ABSTRAK

Nabilah Ulfah, 1222050098, 2026, "Pendekatan *Concrete, Pictorial, Abstract* (CPA) Untuk Meningkatkan Kemampuan Representasi Matematis Dan *Self Efficacy* Siswa"

Kemampuan representasi matematis dan *Self Efficacy* siswa SMP pada materi Sistem Persamaan Linear Dua Variabel (SPLDV) masih tergolong rendah, sebagaimana ditunjukkan oleh studi pendahuluan di salah satu SMP Negeri di Kota Bandung. Penelitian ini bertujuan untuk mengkaji proses keterlaksanaan pendekatan *Concrete, Pictorial, Abstract* (CPA) yang dipadukan dengan sintak model *Discovery Learning*, serta menguji perbedaan peningkatan kemampuan representasi matematis dan *Self Efficacy* siswa yang memperoleh pembelajaran CPA dibandingkan dengan pembelajaran konvensional. Penelitian menggunakan pendekatan kuantitatif dengan metode quasi experimental melalui desain non-equivalent control group design, melibatkan siswa kelas VIII SMP Negeri 4 Kota Bandung yang dipilih melalui purposive sampling, yaitu kelas VIII-E sebagai kelas eksperimen ($n = 28$) dan kelas VIII-G sebagai kelas kontrol ($n = 24$). Data dikumpulkan melalui tes kemampuan representasi matematis, angket *Self Efficacy*, dan lembar observasi, kemudian dianalisis menggunakan N_{gain} serta uji hipotesis yang sesuai. Hasil penelitian menunjukkan bahwa keterlaksanaan pembelajaran dengan pendekatan CPA tergolong sangat baik dan konsisten (rata-rata 94,73% aktivitas guru dan 94,90% aktivitas siswa). Namun, hasil uji *Mann-Whitney U* menunjukkan tidak terdapat perbedaan peningkatan kemampuan representasi matematis yang signifikan antara kedua kelas ($Sig. 1 - tailed = 0{,}467 > 0{,}05$), demikian pula hasil uji-t independent pada *Self Efficacy* ($Sig. 1 - tailed = 0{,}209 > 0{,}05$), dengan kedua kelompok sama-sama berada pada kategori peningkatan rendah. Temuan ini mengindikasikan bahwa pendekatan CPA dapat diterapkan secara efektif dari segi proses pembelajaran, tetapi memerlukan durasi penerapan yang lebih panjang agar dampaknya terhadap kemampuan representasi matematis dan *Self Efficacy* siswa dapat terlihat secara signifikan.

Kata kunci: *Concrete, Pictorial, Abstract*; Kemampuan Representasi Matematis; *Self Efficacy*; SPLDV; *Discovery Learning*.

ABSTRACT

Nabilah Ulfah, 1222050098, 2026, "*The Concrete, Pictorial, Abstract (CPA) Approach to Improving Students' Mathematical Representation Skills and Self Efficacy*"

Junior high school students' mathematical representation ability and Self Efficacy on Systems of Linear Equations in Two Variables (SPLDV) remain relatively low, as shown by a preliminary study at a state junior high school in Bandung. This study examines the implementation of the Concrete, Pictorial, Abstract (CPA) approach combined with the Discovery Learning model, and tests differences in the improvement of mathematical representation ability and Self Efficacy between students taught with CPA and those taught conventionally. A quantitative approach with a quasi-experimental, non-equivalent control group design was used, involving eighth-grade students of SMP Negeri 4 Kota Bandung selected through purposive sampling: class VIII-E as the experimental class ($n = 28$) and class VIII-G as the control class ($n = 24$). Data were collected through a mathematical representation test, a Self Efficacy questionnaire, and observation sheets, then analyzed using Ngain and the appropriate hypothesis tests. Results show that the CPA-based learning was implemented very well and consistently (94.73% teacher activity, 94.90% student activity on average). However, the Mann-Whitney U test revealed no significant difference in the improvement of mathematical representation ability between the two classes ($1 - tailed\ Sig. = 0.467 > 0.05$), and the independent t-test likewise showed no significant difference in Self Efficacy ($1 - tailed\ Sig. = 0.209 > 0.05$); both groups fell into the low-improvement category. These findings indicate that the CPA approach can be implemented effectively in terms of the learning process, but requires a longer duration for its impact on students' mathematical representation ability and Self Efficacy to become statistically significant.

***Keywords**: Concrete, Pictorial, Abstract; Mathematical Representation Ability; Self Efficacy; SPLDV; Discovery Learning.*

UNIVERSITAS ISLAM NEGERI
SUNAN GUNUNG DJATI
BANDUNG