**DAFTAR ISI**

|  |  |  |
| --- | --- | --- |
|  |  | **Hal.** |
| **ABSTRAK**............................................................................................................... | | i |
| **KATA PENGANTAR**............................................................................................ | | ii |
| **DAFTAR ISI**........................................................................................................... | | v |
| **DAFTAR TABEL**................................................................................................... | | vii |
| **DAFTAR GAMBAR**.............................................................................................. | | ix |
| **DAFTAR LAMPIRAN**.......................................................................................... | | x |
| **BAB I** | **PENDAHULUAN** |  |
|  | 1. Latar Belakang...................................................................................... | 1 |
|  | 1. Rumusan Masalah.................................................................................. | 6 |
|  | 1. Batasan Masalah……………………………………………………… 2. Tujuan Penelitian................................................................................... | 6  7 |
|  | 1. Manfaat Penelitian……………………………………………………. 2. Anggapan Dasar…................................................................................. | 7  8 |
| **BAB II** | **KAJIAN PUSTAKA** |  |
|  | 1. Kemampuan Penalaran Matematis…………………..………………. 2. Kemampuan Penalaran Deduktif Matematis........................................ | 9  11 |
|  | 1. Model *Problem Based Learning*…...................................................... | 13 |
|  | 1. Model *Inquiry Based Learning*................................*.*......... ................. | 17 |
|  | 1. Kemampuan Awal Matematis.............................................................. | 21 |
|  | 1. Keterkaitan antara Model *PBL* dan Model *IBL*  dengan Kemampuan Penalaran Deduktif Matematis Siswa.................................................... | 24 |
|  | 1. Penelitian yang Relevan....................................................................... | 24 |
|  | 1. Hipotesis Penelitian............................................................................... | 26 |
| **BAB III** | **METODOLOGI PENELITIAN** |  |
|  | 1. Metode Penelitian………….................................................................. | 27 |
|  | 1. Definisi Operasional……….................................................................. 2. Desain dan Variabel Penelitian............................................................. | 27  29 |
|  | 1. Populasi dan Sampel Penelitian............................................................. | 30 |
|  | 1. Waktu dan Tempat Penelitian................................................................ | 31 |
|  | 1. Instrumen Penelitian.............................................................................. | 32 |
|  | 1. Instrumen Tes………………………………………………………… 2. Teknik Analisis Data........................................................................ | 32  37 |
|  | 1. Prosedur Penelitian................................................................................ | 41 |
|  | 1. Alur Penelitian....................................................................................... | 43 |
| **BAB IV** | **HASIL PENELITIAN DAN PEMBAHASAN** |  |
|  | 1. Deskripsi Data Hasil Penelitian............................................................. | 44 |
|  | 1. Pembahasan Hasil Penelitian................................................................. | 57 |
|  |  |  |
| **BAB V** | **SIMPULAN DAN SARAN** |  |
|  | 1. Simpulan................................................................................................ | 67 |
|  | 1. Saran...................................................................................................... | 67 |
| **DAFTAR PUSTAKA**............................................................................................. | | 69 |
| **DAFTAR RIWAYAT HIDUP**............................................................................... | | 297 |

