

ABSTRAK

SHABRINA: Peningkatan Kemampuan Komunikasi Matematis Siswa dan Motivasi Belajar Siswa Menggunakan Pendekatan *Contextual Teaching and Learning* (CTL) Berbantuan Aplikasi Quizizz. **Program Studi Pendidikan Matematika FKIP Universitas Malikussaleh, 2024.**

Penelitian ini bertujuan untuk meningkatkan kemampuan komunikasi matematis dan motivasi belajar siswa melalui pendekatan *Contextual Teaching and Learning* (CTL) berbantuan aplikasi Quizizz. Penelitian ini di latar belakang oleh rendahnya kemampuan komunikasi matematis dan motivasi belajar siswa dalam pembelajaran matematika. Pendekatan penelitian yang digunakan adalah pendekatan kuantitatif dengan metode *quasi experiment* dan desain penelitian *non-equivalent control group design*. Populasi dalam penelitian ini adalah seluruh siswa kelas XI SMAN 2 Pintu Rime Gayo, dengan kelas XI-A (21 siswa) sebagai kelas eksperimen dan kelas XI-B (21 siswa) sebagai kelas kontrol yang dipilih melalui teknik *sampling jenuh*. Pengumpulan data dilakukan dengan menggunakan tes kemampuan komunikasi matematis dan angket motivasi belajar yang diberikan sebelum dan sesudah perlakuan pembelajaran. Analisis data dilakukan menggunakan program SPSS versi 18. Hasil uji normalitas menunjukkan bahwa data berdistribusi normal, sehingga digunakan uji parametrik (*Shapiro–Wilk*). Hasil uji hipotesis menunjukkan nilai signifikansi sebesar $0,000 < 0,05$, yang berarti H_0 ditolak dan H_a diterima. Berdasarkan hasil penelitian, disimpulkan bahwa peningkatan kemampuan komunikasi matematis dan motivasi belajar siswa yang diajarkan dengan model pembelajaran CTL berbantuan aplikasi Quizizz lebih baik dibandingkan dengan siswa yang diajarkan menggunakan model pembelajaran konvensional.

Kata Kunci: Kemampuan Komunikasi Matematis, *Contextual Teaching and Learning* (CTL), Motivasi Belajar, Quizizz.

ABSTRACT

SHABRINA: *Enhancing Students' Mathematical Communication Skills and Learning Motivation through the Contextual Teaching and Learning (CTL) Approach Assisted by the Quizizz Application. Mathematics Education Study Program, Faculty of Teacher Training and Education, Malikussaleh University, 2024.*

This study aims to improve students' mathematical communication skills and learning motivation through the Contextual Teaching and Learning (CTL) approach assisted by the Quizizz application. The study was motivated by the low levels of students' mathematical communication skills and learning motivation in mathematics learning. The research employed a quantitative approach using a quasi-experimental method with a non-equivalent control group design. The population of this study consisted of all eleventh-grade students of SMAN 2 Pintu Rime Gayo, with class XI-A (21 students) serving as the experimental group and class XI-B (21 students) as the control group, both selected through a saturated sampling technique. Data were collected using a mathematical communication skills test and a learning motivation questionnaire administered before and after the learning treatment. Data analysis was conducted using SPSS version 18. The normality test results indicated that the data were normally distributed; therefore, a parametric test (Shapiro–Wilk) was used. The hypothesis testing results showed a significance value of $0.000 < 0.05$, indicating that H_0 was rejected and H_a was accepted. Based on the findings, it was concluded that the improvement in students' mathematical communication skills and learning motivation taught through the CTL model assisted by the Quizizz application was better than that of students taught using the conventional learning model.

Keywords: *Mathematical Communication Skills, Contextual Teaching and Learning (CTL), Learning Motivation, Quizizz.*