

**PENGEMBANGAN E-MODUL BERBASIS *PROBLEM BASED LEARNING*  
UNTUK MENINGKATKAN PEMAHAMAN KONSEP IPAS SISWA  
KELAS IV SD**

**Oleh**

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**ABSTRAK**

Tujuan dari penelitian ini adalah untuk menghasilkan rancang bangun, serta mengetahui validitas, kepraktisan, dan efektivitas e-modul berbasis *Problem Based Learning* untuk meningkatkan pemahaman konsep IPAS siswa kelas IV SD. Studi yang dilaksanakan adalah penelitian dan pengembangan mempergunakan model ADDIE yang mencakup tahap analisis, perancangan, pengembangan, implementasi, serta evaluasi. Pengembangan e-modul ini dilaksanakan dengan memanfaatkan aplikasi *flip book* PDF. Karakteristik pada e-modul ini yaitu e-modul ini telah ikemas berdasarkan sintaks *problem based learning* serta terdapat soal studi kasus pemecahan masalah di dalam e-modul ini yang bisa membantu melatih pemahaman konsep IPAS peserta didik terutama dalam topik wujud zat dan perubahannya. Validitas materi, media kepraktisan respon guru dan peserta didik menggunakan rumus mean sedangkan efektivitas diukur dengan *Design One Grup Pretest- Post-test*. Hasil pengujian yang dilakukan menunjukkan validitas ahli materi sebesar 3.80 dan validitas oleh ahli media sebesar 3.73 yang menunjukkan e-modul ini layak digunakan. Hasil uji kepraktisan respon guru diperoleh nilai sebesar 3.50 dan hasil kepraktisan respon peserta didik yang dilaksanakan terhadap 32 peserta didik diperoleh nilai sebesar 3.90 yang menunjukkan e-modul ini layak digunakan. Selain itu uji efektivitas diukur dengan *Design One Grup Pretest-Post-test*, berdasarkan uji efektivitas menunjukkan Nilai rata-rata selisih pretest dan posttest sebesar 35.625. Uji paired sample t-test mengindikasikan nilai  $t = 18.604$ . Hasil ini membuktikan bahwa e-modul berbasis *Problem Based Learning* valid, praktis, dan efektif meningkatkan pemahaman konsep IPAS peserta didik kelas IV sekolah dasar. Saran dari penelitian ini adalah agar guru memanfaatkan e-modul berbasis *problem based learning* yang dikembangkan dalam proses pembelajaran.

Kata Kunci: E-Modul, *Problem Based Learning*, Pemahaman Konsep, IPAS.

***DEVELOPMENT OF PROBLEM-BASED LEARNING-BASED E-MODULE TO IMPROVE STUDENTS' UNDERSTANDING OF SCIENCE CONCEPTS IN GRADE IV***

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***ABSTRACT***

*The purpose of this study is to produce a design, as well as to determine the validity, practicality, and effectiveness of a Problem Based Learning-based e-module to improve fourth-grade elementary school students' understanding of social sciences concepts. This study was a research and development study using the ADDIE model, which includes the stages of analysis, design, development, implementation, and evaluation. The development of this e-module was carried out using a flip book PDF application. The characteristics of this e-module are that it has been packaged based on the syntax of problem based learning and includes case study problem-solving questions that can help train students' understanding of social sciences concepts, especially on the topic of states of matter and their changes. The validity of the material and media and the practicality of teacher and student responses were analyzed using the mean formula, while effectiveness was measured using a One-Group Pretest-Posttest Design. The results showed that the material expert validity score was 3.80 and the media expert validity score was 3.73, indicating that the e-module is feasible for use. The practicality test results showed a teacher response score of 3.50 and a student response score of 3.90 from 32 students, indicating that the e-module is feasible to use. Furthermore, the effectiveness was evaluated using a one-group pretest-posttest design. The results showed that the mean difference between pretest and posttest scores was 35.625. The paired sample t-test revealed a t-value of 18.604. These results prove that the problem based learning-based e-module is valid, practical, and effective in improving the understanding of Social Sciences concepts of fourth-grade elementary school students. The suggestion from this research is that teachers utilize e-modules based on problem-based learning that are developed in the learning process.*

*Keywords: E-Module, Problem Based Learning, Conceptual Understanding, Social Sciences.*