

**PENGEMBANGAN MODUL AJAR BERBASIS PEMBELAJARAN
TERBIMBING UNTUK MENINGKATKAN PEMAHAMAN KONSEP
MATEMATIKA SISWA KELAS VIII**

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ABSTRAK

Penelitian pengembangan ini bertujuan untuk mengembangkan modul ajar berbasis pembelajaran penemuan terbimbing kelas VIII SMP yang memuat materi peluang. Modul ajar berbasis pembelajaran penemuan terbimbing ini disajikan dalam bentuk media cetak dan elektronik. Modul ajar ini dikembangkan dengan menggunakan model pengembangan 4-D (*Define, Design, Development, Dissemination*). Sebelum modul ajar ini diujicobakan, modul ajar ini telah melewati beberapa tahap pengujian yakni uji kelayakan baik secara isi maupun tampilan, uji kepraktisan melalui respons guru dan respons siswa, dan uji keefektifan melalui tes pemahaman konsep matematika. Uji kelayakan yang digunakan adalah LORI (*Learning Object Review Instrument*). Modul ajar ini dinyatakan sangat valid secara isi dengan perolehan rata-rata skor 4,90, sedangkan secara tampilan mendapatkan rata-rata skor 4,52 dengan kategori sangat valid. Berdasarkan hal tersebut, dapat disimpulkan bahwa modul ajar berbasis penemuan terbimbing sangat layak dan valid untuk digunakan. Modul ajar ini juga diuji kepraktisannya dengan menggunakan standar penilaian yang ditetapkan oleh BNSP (Badan Standar Nasional Pendidikan). Rata-rata skor respons guru diperoleh sebesar 4,44 dengan kategori sangat baik dan rata-rata skor respons siswa diperoleh sebesar 4,37 dengan kategori sangat baik. Berdasarkan hal tersebut, dapat disimpulkan bahwa modul ajar berbasis pembelajaran penemuan terbimbing sangat praktis untuk digunakan. Selanjutnya, modul ajar ini diujicobakan ke 34 siswa kelas VIII di SMP Negeri 4 Sukasada. Berdasarkan hasil analisis tes pemahaman konsep, diperoleh rata-rata nilai *pre-test* sebesar 42,59 dan rata-rata nilai *post-test* sebesar 76,71. Dilakukan uji keefektifan dan diperoleh ketuntasan klasikal sebesar 82,35% dengan kategori sangat baik dengan rincian jumlah siswa tuntas sebanyak 28 orang, sedangkan siswa yang masih belum tuntas ada 6 orang. Sehingga modul ajar yang dikembangkan dapat dinyatakan layak dan dapat meningkatkan kemampuan pemahaman konsep matematika siswa SMP kelas VIII.

Kata kunci: modul ajar, pembelajaran penemuan terbimbing, pemahaman konsep

DEVELOPMENT OF A GUIDED LEARNING-BASED TEACHING MODULE TO IMPROVE STUDENTS' UNDERSTANDING OF MATHEMATICAL CONCEPTS

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ABSTRACT

This development research aims to develop a guided discovery learning-based teaching module for eighth-grade junior high school students, covering the topic of probability. This guided discovery learning-based teaching module is presented in print and electronic media. This teaching module was developed using the 4-D development model (Define, Design, Development, Dissemination). Before the module was piloted, it underwent several testing stages: feasibility testing for both content and presentation, practicality testing through teacher and student responses, and effectiveness testing through a mathematical concept understanding test. The feasibility test used was the Learning Object Review Instrument (LORI). This teaching module was declared very valid in terms of content with an average score of 4.90, while in terms of appearance it obtained an average score of 4.52 with a very valid category. Based on this, it can be concluded that the guided discovery-based teaching module is very feasible and valid for use. This teaching module was also tested for its practicality using the assessment standards set by BNSP (National Education Standards Agency). The average teacher response score was obtained at 4.44 with a very good category and the average student response score was obtained at 4.37 with a very good category. Based on this, it can be concluded that the guided discovery-based teaching module is very practical for use. Furthermore, this teaching module was tested on 34 eighth-grade students at SMP Negeri 4 Sukasada. Based on the results of the concept understanding test analysis, the average pre-test score was 42.59 and the average post-test score was 76.71. An effectiveness test was conducted and the classical completion rate was 82.35%, categorized as very good. Twenty-eight students completed the course and six students remained incomplete. Therefore, the developed teaching module can be deemed feasible and can improve the mathematical conceptual understanding of eighth-grade junior high school students.

Keywords: teaching module, guided discovery learning, conceptual understanding.