

## ABSTRACT

**Febrilla, 2021. “Development of an Immersed Type Integrated Science Teacher Book with Characters on the Theme of Electrical Energy of Living Things with a Science Process Skills Approach”. Thesis of the Master of Physics Education Study Program, Faculty of Mathematics and Natural Sciences, Padang State University.**

The problems faced by integrated science teachers are teachers who are graduates of Physics Education, Biology Education, or Chemistry Education, so that science learning has not been implemented in an integrated manner and is still separate between Physics, Biology or Chemistry. Most teachers have not practiced the integrated science learning model and have difficulty designing integrated science learning in physics, biology and chemistry lessons. In addition, there is still a lack of learning tools, both teacher books and student books that support integrated science learning in schools, integration in the fields of science has not been tied to themes, and supporting books, especially teacher books used, have not integrated character values and there are no learning steps with a skills approach. science process that can train the skills aspects of students. To overcome this in learning the teacher uses a teacher's book. The teacher's book is one of the implementations of the 2013 curriculum that supports the learning process. The results of the needs analysis show that learning science in schools requires science teacher books that apply integrated learning that can support learning. Therefore, this research is aimed at developing an immersed-type integrated science teacher book with characters on the theme of electrical energy of living things with a valid, practical, and effective approach to science process skills.

This type of research is research and development using the Plomp model which consists of the initial investigation stage, prototype or development and assessment. The data in this study are needs analysis data, validation data, practicality data, and effectiveness data. The research instrument consisted of a questionnaire, analysis sheet, validation sheet, practicality sheet and effectiveness sheet. The scoring on the instrument uses a Likert scale and is analyzed by descriptive percentage. While the validation data were analyzed by Aiken's formula.

The results of the study show that the immersed type of integrated science teacher's book contains characters on the theme of electrical energy of living things with a science process skills approach that has very valid, very practical and very effective criteria.

**Keywords: Teacher's Book, Integrated Science, Immersed Type, Loaded with Character, Electrical Energy of Living Things, Science Process Skills.**

## ABSTRAK

**Febrilla, 2021. “Pengembangan Buku Guru IPA Terpadu Tipe *Immersed* Bermuatan Karakter pada Tema Energi Listrik Makhuk Hidup dengan Pendekatan Keterampilan Proses Sains”. Tesis Program Studi Magister Pendidikan Fisika Fakultas Matematika dan Ilmu Pengetahuan Alam Universitas Negeri Padang.**

Permasalahan yang dihadapi oleh guru IPA terpadu adalah guru yang merupakan lulusan Pendidikan Fisika, Pendidikan Biologi, atau Pendidikan Kimia, sehingga pembelajaran IPA belum dilaksanakan secara terpadu dan masih terpisah antara Fisika, Biologi atau Kimia. Kebanyakan guru belum mempraktikkan model pembelajaran IPA terpadu dan mengalami kesulitan merancang pembelajaran IPA terpadu dalam pembelajaran fisika, biologi dan kimia. Selain itu, masih kurangnya perangkat pembelajaran baik buku guru dan buku siswa yang mendukung pembelajaran IPA terpadu disekolah, keterpaduan bidang ilmu belum diikat dengan tema, dan buku penunjang khususnya buku guru yang digunakan belum terintegrasi nilai-nilai karakter dan belum ada langkah pembelajaran dengan pendekatan keterampilan proses sains yang dapat melatih aspek keterampilan peserta didik. Untuk mengatasi hal tersebut dalam pembelajaran guru menggunakan buku guru. Buku guru merupakan salah satu implementasi kurikulum 2013 yang mendukung proses pembelajaran. Hasil analisis kebutuhan menunjukkan bahwa pembelajaran IPA disekolah membutuhkan buku guru IPA yang menerapkan pembelajaran terpadu yang dapat mendukung pembelajaran. oleh karena itu penelitian ini ditujukan untuk mengembangkan sebuah buku guru IPA terpadu tipe *immersed* bermuatan karakter pada tema energi listrik makhuk hidup dengan pendekatan keterampilan proses sains yang valid, praktis, dan efektif.

Jenis penelitian ini adalah penelitian dan 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 presentase. Sedangkan data validasi dianalisis dengan formula Aiken's.

Hasil penelitian menunjukkan buku guru IPA terpadu tipe *immersed* bermuatan karakter pada tema energi listrik makhuk hidup dengan pendekatan keterampilan proses sains memiliki kriteria sangat valid, sangat praktis dan sangat efektif.

**Kata Kunci : Buku Guru, IPA Terpadu, Tipe *Immersed*, Bermuatan Karakter, Energi Listrik Makhuk Hidup, Keterampilan Proses Sains.**