**DAFTAR ISI**

|  |  |  |
| --- | --- | --- |
|  |  | **Hal.** |
| **ABSTRAK**  | i |
| **KATA PENGANTAR**  | ii |
| **DAFTAR ISI**  | iv |
| **DAFTAR TABEL**  | vi |
| **DAFTAR GAMBAR**  | xii |
| **DAFTAR LAMPIRAN**  | xiii |
| **BAB I** | **PENDAHULUAN** |  |
|  | * 1. Latar Belakang
 | 1 |
|  | * 1. Rumusan dan Batasan Masalah
 | 5 |
|  | * 1. Batasan Masalah
 | 5 |
|  | 1.4 Tujuan Penelitian  | 6 |
|  | 1.5 Manfaat Penelitian  | 6 |
| **BAB II** | **KAJIAN PUSTAKA** |  |
|  | * 1. Kemampuan Komunikasi Matematis
 | 8 |
|  | 2.2 *Self Confidence*  | 9 |
|  | * 1. Model *Discovery Learning*
 | 11 |
|  | * 1. Model *Problem Based Learning*
 | 13 |
|  | 2.5 Penelitian yang Relevan  | 14 |
|  | 2.6 Hubungan Kemampuan Komunikasi Matematis dan *Self Confidence* dengan Model *Discovery Learning* dan Model *Problem Based Learning*  | 16 |
|  | 2.7 Asumsi Dasar  | 17 |
|  | 2.8 Hipotesis  | 18 |
| **BAB III** | **METODOLOGI PENELITIAN** |  |
|  | * 1. Definisi Operasional Variabel Penelitian
 | 19 |
|  | * 1. Metode Penelitian
 | 20 |
|  | * 1. Desain Penelitian
 | 20 |
|  | * 1. Variabel Penelitian
 | 20 |
|  | * 1. Populasi dan Sampel Penelitian
 | 21 |
|  | * 1. Waktu dan Tempat Penelitian
 | 21 |
|  | * 1. Instrumen Penelitian
 | 22 |
|  | * 1. Teknik Analisis Data
 | 31 |
|  | * 1. Prosedur Penelitian
 | 35 |
|  | * 1. Alur Penelitian
 | 37 |
| **BAB IV** | **HASIL PENELITIAN DAN PEMBAHASAN** |  |
|  | * 1. Hasil Penelitian
 | 38 |
|  | * 1. Pembahasan
 | 52 |
| **BAB V** | **SIMPULAN DAN SARAN** |  |
|  | * 1. Simpulan
 | 62 |
|  | * 1. Saran
 | 62 |
| **DAFTAR PUSTAKA**  | 64 |
| **DAFTAR RIWAYAT HIDUP**  | 341 |

**DAFTAR TABEL**

|  |  |  |
| --- | --- | --- |
| **Tabel** |  | **Hal.** |
| 2.1 | Sintaks Model PBL  | 13 |
| 3.1 | Jadwal Kegiatan Penelitian  | 22 |
| 3.2 | Pedoman Pemberian Skor Komunikasi Matematis  | 23 |
| 3.3 | Klasifikasi Koefisien Validitas  | 24 |
| 3.4 | Rekapitulasi Perhitungan Validitas Butir Soal  | 25 |
| 3.5 | Klasifikasi Koefisien Reliabilitas  | 26 |
| 3.6 | Klasifikasi Daya Pembeda  | 27 |
| 3.7 | Rekapitulasi Daya Pembeda Instrumen Penelitian  | 27 |
| 3.8 | Rekapitulasi Tingkat Kesukaran Instrumen Penelitian  | 27 |
| 3.9 | Rekapitulasi Hasil Uji Coba Soal  | 28 |
| 3.10 | Penilaian Pernyataan Positif dan Negatif  | 29 |
| 3.11 | Rekapitulasi Validitas Angket  | 30 |
| 3.12 | Klasifikasi Kriteria Uji Gain Ternormalisasi dengan Dimodifikasi  | 31 |
| 4.1 | Data Hasil Penelitian  | 38 |
| 4.2 | Data Hasil *Method of Successive Interval* (MSI) *Self Confidence* Siswa  | 40 |
| 4.3 | Data Hasil Gain Ternormalisasi Kelas Model *Discovery Learning*  | 41 |
