

**PENGEMBANGAN MODUL ELEKTRONIK IPA BERBASIS
DISCOVERY LEARNING BERBANTUAN MIND MAPPING PADA
MATERI OBJEK IPA DAN PENGAMATANNYA UNTUK SISWA
SMP/MTS KELAS VII**

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ABSTRAK

Penelitian ini bertujuan untuk mendeskripsikan dan menjelaskan karakteristik, kevalidan, kepraktisan, dan keterbacaan modul elektronik IPA. Jenis penelitian ini adalah penelitian dan pengembangan. Model pengembangan yang digunakan yaitu model pengembangan 4D dari Thiagarajan dengan tahapan: *define*, *design*, *develop*, dan *disseminate*. Penelitian ini hanya sampai pada tahap *develop* karena berbagai keterbatasan. Instrumen pengumpulan data yang digunakan adalah lembar wawancara dan lembar angket uji kevalidan, kepraktisan, dan keterbacaan. Teknik analisis data yang digunakan pada uji kevalidan menggunakan tabulasi silang Gregory. Teknik analisis data untuk uji kepraktisan dan keterbacaan menggunakan rumus $P = \frac{f}{N} \times 100\%$. Hasil penelitian pengembangan produk ini yaitu terdapat beberapa karakteristik modul elektronik IPA berbasis *discovery learning* berbantuan *mind mapping*. Uji kevalidan diperoleh skor rata-rata 0,94 dengan kategori validitas sangat tinggi. Uji kepraktisan diperoleh nilai 86,4% dengan kategori sangat praktis. Uji keterbacaan diperoleh nilai 87,9% dengan kategori sangat terbaca. Kesimpulannya yaitu modul elektronik IPA berbasis *discovery learning* berbantuan *mind mapping* pada materi objek IPA dan pengamatannya ini dinyatakan validitasnya sangat tinggi, sangat praktis, dan sangat terbaca serta dapat dilanjutkan ke tahap uji keefektifan.

Kata kunci: Modul Elektronik IPA, *Discovery Learning*, *Mind Mapping*

**DEVELOPMENT OF IPA ELECTRONIC MODULE BASED ON
DISCOVERY LEARNING ASSISTED BY MIND MAPPING ON SCIENCE
OBJECT MATERIALS AND OBSERVATIONS FOR JUNIOR HIGH
SCHOOL/MTS CLASS VII STUDENTS**

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ABSTRACT

This study aims to describe and explain the characteristics, validity, practicality, and readability of the IPA electronic module. This type of research is research and development. The development model used is a 4D development model from Thiagarajan with stages: define, design, develop, and disseminate. This research only reached the develop stage due to various limitations. The data collection instrument used are interview sheets and questionnaire sheets for testing validity, practicality, and readability. Data analysis techniques used in validity tests using Gregory cross tabulation. Data analysis techniques for practicality and readability tests using $P = \frac{f}{N} \times 100\%$ formulas. The result of this product development research is that there are several characteristics of IPA electronic module based on discovery learning assisted by mind mapping. The validity test obtained an average score of 0.94 with a very high validity category. The practicality test obtained a value of 86.4% with a very practical category. The readability test obtained a value of 87.9% with the highly legible category. The conclusion is that the IPA electronic module based on discovery learning assisted by mind mapping on science object materials and observations is stated to be very high validity, very practical, and very legible and can be continued to the effectiveness test stage.

Keyword: IPA Electronic Module, Discovery Learning, Mind Mapping

