ABSTRAK

PENGEMBANGAN MODUL DIGITAL *INTERACTIVE-DISCOVERY* BERBASIS *WEB* PADA MATERI RUANG LINGKUP BIOLOGI KELAS X

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Pembelajaran daring (dalam jaringan) membuat perubahan pada sistem pendidikan. Kendala berupa fasilitas serta media pembelajaran variatif membuat siswa kesulitan dalam memahami materi. Selain itu, intensitas pertemuan sinkronus yang lebih sedikit dibandingkan pertemuan asinkronus membuat siswa harus dibekali bahan belajar mandiri. Upaya yang dilakukan adalah pengembangan modul digital interaktif yang diintegrasikan dengan pembelajaran *discovery*. Pengembangan modul digital *interactive-discovery* berbasis *web* diimplementasikan pada materi Ruang Lingkup Biologi sebagai materi yang dianggap sulit oleh siswa. Penelitian ini bertujuan untuk mengetahui pengembangan dan kelayakan modul digital *interactive-discovery* berbasis *web* pada materi Ruang Lingkup Biologi Kelas X.

Penelitian ini merupakan penelitian dan pengembangan (*Research and Development*) dengan desain penelitian *4-D: Define, Design, Develop, Disseminate* yang hanya dilakukan sampai tahap *Develop*. Tahapan tersebut diawali dengan analisis kebutuhan di 4 SMA di Kabupaten Gunungkidul dan 1 SMA di Jakarta, dilanjutkan perancangan dan pengembangan produk, serta uji validitas (kelayakan) produk. Uji validitas dilakukan oleh 1 dosen ahli materi, 1 dosen ahli media, serta 2 guru biologi kelas X sebagai ahli materi dan ahli media dengan menggunakan kuesioner. Hasil penelitian menunjukkan bahwa modul digital *interactive-discovery* berbasis *web* memuat menu-menu pembelajaran seperti *Bio Study, Bio Theories, Bio Keys,* dan *Bio Practice* serta menu-menu lain. Berdasarkan analisis hasil uji validitas, dihasilkan persentase skor rata-rata validator materi yaitu 87,5% dengan kriteria "Layak" dan persentase skor rata-rata validator media yaitu 94,23% dengan kriteria "Sangat Layak", sehingga diperoleh persentase rata-rata akhir yaitu 90,87% dengan kriteria "Sangat Layak". Hasil tersebut menunjukkan bahwa modul digital *interactive-discovery* berbasis *web* layak diujicobakan terbatas dengan revisi sesuai saran validator.

Kata Kunci: modul digital *interactive-discovery* berbasis *web*, Media Pembelajaran, Ruang Lingkup Biologi, *Research and Development*

ABSTRACT

THE DEVELOPMENT OF INTERACTIVE-DISCOVERY DIGITAL MODULE THROUGH WEB ON THEMES AND CONCEPT OF BIOLOGI COURSE FOR X GRADE

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Online study made big changes to the education system. Many problems during that, such as the availability of study facilities and varied learning media. Furthermore, the intensity of synchronous learning less than asynchronous learning make the students must be equipped with materials for independent self-learning. In addition to overcome those problems, there is development of digital module that combined with discovery learning. This research aims to determine the development and validity of the interactive-discovery digital module through web on Themes and Concepts of Biology course for X grade students.

This research is a research and development that run with 4-D design (Define, Design, Develop, Disseminate) and implemented until Develop step that start from the interview with teachers of four senior high school in Gunungkidul Regency and one senior high school in Jakarta, designing and developing the product, then validity test of the product. The validity test had done by one lecture as a material expert, one lecture as a media expert, and two X grade's teachers as a material and media experts. The result shows that the interactive-discovery digital module through web has a several menu to help learning activities. From the analysis, the average percentage score from material valuer is 87,5% with criteria "Feasible" and from media valuer is 94,23% with criteria "Very Feasible". The final average percentage score is 90,87% with criteria "Very Feasible". The score shows that the interactive-discovery digital module through web on Themes and Concepts of Biology course can be implemented after a revision.

Keywords: Interactive-discovery digital module through web, Learning Media, Themes and Concepts of Biology, Research and Development