOSITION (CIRC) LEARNING MODEL BASED ON
CONTEXTUAL PROBLEMS ON THE MATHEMATICAL
COMMUNICATION SKILLS OF EIGHTH-GRADE JUNIOR HIGH
SCHOOL STUDENTS**

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ABSTRACT

This study aimed to examine the effect of the Cooperative Integrated Reading and Composition (CIRC) learning model based on contextual problems on students' mathematical communication skills. This research employed a quasi-experimental method using a post-test-only control group design. The population consisted of all eighth-grade students of SMP Negeri 4 Singaraja in the second semester of the 2025/2026 academic year, comprising classes VIII A to VIII K with a total of 409 students. The samples were selected using cluster random sampling. Two classes were randomly chosen from all eighth-grade classes, namely class VIII A as the experimental group and class VIII C as the control group. The research instrument was an essay test consisting of six items designed to measure students' mathematical communication skills. The instrument was confirmed to be valid and reliable, with a reliability coefficient of 0.905. The data were analyzed using a one-tailed independent samples t-test after satisfying the prerequisite tests of normality and homogeneity. The results showed that the mean post-test score of the experimental group was 73.444, while that of the control group was 58.842. The hypothesis testing yielded a t-statistic of 5.073 with a significance value of 0.001, which was lower than 0.05. These findings indicate that the mathematical communication skills of students who learned through the contextual problem-based CIRC learning model were significantly higher than those of students who received conventional instruction. Therefore, it can be concluded that the implementation of the contextual problem-based CIRC learning model has a significant positive effect on the mathematical communication skills of eighth-grade students at SMP Negeri 4 Singaraja.

Keywords: Cooperative Integrated Reading and Composition (CIRC), contextual problems, mathematical communication skills.