

ABSTRAK

Bunga Padilla Permata (2023). **Peningkatan Kemampuan Berpikir Logis Matematis dan *Self-efficacy* Siswa SMP melalui Model Pembelajaran Penemuan Terbimbing Berbantuan *Math Crossword Puzzle*.**

Kemampuan berpikir logis matematis merupakan salah satu keterampilan yang dibutuhkan dalam kegiatan pembelajaran di sekolah, khususnya pada mata pelajaran matematika. Dengan begitu, kemampuan berpikir logis matematis dapat membantu siswa dalam pemahaman yang lebih baik. *Self-efficacy* siswa dalam matematika juga menunjukkan keyakinan mereka terhadap kemampuan mereka untuk mengatasi tantangan atau hambatan ketika menyelesaikan masalah matematika untuk mencapai pemahaman yang lebih baik. Meskipun demikian, kemampuan berpikir logis matematis dan *self-efficacy* siswa di Indonesia masih sangat rendah. Model pembelajaran penemuan terbimbing berbantuan *Math Crossword Puzzle* merupakan salah satu alternatif pendekatan pembelajaran yang dapat digunakan untuk meningkatkan kemampuan berpikir logis matematis dan *self-efficacy*. Tujuan dari penelitian ini adalah untuk mengetahui: 1) peningkatan kemampuan berpikir logis matematis siswa yang menggunakan model pembelajaran penemuan terbimbing berbantuan *Math Crossword Puzzle* lebih tinggi daripada siswa yang menggunakan model pembelajaran konvensional; 2) kemampuan *self-efficacy* siswa yang menggunakan model pembelajaran penemuan terbimbing berbantuan *Math Crossword Puzzle* lebih baik daripada siswa yang menggunakan model pembelajaran konvensional; 3) korelasi antara kemampuan berpikir logis matematis dan *self-efficacy* siswa yang memperoleh model pembelajaran penemuan terbimbing berbantuan *Math Crossword Puzzle*. Penelitian ini merupakan penelitian *Nonequivalent Control Group Design* dengan subjek siswa kelas VIII SMP Bunga Bangsa dan objeknya adalah penerapan model pembelajaran penemuan terbimbing berbantuan *Math Crossword Puzzle*. Pengumpulan data dilakukan dengan memberikan instrumen tes kemampuan berpikir logis matematis diawal (*pretest*) berbentuk *Math Crossword Puzzle*, diikuti dengan tes akhir (*posttest*) dengan pertanyaan yang sama beserta angket mengenai *self-efficacy*. Data yang dikumpulkan dianalisa dan direfleksikan secara deskriptif kuantitatif. Rencana uji hipotesis yang digunakan yaitu uji *Independent Sample T-Test*, dengan diperoleh kesimpulan: 1) peningkatan kemampuan berpikir logis matematis pada siswa yang memperoleh model pembelajaran penemuan terbimbing berbantuan *Math Crossword Puzzle* lebih baik daripada siswa yang memperoleh pembelajaran konvensional; 2) *self-efficacy* siswa yang memperoleh model pembelajaran penemuan terbimbing berbantuan *Math Crossword Puzzle* dengan siswa yang memperoleh pembelajaran konvensional tidak berbeda secara signifikan; 3) tidak terdapat korelasi antara model pembelajaran penemuan terbimbing berbantuan *Math Crossword Puzzle* terhadap kemampuan berpikir logis matematis dan *self-efficacy* siswa SMP.

Kata Kunci: Model Pembelajaran Penemuan Terbimbing berbantuan *Math Crossword Puzzle*, Kemampuan Berpikir Logis Matematis, *Self-efficacy*.

ABSTRACT

Bunga Padilla Permata (2023). *Improving the Mathematical Logical Thinking Ability and Self-efficacy of Junior High School Students through the Guided Discovery Learning Model Assisted by Math Crossword Puzzle.*

The ability to think logically in mathematics is a necessary skill for learning activities at school, especially in mathematics. Therefore, the ability to think logically in mathematics can help students better understand the subject. Students' self-efficacy in mathematics also indicates their confidence in their ability to overcome challenges or obstacles when solving mathematical problems to achieve better understanding. However, the ability to think logically in mathematics and students' self-efficacy in Indonesia are still very low. The Guided Discovery Learning model assisted by Math Crossword Puzzle is an alternative learning approach that can be used to improve the ability to think logically in mathematics and self-efficacy. The purpose of this study is to determine: 1) whether the improvement of students' ability to think logically in mathematics, who use the Guided Discovery Learning model assisted by Math Crossword Puzzle, is higher than that of students who use conventional learning models; 2) whether the self-efficacy of students who use the Guided Discovery Learning model assisted by Math Crossword Puzzle is better than that of students who use conventional learning models; and 3) whether there is a correlation between the ability to think logically in mathematics and self-efficacy of students who obtain the Guided Discovery Learning model assisted by Math Crossword Puzzle. This research is a Nonequivalent Control Group Design study with eighth-grade students of Bunga Bangsa Junior High School as the subjects and the application of the Guided Discovery Learning model assisted by Math Crossword Puzzle as the object. Data collection was carried out by providing a pretest Math Crossword Puzzle-form logical thinking ability test, followed by a final test (posttest) with the same questions and a questionnaire on self-efficacy. The collected data were analyzed and reflected quantitatively descriptively. The hypothesis test plan used is the Independent Sample T-Test, with the conclusion: 1) the improvement in the ability to think logically in mathematics, in students who obtain the Guided Discovery Learning model assisted by Math Crossword Puzzle, is better than that of students who obtain conventional learning; 2) the self-efficacy of students who obtain the Guided Discovery Learning model assisted by Math Crossword Puzzle is not significantly different from that of students who obtain conventional learning; and 3) there is no correlation between the Guided Discovery Learning model assisted by Math Crossword Puzzle and the ability to think logically in mathematics and self-efficacy of junior high school students.

Keywords: *Guided Discovery Learning Model Assisted By Math Crossword Puzzle, Think Logically In Mathematics, Self-Efficacy*