**MENINGKATKAN KOMUNIKASI MATEMATIS SERTA *SELF-EFFICACY* MELALUI PEMBELAJARAN *PROJECT ACTIVITY COOPERATIVE EXERCISE* DAN *COOPERATIVE-MEANINGFUL INTRUCTIONAL DESIGN***

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**Abstrak**

Penelitian ini bermaksud menganalisis penerapan pembelajaran model *PACE* dan *C-MID* untuk meningkatkan kemampuan komunikasi matematis serta *self-efficacy* siswa. Menggunakan metode campuran *(mixed methods)* tipe *Embedded Design* dengan populasinya seluruh siswa kelas VIII MTs PUI Banjaran Majalengka tahun pelajaran 2019/2020 dan mengambil sampel 3 kelas. Instrumen yang digunakan berupa tes kemampuan kemampuan komunikasi matematis dan non tes terdiri dari angket *self-efficacy* siswa, lembar observasi dan pedoman wawancara. Data hasil tes diolah untuk memperoleh data N-Gain, selanjutnya diuji menggunakan uji normalitas, *independent sample t-test,* uji *Mann Whitney,* uji *ANOVA* satu jalur, dan uji korelasi. Data hasil angket  *self-efficacy* siswa diolah menggunakan skala Likert. Hasil penelitian yang diperoleh adalah: Penerapan pembelajaran model *PACE* untuk meningkatkan komunikasi matematis serta *self-efficacy* siswa lebih baik daripada siswa dengan pembelajaran *C-MID* dan konvensional ditinjau dari keseluruhan, dan terdapat perbedaan peningkatan komunikasi matematis siswa yang memperoleh pembelajaran matematika dengan model *PACE, C-MID* dengan siswa yang memperoleh pembelajaran konvensional, serta tidak terdapat hubungan signifikan antara kemampuan koneksi matematis, komunikasi matematis dan *self-efficacy* matematis siswa yang memperoleh pembelajaran *PACE, C-MID* dan Konvensional.

**Kata Kunci** : Model *PACE*, Model *C-MID*, kemampuan komunikasi matematis, *self-efficacy* siswa.

**IMPROVING MATHEMATICAL COMMUNICATIONS SKILLS AND *SELF-EFFICACY* THROUGH *PROJECT ACTIVITY COOPERATIVE EXERCISE* LEARNING AND *COOPERATIVE-MEANINGFUL INRUCTIONAL DESIGN***

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**Abstract**

This study intends to analyze the application of *PACE* and *C-MID* learning models to improve students' mathematical communication skills and self-efficacy. Using the mixed methods of the Embedded Design type with a population of all eighth grade students of MTs PUI Banjaran Majalengka in the academic year 2019/2020 and taking a sample of 3 classes. The used instrument in the tests form of mathematical communication skills and non-tests consisted of student self-efficacy questionnaires, observation sheets and interview guidelines. The test result data is processed to obtain N-Gain data, then tested using the normality test, independent sample t-test, Mann Whitney test, one-way ANOVA test, and correlation test. Student self-efficacy questionnaires data were processed using a Likert scale. The obtained results are: The application of *PACE* learning models to improve mathematical communication and self-efficacy of students is better than students with *C-MID* and conventional learning in terms of overall, and there are differences in the improvement of mathematical communication of students who obtain mathematics learning with *PACE*, *C-MID* with students who obtain conventional learning, and there is a positive and historical no relationship between the ability of mathematical communication and mathematical self-efficacy of students who obtain PACE learning.

**Keywords:** *PACE* Model, *C-MID* Model, mathematical communication skills, student *self-efficacy*.