

**PENGEMBANGAN MEDIA *MATH-ADVENTURE AR* BERBASIS
MEANINGFUL LEARNING DENGAN BUDAYA *MEJEJAITAN* UNTUK
MENINGKATKAN PEMECAHAN MASALAH MATEMATIKA SISWA
KELAS V SD PADA MATERI PECAHAN**

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ABSTRAK

Riset ini diarahkan untuk merancang serta menelaah tingkat kelayakan media *Math-Adventure AR* yang berlandaskan pendekatan *meaningful learning* dengan mengintegrasikan budaya *mejejaitan*, guna mengoptimalkan kapabilitas peserta didik kelas V sekolah dasar dalam memecahkan persoalan matematika pada pokok bahasan pecahan. Riset ini mengaplikasikan pendekatan *Research and Development* (R&D) dengan memanfaatkan model ADDIE yang mencakup tahapan analisis, perancangan, pengembangan, implementasi, serta evaluasi. Adapun partisipan dalam penelitian ini ialah peserta didik kelas V pada jenjang sekolah dasar. Penghimpunan data dilaksanakan melalui penyebaran angket yang difungsikan untuk mengevaluasi tingkat validitas serta kepraktisan media, disertai pelaksanaan tes awal (pretest) dan tes akhir (posttest) guna mengetahui efektivitas media pembelajaran yang diterapkan. Mengacu temuan penelitian, media *Math-Adventure AR* memperoleh tingkat keabsahan yang sangat tinggi. Penilaian dari pakar media menunjukkan rerata skor sebesar 4,75, sedangkan evaluasi oleh pakar materi menghasilkan rerata skor 4,85. Adapun dari aspek keterterapan, media tersebut dikategorikan sangat praktis dengan capaian persentase respons guru sebesar 99% serta tanggapan peserta didik mencapai 98%. Hasil pengujian efektivitas memperlihatkan bahwa nilai signifikansi Sig. (2-tailed) berada pada angka 0,000, yakni lebih rendah daripada 0,05. Temuan tersebut mengindikasikan adanya peningkatan yang bermakna pada kemampuan peserta didik dalam memecahkan persoalan matematika sesudah memanfaatkan media pembelajaran yang diterapkan. Pemanfaatan media *Math-Adventure AR* yang mengadopsi konsep *meaningful learning* dan memuat unsur budaya *mejejaitan* menunjukkan bahwa media tersebut telah memenuhi kriteria kelayakan, kepraktisan, serta keefektifan sehingga pantas diterapkan dalam pembelajaran matematika bagi siswa kelas V sekolah dasar.

Kata kunci: *Math-Adventure AR*, pembelajaran bermakna, budaya *mejejaitan*, kemampuan pemecahan masalah matematika, pecahan, sekolah dasar

**DEVELOPMENT OF MATH-ADVENTURE AR MEDIA BASED ON
MEANINGFUL LEARNING WITH MEJEJAITAN CULTURE TO IMPROVE
MATHEMATICS PROBLEM SOLVING OF 5 TH GRADE ELEMENTARY
SCHOOL STUDENTS ON FRACTIONS**

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ABSTRACT

This research is directed to design and examine the feasibility level of Math-Adventure AR media based on a meaningful learning approach by integrating the culture of jajait, in order to optimize the capabilities of grade V elementary school students in solving mathematical problems on the subject of fractions. This research applies a Research and Development (R&D) approach by utilizing the ADDIE model which includes the stages of analysis, design, development, implementation, and evaluation. The participants in this study are class V students at the elementary school level. Data collection is carried out through the distribution of questionnaires that are used to evaluate the level of validity and practicality of the media, accompanied by the implementation of the initial test (pretest) and final test (posttest) to determine the effectiveness of the learning media applied. Referring to the research findings, Math-Adventure AR media obtained a very high level of validity. Assessments from media experts showed an average score of 4.75, while evaluations by material experts resulted in an average score of 4.85. As for the aspect of application, the media is categorized as very practical with a teacher response percentage of 99% and student responses reaching 98%. The results of the effectiveness test showed that the significance value of Sig. (2-tailed) was at 0.000, which is lower than 0.05. The findings indicate a significant improvement in students' ability to solve mathematical problems after utilizing the applied learning media. The use of Math-Adventure AR media that adopts the concept of meaningful learning and contains elements of mejejaitan culture shows that the media has met the criteria of feasibility, practicality, and effectiveness so that it is appropriate to be applied in mathematics learning for grade V elementary school students.

Keywords: *Math-adventure AR, meaningful learning, mejejaitan culture, mathematical problem solving abilities, fractions, elementary school*