PENGEMBANGAN HYPERMEDIA UNTUK MENINGKATKAN KEMAMPUAN PEMECAHAN MASALAH MATEMATIS MATERI BANGUN RUANG SISI DATAR SISWA KELAS VIII

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ABSTRAK

Penelitian pengembangan ini dilaksanakan dengan maksud menghasilkan *hypermedia* pada materi bangun ruang sisi datar yang dapat meningkatkan kemampuan pemecahan masalah matematis siswa kelas VIII. Pengembangan *hypermedia* menggunakan model 4D yang dibatasi hanya sampai tahap *Define*, *Design*, dan *Develop*. *Hypermedia* ini dirancang sebagai media pembelajaran yang akan menitik beratkan pembelajaran pada indikator-indikator kemampuan pemecahan masalah matematis. Subjek penelitian ini adalah 36 siswa kelas VIII A 2 SMP Negeri 1 Singaraja. Hasil penilaian validitas *hypermedia* dari ahli materi mendapatkan rata-rata skor 5 (100%) dan dari ahli media mendapatkan rata-rata skor 4,6 (92%) dengan kategori validitas sangat tinggi. Kepraktisan *hypermedia* dilihat dari angket respon guru mendapatkan rata-rata skor 4,8 (96%) dan dari angket respon siswa mendapatkan rata-rata skor 4,52 (90,33%) sehingga mendapat kategori kepraktisan sangat praktis. Keefektifan *hypermedia* berdasarkan nilai N-Gain sebesar 0,751287 mendapatkan kategori tinggi dengan rata-rata nilai *post test* telah melampaui KKTP yang berlaku yakni 80, sehingga *hypermedia* dinyatakan mampu meningkatkan kemampuan pemecahan masalah matematis materi bangun ruang sisi datar siswa kelas VIII. Karakteristik *hypermedia* yang berkualitas meliputi: (1) bertemakan petualangan yang menyenangkan, (2) berorientasi pada masalah kontekstual (3) multi-platform dan aksebilitas tinggi, (4) visualisasi yang menarik dan mudah dipahami.

Kata-kata kunci: *Hypermedia*, Kemampuan Pemecahan Masalah Matematis, Bangun Ruang Sisi Datar.

DEVELOPMENT OF HYPERMEDIA TO ENHANCE MATHEMATICAL PROBLEM-SOLVING SKILLS IN THE TOPIC OF THREE-DIMENSIONAL GEOMETRIC SHAPES WITH FLAT SURFACES FOR EIGHTH-GRADE STUDENTS

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ABSTRACT

This development research was conducted to produce hypermedia on the topic of three-dimensional geometric shapes with flat surfaces, aimed at enhancing the mathematical problem-solving abilities of eighth-grade students. The development of hypermedia followed the 4D model, which was limited to the Define, Design, and Develop stages. This hypermedia was designed as a learning medium that emphasizes indicators of mathematical problem-solving skills. The research subjects consisted of 36 students from class VIII A 2 at SMP (Junior High School) Negeri 1 Singaraja. The validity assessment of the hypermedia by subject matter experts received an average score of 5 (100%), while media experts gave an average score of 4.6 (92%), both falling into the very high validity category. The practicality of the hypermedia, based on teacher response questionnaires, received an average score of 4.8 (96%), and student response questionnaires yielded an average score of 4.52 (90.33%), classifying it as highly practical. The effectiveness of the hypermedia, based on an N-Gain value of 0.751287, was categorized as high, with the average post-test score exceeding the applicable minimum competency standard (KKTP) of 80. Therefore, the hypermedia was proven to improve students' mathematical problem-solving abilities in the topic of three-dimensional shapes with flat surfaces. The characteristics of high-quality hypermedia include: (1) a fun adventure theme, (2) a focus on contextual problem-solving, (3) multi-platform compatibility and high accessibility, and (4) attractive and easily understandable visualizations.

Keyword: Hypermedia, Mathematical Problem-Solving Ability, Three-Dimensional Geometric Shapes with Flat Surfaces.