

ABSTRACT

Fitri Aulia, IDN 4192411015 (2023). Development of Interactive Comics Based on Realistic Mathematics Approach to Improve Mathematical Communication Abilities of Students of SMPS Musda Perbaungan.

This research aims to: (1) Knowing the validity of the interactive comics based on realistic mathematics approach to improve mathematical communication abilities of students of SMPS Musda Perbaungan. (2) Finding out the improvement of students' mathematical communication by using interactive comics based on realistic mathematics approach students of SMPS Musda Perbaungan. (3) Knowing the practicality of the interactive comics based on realistic mathematics approach to improve mathematical communication abilities of students of SMPS Musda Perbaungan. (4) Knowing the effective of the interactive comics based on realistic mathematics approach to improve mathematical communication abilities of students of SMPS Musda Perbaungan. This research is development research that refers to the 4-D development model (define, design, develop, disseminate) which has been modified to 3-D. The research sample was the seventh grade students of SMPS Musda Perbaungan, Serdang Bedagai. The research instruments used were interactive comics, tests to measure validity, tests of students' mathematical communication abilities, and student response questionnaires. The results showed that: (1) Interactive Comics that have been developed meet the validity with an average of 3.615 and obtain a valid category, (2) In terms of practicality, the percentage of student response questionnaires to interactive comics developed with the Realistic Mathematics Approach is 94.5% with a practical (positive) category and the percentage of teacher response questionnaires is 88.125% with a practical (positive) category (4) Interactive comics developed have also met the effectiveness criteria with individual completeness of 88.58 and classical completeness of student learning of 86.79% with average of gain result is 0.726940 with high category. Overall, the result of the research was found to be an effective interactive comic in teaching and learning activities to improve students' mathematical communication ability.

Keywords: *Interactive Comic, Realistic Mathematics Approach, Mathematical Communication Ability.*

ABSTRAK

Fitri Aulia, NIM 4192411015 (2023). Pengembangan Komik interaktif Berbasis Pendekatan Matematika Realistik untuk Meningkatkan Kemampuan Komunikasi Matematis Siswa SMP Musda Perbaungan.

Penelitian ini bertujuan untuk: (1) Mengetahui kevalidan Komik interaktif berbasis pendekatan matematika realistik untuk meningkatkan kemampuan komunikasi matematis siswa SMP Musda Perbaungan. (2) Mengetahui peningkatan komunikasi matematis siswa dengan menggunakan Komik interaktif berbasis pendekatan matematika realistik siswa SMP Musda Perbaungan. (3) Mengetahui kepraktisan Komik interaktif berbasis pendekatan matematika realistik untuk meningkatkan kemampuan komunikasi matematis siswa SMP Musda Perbaungan. (4) Mengetahui keefektifan Komik interaktif berbasis pendekatan matematika realistik untuk meningkatkan kemampuan komunikasi matematis siswa SMP Musda Perbaungan. Penelitian ini merupakan penelitian pengembangan yang mengacu pada model pengembangan 4-D (define, design, develop, disseminate) yang telah dimodifikasi menjadi 3-D. Sampel penelitian adalah siswa kelas VII SMPS Musda Perbaungan, Serdang Bedagai. Instrumen penelitian yang digunakan adalah Komik interaktif, tes untuk mengukur validitas, tes kemampuan komunikasi matematis siswa, dan angket respon siswa. Hasil penelitian menunjukkan bahwa: (1) Komik Interaktif yang telah dikembangkan memenuhi kevalidan dengan rata-rata 3,615 dan memperoleh kategori valid, (2) Ditinjau dari segi kepraktisan, persentase angket respon siswa terhadap komik interaktif yang dikembangkan dengan Pendekatan Matematika Realistik adalah 94,5% dengan kategori praktis (positif) dan persentase angket respon guru sebesar 88,125% dengan kategori praktis (positif), (4) Komik interaktif yang dikembangkan juga telah memenuhi kriteria keefektifan dengan ketuntasan individual sebesar 88,58 dan ketuntasan klasikal belajar siswa sebesar 86,79%. Secara keseluruhan, hasil penelitian menunjukkan bahwa komik interaktif yang dikembangkan efektif digunakan dalam kegiatan pembelajaran untuk meningkatkan kemampuan komunikasi matematis siswa.

Kata kunci: *Komik interaktif, Pendekatan Matematika Realistik, Kemampuan Komunikasi Matematis.*