| 4.4 | Data Hasil Gain Ternormalisasi Kelas Model *Problem Based* *Learning*  | 42 |
| 4.5 | Rekapitulasi Hasil Uji Normalitas Data Gain Ternormalisasi  | 43 |
| 4.6 | Rekapitulasi Hasil Perhitungan Uji *Mann Whitney*  | 43 |
| 4.7 | Persentase Pencapaian Hasil Belajar Siswa  | 44 |
| 4.8 | Data Angket Hasil Gain Ternormalisasi Kelas Model *Discovery* *Learning*   | 45 |
| 4.9 | Rekapitulasi Interpretasi *Self Confidence* Secara Umum Kelas Model *Discovery Learning*  | 45 |
| 4.10 | Interpretasi *Self Confidence* Siswa Kelas Model *Discovery Learning* terhadap Masing-masing Indikator  | 46 |
| 4.11 | Data Angket Hasil Gain Ternormalisasi Kelas Model *Problem Based Learning*  | 48 |
| 4.12 | Rekapitulasi Interpretasi *Self Confidence* Secara Umum Kelas Model *Problem Based Learning*  | 48 |
| 4.13 | Interpretasi *Self Confidence* Siswa Kelas Model *Problem Based* *Learning* terhadap Masing-masing Indikator  | 49 |
| 4.14 | Rekapitulasi Hasil Uji Normalitas Data Angket Gain Ternormalisasi  | 51 |
| 4.15 | Hasil Uji Homogenitas Dua Varians  | 51 |
| 4.16 | Rekapitulasi Hasil Perhitungan Uji t  | 52 |
| 2.1.1 | Rekapitulasi Data Hasil Uji Coba Instrumen Penelitian  | 94 |
| 2.2.1 |  Klasifikasi Koefisien Validitas  | 95 |
| 2.2.2 | Rekapitulasi Perhitungan Validitas Butir Soal  | 96 |
| 2.3.1 | Klasifikasi Koefisen Reliabilitas  | 97 |
| 2.3.2 | Perhitungan Uji Reliabilitas Instrumen Penelitian  | 97 |
| 2.4.1 | Kasifikasi Daya Pembeda  | 99 |
| 2.4.2 | Data Kelompok Atas  | 100 |
| 2.4.3 | Data Kelompok Bawah  | 100 |
| 2.4.4 | Rekapitulasi Daya Pembeda Instrumen Penelitian  | 101 |
| 2.4.5 | Klasifikasi Tingkat Kesukaran  | 101 |
| 2.4.6 | Rekapitulasi Tingkat Kesukaran Instrumen Penelitian  | 102 |
| 2.4.7 | Rekapitulasi Analisis Butir Soal Uji Coba  | 102 |
| 2.5.1 | Rekapitulasi Data Hasil Uji Coba Angket Skala *Self Confidence*  | 103 |
| 2.5.2 | Penilaian Pernyataan Positif  | 105 |
| 2.5.3 | Data Skala Ordinal dan Frekuensi Pernyataan No. 20  | 106 |
| 2.5.4 | Data Nilai Dari Proporsi Kumulatif dan Densitas  | 109 |
| 2.5.5 | Perubahan Skala Ordinal Menjadi Skala Interval Pernyataan Nomor 20  | 111 |
|  |  |  |
| 2.5.6 | Rekapitulasi Hasil Transformasi Skala Ordinal Menjadi Skala Interval  | 112 |
| 2.6.1 | Data Validitas Angket Skala *Self Confidence* untuk Pernyataan No. 1  | 114 |
| 2.6.2 | Rekapitulasi Hasil Perhitungan Validitas Butir Angket Skala *Self* *Confidence*  | 117 |
| 2.7.1 | Data Perhitungan Reliabilitas Angket Skala *Self Confidence*   | 118 |
| 2.7.2 | Klasifikasi Koefisien Reliabilitas  | 120 |
| 4.1.1 | Data *Pretest* Kelas Model *Discovery Learning*   | 193 |
| 4.1.2 | Data *Pretest* Kelas Model *Problem Based Learning*  | 194 |