**DAFTAR TABEL**

|  |  |  |
| --- | --- | --- |
| **Tabel** |  | **Hal.** |
| 3.1 | Waktu Pelaksanaan penelitian................................................................... | 31 |
| 3.2 | Klasifikasi Kriteria Validitas Soal............................................................ | 33 |
| 3.3 | Rekapitulasi Perhitungan Validitas Butir Soal.......................................... | 34 |
| 3.4 | Klasifikasi KriteriaKoefisien Reliabilitas................................................. | 35 |
| 3.5 | Klasifikasi Daya Pembeda........................................................................ | 36 |
| 3.6 | Rekapitulasi Perhitungan Daya Pembeda Instrumen Penelitian............... | 36 |
| 3.7 | Klasifikasi Kriteria Tingkat Kesukaran.................................................... | 37 |
| 3.8 | Rekapitulasi Perhitungan Tingkat Kesukaran Instrumen Penelitian......... | 37 |
| 3.9 | Klasifikasi Kriteria Uji Gain Ternormalisasi ……………………........... | 41 |
| 4.1 | Data Hasil Penelitian................................................................................. | 44 |
| 4.2 | Rata – Rata Skor Hitung dan Simpangan Baku Data Tes Awal............... | 46 |
| 4.3 | Hasil Uji Normalitas Data Tes Awal………………………………........ | 46 |
| 4.4 | Rata – Rata Skor Hitung dan simpungan Baku Data Tes Akhir……....... | 48 |
| 4.5 | Hasil Uji Normalitas Data Tes Akhir…………………………............... | 49 |
| 4.6 | Hasil Perhitungan Data Peningkatan Kemampuan Penalaran Deduktif Matematis Kelas *Problem Based Learning*............................................... | 50 |
| 4.7 | Hasil Perhitungan Data Peningkatan Kemampuan Penalaran Deduktif Matematis Kelas *Inquiry Based Learning*............................................... | 51 |
| 4.8 | Rata-rata Skor Hitung dan Simpangan Baku Data *Post-test* Kemampuan Penalaran Deduktif Matematis berdasarkan Kemampuan Awal Matematis........................................................................................ | 52 |
| 4.9 | Uji Normalitas Kemampuan Penalaran Deduktif Matematis dengan Kemampuan Awal Matematis Tinggi................................................... | 53 |
| 4.10 | Uji Normalitas Kemampuan Penalaran Deduktif Matematis dengan Kemampuan Awal Matematis Sedang................................................... | 54 |
| 4.11 | Uji Normalitas Kemampuan Penalaran Deduktif Matematis dengan Kemampuan Awal Matematis Rendah................................................... | 56 |
| B.1.1 | Data Hasil Uji Coba Instrumen Penelitian............................................... | 80 |
| B.1.2 | Uji Validitas Butir Soal No.1................................................................... | 82 |
| B.1.3 | Rekapitulasi Perhitungan Validitas Butir Soal......................................... | 84 |
| B.2.1 | Uji Reliabilitas Instrumen Penelitian........................................................ | 85 |
| B.3.1 | Data Skor Terurut Hasil Tes Uji Coba..................................................... | 87 |
| B.3.2 | Data Kelompok Atas................................................................................ | 88 |
| B.3.3 | Data Kelompok Bawah............................................................................. | 89 |
| B.3.4 | Rekapitulasi Perhitungan Daya Pembeda Instrumen Penelitian.............. | 90 |
| B.3.5 | Rekapitulasi Perhitungan Tingkat Kesukaran Instrumen Penelitian................................................................................................... | 90 |
| D.1.1 | Data Hasil *Pre-test* Kelas *Problem Based Leraning*................................ | 177 |
| D.1.2 | Data Hasil *Pre-test* Kelas *Inquiry Based Leraning*................................... | 179 |
| D.2.1 | Data Hasil *Pre-Test* Kelas *Problem Based Learning………………………* | 181 |
| D.2.2 | Skor Total *Pre-Test* Kelas *Problem Based Learning* setelah diurutkan dari Skor Terkecil……………………………………………*……………* | 182 |
| D.2.3 | Uji Liliefors secara Manual Hasil *Pre-test* Kelas *Problem Based Learning*………………………………………………………………... | 183 |
| D.2.4  D.25 | Data Skor dan Ranking Total*Pre-Test* setelah diurutkan dari Skor Terkecil…………………………………………….................................  Jumlah Rank Kelas Eksperimen I dan Kelas Eksperimen II……………. | 185  186 |
| D.2.6 | Daftar Jumlah Data Tes Awal yang Nilainya Sama................................. | 188 |
| D.3.1 | Data Hasil *Posttest* Kelas *Problem Based Learning*................................. | 190 |
| D.3.2 | Data Hasil *Posttest* Kelas *Inquiry Based Learning*….............................. | 192 |
