ABSTRAK

Irfa Safitri, 1222050067, 2026, "Penerapan *Mind-Mapping* Interaktif Berbasis *Collaborative Whiteboard* Untuk Meningkatkan Kemampuan Koneksi Matematis Dan *Self-Efficacy* Peserta Didik"

Kemampuan koneksi matematis peserta didik yang masih perlu ditingkatkan menjadi latar belakang penelitian ini, sehingga diterapkan pembelajaran *mind-mapping* interaktif berbasis *collaborative whiteboard* sebagai salah satu alternatif pembelajaran. Tujuan penelitian ini adalah untuk mendeskripsikan pelaksanaan sintaks pembelajaran, mengetahui peningkatan dan membandingkan kemampuan koneksi matematis antara kelas eksperimen dan kelas kontrol, serta mendeskripsikan *self-efficacy* peserta didik pada kelas eksperimen. Penelitian ini menggunakan pendekatan kuantitatif dengan metode *quasi experiment* dan desain *non-equivalent control group design*. Sampel penelitian ditentukan menggunakan *purposive sampling*. Instrumen penelitian yang digunakan berupa tes kemampuan koneksi matematis yang telah melalui uji validitas dan reliabilitas, lembar observasi, dan angket *self-efficacy*. Hasil penelitian menunjukkan bahwa pelaksanaan sintaks pembelajaran berada pada kategori sangat baik, peningkatan kemampuan koneksi matematis peserta didik pada kedua kelas berada pada kategori sedang, peningkatan kemampuan koneksi matematis peserta didik pada kelas eksperimen lebih baik dibandingkan dengan kelas kontrol, dan *self-efficacy* peserta didik pada kelas eksperimen berada pada kategori positif. Temuan penelitian ini menunjukkan bahwa pembelajaran *mind-mapping* interaktif berbasis *collaborative whiteboard* dapat menjadi alternatif pembelajaran untuk mendukung pengembangan kemampuan koneksi matematis dan *self-efficacy* peserta didik.

Kata Kunci: *Mind-Mapping* Interaktif, *Collaborative Whiteboard*, Kemampuan Koneksi Matematis, *Self-Efficacy*

ABSTRACT

Irfa Safitri, 1222050067, 2026, "*The Application of Interactive Mind-Mapping Based on Collaborative Whiteboard to Improve Students' Mathematical Connection Ability and Self-Efficacy*"

The low level of students' mathematical connection ability motivated this study, leading to the implementation of interactive mind mapping based on a collaborative whiteboard as an alternative learning approach. This study aimed to describe the implementation of the learning syntax, examine and compare the improvement of students' mathematical connection ability between the experimental and control classes, and describe the self-efficacy of students in the experimental class. This study employed a quantitative approach using a quasi-experimental method with a non-equivalent control group design. The sample was selected using purposive sampling. The research instruments consisted of a mathematical connection ability test that had been validated and tested for reliability, an observation sheet, and a self-efficacy questionnaire. The findings revealed that the implementation of the learning syntax was categorized as very good. The improvement of students' mathematical connection ability in both classes was categorized as moderate, with the experimental class demonstrating greater improvement than the control class. Furthermore, the self-efficacy of students in the experimental class was categorized as positive. These findings indicate that interactive mind mapping based on a collaborative whiteboard can serve as an alternative instructional approach to support the development of students' mathematical connection ability and self-efficacy.

Keywords: *Interactive Mind-Mapping, Collaborative Whiteboard, Mathematical Connection Ability, Self-Efficacy*