| 4.1.3  | Data *Posttest* Kelas Model *Discovery Learning*   | 195 |
| 4.1.4 | Data *Posttest* Kelas Model *Problem Based Learning*  | 196 |
| 4.2.1 | Interpretasi Gain Ternormalisasi yang Dimodifikasi  | 197 |
| 4.2.2  | Data Gain Ternormalisasi Kelas Model *Discovery Learning*  | 198 |
| 4.2.3  | Rekapitulasi Gain Ternormalisasi Kelas Model *Discovery* *Learning*  | 199 |
| 4.2.4  | Data Gain Ternormalisasi Kelas Model *Problem Based* *Learning*  | 200 |
| 4.2.5  | Rekapitulasi Gain Ternormalisasi Kelas Model *Problem Based* *Learning*   | 201 |
| 4.3.1  | Skor Total Gain Kelas Model *Discovery Learning* Setelah Diurutkan Dari Skor Terkecil  | 203 |
| 4.3.2  | Uji *Lilliefors* Kelas Model *Discovery Learning*  | 204 |
| 4.3.3  | Skor Total Gain Kelas Model *Problem Based Learning* Setelah Diurutkan Dari Skor Terkecil  | 207 |
| 4.3.4  | Uji *Lilliefors* Kelas Model *Problem Based Learning*  | 208 |
| 4.3.5  | Data Ranking Gabungan Kelas Model *Discovery Learning* dan *Problem Based Learning*  | 211 |
| 4.3.6  | Data Rank Gain Kelas Model *Discovery Learning* dan *Problem Based Learning*  | 212 |
| 4.3.7  | Data Pencapaian Belajar Siswa Kelas Model *Discovery* *Learning*   | 215 |
| 4.3.8  | Data Pencapaian Belajar Siswa Kelas Model *Problem Based* *Learning*   | 216 |
| 4.3.9  | Data Presentase Pencapaian Belajar Siswa Kelas Model *Discovery Learning*  | 217 |
| 4.3.10 | Data Presentase Pencapaian Belajar Siswa Kelas Model *Problem* *Based Learning*  | 217 |
| 4.4.1  | Data Hasil Angket *Self Confidence* Awal Kelas Model *Discovery* *Learning*  | 218 |
| 4.4.2  | Data Hasil Angket *Self Confidence* Awal Kelas Model *Problem* *Based Learning*  | 220 |
| 4.4.3  | Data Hasil Angket *Self Confidence* Akhir Kelas Model *Discovery Learning*  | 222 |
| 4.4.4  | Data Hasil Angket *Self Confidence* Akhir Kelas Model *Problem* *Based Learning*  | 224 |
| 4.5.1 | Data Interval Angket *Self Confidence* Awal Kelas Model *Discovery Learning*   | 227 |
| 4.5.2 | Data Interval Angket *Self Confidence* Awal Kelas Model *Problem Based Learning*   | 229 |
| 4.5.3 | Data Interval Angket *Self Confidence* Akhir Kelas Model *Discovery Learning*  | 231 |
| 4.5.4 | Data Interval Angket *Self Confidence* Akhir Kelas Model *Problem Based Learning*  | 233 |
| 4.6.1 | Data Angket Gain Ternormalisasi Kelas Model *Discovery* *Learning*   | 236 |
| 4.6.2 | Rekapitulasi Angket Gain Ternormalisasi Kelas Model *Discovery Learning*   | 237 |
| 4.6.3 | Skala Tanggapan Interpretasi *Self Confidence* Siswa secara Umum  | 238 |
| 4.6.4 | Interpretasi *Self Confidence* Siswa secara Umum  | 238 |
| 4.6.5 | Skala Tanggapan Interpretasi *Self Confidence* Siswa Indikator 1 secara Umum  | 239 |
