

**PENGEMBANGAN LKPD IPA BERBASIS *PROBLEM BASED LEARNING*  
MATERI PENCEMARAN LINGKUNGAN UNTUK MENINGKATKAN  
KETERAMPILAN BERPIKIR KRITIS PESERTA DIDIK**

**SMP KELAS VII**

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**ABSTRAK**

Penelitian ini bertujuan (1) menghasilkan LKPD IPA berbasis *Problem Based Learning* yang layak untuk meningkatkan keterampilan berpikir kritis peserta didik ditinjau dari aspek kelayakan isi, aspek penyajian, aspek kebahasaan, dan aspek kegrafisan, (2) mengetahui peningkatan keterampilan berpikir kritis peserta didik setelah mengikuti pembelajaran dengan menggunakan LKPD IPA berbasis *Problem Based Learning*.

Penelitian ini menggunakan desain pengembangan 4D model dari Thiagarajan (1974) yang mempunyai empat tahapan berupa: *define*, *design*, *develop*, dan *disseminate*. Dalam tahap *define* langkah yang dilakukan meliputi kegiatan analisis awal, analisis peserta didik, analisis tugas, analisis konsep, dan merumuskan tujuan pembelajaran. Pada tahap *design* langkah yang dilakukan meliputi penyusunan instrumen, pemilihan media, pemilihan format, dan membuat rancangan produk awal. Pada tahap *develop* dilakukan konsultasi produk kepada dosen pembimbing. Selanjutnya produk LKPD IPA divalidasi oleh akademisi yaitu dosen ahli dan praktisi pendidikan yaitu guru IPA SMP. Kegiatan uji coba produk dilakukan di kelas VII A SMP Negeri 1 Sewon. Dari kegiatan uji coba LKPD IPA didapatkan data peningkatan keterampilan berpikir kritis peserta didik yang didapat dari hasil analisis jawaban LKPD IPA, jawaban *pretest-posttest*, dan hasil observasi melalui kegiatan observasi yang dilakukan selama kegiatan pembelajaran dengan melibatkan observer. Sementara tahap *disseminate* masih dilakukan secara terbatas.

Penelitian ini menghasilkan (1) LKPD IPA berbasis *Problem Based Learning* yang dinyatakan layak dengan skor rata-rata 146,5 dari skor maksimal 152 dengan kategori sangat baik (A). (2) Peningkatan keterampilan berpikir kritis peserta didik setelah mengikuti pembelajaran dengan menggunakan LKPD IPA berbasis *Problem Based Learning* melalui hasil observasi meningkat sebesar 8,17%, melalui jawaban pertanyaan LKPD IPA sebesar 11,82%, melalui jawaban *pretest-posttest* sebesar 15,33%. Selain itu, dilakukan pengujian *N-gain score* keterampilan berpikir kritis melalui hasil observasi dengan peningkatan sebesar 0,34, jawaban pertanyaan LKPD IPA sebesar 0,44, jawaban *pretest-posttest* sebesar 0,41 dan termasuk kategori sedang.

Kata kunci: *Keterampilan Berpikir Kritis, LKPD IPA, Problem Based Learning*

**DEVELOPMENT OF SCIENCE STUDENT WORKSHEET BASED ON  
PROBLEM BASED LEARNING IN THE SUBJECT ENVIRONMENT  
POLLUTION TO IMPROVE CRITICAL THINKING SKILL OF  
GRADE VII STUDENTS JUNIOR HIGH SCHOOL**

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**ABSTRACT**

*The aims of this research are (1) determine the feasibility of student worksheet based on Problem Based Learning that is feasible to improve critical thinking skill of learners from the aspect of content, aspect of presentation, component of language, and graphic aspect, (2) determine the improvement of critical thinking skill after participating in learning using science student worksheet based on Problem Based Learning.*

*This research used 4D model development design from Thiagarajan (1974) which has four phase: define, design, develop, and disseminate. In the define phase there are steps taken include the activities of the front-end analysis, learners analysis, task analysis, concept analysis, and specifying instructional objectives. At the design stage, the steps include the constructing criterion-reference test, media selection, format selection, and initial design. At develop phase, a science student worksheet are consultation to the consultant. Furthermore, science student worksheet produced assessed by expert (expert lecturer and science teacher). Activity of product trial tested in class VII A SMP Negeri 1 Sewon. From the test result the obtain improvement of critical thinking skill were obtained from the analysis of science student worksheet test, pretest-posttest test, and observation sheet through observation activities conducted during the learning activities involving the observer. Disseminate phase are still done in a limited way.*

*The research are results (1) science student worksheet based on Problem Based Learning which is feasible with a average score 146,2 from maximum score 152 with very good category (A). Improving critical thinking skill of learners after following learning by using science student worksheet based on Problem Based Learning from observation result is 8,17%, from answer science student worksheet is 11,82%, form answer pretest-posttest is 15,33%. In addition, testing of N-gain score of critical thinking skill in observation result is 0,34, answer of student worksheet is 0,44, answer pretest-posttest is 0,41 and include of good category.*

*Keywords: Critical Thinking Skill, Problem Based Learning, Science Student Worksheet.*