| D.4.1 | Data Hasil *Post-Test* Kelas *Problem Based Learning……………………* | 194 |
| D.4.2 | Skor Total *Post-Test* Kelas *Problem Based Learning* setelah diurutkan dari Skor Terkecil……………………………………………*……………* | 195 |
| D.4.3 | Uji Liliefors secara Manual Hasil *Post-test* Kelas *Problem Based Learning*………………………………………………………………... | 196 |
| D.4.4 | Data Skor dan Ranking Total*Post-Test* setelah diurutkan dari Skor Terkecil……………………………………………................................. | 198 |
| D.4.5 | Jumlah Rank Kelas Eksperimen I dan Kelas eksperimen II…................. | 200 |
| D.4.6 | Daftar Jumlah Data Tes Akhir yang Nilainya Sama................................. | 202 |
| D.5.1 | Data Gain Ternormalisasi Kelas *Problem Based Learning*…………….. | 205 |
| D.5.2 | Persentase Masing-masing Interpretasi Uji Gain Ternormalisasi pada  Kelas *Problem Based Learning*................................................................ | 206 |
| D.5.3 | Data Gain Ternormalisasi Kelas *Inquiry Based Learning*…………….. | 207 |
| D.5.4 | Persentase Masing-masing Interpretasi Uji Gain Ternormalisasi pada  Kelas *Inquiry Based Learning*................................................................. | 208 |
| D.6.1 | Data Kemampuan Awal Matematis kelas *Problem Based Learning* …... | 210 |
| D.6.2 | Data Kemampuan Awal Matematis kelas *Inquiry Based Learning* ……. | 212 |
| D.6.3 | Data Skor Terurut Kemampuan Awal Matematis kelas  *Problem Based Learning*........................................................................... | 214 |
| D.6.4 | Data Skor Terurut Kemampuan Awal Matematis kelas  *Inquiry Based Learning*............................................................................. | 216 |
| D.7.1 | Data Kemampuan Awal Matematis Tinggi Kelas *Problem Based Learning*…………………………………………………………………. | 218 |
| D.7.2 | Data Kemampuan Awal Matematis Tinggi Kelas *Inquiry Based Learning*…………………………………………………………............ | 219 |
| D.8.1 | Data Kemampuan Awal Matematis Tinggi Kelas *Problem Based Learning*…………………………………………………....................... | 220 |
| D.8.2 | Skor Total Kemampuan Awal Matematis Tinggi Kelas  *Problem Based Learning* setelah diurutkan dari Skor Terkecil……….. | 220 |
| D.8.3 | Uji Liliefors secara Manual Hasil Kemampuan Awal Matematis Tinggi Kelas *Problem Based Learning*…………………………………………. | 221 |
| D.8.4    D.8.5 | Data Skor Total Ranking Kemampuan Awal Matematis Tinggi Kelas *Problem Based Learning* dan *Inquiry Based Learning* setelah diurutkan dari Skor Terkecil……………………………………………………….  Jumlah Rank Kelas Eksperimen I dan Kelas eksperimen II…………….. | 223  224 |
| D.9.1 | Data Kemampuan Awal Matematis Sedang Kelas *Problem Based Learning*…………………………………………………………………. | 227 |
| D.9.2 | Data Kemampuan Awal Matematis Sedang Kelas *Inquiry Based Learning*…………………………………………………………............ | 228 |
| D.10.1 | Data Kemampuan Awal Matematis Sedang Kelas *Problem Based Learning*…………………………………………………....................... | 229 |
| D.10.2 | Skor Total Kemampuan Awal Matematis Sedang Kelas  *Problem Based Learning* setelah diurutkan dari Skor Terkecil………… | 230 |
| D.10.3  D.10.4 | Uji Liliefors secara Manual Hasil Kemampuan Awal Matematis Sedang Kelas *Problem Based Learning……………………………………………….*  Data Skor Total dan Ranking Kemampuan Awal Matematis Sedang Kelas *Problem Based Learning* dan *Inquiry Based Learnin*  setelah diurutkan dari Skor Terkecil…………………………………….. | 231  233 |
| D.10.5 | Jumlah Rank Kelas Eksperimen I dan Kelas eksperimen II…………….. | 234 |
| D.10.6 | Daftar Jumlah Data Tes Akhir Kemampuan Awal Matematis Sedang yang Nilainya Sama………………………………………………….. | 235 |
| D.11.1 | Data Kemampuan Awal Matematis Rendah Kelas *Problem Based Learning*…………………………………………………………………. | 237 |
| D.11.2 | Data Kemampuan Awal Matematis Rendah Kelas *Inquiry Based Learning*…………………………………………………………............ | 238 |
| D.12.1 | Data Kemampuan Awal Matematis Rendah Kelas *Problem Based Learning*…………………………………………………....................... | 239 |
| D.12.2 | Skor Total Kemampuan Awal Matematis Rendah Kelas  *Problem Based Learning* setelah diurutkan dari Skor Terkecil……….. | 239 |
| D.12.3 | Uji Liliefors secara Manual Hasil Kemampuan Awal Matematis Rendah Kelas *Problem Based Learning*…………………………………………. | 240 |
| D.12.4    D.12.5 | Data Skor Total Ranking Kemampuan Awal Matematis Tinggi Kelas *Problem Based Learning* dan *Inquiry Based Learning* setelah diurutkan dari Skor Terkecil……………………………………………………….  Jumlah Rank Kelas Eksperimen I dan Kelas eksperimen II…………….. | 242  243 |
| D.12.6 | Daftar Data Tes Akhir Kemampuan Awal Matematis Rendah yang Nilainya Sama………………………………………………………… | 244 |