|  |  |  |
| 4.6.6 | Interpretasi *Self Confidence* Siswa Berdasarkan Indikator 1 Kelas Model *Discovery Learning*  | 239 |
| 4.6.7 | Skala Tanggapan Interpretasi *Self Confidence* Siswa Indikator 2 secara Umum  | 240 |
| 4.6.8 | Interpretasi *Self Confidence* Siswa Berdasarkan Indikator 2 Kelas Model *Discovery Learning*  | 240 |
| 4.6.9 | Skala Tanggapan Interpretasi *Self Confidence* Siswa Indikator 3 secara Umum  | 241 |
| 4.6.10 | Interpretasi *Self Confidence* Siswa Berdasarkan Indikator 3 Kelas Model *Discovery Learning*  | 241 |
| 4.6.11 | Skala Tanggapan Interpretasi *Self Confidence* Siswa Indikator 4 secara Umum  | 242 |
| 4.6.12 | Interpretasi *Self Confidence* Siswa Berdasarkan Indikator 4 Kelas Model *Discovery Learning*  | 242 |
| 4.6.13 | Skala Tanggapan Interpretasi *Self Confidence* Siswa Indikator 5 secara Umum  | 243 |
| 4.6.14 | Interpretasi *Self Confidence* Siswa Berdasarkan Indikator 5 Kelas Model *Discovery Learning*  | 243 |
| 4.6.15 | Data Angket Gain Ternormalisasi Kelas Model *Problem Based* *Learning*   | 245 |
| 4.6.16 | Rekapitulasi Angket Gain Ternormalisasi Kelas Model *Problem* *Based Learning*   | 246 |
| 4.6.17 | Skala Tanggapan Interpretasi *Self Confidence* Siswa secara Umum  | 247 |
| 4.6.18 | Interpretasi *Self Confidence* Siswa secara Umum  | 247 |
| 4.6.19 | Skala Tanggapan Interpretasi *Self Confidence* Siswa Indikator 1secara Umum  | 248 |
| 4.6.20 | Interpretasi *Self Confidence* Siswa Berdasarkan Indikator 1 Kelas Model *Problem Based Learning*  | 248 |
| 4.6.21 | Skala Tanggapan Interpretasi *Self Confidence* Siswa Indikator 2secara Umum  | 249 |
| 4.6.22 | Interpretasi *Self Confidence* Siswa Berdasarkan Indikator 2 Kelas Model *Problem Based Learning*  | 249 |
| 4.6.23 | Skala Tanggapan Interpretasi *Self Confidence* Siswa Indikator 3 secara Umum  | 250 |
| 4.6.24 | Interpretasi *Self Confidence* Siswa Berdasarkan Indikator 3 Kelas Model *Problem Based Learning*  | 250 |
| 4.6.25 | Skala Tanggapan Interpretasi *Self Confidence* Siswa Indikator 4secara Umum  | 251 |
| 4.6.26 | Interpretasi *Self Confidence* Siswa Berdasarkan Indikator 4 Kelas Model *Problem Based Learning*  | 251 |
| 4.6.27 | Skala Tanggapan Interpretasi *Self Confidence* Siswa Indikator 5secara Umum  | 252 |
| 4.6.28 | Interpretasi *Self Confidence* Siswa Berdasarkan Indikator 5 Kelas Model *Problem Based Learning*  | 252 |
| 4.7.1 | Skor Total Gain Kelas Model *Discovery Learning* Setelah Diurutkan Dari Skor Terkecil  | 254 |
| 4.7.2 | Uji *Lilliefors* *Self Confidence* Siswa Kelas Model *Discovery* *Learning*  | 255 |
