

ABSTRACT

Riza Helfira, 2019. "Development of Integrated Science Teacher's Book KD 3.7, 3.8, and 3.10 with the Themes of Blood Fluid Using Integrated Learning of Connected Integrated Learning Type in 21st Century". Thesis. Master of Physics Education, Faculty of Mathematics and Natural Sciences of Universitas Negeri Padang.

The problem faced by integrated science teachers is that existing Integrated Science teachers do not have an integrated science education background yet, thus it have affect for teacher in teaching practices. To overcome in teacher learning, can use the teacher's book. Teacher's book is one of the 2013 curriculum implementations that supports the learning process. The results of the needs analysis show that science learning in schools requires a science teacher's book that implements integrated learning and integrates skills that are expected to meet the challenges of the 21st century according to the demands of the 2013 curriculum. The purpose of this study is the development of Integrated Science teacher books KD 3.7, 3.8, and 3.10 with the theme of blood fluids using integrated of connected integrated learning type in 21st century that is valid, practical, and effective.

The kind of this research was designed research by using Plomp models consisting phase of preliminary research, prototype or development , and assessment. The data of this study are needs analysis data, validation data, practicality data, and effectiveness data. The research instrument consisted of questionnaires, analysis sheets, validation sheets, practicality sheets, and effectiveness sheets. The scoring on the instrument uses a Likert scale and analyzed with descriptive percentages. While the validation data were analyzed with Aiken's formula.

The results showed the integrated science teacher's book KD 3.7, 3.8, and 3.10 with the themes of blood fluid using integrated learning of connected integrated learning type in 21st century has valid criteria, very practical, and very effective.

Keywords: Teacher's book, Blood Fluid, Integrated Learning, Connected Type, 21st century learning

ABSTRAK

Riza Helfira, 2019. “Pengembangan Buku Guru IPA Terpadu KD 3.7, 3.8, dan 3.10 dengan Tema Fluida Darah menggunakan Pembelajaran Terpadu Tipe *Connected* Terintegrasi Pembelajaran Abad 21”. Tesis Program Studi Magister Pendidikan Fisika Fakultas Matematika dan Ilmu Pengetahuan Alam Universitas Negeri Padang.

Permasalahan yang dihadapi oleh guru IPA terpadu adalah guru IPA Terpadu yang ada sekarang belum memiliki latar belakang pendidikan IPA terpadu, sehingga mempengaruhi praktek mengajar guru. Untuk mengatasi hal tersebut dalam pembelajaran guru menggunakan buku guru. Buku guru salah satu implementasi kurikulum 2013 yang mendukung proses pembelajaran. Hasil analisis kebutuhan menunjukkan bahwa pembelajaran IPA di sekolah membutuhkan buku guru IPA yang menerapkan pembelajaran terpadu dan mengintegrasikan keterampilan-keterampilan yang diharapkan dapat menghadapi tantangan abad 21 sesuai dengan tuntutan kurikulum 2013. Tujuan penelitian ini adalah pengembangan buku guru IPA Terpadu KD 3.7, 3.8, dan 3.10 dengan tema fluida darah menggunakan pembelajaran terpadu tipe *connected* terintegrasi pembelajaran abad 21 yang valid, praktis, dan efektif.

Jenis penelitian adalah penelitian pengembangan dengan menggunakan model *Plomp* yang terdiri dari tahap investigasi awal, prototipe atau pengembangan dan penilaian. Data dalam penelitian ini adalah data analisis kebutuhan, data validasi, data praktikalitas, dan data efektivitas. Instrumen penelitian terdiri dari angket, lembar analisis, lembar validasi, lembar praktikalitas, dan lembar efektivitas. Pemberian skor pada instrumen menggunakan skala likert dan dianalisis dengan deskriptif persentase. Sedangkan data validasi dianalisis dengan formula Aiken's.

Hasil penelitian menunjukkan buku guru IPA Terpadu KD 3.7, 3.8, dan 3.10 dengan tema fluida darah menggunakan pembelajaran terpadu tipe *connected* terintegrasi pembelajaran abad 21 memiliki kriteria valid, sangat praktis, dan sangat efektif.

Kata Kunci: Buku Guru, Fluida Darah, Pembelajaran Terpadu, Tipe *Connected*, dan Pembelajaran Abad 21