

**PENGEMBANGAN BUKU PRAKTIK SAINS BERBASIS PROYEK UNTUK  
MENSTIMULASI KETERAMPILAN PROSES SAINS ANAK USIA DINI**

TESIS

Diajukan untuk memenuhi sebagian dari syarat memperoleh gelar Magister  
Pendidikan pada Program Studi Pendidikan Anak Usia Dini



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# **Pengembangan Buku Praktik Sains Berbasis Proyek untuk Menstimulasi Keterampilan Proses Sains Anak Usia Dini**

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Universitas Pendidikan Indonesia, 2023

Sebuah Tesis yang diajukan untuk memenuhi salah satu syarat memperoleh gelar Magister Pendidikan (M.Pd.) pada Fakultas Ilmu Pendidikan

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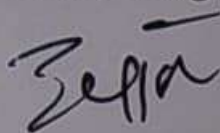
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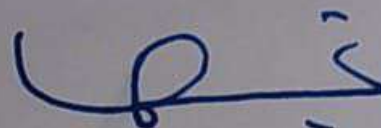
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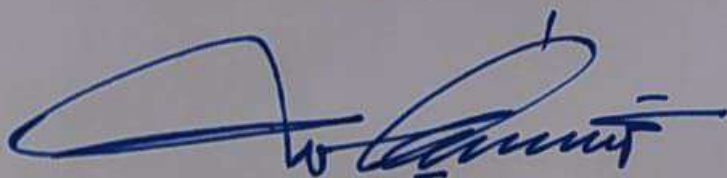


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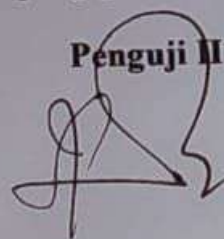
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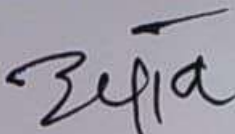
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## ABSTRAK

Penelitian dilatarbelakangi oleh pentingnya mengembangkan potensi alamiah anak menjadi berbagai Keterampilan Proses Sains (KPS). Salah satu pembelajaran yang dapat mengembangkan KPS adalah pembelajaran sains berbasis proyek. Terintegrasinya pembelajaran sains dalam kegiatan proyek dapat menciptakan pembelajaran yang kaya akan KPS. Namun, penelitian yang fokus pada kajian tersebut masih sangat terbatas. Selain itu, penerapan pembelajaran sains di lapangan juga cenderung menggunakan metode eksperimen. Oleh karena itu, tujuan penelitian ini adalah mengembangkan buku praktik pembelajaran sains berbasis proyek untuk menstimulasi KPS anak. Secara detail, tujuan penelitian ini, diantaranya: mendeskripsikan permasalahan pembelajaran sains di lapangan, profil pembelajaran sains guru dalam mengembangkan KPS, proses perancangan buku praktik sains berbasis proyek, dan implementasi buku tersebut dalam menstimulasi KPS. Metode yang digunakan yaitu *Design Based Research* (DBR) dengan teknik pengumpulan data berupa wawancara dan observasi yang melibatkan dua guru TK B di Kab. Bandung Barat. Hasil penelitian menunjukkan bahwa: (1) penerapan pembelajaran sains selama ini cenderung bersifat *teacher-centered* dan tidak berkaitan dengan lingkungan di mana anak berada (*uncontextual*). (2) pembelajaran sains yang guru terapkan hanya mengandung 1 dari 4 prinsip pembelajaran sains, yaitu bersifat menyenangkan. Tidak terkandungnya semua prinsip pembelajaran menyebabkan pembelajaran memunculkan sedikit KPS, yaitu keterampilan observasi, uji coba, dan komunikasi. (3) proses perancangan buku terdiri dari: penyusunan *prototype*, *review* dosen ahli dan praktisi, perbaikan draft buku, pengujian draft buku secara berulang, pengujian draft buku oleh kedua guru, analisis perbaikan draft buku, dan refleksi. (4) rangkaian pembelajaran yang dikembangkan mengandung pengalaman sains yang kaya sehingga dapat memunculkan 8 KPS secara berulang. Sekurang-kurangnya terdapat tiga prinsip pengembangan yang mendukung hal tersebut, yaitu menggunakan media yang menarik dan beragam, menyediakan pertanyaan provokasi, dan merancang kegiatan bermuatan STEAM.

***Kata Kunci:*** Pembelajaran sains Berbasis Proyek, Buku Praktik, Anak Usia Dini

## ABSTRACT

*This research is motivated by the importance of developing children's natural potential into various of Science Process Skills (SPS). One of the lessons that can develop SPS is project-based science learning. The integration of science learning into project activities can create SPS-rich learning. However, the application of science learning in the field tends to use experimental methods. In addition, research that focuses on project-based science learning to stimulate SPS is still very limited. Therefore the aim of this research is to develop a project-based science learning practice book to stimulate children's SPS. In detail, the aims of this research include: describing the problems of learning science in the field, the experiences of teachers in developing SPS, the process of designing project-based science practice books, and the implementation of project-based science practice books in stimulating SPS. The method used is Design-Based Research (DBR) with data collection techniques in the form of interviews and observations involving two kindergarten teachers in West Bandung Regency. The results of the study show that: (1) the application of science learning so far tends to be teacher-centered and unrelated to the environment in which the child is living (uncontextual). (2) the science learning that the teacher applies only contains 1 of the 4 principles of science learning, which is fun. Not covering all the learning principles causes learning to only bring up 3 SPS: observation, trial, and communication skills. (3) the book design process consists of preparing book prototypes, reviewing by expert lecturers and practitioners, improving book drafts, repeated testing of book drafts, testing of book drafts by both teachers, analysis of book draft improvements, and reflection. (4) the learning series developed contain rich scientific experience so that it can generate 8 SPS repeatedly. At least three principles of book development support this, namely using interesting and diverse media, providing provocative questions, and designing activities with STEAM content.*

**Keywords:** *Project-based Science Learning, Practice Book, Early childhood*

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