

ABSTRAK

Haifa Nur Afifah, 1222050055, 2026, “Penerapan Model *Round Robin Brainstorming* Berbantuan *Lumi Education* Terhadap Peningkatan Kemampuan Pemahaman Matematis Peserta Didik”

Kemampuan pemahaman matematis peserta didik yang masih perlu ditingkatkan menjadi latar belakang penelitian ini. Model *Round Robin Brainstorming* berbantuan *Lumi Education* dijadikan sebagai alternatif pembelajaran untuk meningkatkan kemampuan pemahaman matematis peserta didik. Penelitian ini bertujuan untuk mengetahui keterlaksanaan model *Round Robin Brainstorming* berbantuan *Lumi Education* dalam pembelajaran matematika, capaian kemampuan pemahaman matematis peserta didik, serta membandingkan perbedaan kemampuan pemahaman matematis antara kelas eksperimen dan kelas kontrol. Penelitian ini menggunakan pendekatan kuantitatif dengan metode kuasi eksperimen dan desain *Nonequivalent Control Group Design*. Populasi dalam penelitian ini mencakup lima kelas VIII di salah satu SMP Kabupaten Bandung. Sampel penelitian terdiri atas satu kelas eksperimen dan satu kelas kontrol. Teknik pengumpulan data dalam penelitian ini menggunakan instrumen tes kemampuan pemahaman matematis (*pretest* dan *posttest*) yang telah teruji validitas, reliabilitas, daya beda, dan tingkat kesukarannya, serta lembar observasi aktivitas guru dan peserta didik. Hasil penelitian menunjukkan bahwa keterlaksanaan pembelajaran berada pada kategori sangat baik dan peningkatan kemampuan pemahaman matematis kelas eksperimen lebih baik secara signifikan dibandingkan kelas kontrol. Temuan tersebut menunjukkan bahwa model *Round Robin Brainstorming* berbantuan *Lumi Education* dapat menjadi alternatif pembelajaran untuk mendukung penguatan pemahaman konsep matematis peserta didik.

Kata kunci: Kemampuan Pemahaman Matematis, *Lumi Education*, *Round Robin Brainstorming*.

ABSTRACT

Haifa Nur Afifah, 1222050055, 2026, "The Implementation of the Round Robin Brainstorming Model Assisted by Lumi Education to Improve Students' Mathematical Understanding Ability"

Students' mathematical understanding ability, which still needs improvement, forms the background of this study. The Round Robin Brainstorming model assisted by Lumi Education is used as an innovative interactive learning strategy to enhance students' mathematical understanding ability. This study aims to determine the implementation of the Round Robin Brainstorming model assisted by Lumi Education in mathematics learning, analyze students' mathematical understanding achievements, and compare the differences in mathematical understanding ability between the experimental and control classes. This quantitative study utilized a quasi-experimental approach with a Nonequivalent Control Group Design. The population comprised five eighth-grade classes at a public junior high school in Bandung Regency, with the sample consisting of one experimental class and one control class. Data were collected using a validated, reliable, and difficulty-analyzed mathematical understanding ability test (pretest and posttest), along with teacher and student activity observation sheets. The results showed that the learning implementation fell into the very good category and the improvement in mathematical understanding ability in the experimental class was significantly better than in the control class. These findings indicate that the Round Robin Brainstorming model assisted by Lumi Education can serve as an effective learning alternative to support the strengthening of students' mathematical concept understanding.

Keywords: *Mathematical Understanding Ability, Lumi Education, Round Robin Brainstorming.*