**DAFTAR GAMBAR**

**Gambar Hal.**

4.1 Kegiatan *Pre-test* Eksperimen I Kelas *Problem Based Learning*………….58

4.2 Kegiatan *Pre-test* Eksperimen II Kelas *Inquiry Based Learning*………….58

4.3 Kegiatan diskusi siswa kelas *Problem Based Learning* dalam

mengerjakan LKS………………………………………………………….61

4.4 Kegiatan diskusi siswa kelas *Problem Based Learning* dalam

mengerjakan LKS………………………………………………………….61

4.5 Kegiatan Penyajian Hasil Kelas Eksperimen I *Problem Based Learning*…………………………………………………………………....62

4.6 Kegiatan Penyajian Hasil Kelas Eksperimen II *Inquiry Based Learning* ...63

**DAFTAR LAMPIRAN**

**Hal.**

**LAMPIRAN A INSTRUMEN PENELITIAN**

A.1 Kisi-kisi Instrumen Penelitian 71

A.2 Instrumen Penelitian 73

A.3 Alternatif Jawaban dan Penskoran Instrumen Penelitian………………….75

A.4 Rubrik Penilaian Soal 78

**LAMPIRAN B ANALISIS INSTRUMEN HASIL UJI COBA**

B.1 Data Hasil Uji Coba Instrumen Penelitian 80

B.2 Validitas Butir Soal 82

B.3 Reliabilitas Instrumen Penelitian 85

B.4 Daya Pembeda dan Tingkat Kesukaran Soal 87

**LAMPIRAN C PERANGKAT PEMBELAJARAN**

C.1 Silabus Pembelajaran 91

C.2 Rencana Pelaksanaan Pembelajaran Kelas Model *Problem Based*

*Learning* 95

C.3 Lembar Kerja Kelas Model *Problem Based Learning* 119

C.4 Rencana Pelaksanaan Pembelajaran Kelas Model *Inquiry Based*

*Learning* 135

C.5 Lembar Kerja Kelas Model *Inquiry Based Learning* 161

**LAMPIRAN D ANALISIS DATA HASIL PENELITIAN**

D.1 Data Hasil *Pretest* Kelas *Problem Based Learning* dan *Inquiry Based Learning…………………………………………………………………………*177

D.2 Analisis Data *Pretest* 181

D.4 Analisis Data *Posttest* 194

D.3 Analisis Data Kualitas Peningkatan Kemampuan Penalaran

Deduktif Matematis Siswa 204

D.4 Analisis Kemampuan Awal Matematis 210

**LAMPIRAN E LEMBAR OBSERVASI**

E.1 Lembar Observasi Guru Kelas *Problem Based Learning* 246

E.2 Analisis Lembar Observasi Guru Kelas *Problem Based Learning* 248

E.3 Lembar Observasi Siswa Kelas *Problem Based Learning ……………….*250

E.4 Lembar Observasi Guru Kelas *Inquiry Based Learning* 255

E.5 Analisis Lembar Observasi Guru Kelas *Inquiry Based Learning*……....259

E.4 Lembar Observasi Siswa Kelas *Inquiry Based Learning* 262

**LAMPIRAN F TABEL STATISTIKA**

F.1 Tabel Proporsi Z 266

E.2 Tabel Distribusi t 268

E.3 Tabel Kritis untuk Uji Liliefors 269

**LAMPIRAN G SAMPEL BERKAS JAWABAN SISWA**

G.1 Sampel Jawaban Siswa Hasil Uji Coba Instrumen Penelitian 270

G.2 Sampel Jawaban Siswa Hasil *Pre-test* Kelas Model *Problem*

*Based Learning…………………………………………………………………..*272

G.3 Sampel Jawaban Siswa Hasil *Pre-test* Kelas Model *Inquiry*

*Based Learning…………………………………………………………………..*273

G.4 Sampel Lembar Kerja Siswa Hasil *Pre-test* Kelas Model *Problem*

*Based Learning…………………………………………………………………..*274

G.5 Sampel Lembar Kerja Siswa Hasil *Pre-test* Kelas Model *Inquiry*

*Based Learning…………………………………………………………………..*278

G.2 Sampel Jawaban Siswa Hasil *Post-test* Kelas Model *Problem*

*Based Learning…………………………………………………………………..*282

G.3 Sampel Jawaban Siswa Hasil *Post-test* Kelas Model *Inquiry*

*Based Learning…………………………………………………………………..*284

**LAMPIRAN H ADMINISTRASI PENELITIAN**

H.1 Surat Pernyataan Hasil Seminar Proposal Penelitian 286

H.2 Surat Keputusan Dosen Pembimbing Skripsi 287

H.3 Surat Permohonan Izin Penelitian 288

H.4 Surat Keterangan Telah Melaksanakan Penelitian 289

H.5 Kartu Bimbingan Skripsi 290

**LAMPIRAN I DOKUMENTASI KEGIATAN**

I.1 Dokumentasi Uji Instrumen Penelitian 292

I.2 Dokumentasi Kegiatan *Pre-test*  293

I.3 Dokumentasi Kegiatan Kelas Model *Problem Based Learning* dan

*Inquiry Based Learning* 294

I.4 Dokumentasi Kegiatan *Post-test* 296