

**PENGEMBANGAN MULTIMEDIA INTERAKTIF BERBASIS
KONTEKSUAL UNTUK MENINGKATKAN PEMAHAMAN KONSEP IPA
SISWA KELAS 4 SEKOLAH DASAR**

Oleh

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ABSTRAK

Penelitian ini bertujuan untuk mengembangkan multimedia interaktif berbasis kontekstual pada materi perubahan wujud benda untuk siswa kelas IV sekolah dasar, serta mengetahui validitas, kepraktisan, dan efektivitas multimedia yang dikembangkan dalam meningkatkan pemahaman konsep IPA siswa. Penelitian ini merupakan penelitian dan pengembangan (*Research and Development*) yang menggunakan model ADDIE, meliputi tahap *Analysis*, *Design*, *Development*, *Implementation*, dan *Evaluation*. Subjek penelitian terdiri atas ahli isi pembelajaran, ahli desain pembelajaran, ahli media pembelajaran, guru kelas IV, dan siswa kelas IV SD Negeri 2 Bungkulan. Metode pengumpulan data yang digunakan meliputi observasi, wawancara, angket, dan tes. Data dianalisis menggunakan analisis deskriptif kuantitatif dan kualitatif, sedangkan efektivitas multimedia dianalisis melalui uji normalitas dan uji Paired Sample t-Test. Penelitian ini menghasilkan produk berupa multimedia interaktif berbasis kontekstual yang memenuhi kriteria valid, praktis, dan efektif untuk meningkatkan pemahaman konsep IPA siswa. Multimedia yang dikembangkan memiliki kesesuaian isi, kebahasaan, penyajian, tampilan, dan aspek teknis sehingga layak digunakan sebagai media pembelajaran. Selain itu, multimedia mudah digunakan oleh guru dan siswa, menyajikan materi secara sistematis, dilengkapi dengan petunjuk penggunaan yang jelas, serta berbagai fitur interaktif yang mendukung proses pembelajaran. Multimedia juga mengintegrasikan pendekatan kontekstual dengan mengaitkan materi perubahan wujud benda dengan kehidupan sehari-hari sehingga membantu siswa memahami konsep IPA secara lebih bermakna. Berdasarkan hasil penelitian, dapat disimpulkan bahwa multimedia interaktif berbasis kontekstual yang dikembangkan telah memenuhi kriteria valid, praktis, dan efektif sehingga layak digunakan sebagai media pembelajaran pada materi perubahan wujud benda untuk meningkatkan pemahaman konsep IPA siswa kelas IV sekolah dasar.

Kata kunci: multimedia interaktif, pendekatan kontekstual, pemahaman konsep, IPA, ADDIE.

**DEVELOPMENT OF CONTEXT-BASED INTERACTIVE MULTIMEDIA TO
IMPROVE FOURTH-GRADE ELEMENTARY SCHOOL STUDENTS'
UNDERSTANDING OF SCIENCE CONCEPTS**

By

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ABSTRACT

This study aimed to develop context-based interactive multimedia on the topic of changes in the states of matter for fourth-grade elementary school students and to examine the validity, practicality, and effectiveness of the developed multimedia in improving students' conceptual understanding of science. This study employed a Research and Development (R&D) approach using the ADDIE model, which consists of five stages: Analysis, Design, Development, Implementation, and Evaluation. The research subjects included a subject matter expert, an instructional design expert, a learning media expert, a fourth-grade teacher, and fourth-grade students at SD Negeri 2 Bungkulan. Data were collected through observations, interviews, questionnaires, and tests. The collected data were analyzed using descriptive qualitative and quantitative techniques, while the effectiveness of the multimedia was evaluated using the normality test and the Paired Samples t-Test. This study produced a context-based interactive multimedia product that met the criteria of validity, practicality, and effectiveness. The developed multimedia demonstrated appropriate content, language, presentation, visual design, and technical quality, making it suitable for classroom use. In addition, the multimedia was easy for both teachers and students to use, presented learning materials systematically, provided clear instructions, and incorporated interactive features that supported the learning process. Furthermore, the multimedia integrated a contextual approach by connecting the topic of changes in the states of matter with students' real-life experiences, thereby promoting meaningful learning and enhancing students' conceptual understanding of science. In conclusion, the developed context-based interactive multimedia fulfilled the criteria of validity, practicality, and effectiveness. Therefore, it is appropriate for use as a learning medium on the topic of changes in the states of matter to improve fourth-grade elementary school students' conceptual understanding of science.

Keywords: *interactive multimedia, contextual approach, conceptual understanding, science, ADDIE.*