

**Pembelajaran Matematika Berbasis Fenomena Didaktis
melalui Pendekatan Saintifik untuk Meningkatkan Kemampuan Koneksi
Matematis dan *Self-Esteem* Siswa SMP**

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Abstrak

Penelitian ini bertujuan untuk mengetahui perbedaan pencapaian dan peningkatan kemampuan koneksi matematis serta *self-esteem* antara siswa yang memperoleh pembelajaran matematika berbasis fenomena didaktis melalui pendekatan saintifik dan siswa yang memperoleh pembelajaran matematika dengan bahan ajar buku kurikulum 2013 melalui pendekatan saintifik. Metode penelitian adalah kuasi eksperimen dengan desain penelitian *non equivalent pre-test and post-test design*. Populasi penelitian adalah seluruh siswa kelas VIII pada salah satu SMP Negeri di Kota Cirebon. Sampel penelitian adalah siswa kelas VIII A dan VIII B yang dipilih secara *purposive sampling* dari sembilan kelas yang ada. Kelas VIIIA sebagai kelas eksperimen dan kelas VIII B sebagai kelas kontrol. Instrumen yang digunakan berupa soal tes kemampuan koneksi matematis, bahan ajar LKS matematika bernuansa fenomena didaktis, angket *self-esteem*, lembar observasi, dan jurnal harian siswa. Analisis data dilakukan secara kuantitatif dan kualitatif. Analisis data kuantitatif dilakukan terhadap data postes dan gain ternormalisasi kemampuan koneksi matematis, serta angket *self esteem* siswa pada kedua kelas sampel penelitian. Hasil penelitian menunjukkan bahwa 1) tidak terdapat perbedaan pencapaian dan peningkatan yang signifikan pada kemampuan koneksi matematis siswa antara kelas eksperimen dan kontrol, 2) terdapat perbedaan yang signifikan pada *self-esteem* siswa kelas eksperimen dan kontrol, 3) terdapat perbedaan yang signifikan pada pencapaian dan peningkatan kemampuan koneksi matematis siswa, serta *self steem* siswa untuk kategori KMA (kemampuan matematis awal) tinggi dan sedang,

Kata Kunci: Pembelajaran Matematika Berbasis Fenomena Didaktis, Kemampuan Koneksi Matematis, dan *Self-Esteem*.

***Learning Mathematics Based on Didactical Phenomenology
through Scientific Approach to Improve Students' Mathematical Connections
and Self-Esteem in Junior High School Students***

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ABSTRACT

The purpose of this study is to determine achievement and improvement mathematical connection and self-esteem differences between students who learn mathematics based on didactical phenomenology through scientific approaches and students who learn mathematics with book of Curriculum 2013 through scientific approaches. The research methods is a quasi-experimental with non-equivalent pre-test and post-test research design. The population were all eighth grade students in one of the Junior High School in Cirebon. Samples are class VIII A and VIII B students were selected by purposive sampling of nine existing class. VIIIA as experimental class and VIII B as the control class. Instruments test mathematical connection ability, math worksheets nuanced didactical phenomenology, self-esteem questionnaires, observation sheets, and a daily journal of students are used in this study. The data were analyzed quantitatively and qualitatively. Quantitative data analysis conducted on the posttest and gain normalized mathematical connection, and self-esteem questionnaire students in both of study sample class. The results showed that; 1) there is no significant difference in achievement and improvement students' mathematical connection between the experimental and control classes, 2) there is a significant difference in self-esteem students between the experimental and control classes, 3) there is a significant difference in achievement and improvement students' mathematical connection, and self esteem for students with category KMA (early mathematical ability) high and medium,

Key Words: *didactical phenomenology, scientific approach, mathematical connection, self-esteem*