PENGEMBANGAN MEDIA PEMBELAJARAN *GAME* 3 DIMENSI BERBASIS PENDEKATAN *DEEP LEARNING* UNTUK MENINGKATKAN PEMAHAMAN KONSEP IPAS

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ABSTRAK

Penelitian ini bertujuan untuk mengembangkan dan menguji kelayakan media pembelajaran *Game* 3 Dimensi berbasis pendekatan *deep learning* pada materi rantai makanan IPAS kelas V sekolah dasar. Penelitian menggunakan metode *research and development* (R&D) dengan model ADDIE yang meliputi tahap analisis, perancangan, pengembangan, implementasi, dan evaluasi. Subjek penelitian melibatkan dua ahli materi, dua ahli media, guru, dan 15 siswa kelas V SD Negeri 2 Abang Batudinding. Instrumen penelitian berupa lembar validasi ahli, angket kepraktisan guru dan siswa, serta tes pretest dan posttest untuk mengukur pemahaman konsep IPAS. Hasil penelitian menunjukkan bahwa media yang dikembangkan memiliki tingkat validitas sangat tinggi dengan nilai rata-rata validasi ahli materi sebesar 3,75 dan ahli media sebesar 3,95. Uji kepraktisan menunjukkan persentase sebesar 98,67% dengan kategori sangat praktis. Uji efektivitas melalui paired sample t-test menunjukkan adanya peningkatan pemahaman konsep yang signifikan, ditunjukkan oleh peningkatan nilai rata-rata dari 33,00 pada pretest menjadi 85,00 pada posttest dengan nilai signifikansi 0,000. Dengan demikian, media pembelajaran *Game* 3 Dimensi berbasis pendekatan *deep learning* dinyatakan valid, praktis, dan efektif untuk meningkatkan pemahaman konsep IPAS siswa kelas V, khususnya pada materi rantai makanan.

Kata Kunci: *Game* 3 Dimensi, *Deep Learning*, IPAS, Pemahaman Konsep, Sekolah Dasar, Model ADDIE.

DEVELOPMENT OF A 3D GAME-BASED LEARNING MEDIA USING A DEEP LEARNING APPROACH TO IMPROVE UNDERSTANDING OF SCIENCE CONCEPTS (IPAS)

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ABSTRACT

This study aims to develop and examine the feasibility of a 3D game-based learning media using a deep learning approach on the topic of food chains in Grade V Integrated Science (IPAS) in elementary school. The research employed a Research and Development (R&D) method using the ADDIE model consisting of analysis, design, development, implementation, and evaluation stages. The research subjects involved two material experts, two media experts, a teacher, and 15 fifth-grade students of SD Negeri 2 Abang Batudinding. The research instruments included expert validation sheets, teacher and student practicality questionnaires, and pretest–posttest assessments to measure students' conceptual understanding of IPAS. The results showed that the developed media had a very high validity level, with an average validation score of 3.75 from material experts and 3.95 from media experts. The practicality test obtained a percentage of 98.67% categorized as very practical. The effectiveness test using a paired sample t-test indicated a significant improvement in conceptual understanding, shown by an increase in the average score from 33.00 in the pretest to 85.00 in the posttest with a significance value of 0.000. Therefore, the 3D game-based learning media using a deep learning approach is considered valid, practical, and effective in improving Grade V students' understanding of IPAS concepts, particularly on the topic of food chains.

Keyword: *3D Game, Deep Learning, IPAS, Conceptual Understanding, Elementary School, ADDIE Model.*