

ABSTRAK

Penelitian dilatarbelakangi oleh rendahnya kemampuan berpikir kritis matematis peserta didik di Indonesia serta pentingnya penguatan *self-efficacy* dalam pembelajaran matematika sebagai faktor yang mendukung keberhasilan belajar. Penelitian ini bertujuan untuk mendeskripsikan desain dan keterlaksanaan proses strategi *gamification-based learning* berbasis Kahoot selama empat kali pertemuan, serta menganalisis pengaruhnya terhadap kemampuan berpikir kritis dan *self-efficacy* peserta didik pada materi segitiga. Penelitian ini menggunakan desain *pre-experimental one group pretest-posttest* dengan pendekatan *mixed method* tanpa kelompok kontrol, sehingga temuan yang diperoleh perlu dimaknai sebagai indikasi awal dan bukan sebagai bukti kausal yang definitif. Sampel penelitian adalah 30 peserta didik kelas VIII SMP Negeri 51 Bandung yang dipilih melalui teknik *purposive sampling*. Data kuantitatif diperoleh melalui tes kemampuan berpikir kritis dan angket *self-efficacy*, sedangkan data kualitatif diperoleh melalui observasi dan dokumentasi selama pembelajaran berlangsung. Hasil penelitian menunjukkan bahwa strategi *gamification-based learning* berbasis Kahoot dirancang melalui tujuh tahapan, yaitu *preparation, introduction & engagement, content delivery, game session, immediate feedback, reflection, dan reinforcement & follow up*, dengan keterlaksanaan pembelajaran pada kategori sangat baik. Hasil analisis regresi multivariat menunjukkan bahwa strategi tersebut berpengaruh signifikan terhadap kemampuan berpikir kritis peserta didik dengan kontribusi sebesar 14% (Sig. = 0,041), berpengaruh signifikan terhadap *self-efficacy* dengan kontribusi sebesar 21,5% (Sig. = 0,010), serta berpengaruh signifikan secara simultan terhadap kedua variabel berdasarkan uji MANOVA dengan kontribusi sebesar 27,3% (Sig. = 0,013). Dengan demikian, strategi *gamification-based learning* berbasis Kahoot menunjukkan potensi sebagai alternatif dalam pembelajaran matematika pada materi segitiga untuk meningkatkan kemampuan berpikir kritis dan *self-efficacy* peserta didik.

Kata Kunci: *Gamification-Based Learning*, Kahoot, Kemampuan Berpikir Kritis, *Self-Efficacy*, Segitiga

ABSTRACT

This study was motivated by the low level of Indonesian students' mathematical critical thinking skills and the importance of strengthening self-efficacy in mathematics learning as a factor supporting academic success. This study aimed to describe the design and implementation trajectory of the Kahoot-based gamification-based learning strategy across four learning sessions, and to analyze its effect on students' critical thinking skills and self-efficacy in learning the topic of triangles. This study employed a pre-experimental one group pretest-posttest design with a mixed-methods approach and no control group, so the findings should be interpreted as preliminary indications rather than definitive causal evidence. The sample consisted of 30 eighth-grade students of SMP Negeri 51 Bandung selected through purposive sampling. Quantitative data were collected through a critical thinking skills test and a self-efficacy questionnaire, while qualitative data were obtained through classroom observations and documentation during the learning process. The findings revealed that the Kahoot-based gamification-based learning strategy was designed through seven stages: preparation, introduction and engagement, content delivery, game session, immediate feedback, reflection, and reinforcement and follow-up, with implementation classified in the very good category. Multivariate regression analysis indicated that the strategy had a significant effect on students' critical thinking skills with a contribution of 14% (Sig. = 0.041), a significant effect on self-efficacy with a contribution of 21.5% (Sig. = 0.010), and a significant simultaneous effect on both variables based on the MANOVA test with a contribution of 27.3% (Sig. = 0.013). Therefore, the Kahoot-based gamification-based learning strategy shows potential as an alternative approach in mathematics learning on the topic of triangles for improving students' critical thinking skills and self-efficacy.

Keywords: Critical Thinking Skills, Gamification-Based Learning, Kahoot, Self-Efficacy, Triangle