

ABSTRAK

TITIN LESTARI (2024). **Peningkatan Kemampuan Pemahaman Konsep Matematis dan *Self-Regulated Learning* Siswa SMA melalui Model *Discovery Learning* Berbantuan *Powtoon***

Penelitian ini bertujuan untuk mengetahui: 1) peningkatan kemampuan pemahaman konsep matematis siswa yang memperoleh model *Discovery Learning* berbantuan *Powtoon* lebih tinggi daripada siswa yang memperoleh model pembelajaran biasa; 2) *Self-Regulated Learning* siswa yang memperoleh model *Discovery Learning* berbantuan *Powtoon* lebih baik daripada siswa yang memperoleh model pembelajaran biasa; 3) korelasi antara peningkatan kemampuan pemahaman konsep matematis dan *Self-Regulated Learning* siswa yang memperoleh model *Discovery Learning* berbantuan *Powtoon*; 4) efektivitas model *Discovery Learning* berbantuan *Powtoon* terhadap peningkatan kemampuan pemahaman konsep matematis siswa tergolong kategori sedang; dan 5) efektivitas model *Discovery Learning* berbantuan *Powtoon* terhadap *Self-Regulated Learning* siswa tergolong kategori sedang. Metode yang digunakan dalam penelitian ini adalah eksperimen semu dengan desain penelitian *nonequivalent control group design*. Subjek penelitian dalam penelitian ini adalah siswa kelas XI SMA Pasundan 1 Bandung tahun ajaran 2023-2024 dengan sampel sebanyak dua kelas yaitu kelas XI MIPA 3 sebagai kelas eksperimen dan kelas XI MIPA 1 sebagai kelas kontrol. Instrumen penelitian yang digunakan berupa tes kemampuan pemahaman konsep matematis dan angket *Self-Regulated Learning* yang telah memenuhi kriteria keandalan soal. Data hasil penelitian diolah dan dianalisis menggunakan bantuan program *IBM SPSS Statistics 23 for Windows*. Hasil penelitian menunjukkan: 1) peningkatan kemampuan pemahaman konsep matematis siswa terhadap model *Discovery Learning* berbantuan *Powtoon* lebih tinggi daripada siswa yang memperoleh model pembelajaran biasa; 2) *Self-Regulated Learning* siswa yang memperoleh model *Discovery Learning* berbantuan *Powtoon* lebih baik daripada siswa yang memperoleh model pembelajaran biasa; 3) terdapat korelasi antara peningkatan kemampuan pemahaman konsep matematis dengan *Self-Regulated Learning* siswa yang memperoleh model *Discovery Learning* berbantuan *Powtoon*; 4) efektivitas model *Discovery Learning* berbantuan *Powtoon* terhadap peningkatan kemampuan pemahaman konsep matematis siswa tergolong kategori besar; dan 5) efektivitas model *Discovery Learning* berbantuan *Powtoon* terhadap *Self-Regulated Learning* siswa tergolong kategori besar.

Kata kunci: Pemahaman Konsep Matematis, *Self-Regulated Learning*, *Discovery Learning*, *Powtoon*.

ABSTRACT

TITIN LESTARI (2024). *Improvement of Mathematical Concept Understanding Ability and Self-Regulated Learning of High School Students through Discovery Learning Model Assisted by Powtoon*

