ABSTRAK

Surya, Putu Dias Maretha (2021), *Pengembangan E-Modul Pembelajaran IPA Berbasis Inkuiri Terbimbing untuk Meningkatkan Keterampilan Proses Sains Siswa*. Tesis, Pendidikan IPA, Program Pascasarjana, Universitas Pendidikan Ganesha.

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Kata-kata kunci: e-modul, pembelajaran IPA, inkuiri terbimbing, keterampilan proses sains.

Penelitian ini bertujuan mendeskripsikan karakteristik, validitas, kepraktisan, dan efektivitas suatu produk berupa *e-modul* pembelajaran IPA berbasis inkuiri terbimbing untuk meningkatkan keterampilan proses sains siswa VIII pada materi semester genap tahun ajaran 2020/2021. Penelitian ini menggunakan model pengembangan 4D yang diadaptasi dari Thiagarajan *et al*., (1974). Desain penelitian menggunakan *one-group pretest-posttest*, dan data dianalisis dengan *n-gain.* Hasil penelitian menunjukkan bahwa: (1) karakteristik *e-modul* berupa penambahan fitur *live chat* sebagai implementasi pembelajaran inkuiri secara virtual, (2) Validitas ditinjau dari tiga aspek meliputi aspek materi rata-rata skor total 0,98 kategori sangat valid, aspek media rata-rata skor total 3,08 kategori valid, aspek bahasa rata-rata skor total 3,77 kategori sangat valid. (3) Kepraktisan ditinjau dari respon guru dan siswa rata-rata skor total masing-masing 3,28 dan 3,27 kategori praktis. (4) Efektivitas hasil tes keterampilan proses sains *posttest* rata-rata skor total 90,38 kategori sangat baik. Hasil penelitian menunjukkan bahwa memiliki <g> = 0,82 kategori tinggi. Berdasarkan temuan tersebut dapat disimpulkan, bahwa *e-modul* pembelajaran IPA berbasis inkuiri terbimbing yang dikembangkan tergolong valid, praktis, dan efektif dalam meningkatkan keterampilan proses sains siswa.

ABSTRACT

Surya, Putu Dias Maretha (2021), Development of Guided Inquiry-Based Science Learning E-Modules to Improve Students' Science Process Skills. Thesis, Science Education, Graduate Program, Ganesha University of Education.

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Keywords: e-module, science learning, guided inquiry, science process skills.

This study aimed to describe the characteristics, validity, practicality, and effectiveness of a product in form *e-module* of a guided inquiry-based science learning to improve the science process skills of eight grade students in the second semester of 2020/2021 academic year. This study used 4D development model adapted from Thiagarajan, *et al*. (1974). The research design used a *one-group pretest-posttest*. Data were analyzed by *n-gain.* The results show that: (1) the characteristics of the *e-module* in form of adding a feature *live chat* as an implementation of virtual inquiry learning, (2) The validity in terms of three aspects including the material aspect, the average total score of 0.98, the category is very valid, the media aspect is average. The average total score is 3.08 valid categories; the average language aspect is 3.77 very valid categories. (3) Practicality in terms of teacher and students' responses, the average total score is 3.28 and 3.27, respectively, in the practical category. (4) The effectiveness of the science process skills test results with *posttest* an average total score of 90.38 in the very good category. The results show that having <g> = 0.82 in the high category. Based on these findings, it can be concluded that the *e-module* guided inquiry-based science learning developed is valid, practical, and effective in improving students' science process skills.