**ABSTRAK**

ABDUL HAFID (2014) Pengembangan Modul Pembelajaran Berbasis Masalah pada Konsep Bioteknologi (dibimbing oleh Hamzah Upu dan A. Mushawwir Taiyeb).

Penelitian ini termasuk jenis *Research & Development* (R & D) dengan menggunakan model pengembangan dari Borg & Gall (1989). Tujuan pengembangan adalah untuk menghasilkan produk berupa modul pembelajaran berbasis masalah pada konsep bioteknologi yang valid*,* praktis dan efektif. Penelitian pengembangan ini menggunakan pendekatan deskriptf kualitatif dan deskriptif kuantitatif. Hasil penelitian menunjukkan, pengembangan modul pembelajaran berbasis masalah pada konsep Bioteknologi terdiri atas 6 tahap yaitu; tahap analisis potensi dan masalah, mengumpulkan informasi, menyusun desain awal modul, validasi desain, revisi desain, dan uji coba produk. Pada aspek kevalidan, penilaian dilakukan oleh pakar dan guru Biologi SMA dan SMK melalui kegiatan Musyawara Guru Mata Pelajaran (MGMP) Biologi, modul yang dikembangkan dinyatakan “valid”. Penilaian oleh pakar pengembangan pembelajaran dan oleh pakar materi Bioteknologi, hasil penilaian menunjukkan masing-masing adalah rata-rata 3,6 (standar deviasi 0,23, skor ideal 4,0) dan 3,2 (standar deviasi 0,38, skor ideal 4,0). Hasil analisis penilaian oleh guru-guru biologi adalah total rata-rata 3,27 (standar deviasi 0,37, skor ideal 4,0). Dalam uji coba produk peserta didik memberikan respon rata-rata 89,1(standar deviasi 1,161, skor ideal 100) atau dengan kategori “tinggi sekali”, yang menunjukkan pengembangan modul PBL dengan konsep Bioteknologi “praktis” digunakan dalam pembelajaran. Modul ini juga efektif digunakan dalam pembelajaran, karena hasil analisis aktivitas peserta didik menunjukkan bahwa aktivitas PBL mencapai 82,04% (standar deviasi 5,66, skor ideal 100) dengan kategori “tinggi”, begitu pula dengan hasil belajar kognitif peserta didik mengalami peningkatan dari nilai rata-rata kelas 36,67 (standar deviasi 8,780, skor ideal 100) menjadi 90,51 (standar deviasi 4,469, SI 100).

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Kata Kunci : Modul, Pembelajaran Berbasis Masalah, Bioteknologi

**ABSTRACT**

ABDUL HAFID (2014) The Development of Problem-Based Learning Module on the concept of Biotechnology (guided by Hamzah Upu and A. Mushawwir Taiyeb).

This research was included into Research & Development (R & D) by using a model of the from development of Borg & Gall (1989). The purpose of development was to produce a product in the form of problem-based learning module on the concept of biotechnology was valid, practical and effective. The development of research using qualitative approaches and quantitative descriptive. The results show, the development of problem-based learning module on Biotechnology concept consists of six stages items, namely; phase analysis of the potential and problems, gather information, formulate preliminary design module, design validation, design revisions, and product testing. In the aspect of validity, the assessment made ​​by experts and high school biology teacher and vocational activities through Consultative Meetings Subject Teacher (MGMP) Biology, developed modules declared "valid". Assessment by experts and by experts in the development of learning material Biotechnology, results of the assessment indicate each with an average of 3.6 (deviation standard 0:23, the ideal score of 4.0) and 3.2 (deviation standard 0:38, the ideal score of 4.0). The results of the analysis of assessment by teachers of biology is the total average of 3:27 (deviation standard 0:37, the ideal score of 4.0). In product testing learners provide an average response of 89.1 (deviation standard of 1.161, the ideal score of 100) or the category of "very high", the which shows the development of the concept of PBL modules Biotechnology "practical" is used in learning. This module is also effectively used in learning, Because The results of the analysis Showed that the activity of learners PBL activity reached 82.04% (deviation standard 5.66, the ideal score of 100) with a "high" category, as well as cognitive learning outcomes of students has Increased of the value of the class average 36.67 (deviation standard of 8.780, the ideal score of 100) to 90.51 (deviation standard of 4,469, the ideal score of 100).

Keywords: Module, Problem Based Learning, Biotechnology

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