ABSTRAK

SITI MAYANG SARI. Pengembangan Buku Ajar Konsep Dasar IPA Berbasis Model PBL Melalui C-PLE untuk Meningkatkan Keterampilan Proses Sains Dan Kemampuan Berpikir Kreatif Mahasiswa PGSD. Disertasi. Medan. Program Pascasarjana Universitas Negeri Medan. Agustus 2022.

Menghadapi transformasi digital yang berkelanjutan diperlukan kebaruan pada perangkat buku ajar yang memungkinkan mahasiswa dapat mengakses pengetahuan melalui buku ajar dimanapun dan kapanpun. Mahasiswa PGSD memerlukan buku ajar pembelajaran IPA berbasis model PBL melalui C-PLE secara online yang dapat meningkatkan keterampilan proses sains dan kemampuan berpikir kreatif mahasiswa. Penelitian ini bertujuan untuk mengembangkan buku ajar konsep dasar IPA yang di ajarkan diperguruan tinggi pada prodi PGSD di matakuliah konsep dasar IPA. Pengembangan buku ajar konsep dasar IPA (BAKDIPA). Penelitian pengembangan ini menghasilkan kevalidan, kepraktisan dan keefektifan dari buku ajar yang dikembangkan berbasis model PBL melalui C-PLE. Metode penelitian yang digunakan adalah pengembangan R&D (*Research and Development*). Pengembangan buku ajar konsep dasar IPA berbasis model PBL dikembangkan berdasarkan sintaks model, sistem sosial, pengolahan sistem pengguna, sistem pendukung, dan dampak instruksional, serta instrumen-intrumen berupa lembar validasi, oleh ahli dan praktisi. Berdasarkan hasil pengembangan BAKDIPA memperoleh hasil yang valid dan memenuhi kriteria kevalidan secara isi dengan nilai 4,5 kategori layak, kevalidan KPS sebesar 4,3 dengan kategori layak, dan kevalidan LKM sebesar 4,2 dengan kategori laak, aspek kepraktisan buku ajar berbasis model PBL dengan nilai kevalidan sebesar 3,9 dengan kategori cukup layak dan dapat diimplementasikan. Uji normalitas pengguna dilihat dari nilai pretest dan posttest keefektifan C-PLE dalam penerapan produk menunjukkan pengaruh keefektifan ang tinggi dengan nilai N-Gain 0,813, nilai uji t_{tabel} 2,87 dan uji t_{hitung} 8,054 pada taraf signifikan dengan kriteria tinggi. Kompetensi yang hendak dicapai setelah penelitian ini adalah mahasiswa dapat: Menjelaskan karakteristik IPA, Kedudukan IPA sebagai produk, proses, dan sikap, serta menjelaskan pengertian IPA menurut teori behavioristik dan kontruktivistik.

Kata Kunci: Buku Ajar, Konsep Dasar IPA, Model PBL, C-PLE, KPS, Berpikir Kreatif.

ABSTRACT

SITI MAYANG SARI : Development of Basic Science Teaching Concepts Based on the PBL Model through C-PLE to Improve Science Process Skills and Creative Thinking Ability PGSD Students. Dissertation. Medan. Medan State University Postgraduate Program. August 2022.

Facing a continuous digital transformation requires novelty in textbooks that allow students to access knowledge through textbooks anywhere and anytime. PGSD students need science learning textbooks based on the PBL model through online C-PLE which can improve students' science process skills and creative thinking abilities. This study aims to develop a textbook of basic science concepts taught in higher education in the PGSD study program in the subject of basic science concepts. Development of basic science concept textbooks (BAKDIPA). This development research resulted in the validity, practicality and effectiveness of the textbooks developed based on the PBL model through C-PLE. The research method used is the development of R&D (Research and Development). The development of basic science textbooks based on the PBL model was developed based on model syntax, social systems, user system processing, support systems, and instructional impacts, as well as instruments in the form of validation sheets, by experts and practitioners. Based on the results of the development of BAKDIPA, it obtained valid results and met the criteria for content validity with a value of 4.5 in the appropriate category, the validity of the KPS by 4.3 in the appropriate category, and the validity of the LKM by 4.2 with the appropriate category, the practical aspect of textbooks based on the PBL model with a validity value of 3.9 with a fairly decent category and can be implemented. The user's normality test seen from the pretest and posttest values of the effectiveness of C-PLE in the application of the product showed a high effect of effectiveness with an N-Gain value of 0.813, a t-test value of 2.87 and a t-test of 8.054 at a significant level with high criteria. The competencies to be achieved after this research are students can: Explain the characteristics of science, the position of science as a product, process, and attitude, and explain the meaning of science according to behavioristic and theory of constructivist.

Keywords: Textbooks, Basic Science Concepts, PBL Model, C-PLE, KPS, Creative Thinking.