

**PENINGKATAN KEMAMPUAN PEMAHAMAN DAN PENALARAN
MATEMATIS SISWA YANG MEMPEROLEH PEMBELAJARAN
DENGAN MODEL CGGD BERBASIS SOSIOKULTURAL
DITINJAU DARI LEVEL SELF-EFFICACY**

DISERTASI

Diajukan untuk memenuhi sebagian syarat untuk memperoleh
Gelar Doktor Pendidikan Dasar



Oleh

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**PROGRAM STUDI
PENDIDIKAN DASAR
SEKOLAH PASCASARJANA
UNIVERSITAS PENDIDIKAN INDONESIA
2020**

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*PENINGKATAN KEMAMPUAN PEMAHAMAN DAN PENALARAN MATEMATIS SISWA YANG MEMPEROLEH
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**Peningkatan Kemampuan Pemahaman dan Penalaran
Matematis Siswa yang Memperoleh Pembelajaran
dengan Model CGGD Berbasis Sosiokultural
Ditinjau dari Level *Self-Efficacy***

Oleh
Slamet Arifin

Dr. Pendidikan Dasar UPI, 2020

Sebuah Disertasi yang diajukan untuk memenuhi salah satu syarat memperoleh gelar
Doktor Pendidikan (Dr.) pada program Studi Pendidikan Dasar

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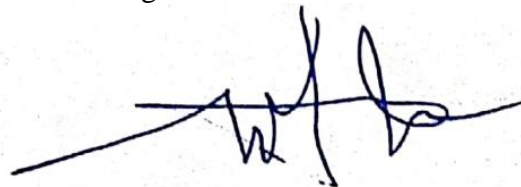
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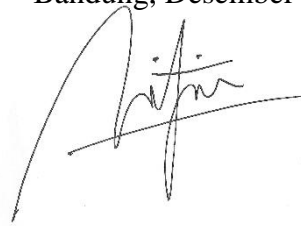
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Bandung, Desember 2020



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ABSTRAK**PENINGKATAN KEMAMPUAN PEMAHAMAN DAN PENALARAN
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Penelitian ini bertujuan untuk mengkaji peningkatan kemampuan pemahaman matematis siswa (KPMS), dan peningkatan kemampuan penalaran matematis siswa (KPnMS) yang memperoleh pembelajaran dengan model *Contextual Group Guided Discovery* (CGGD) berbasis sosiokultural dan *Problem Based Learning* (PBL) ditinjau dari level *self-efficacy* matematis siswa (SEMS), mengukur hubungan antara SEMS dengan kemampuan pemahaman matematis siswa (KPMS) dan kemampuan penalaran matematis siswa (KPnMS), dan penelitian ini juga bertujuan untuk mendeskripsikan gambaran tentang karakteristik *self-efficacy* matematis siswa (SEMS) berdasarkan pada kategori kelompok level SEMS (tinggi, sedang dan rendah). Penelitian ini merupakan *mixed method research* dengan mengacu pada prosedur *embedded design*. Subjek penelitian yang dilibatkan adalah 44 orang siswa kelas IV SD N 1 Purwawinangun, Kecamatan Kuningan, Kabupaten Kuningan, Jawa Barat. Instrumen yang digunakan untuk mengumpulkan data kuantitatif terdiri dari angket *self-efficacy* matematis siswa, tes pemahaman, dan penalaran matematis siswa. Sedangkan data kualitatif dikumpulkan dengan pengamatan, wawancara dan studi dokumentasi. Hasil penelitian menyimpulkan bahwa: 1) Terdapat perbedaan KPMS dan KPnMS yang signifikan diantara siswa yang belajar dengan model CGGD berbasis sosiokultural dan siswa yang belajar dengan model PBL; 2) Terdapat perbedaan KPMS dan KPnMS yang signifikan antara kelompok yang belajar dengan menggunakan model CGGD dan PBL berdasarkan level SEMS; 3) Tidak terdapat efek interaksi antara model pembelajaran dan SEMS terhadap KPMS dan KPnMS; 4) Terdapat korelasi yang kuat antara SEMS dengan KPMS dan KPnMS; 5) SEMS merupakan variabel prediktor terhadap KPMS dan KPnMS; 6) Siswa dengan SEMS tinggi menunjukkan kecenderungan memiliki KPMS dan KPnMS yang lebih baik dibandingkan dengan siswa dengan SEMS sedang, dan rendah; dan 7) Terdapat perbedaan karakteristik

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SEMS pada kelompok level SEMS tinggi, sedang dan rendah berdasarkan pada aspek *beliefs, choice of activity, goals, effort, persistence and interest*.