This research aims to find out: 1) the improvement of mathematical concept understanding ability of students who obtained the Discovery Learning model assisted by Powtoon was higher than that students who obtained the usual learning model; 2) the Self-Regulated Learning of students who obtained the Discovery Learning model assisted by Powtoon was better than students who obtained the usual learning model; 3) the correlation between the improvement of mathematical concept understanding ability and Self-Regulated Learning of students who obtained the Discovery Learning model assisted by Powtoon; 4) the effectiveness of the Discovery Learning model assisted by Powtoon to improve students' mathematical concept understanding skills is classified as a medium category; and 5) the effectiveness of the Discovery Learning model assisted by Powtoon on students' Self-Regulated Learning is classified as a medium category. The method used in this research is a quasi experiment with a research design of nonequivalent control group design. The research subjects in this study were class XI students of Pasundan 1 Bandung High School for the 2023-2024 academic year with a sample of two classes, namely XI MIPA 3 class as the experimental class and XI MIPA 1 class as the control class. The research instrument used was a test of mathematical concept understanding ability and Self-Regulated Learning questionnaire, which had met the criteria for the state of the question. The research data were processed analyzed using the IBM SPSS 23 for Windows program. The research results showed: 1) the improvement of mathematical concept understanding ability of students who obtained the Discovery Learning model assisted by Powtoon was higher than that students who obtained the usual learning model; 2) the Self-Regulated Learning of students who obtained the Discovery Learning model assisted by Powtoon was better than students who obtained the usual learning model; 3) there is a positive correlation between the improvement of mathematical concept understanding ability and Self-Regulated Learning of students who obtained the Discovery Learning model assisted by Powtoon; 4) the effectiveness of the Discovery Learning model assisted by Powtoon to improve students' mathematical concept understanding skills is classified as a large category; and 5) the effectiveness of the Discovery Learning model assisted by Powtoon on students' Self-Regulated Learning is classified as a large category.

Keywords: *Mathematical Concept Understanding, Self-Regulated Learning, Discovery Learning, Powtoon.*

RINGKESAN

TITIN LESTARI (2024). *Ngaronjatkeun Kamampuh Maham Konsép Matematis jeung Kamandirian Diajar Siswa SMA Maké Modél Discovery Learning Kalayan Bantuan Powtoon*

Ieu panalungtikan miboga tujuan pikeun mikanyaho: 1) ngarajatna kamampuh maham konsép matematis siswa anu narima modél Discovery Learning kalayan bantuan Powtoon leuwih luhur batan siswa anu narima modél pangajaran biasa; 2) kamandirian diajar siswa anu narima modél Discovery Learning kalayan bantuan Powtoon leuwih hade batan siswa anu narima modél pangajaran biasa; 3) korélasi antara ngaronjatna kamampuh maham konsép matematis jeung kamandirian diajar siswa anu narima modél Discovery Learning kalayan bantuan Powtoon; 4) eféktivitas modél Discovery Learning kalayan bantuan Powtoon pikeun ngaronjatkeun kamampuh maham konsép matematis siswa aya dina katégori sedeng; jeung 5) eféktivitas modél Discovery Learning kalayan bantuan Powtoon pikeun kamandirian diajar siswa aya dina katégori sedeng. Méthode anu digunakeun dina ieu panalungtikan nyaéta kuasi ékspérimén kalawan desain nonequivalent control group. Subjek panalungtikan dina ieu panalungtikan nyaéta siswa kelas XI SMA Pasundan 1 Bandung taun ajaran 2023-2024 kalawan sampel dua kelas, nyaéta kelas XI MIPA 3 salaku kelas ékspérimén jeung kelas XI MIPA 1 salaku kelas kontrol. Instrumén panalungtikan anu digunakeun nya éta tés kamampuh maham konsep matematis jeung angket kamandirian diajar anu tos nyumponan kritéria réliabilitas soal. Data panalungtikan diolah jeung dianalisis ngagunakeun program IBM SPSS Statistics 23 for Windows. Hasil panalungtikan ngadadarkeun: 1) ngarajatna kamampuh maham konsép matematis siswa anu narima modél Discovery Learning kalayan bantuan Powtoon leuwih luhur batan siswa anu narima modél pangajaran biasa; 2) kamandirian diajar siswa anu narima modél Discovery Learning kalayan bantuan Powtoon leuwih hade batan siswa anu narima modél pangajaran biasa; 3) korélasi positif antara ngaronjatna kamampuh maham konsép matematis jeung kamandirian diajar siswa anu narima modél Discovery Learning kalayan bantuan Powtoon; 4) eféktivitas modél Discovery Learning kalayan bantuan Powtoon pikeun ngaronjatkeun kamampuh maham konsép matematis siswa aya dina katégori badag; jeung 5) eféktivitas modél Discovery Learning kalayan bantuan Powtoon pikeun kamandirian diajar siswa aya dina katégori badag.

Sanggem Konci: *Maham Konsep Matematis, Kamandirian Diajar, Discovery Learning, Powtoon.*