

**PENGEMBANGAN LKPD IPA MENGGUNAKAN PENDEKATAN  
SAINTIFIK MATERI ZAT ADITIF PADA MAKANAN UNTUK  
MENGEMBANGKAN KETERAMPILAN BERPIKIR KRITIS**

**PESERTA DIDIK SMP**

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**ABSTRAK**

Penelitian ini bertujuan untuk mengetahui kelayakan LKPD IPA menggunakan pendekatan saintifik yang dikembangkan, dan mengetahui pengembangan keterampilan berpikir kritis peserta didik setelah menggunakan LKPD IPA.

Penelitian ini merupakan penelitian R & D dengan model 4D (*Define, Design, Develop, dan Disseminate*). Pada tahap *define* (pendefinisian) dilakukan dengan analisis awal, analisis peserta didik, analisis tugas, analisis konsep, dan merumuskan tujuan pembelajaran. Pada tahap *design* (perancangan) dilakukan penyusunan instrumen, pemilihan media, pemilihan format, dan rancangan produk awal. Instrumen yang digunakan dalam penelitian ini adalah lembar validasi LKPD IPA, soal *pretest-posttest* keterampilan berpikir kritis, lembar keterlaksanaan pembelajaran menggunakan pendekatan saintifik, dan angket respon peserta didik terhadap LKPD IPA. Tahap *develop* (pengembangan) meliputi tahap peninjauan oleh dosen pembimbing, penilaian ahli (validasi oleh dosen ahli dan guru IPA), dan uji coba produk. LKPD IPA yang telah divalidasi kemudian digunakan untuk uji coba produk di kelas VIII A SMP N 1 Sawangan dengan jumlah 31 anak. Teknik analisis kualitas LKPD dilakukan dengan analisis hasil penilaian LKPD, analisis data respon peserta didik terhadap LKPD IPA, analisis keterlaksanaan pembelajaran menggunakan pendekatan saintifik dilakukan dengan analisis berdasarkan observasi proses pembelajaran, sedangkan analisis pengembangan keterampilan berpikir kritis menggunakan *gain score*. Pada tahap *disseminate* (penyebaran) hanya dilakukan secara terbatas, mengingat ranah penelitian R & D sangat luas.

Hasil penelitian ini adalah LKPD IPA menggunakan pendekatan saintifik telah memenuhi kelayakan dalam kategori sangat baik; LKPD IPA mampu mengembangkan keterampilan berpikir kritis peserta didik SMP dalam kategori sedang dengan rerata *gain score* sebesar 0,40.

Kata Kunci : *LKPD IPA, pendekatan saintifik, keterampilan berpikir kritis*

**THE DEVELOPMENT OF SCIENCE STUDENTS WORKSHEETS USING  
SCIENTIFIC APPROACH MATERIALS ON FOOD ADDITIVES  
SUBSTANCES TO DEVELOP CRITICAL THINKING SKILLS OF JUNIOR  
HIGH SCHOOL STUDENTS**

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**ABSTRACT**

*The aim of this research is to knowing the appropriateness of science students worksheets using a scientific approach developed, and knowing the development of critical thinking skills of learners after using of science students worksheets.*

*This research is categorized as R & D research with 4D model (Define, Design, Develop, and Disseminate). In the define stage, the researcher conducted some steps which were initial analysis, analysis of students, task analysis, concept analysis, and formulation of learning objectives, while in the design stage, building instruments, selecting media, selecting format, and preliminary design. The instruments used in this research were the validation form of science student worksheet, pretest-posttest matter of critical thinking skills, form of learning process with scientific approach, and the student questionnaire responses to science student worksheets developed. Then, in develop stage covers the stages of consideration by consultants, assessment experts (validation by expert lecturers and science teachers) and trial products. Science student worksheet which has been validated then is used to test the product in VIII A class in SMP N 1 Sawangan with a total of 31 students. Analysis techniques quality of science student worksheet with analysis based on assessment results of student worksheet, the response data analysis of learners about of science student worksheet, analysis of the implementation of learning using scientific approach is done by analysis based on learning process observation, while the analysis of the increase in critical thinking skills using a gain score. In disseminate stages (deployment) only be limited, given the realm of research R & D is very broad.*

*The results of this research is science students worksheets using a scientific approach developed according in very good category; science students worksheets is able to develop critical thinking skills of junior high school students in the medium category with an increase in average gain score of 0.40.*

*Key words: science student worksheet, scientific approach, critical thinking skills*