

**PENGARUH IMPLEMENTASI PEMBELAJARAN KOGNITIF SOSIAL  
DAN *PROBLEM-BASE LEARNING* TERHADAP PEROLEHAN DAN  
PENINGKATAN KEMAMPUAN PENALARAN MATEMATIS SISWA  
DITINJAU DARI *SELF-EFFICACY* MATEMATIS**

**DISERTASI**

Diajukan untuk Memenuhi Sebagian dari  
Persyaratan Memperoleh Gelar Doktor Ilmu Pendidikan  
dalam Bidang Pendidikan Matematika



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UNIVERSITAS PENDIDIKAN INDONESIA**

**2022**

# **Pengaruh Implementasi Pembelajaran Kognitif Sosial dan Problem-Base Learning Terhadap Perolehan dan Peningkatan Kemampuan Penalaran Matematis Siswa ditinjau dari Self-Efficacy Matematis**

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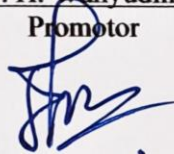
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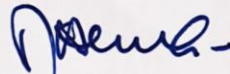
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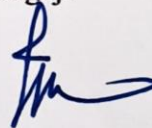
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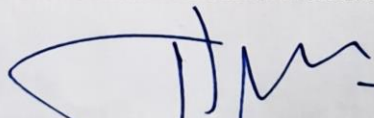


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## PERNYATAAN

Dengan ini saya menyatakan bahwa disertasi dengan judul “**Pengaruh Implementasi Pembelajaran Kognitif Sosial dan *Problem-base Learning* Terhadap Perolehan dan Peningkatan Kemampuan Penalaran Matematis Siswa Ditinjau dari *Self-efficacy* Matematis**” ini beserta seluruh isinya adalah benar hasil karya saya sendiri. Saya tidak melakukan penjiplakan atau pengutipan dengan cara-cara yang tidak sesuai dengan etika ilmu yang berlaku dalam masyarakat keilmuan. Atas pernyataan ini, saya siap menanggung resiko/sanksi apabila di kemudian hari ditemukan adanya pelanggaran etika keilmuan atau ada klaim dari pihak lain terhadap keaslian karya saya ini.

Bandung, 25 Juni 2022

Yang Membuat Pernyataan



Habibi Ratu Perwira Negara

## ABSTRAK

**Habibi Ratu Perwira Negara (2022).** Pengaruh Implementasi Pembelajaran Kognitif Sosial dan *Problem-base Learning* Terhadap Perolehan dan Peningkatan Kemampuan Penalaran Matematis Siswa Ditinjau dari *Self-efficacy* Matematis.

Penelitian ini bertujuan untuk menganalisis dan mendeskripsikan tentang pengaruh implementasi pembelajaran kognitif sosial (PKS) dan *problem-base learning* (PBL) terhadap perolehan dan peningkatan kemampuan penalaran matematis siswa ditinjau dari tingkat *self-efficacy* matematis siswa, serta diperolehnya konjektur yang mengaitkan tingkat *self-efficacy* matematis siswa dengan kemampuan penalaran matematis dalam menyelesaikan soal-soal limit fungsi. Metode di dalam penelitian ini adalah *mixed method* dengan jenis *explanatory sequential*. Dalam tahapan kuantitatif digunakan penelitian deskriptif dan kuasi eksperimen dengan jenis *one group pretest-posttes design*, *one way anova* dan desain faktorial 3 x 2. Dalam tahap kualitatif digunakan rancangan *case study* dengan perspektif *grounded theory* prosedur sistematis. Sampel dalam penelitian ini adalah siswa kelas XI SMA Negeri di Kota Bandung berjumlah 70 siswa. Hasil penelitian menunjukkan (i) implementasi model PKS berpengaruh secara signifikan terhadap perolehan dan peningkatan kemampuan penalaran matematis dibandingkan dengan model PBL, (ii) kemampuan penalaran matematis siswa yang memiliki tingkat *self-efficacy* matematis tinggi mengungguli siswa yang memiliki tingkat *self-efficacy* matematis rendah, (iii) siswa yang memiliki tingkat *self-efficacy* matematis tinggi, mencapai seluruh indikator kemampuan penalaran matematis yang dibutuhkan dalam menyelesaikan masalah, (iv) siswa yang memiliki tingkat *self-efficacy* matematis sedang atau rendah, kemampuan penalaran matematis yang dimiliki hanya sampai pada indikator *memorized reasoning*, *algorithmic reasoning*, dan *plausible*.

**Kata Kunci:** Kemampuan penalaran matematis, *self-efficacy* matematis, Kognitif sosial, PBL, *grounded theory*.

## ABSTRACT

**Habibi Ratu Perwira Negara (2022).** The Effect of the Implementation of Social Cognitive Learning and Problem-Based Learning on the Acquisition and Improvement of Students' Mathematical Reasoning Ability in terms of Mathematical Self-efficacy.

This study aims to analyze and describe the effect of implementing social cognitive learning (PKS) and problem-based learning (PBL) on the acquisition and improvement of students' mathematical reasoning abilities in terms of students' mathematical self-efficacy levels, as well as obtaining conjectures that link the level of self-efficacy. mathematical students with mathematical reasoning abilities in solving function limit problems. The method in this research is a mixed method with explanatory sequential type. In the quantitative stage, descriptive and quasi-experimental research was used with the type of one group pretest-posttest design, one way ANOVA and 3 x 2 factorial design. In the qualitative stage, a case study design was used with a grounded theory perspective with systematic procedures. The sample in this study were students of class XI SMA Negeri in the city of Bandung totaling 70 students. The results showed (i) the implementation of the PKS model had a significant effect on the acquisition and improvement of mathematical reasoning abilities compared to the PBL model, (ii) the mathematical reasoning ability of students who had a high level of mathematical self-efficacy outperformed students who had a low level of mathematical self-efficacy, (iii) students who have a high level of mathematical self-efficacy, achieving all the indicators of mathematical reasoning ability needed in solving problems, (iv) students who have moderate or low levels of mathematical self-efficacy, their mathematical reasoning abilities only reach the memorized indicator. reasoning, algorithmic reasoning, and plausible.

**Keywords:** Mathematical reasoning ability, mathematical self-efficacy, Social cognitive, PBL, grounded theory

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Habibi Ratu Perwira Negara, 2022

**PENGARUH IMPLEMENTASI PEMBELAJARAN KOGNITIF SOSIAL DAN PROBLEM-BASE LEARNING TERHADAP PEROLEHAN DAN PENINGKATAN KEMAMPUAN PENALARAN MATEMATIS SISWA DITINJAU DARI SELF-EFFICACY MATEMATIS**

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