| 4.7.3 | Skor Total Gain Kelas Model *Problem Based Learning* Setelah Diurutkan Dari Skor Terkecil  | 257 |
| 4.7.4 | Uji *Lilliefors* *Self Confidence* Siswa Kelas Model *Problem* *Based Learning*  | 258 |
| 4.7.5 | Rata-rata dan Simpangan Baku  | 260 |
| 7.1.1  | Daftar Proporsi z  | 324 |
| 7.2.1  | Distribusi t  | 325 |
| 7.3.1  | Nilai Kritis Uji *Lilliefors*  | 326 |
| 7.4.1  | Distribusi Nilai Presentil untuk Distribusi F  | 327 |

**DAFTAR GAMBAR**

|  |  |  |
| --- | --- | --- |
| **Gambar** |  | **Hal.** |
| 3.1 | Alur Pelaksanaan Penelitian  | 37 |
| 4.1 | Nilai Rata-Rata *Prestest, Posttest,* Gain  | 39 |
| 4.2 | Nilai Rata-rata Angket Awal, Angket akhir, Gain  | 41 |
| 4.3 | Tahap *Stimulation*  | 53 |
| 4.4 | Tahap *Data Collection*  |  53 |
| 4.5 | Tahap Mengorganisasikan Peserta Didik | 56 |
| 4.6 | Tahap Membimbing Kelompok Investigasi |  57 |
| 4.7 | Tahap Mengembangkan dan Menyajikan Hasil Karya | 57 |

**DAFTAR LAMPIRAN**

|  |  |  |
| --- | --- | --- |
|  |  | **Hal.** |
| **LAMPIRAN 1 INSTRUMEN PENELITIAN** |
| 1.1 | Kisi-kisi Instrumen Penelitian  | 67 |
| 1.2 | Pedoman Penskoran Soal Kemampuan Komunikasi Matematis  | 70 |
| 1.3 | Soal Uji Coba  | 73 |
| 1.4 | Kunci Jawaban dan Penskoran Instrumen Penelitian  | 75 |
| 1.5 | Soal *Pretest*  | 81 |
| 1.6 | Soal *Posttest*  | 83 |
| 1.7 | Kisi-kisi Angket *Self Confidence* Uji Coba  | 85 |
| 1.8 | Angket *Self Confidence* Uji Coba  | 86 |
| 1.9 | Kisi-kisi Angket *Self Confidence* dan Penskoran  | 89 |
| 1.10 | Angket *Self Confidence* Awal  | 90 |
| 1.11 | Angket *Self Confidence* Akhir  | 92 |
| **LAMPIRAN 2 ANALISIS INSTRUMEN HASIL UJI COBA** |
| 2.1 | Data Hasil Uji Coba Instrumen Penelitian  | 94 |
| 2.2 | Validitas Butir Soal  | 95 |
| 2.3 | Reliabilitas Instrumen Penelitian  | 97 |
| 2.4 | Daya Pembeda dan Tingkat Kesukaran Soal  | 99 |
| 2.5 | Transformasi Data Ordinal ke Interval Pada Angket *Self Confidence* Uji Coba  | 103 |
| 2.6 | Validitas Butir Angket *Self Confidence* Uji Coba  | 114 |
| 2.7 | Reliabilitas Angket *Self Confidence*  | 118 |
| **LAMPIRAN 3 PERANGKAT PEMBELAJARAN** |
| 3.1 | Silabus Pembelajaran  | 122 |
| 3.2 | Rencana Pelaksanaan Pembelajaran Kelas Model *Discovery Learning*  | 125 |
| 3.3 | Rencana Pelaksanaan Pembelajaran Kelas Model *Problem Based Learning*  | 137 |
| 3.4 | Lembar Kerja Siswa Kelas Model *Discovery Learning*  | 155 |
| 3.5 | Lembar Kerja Siswa Kelas Model *Problem Based Learning*  | 175 |
| 3.6 | Lembar Observasi Guru dan Siswa  | 184 |
| **LAMPIRAN 4 ANALISIS DATA HASIL PENELITIAN** |
| 4.1 | Data Hasil *Pretest* dan *Posttest* Kelas Model *Discovery Learning* dan *Problem Based Learning*  | 193 |
