# ABSTRAK

Ardelia Dewi Azzahra**. (2024). Model *Problem-Based Learning* dengan Pendekatan *Open-ended* Berbantuan *ClassDojo* Dalam Meningkatkan Kemampuan Berpikir Kritis Matematis dan *Self-efficacy* Siswa SMA**

Penelitian ini bertujuan untuk mempelajari bagaimana peningkatan dan hubungan antara kemampuan berpikir kritis matematis dan *self-efficacy* pada siswa SMA dipengaruhi oleh penggunaan Model *Problem-Based Learning* dengan Pendekatan *Open-Ended* berbantuan *ClassDojo*. Penelitian kuantitatif ini menggunakan jenis rancangan *Quasi Experiment* dengan desain *Nonequivalent Control Group*. Populasi penelitian ini terdiri dari seluruh siswa kelas XI IPA 3 dan XI IPA 4 di SMA Telkom Bandung tahun ajaran 2023/2024. Sampel penelitian dipilih menggunakan teknik *random sampling* yang kemudian kelas XI IPA 3 dijadikan kelas eksperimen dan XI IPA 4 sebagai kelas kontrol. Dalam penelitian ini, digunakan instrumen berupa lembar tes kemampuan berpikir kritis matematis dan angket *self-efficacy* sebagai alat pengumpulan data. Setelah dilakukan analisis data, diperoleh hasil sebagai berikut: (1) Kemampuan berpikir kritis peserta didik yang memperoleh Model Problem-Based Learning dengan Pendekatan Open-Ended berbantuan ClassDojo lebih baik daripada peserta didik yang memperoleh model pembelajara konvensional (2) Peningkatan kemampuan berpikir kritis matematis siswa yang memperoleh Model *Problem-Based Learning* dengan Pendekatan *Open-Ended* berbantuan *ClassDojo* lebih tinggi daripada siswa yang memperoleh model pembelajaran konvensional; (3) *Self-efficacy* siswa yang memperoleh Model *Problem-Based Learning* dengan Pendekatan *Open-Ended* berbantuan *ClassDojo* lebih baik daripada siswa yang memperoleh model pembelajaran konvensional; (4) Terdapat korelasi positif antara peningkatan kemampuan berpikir kritis matematis dan *self-efficacy* siswa yang memperoleh Model *Problem-Based Learning* dengan Pendekatan *Open-Ended* berbantuan *ClassDojo*.

**Kata Kunci:** berpikir kritis matematis, *self-efficacy, open-ended,* model *problem-based learning*

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## ABSTRACT

Ardelia Dewi Azzahra. **(2024).** *Problem-Based Learning Model with Open-ended Approach Assisted by ClassDojo in Improving Mathematical Critical Thinking Ability and Self-efficacy of High School Students*

*This research aims to study how the improvement and relationship between mathematical critical thinking skills and self-efficacy in high school students are influenced by the use of Problem-Based Learning Model with Open-Ended Approach assisted by ClassDojo. This quantitative research uses a type of Quasi Experiment design with a Nonequivalent Control Group design. The population of this study consisted of all students of class XI IPA 3 and XI IPA 4 at SMA Telkom Bandung in the academic year 2023/2024. The research sample was selected using random sampling technique, then XI IPA 3 class was used as the experimental class and XI IPA 4 as the control class. In this study, instruments in the form of mathematical critical thinking ability test sheets and self-efficacy questionnaires were used as data collection tools. After analyzing the data, the following results were obtained: (1) The critical thinking ability of students who obtained the Problem-Based Learning Model with Open-Ended Approach assisted by ClassDojo was better than students who obtained the conventional learning model; (2) The increase in mathematical critical thinking ability of students who obtained the Problem-Based Learning Model with Open-Ended Approach assisted by ClassDojo was higher than students who obtained the conventional learning model; (3) Self-efficacy of students who obtained Problem-Based Learning Model with Open-Ended Approach assisted by ClassDojo is better than students who obtained conventional learning model; (4) There is a positive correlation between the improvement of mathematical critical thinking ability and self-efficacy of students who obtained Problem-Based Learning Model with Open-Ended Approach assisted by ClassDojo.*

***Keywords:*** *mathematical critical thinking, self-efficacy, open-ended, problem-based learning model*

***RINGKESAN***

*Ardelia Dewi Azzahra**. (2024). **Model Problem-Based Learning kalawan Pendekatan Open-ended Berbantuan Classdojo Dina Ngaronjatkeun Pangabisa Mikir Kritis Matematis sarta Self-efficacy Siswa SMA***

*Panalungtikan ieu boga tujuan kanggo mempelajari kumaha kanaekan sarta hubungan antawis pangabisa mikir kritis matematis sarta efikasi diri dina siswa SMA dipangaruhan ku pamakean Model Problem-Based Learning kalawan Pendekatan Open-Ended berbantuan Classdojo. Panalungtikan kuantitatif ieu ngagunakeun rupi rarancang Quasi Experiment kalawan desain Nonequivalent Control Group. Populasi panalungtikan ieu diwangun ti sakumna siswa kelas XI IPA 3 sarta XI IPA 4 di SMA Telkom Bandung warsih pituduh 2023/2024. Sampel panalungtikan dipilih ngagunakeun teknik random sampling anu saterusna kelas XI IPA 3 dijadikeun kelas eksperimen sarta XI IPA 4 minangka kelas kontrol. Dina panalungtikan ieu,dipake instrumen mangrupi lambar tes pangabisa mikir kritis matematis sarta angket self-efficacy minangka pakakas pengumpulan data. Sanggeus dipigawe analisis data,ditampa kenging minangka berikut: (1) Pangabisa mikir kritis peserta didik anu meunang Model Problem-Based Learning kalawan Pendekatan Open-Ended berbantuan Classdojo mending batan peserta didik anu meunang model pembelajara konvensional (2) Kanaekan pangabisa mikir kritis matematis siswa anu meunang Model Problem-Based Learning kalawan Pendekatan Open-Ended berbantuan Classdojo langkung luhur batan siswa anu meunang model pembelajaran konvensional; (3) Self-efficacy siswa anu meunang Model Problem-Based Learning kalawan Pendekatan Open-Ended berbantuan Classdojo mending batan siswa anu meunang model pembelajaran konvensional; (4) Aya korelasi positip antawis kanaekan pangabisa mikir kritis matematis sarta self-efficacy siswa anu meunang Model Problem-Based Learning kalawan Pendekatan Open-Ended berbantuan Classdojo.*
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***Sanggem Kunci****: mikir kritis matematis,self-efficacy,open-ended,model problem-based learning*