

**PENGEMBANGAN PERANGKAT PEMBELAJARAN IPA MODEL
CONNECTED UNTUK MENINGKATKAN KEMAMPUAN KOGNITIF
DAN PENCAPAIAN RASA INGIN TAHU SERTA KETERAMPILAN
PROSES PESERTA DIDIK SMP**

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ABSTRAK

Penelitian ini bertujuan untuk mengetahui kelayakan perangkat pembelajaran IPA model *connected*, mengetahui peningkatan kemampuan kognitif peserta didik, mengetahui pencapaian rasa ingin tahu serta keterampilan proses peserta didik setelah menggunakan perangkat pembelajaran IPA model *connected*. Kelayakan perangkat pembelajaran dapat dilihat dari penilaian validator serta uji coba terbatas.

Desain penelitian pengembangan perangkat pembelajaran IPA ini menggunakan model *Research and Development* (R&D) yang mengadaptasi penelitian dari Thiagarajan (1974) melalui 4-D model. 4-D model meliputi tahap *define*, *design*, *develop* dan *disseminate*. Tahap pendefinisian (*define*) meliputi tahap analisis awal-akhir, analisis peserta didik, analisis konsep, analisis tugas dan spesifikasi tujuan pembelajaran. Tahap perencanaan (*design*) meliputi penyusunan tes acuan, pemilihan media, pemilihan format, dan rancangan awal. Tahap pengembangan (*develop*) meliputi, perangkat pembelajaran yang dikembangkan, penilaian para ahli, dan uji coba terbatas. Perangkat pembelajaran IPA yang telah divalidasi digunakan untuk uji coba produk di kelas VIII B SMP Negeri 4 Wonosari. Instrumen yang digunakan meliputi lembar angket validasi perangkat pembelajaran, angket rasa ingin tahu, lembar observasi keterampilan proses peserta didik serta soal *pretest* dan *post-test*. Teknik analisis data yang digunakan adalah analisis secara deskriptif kuantitatif, konversi skor skala 5, *gain score* ternormalisasi dan analisis deskriptif dengan persentase. Pada tahap *disseminate* (penyebaran) dilakukan secara terbatas hanya pada guru IPA SMP Negeri 4 Wonosari, mengingat ranah penelitian R&D yang sangat luas.

Hasil penelitian ini adalah perangkat pembelajaran IPA model *connected* menurut penilaian dari dosen ahli dan Guru IPA termasuk dalam kategori baik (B), perangkat pembelajaran IPA ini dapat digunakan untuk meningkatkan kemampuan kognitif peserta didik dibuktikan dengan perolehan *gain score* ternormalisasi dengan nilai 0,6 (termasuk kategori sedang), pencapaian rasa ingin tahu yang dengan persentase 78,9 % (kategori baik) serta pencapaian keterampilan proses dibuktikan dengan presentase 72,6 % (kategori baik).

Kata kunci : perangkat pembelajaran IPA model *connected*, kemampuan kognitif, rasa ingin tahu, keterampilan proses.

**THE DEVELOPMENT OF SCIENCE LEARNING DEVICE MODEL
CONNECTED TO ENHANCE THE COGNITIVE ABILITY AND ACHIEVEMENT
OF CURIOSITY AND SKILLS THE PROCESS OF JUNIOR HIGH SCHOOL
STUDENTS**

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ABSTRACT

This research aims to determine the feasibility of science learning device with connected model, knowing the cognitive enhancement of learners, knowing the achievement of curiosity as well as the skills of the process of students after using the science learning device with connected model. The feasibility of device learning can be seen from validator assessment and limited trials.

The research design of the development of science learning device used Research and Development (R & D) model which adapting the research from Thiagarajan (1974) through 4-D model. 4-D model includes define, design, develop and disseminate stages. The defining stage (define) includes the beginning-end analysis phase, the learner's analysis, concept analysis, task analysis and the learning objectives specification. The planning stage (design) includes the development of tests reference, media election, the selection of the format, and the initial design. The development stage (develop) includes, a device learning developed, the expert judgments, and limited trials. Learning science device that have been validated used to trial product in grade VIII B SMP Negeri 4 Wonosari. The instruments used include a survey validation of learning devices, the survey of curiosity, observation sheets of process skills of students about pretest and post-test questions. The data analysis techniques used are quantitative descriptive analysis, conversion score scale 5, gain score normalized and descriptive analysis with percentage. In the disseminate stage (dissemination) is done limited only to science teachers of SMP Negeri 4 Wonosari, considering of the research of R & D research is very broad.

The result of this research is the science learning device with connected model according to the assessment from the expert lecturers and the science teacher included in a good category (B), the science learning device can be used to enhance the cognitive ability of learners evidenced by the acquisition of the normalized gain score with the value of 0.6 (including medium category), the achievement of curiosity with the percentage of 78.9% (good category) and the achievement of process skills is evidenced with a percentage of 72.6% (good category).

Keywords: science learning device with connected model, the cognitive ability, the curiosity, the skill of the process