| 4.2 | Data Gain Kelas Model *Discovery Learning* dan *Problem Based Learning*   | 197 |
| 4.3 | Analisis Perbedaan Peningkatan Kemampuan Komunikasi Matematis Antara Kelas *Discovery Learning* dan *Problem Based Learning*  | 202 |
| 4.4 | Analisis Data Angket *Self Confidence* Siswa Kelas Model *Discovery Learning* dan *Problem Based Learning*  | 218 |
| 4.5 | Analisis Data Angket *Self Confidence* Siswa Menggunakan *Method Of Successive Interval* (MSI)  | 226 |
| 4.6 | Analisis Angket ke Data Gain Ternormalisasi  | 235 |
| 4.7 | Analisis Perbedaan Peningkatan *Self Confidence*  Siswa Kelas Model *Discovery Learning* dan *Problem Based Learning*  | 254 |
| **LAMPIRAN 5 HASIL OBSERVASI PEMBELAJARAN** |
| 5.1 | Hasil Observasi Pembelajaran Kelas Model *Discovery Learning*  | 263 |
| 5.2 | Hasil Observasi Pembelajaran Kelas Model *Problem Based Learning*  | 279 |
| **LAMPIRAN 6 SAMPEL BERKAS JAWABAN SISWA** |
| 6.1 | Sampel Hasil Jawaban Uji Coba Instrumen Penelitian  | 303 |
| 6.2 | Sampel Hasil Jawaban *Pretest* Kelas Model *Discovery* *Learning*  | 307 |
| 6.3 | Sampel Hasil Jawaban *Pretest* Kelas Model *Problem Based Learning*  | 308 |
| 6.4 | Sampel Hasil Jawaban *Posttest* Kelas Model *Discovery Learning*  | 309 |
| 6.5 | Sampel Hasil Jawaban *Posttest* Kelas Model *Problem Based Learning*  | 311 |
| 6.6 | Sampel Hasil Jawaban Angket *Self Confidence* Uji Coba  | 314 |
|  |  |  |
| 6.7 | Sampel Hasil Jawaban Angket *Self Confidence* Awal Kelas Model *Discovery Learning*  | 317 |
| 6.8 | Sampel Hasil Jawaban Angket *Self Confidence* Awal Kelas Model *Problem Based Learning*  | 319 |
| 6.9 | Sampel Hasil Jawaban Angket *Self Confidence* Akhir Kelas Model *Discovery Learning*  | 321 |
| 6.10 | Sampel Hasil Jawaban Angket *Self Confidence* Akhir Kelas Model *Problem Based Learning*  | 323 |
| **LAMPIRAN 7 TABEL STATISTIKA** |
| 7.1 | Tabel Proporsi Z  | 325 |
| 7.2 | Tabel Distribusi t  | 326 |
| 7.3 | Tabel Uji *Liliefors*  | 327 |
| 7.4 | Tabel Distribusi F  | 328 |
| **LAMPIRAN 7 ADMINISTRASI PENELITIAN** |
| 8.1 | Surat Keputusan Bimbingan Skripsi  | 332 |
| 8.2 | Surat Permohonan Izin Penelitian  | 333 |
| 8.3 | Surat Keterangan Telah Melaksanakan Penelitian  | 334 |
| 8.4 | Kartu Bimbingan Skripsi  | 335 |
| **LAMPIRAN 8 DOKUMENTASI KEGIATAN** |
| 9.1 | Dokumentasi Kegiatan Uji Coba Instrumen Penelitian  | 337 |
| 9.2 | Dokumentasi Kegiatan *Pretest* Kelas Model *Discovery Learning* dan *Problem Based Learning*  | 338 |
| 9.3 | Dokumentasi Kegiatan Pembelajaran Kelas Model *Discovery Learning*, *Problem Based Learning,* dan Observer  | 339 |
| 9.4 | Dokumentasi Kegiatan *Posttest* Kelas Model *Discover Learning* dan *Problem Based Learning*  | 340 |