

ABSTRAK

Aurelia Heningtyas Ayu Putri Cahyanti. 2025. Pengembangan Aktivitas Pembelajaran Matematika Menggunakan MathCityMap untuk Menumbuhkan Kemampuan Pemecahan Masalah Kontekstual dan Motivasi Belajar Siswa di SMP St. Aloysius Turi. Program Studi Pendidikan Matematika, Jurusan Pendidikan Matematika dan Ilmu Pendidikan Alam, Fakultas Keguruan dan Ilmu Pengetahuan, Universitas Sanata Dharma

Penelitian ini bertujuan untuk 1) Mengembangkan aktivitas pembelajaran matematika berbasis MathCityMap yang dapat menumbuhkan motivasi belajar dan kemampuan pemecahan masalah kontekstual peserta didik, 2) Melihat dampak implementasi aktivitas pembelajaran matematika berbasis MathCityMap terhadap pertumbuhan motivasi belajar dan kemampuan pemecahan masalah kontekstual peserta didik.

Penelitian ini menggunakan model ADDIE (Analyze, Design, Development, Implementation, Evaluation). Subjek penelitian meliputi siswa kelas IX SMP ST. Aloysius Turi sejumlah 54 orang. Pengumpulan data dilakukan melalui wawancara, validasi aktivitas pembelajaran, angket, dan penilaian hasil aktivitas pembelajaran.

Hasil penelitian menunjukkan bahwa 1) Analisis awal menunjukkan siswa SMP St. Aloysius Turi mengalami kesulitan dalam menyelesaikan soal kontekstual dan memiliki motivasi belajar rendah. Aktivitas yang dikembangkan divalidasi oleh dua ahli dan mencakup angket motivasi, pengerjaan empat tugas transformasi geometri, serta refleksi akhir. Implementasi dilakukan dalam dua pertemuan dan hasilnya menunjukkan peningkatan motivasi, ketertarikan, dan pemahaman siswa terhadap konsep matematika melalui pembelajaran kontekstual berbasis luar ruang. 2) Penilaian aktivitas pembelajaran mencakup kevalidan produk, motivasi belajar siswa, dan kemampuan pemecahan masalah kontekstual. Hasil validasi ahli menunjukkan produk sangat valid dengan skor 91%. Skor angket motivasi siswa bertumbuh dari 71,49% hingga mencapai 76,68%, sedangkan kemampuan pemecahan masalah kontekstual mencapai rata-rata 79,02% dalam kategori tinggi. Akan tetapi, penilaian ini bersifat proses, bukan hasil akhir belajar.

Dengan demikian, aktivitas pembelajaran menggunakan MathCityMap dapat digunakan untuk menumbuhkan kemampuan pemecahan masalah kontekstual dan motivasi belajar siswa kelas IX SMP St. Aloysius Turi.

Kata kunci: aktivitas pembelajaran matematika, *MathCityMap*, motivasi belajar, pemecahan masalah kontekstual, penelitian dan pengembangan.

ABSTRACT

Aurelia Heningtyas Ayu Putri Cahyanti. 2025. Development of Mathematics Learning Activities Using MathCityMap to Foster Contextual Problem Solving Skills and Students' Learning Motivation at SMP St. Aloysius Turi. Mathematics Education Study Program, Department of Mathematics Education and Natural Sciences, Faculty of Teacher Training and Education, Sanata Dharma University

This study aims to 1) Develop mathematics learning activities based on MathCityMap that can foster students' learning motivation and contextual problem solving skills, 2) See the impact of implementing mathematics learning activities based on MathCityMap on the growth of students' learning motivation and contextual problem solving skills.

This study uses the ADDIE model (Analyze, Design, Development, Implementation, Evaluation). The subjects of the study included 54 ninth grade students of SMP ST. Aloysius Turi. Data collection was carried out through interviews, validation of learning activities, questionnaires, and assessment of learning activity results.

The results of the study showed that 1) Initial analysis showed that SMP St. Aloysius Turi had difficulty in solving contextual problems and had low learning motivation. The activities developed were validated by two experts and included a motivation questionnaire, working on four geometric transformation tasks, and a final reflection. The implementation was carried out in two meetings and the results showed an increase in students' motivation, interest, and understanding of mathematical concepts through outdoor contextual learning. 2) Assessment of learning activities included product validity, student learning motivation, and contextual problem-solving skills. The expert validation results showed that the product was very valid with a score of 91%. The student motivation questionnaire score grew from 71.49% to 76.68%, while contextual problem-solving skills reached an average of 79.02% in the high category. However, this assessment is a process, not the final result of learning.

Thus, learning activities using MathCityMap can be used to foster contextual problem-solving skills and learning motivation of grade IX students of SMP St. Aloysius Turi.

Keywords: mathematics learning activities, MathCityMap, learning motivation, contextual problem solving, research and development.