

## ABSTRAK

**Desy Crismas Silaban. 8206181007. Pengembangan Buku Ajar IPA Berbasis Keterampilan Proses Sains dalam Meningkatkan Kemampuan Berpikir Kritis Siswa Kelas V SDS PAB 25 Medan. Tesis. Pendidikan Dasar. Program Pascasarjana. Universitas Negeri Medan. 2022.**

Keterbatasan buku ajar siswa merupakan hambatan pembelajaran berbasis KPS. Buku pendamping guru dan buku paket siswa yang digunakan sebagai panduan dalam pembelajaran belum sepenuhnya lengkap, Keterbatasan inilah yang menyebabkan KPS belum secara efektif merata khususnya untuk pembelajaran dengan pola belajar mandiri. Penelitian ini bertujuan untuk mengetahui kelayakan dan keefektifan buku ajar IPA berbasis keterampilan proses sains yang dikembangkan. Penelitian ini menggunakan prosedur pengembangan model 4D (*four D*) Thiagarajan. Pengambilan data menggunakan instrumen penilaian untuk ahli materi, ahli desain, ahli media pembelajaran dan tes hasil belajar. Hasil penelian pengembangan ini berupa produk buku ajar yang memenuhi syarat kelayakan dengan hasil validasi materi dinyatakan layak, ahli desain dinyatakan layak dan ahli media pembelajaran dinyatakan layak digunakan di lapangan. Berdasarkan hasil validasi yang dilakukan oleh ahli materi diperoleh hasil rata-rata persentase 91,87% dikategorikan “sangat baik”. Hasil validasi yang dilakukan oleh ahli media pembelajaran rata-rata 92,88% dikategorikan “sangat baik”. Hasil validasi yang dilakukan oleh ahli desain pembelajaran diperoleh rata-rata 94,79% dikategorikan “sangat baik”. Berdasarkan hasil penelitian menunjukkan bahwa buku ajar IPA berbasis keterampilan proses sains lebih efektif untuk meningkatkan berfikir kritis siswa daripada buku ajar konvensional pada pokok bahasan Energi dan Perubahannya.

Kata kunci: *Buku Ajar, Keterampilan Proses Sains, Model 4D*

## ABSTRACT

**Desy Crismas Silaban. 8206181007. Development of Science Textbooks Based on Science Process Skills to Improve Students' Critical Thinking Skill of Class V SDS PAB 25 Medan. Thesis. Pendidikan Dasar. Program Pascasarjana. Universitas Negeri Medan. 2022.**

The limitation of student textbooks is an obstacle to KPS-based learning. Teacher companion books and student textbooks that are used as guides in learning are not yet fully complete, this limitation causes KPS not to be effectively evenly distributed, especially for learning with independent learning patterns. This study aims to determine the feasibility and effectiveness of the developed science process skills-based science textbooks. This study uses a 4D (four D) Thiagarajan model development procedure. Collecting data using assessment instruments for material experts, design experts, learning media experts and learning outcomes tests. The results of this development research are in the form of textbook products that meet the eligibility requirements with the results of material validation being declared feasible, design experts declared feasible and learning media experts declared suitable for use in the field. Based on the results of the validation carried out by material experts, the average percentage of 91.87% was categorized as "very good". The results of the validation carried out by learning media experts were an average of 92.88% categorized as "very good". The results of the validation carried out by learning design experts obtained an average of 94.79% categorized as "very good". Based on the results of the study, it was shown that science textbooks based on science process skills were more effective in improving students' critical thinking than conventional textbooks on the subject of Energy and Its Changes.

Keywords: Textbooks, Science Process Skills, 4D Model