Kata kunci: *cggd, pemahaman matematis, penalaran matematis, problem based learning, self-efficacy matematis*.

ABSTRACT

THE ENHANCEMENT OF STUDENTS' MATHEMATICAL UNDERSTANDING AND REASONING THROUGH CGGD SOCIOCULTURAL-BASED LEARNING MODEL BASED ON LEVEL OF SELF-EFFICACY

The purposes of this research were to 1) investigate the enhancement of students' mathematical understanding (SMU) and students' mathematical reasoning (SMR) who have treatment learning mathematics through contextual group-guided discovery learning (CGGD) sociocultural-based learning model and problem-based learning (PBL) according to students' level of mathematics self-efficacy (SMSE); 2) investigate the relationship between SMSE, SMU, and SMR; and 3) explore the characteristics of SMSE based on the categories of high, medium, and low levels of SMSE. This research was conducted with mixed-methods research using an embedded design. The participants of this study were 44 fourth-grade students at SDN 1 Purwawinangun, Kuningan, Indonesia. The quantitative data were collected through a questionnaire of SMSE, a test of SMU, and a test of SMR. Moreover, the qualitative data were collected through interviews, observation, and documentation. The results of this study proved that 1) there was a significant difference between the SMU and SMR of students learning mathematics through CGGD and PBL; 2) there was a significant difference between the SMU and SMR of students learning mathematics through CGGD and PBL based on the level of SMSE; 3) there are no interaction effects between the learning models and SMSE, SMU, and SMR; 4) SMSE strongly correlated with SMU and SMR; 5) SMSE could be a predictor of SMU and SMR; 6) students with a high level of SMSE perform SMU and SMR better than students with medium and low levels of SMSE; and 7) there are differences between the characteristics of students with high, low, and medium levels of SMSE based on the following aspects: *beliefs, choice of activity, goals, effort, persistence, and interest*.

Keyword: *CGGD, mathematical reasoning, mathematical understanding, mathematics self-efficacy, problem-based learning*

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DAFTAR ISI

Isi	Halaman
Halaman Judul	i
Halaman Pengesahan	ii
Halaman Pernyataan Keaslian Disertasi dan Bebas Plagiarisme	iii
Halaman Ucapan Terimakasih	iv
Abstrak	vi
Abstract	vii
Daftar Isi	viii
Daftar Tabel	ix
Daftar Gambar	xi
Daftar Lampiran	xii
BAB I PENDAHULUAN	1
1.1 Latar Belakang	1
1.2 Tujuan Penelitian	11
1.3 Pertanyaan Penelitian	12
1.4 Manfaat Penelitian	13
1.5 Definisi Operasional Variabel	14
BAB II KAJIAN LITERATUR	16
2.1 Kemampuan Pemahaman Matematis Siswa	16
2.2 Kemampuan Penalaran Penalaran Matematis Siswa	23
2.3 <i>Self-Efficacy</i> Matematis Siswa	29
2.4 Model <i>Contextual Group Guided Discovery</i> Berbasis Sosiokultural	41
2.5 Penelitian Terdahulu yang Relevan	51
2.6 Hipotesis Penelitian	61
BAB III METODE PENELITIAN	63
3.1 Desain Penelitian	63
3.2 Prosedur Penelitian	64
3.3 Lokasi dan Subjek Penelitian	69
3.4 Variabel dan Fenomena Sentral Penelitian	71
3.5 Teknik Pengumpulan Data	71
3.6 Instrumen Penelitian	72
3.7 Validitas dan Reliabilitas Instrumen Penelitian	77
3.8 Teknik Analisis Data	82
BAB IV HASIL PENELITIAN DAN PEMBAHASAN	85
4.1 Hasil Penelitian	85
4.2 Pembahasan	137
BAB V SIMPULAN DAN REKOMENDASI	150
5.1 Simpulan	150
5.2 Rekomendasi	153

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DAFTAR TABEL

Tabel	Halaman
Tabel 3.1	67
Tabel 3.2	73
Tabel 3.3	74
Tabel 3.4	75
Tabel 3.5	79
Tabel 3.6	80
Tabel 3.7	80
Tabel 3.8	81
Tabel 3.9	81
Tabel 3.10	82
Tabel 4.1	88
Tabel 4.2	89
Tabel 4.3	91
Tabel 4.4	93
Tabel 4.5	95
Tabel 4.6	96
Tabel 4.7	98
Tabel 4.8	99
Tabel 4.9	101
Tabel 4.10	103
Tabel 4.11	103
Tabel 4.12	105
Tabel 4.13	108
Tabel 4.14	108
Tabel 4.15	110
Tabel 4.16	112
Tabel 4.17	114
Tabel 4.18	116

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PENINGKATAN KEMAMPUAN PEMAHAMAN DAN PENALARAN MATEMATIS SISWA YANG MEMPEROLEH PEMBELAJARAN DENGAN MODEL CGGD BERBASIS SOSIOKULTURAL DITINJAU DARI LEVEL SELF-EFFICACY

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Tabel 4.19	Hasil Analisis Statistik Deskriptif KPnMS Berdasarkan Level SEMS.....	119
Tabel 4.20	Karakteristik Siswa dengan Level SEMS Rendah.....	126
Tabel 4.21	Karakteristik Siswa dengan Level SEMS Sedang.....	131
Tabel 4.22	Karakteristik Siswa dengan Level SEMS Tinggi.....	134

DAFTAR GAMBAR

Gambar	Halaman
Gambar 2.1 Skema Tingkatan Proses Perkembangan Pemahaman.....	18
Gambar 2.2 Model of Dispositions and Attitudes in Mathematics.....	33
Gambar 3.1 Penelitian Campuran Desain <i>Embedded</i>	63
Gambar 3.2 Prosedur Pelaksanaan Penelitian.....	65
Gambar 3.3 Desain Faktorial 3×2	66
Gambar 3.4 Desain Penelitian Kualitatif.....	68
Gambar 3.5 Proses Analisis Data Kualitatif.....	83
Gambar 4.1 Sebaran Skor Pre-Test KPMS.....	87
Gambar 4.2 Sebaran Skor Post-Test KPMS.....	89
Gambar 4.3 Sebaran Skor Pre-Test KPnMS.....	92
Gambar 4.4 Sebaran Skor Post-Test KPnMS.....	94
Gambar 4.5 Sebaran Skor SEMS Pada Kelompok PBL dan CGGD.....	97
Gambar 4.6 Pola Hubungan Antara SEMS dan KPMS.....	113
Gambar 4.7 Pola Hubungan Antara SEMS dan KPnMS.....	115
Gambar 4.8 Distribusi Pengelompokan Siswa Berdasarkan Level SEMS Pada Kelas CGGD dan PBL.....	123
Gambar 4.9 Distribusi Pengelompokan Siswa Berdasarkan Level SEMS Secara Keseluruhan.....	124

DAFTAR LAMPIRAN

Lampiran	Halaman
Lampiran 1. Tes Pemahaman Matematis Siswa.....	168
Lampiran 2. Tes Penalaran Matematis Siswa.....	171
Lampiran 3. Angket Pengukuran Self-Efficacy Matematis.....	176
Lampiran 4. RPP Model Pembelajaran CGGD.....	179
Lampiran 5. RPP Model Pembelajaran PBL.....	223
Lampiran 6. Skor Pre-Test dan Post-Test KPMS.....	266
Lampiran 7. Skor Pre-Test dan Post Test KPnMS.....	267
Lampiran 8. Dokumentasi Kegiatan Penelitian.....	268
Lampiran 9. Surat Keterangan Pelaksanaan Penelitian.....	269
Lampiran 10. Buku Model CGGD Berbasis Sosiokultural.....	270

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PENINGKATAN KEMAMPUAN PEMAHAMAN DAN PENALARAN MATEMATIS SISWA YANG MEMPEROLEH PEMBELAJARAN DENGAN MODEL CGGD BERBASIS SOSIOKULTURAL DITINJAU DARI LEVEL SELF-EFFICACY

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