

PENGEMBANGAN *E-MODULE* IPA BERPENDEKATAN *AUTHENTIC INQUIRY LERNING* UNTUK MENGEMBANGKAN KEMAMPUAN *PROBLEM SOLVING* DAN KEMANDIRIAN BELAJAR PESERTA DIDIK KELAS VII SMP

Oleh:

Wahyu Meidiana Armiyanti
12315244011

ABSTRAK

Penelitian ini bertujuan untuk mengetahui: (1) kelayakan hasil pengembangan *e-module* IPA berpendekatan *authentic inquiry learning* menurut para ahli, (2) kepraktisan *e-module* IPA berpendekatan *authentic inquiry learning* yang mengintegrasikan kemampuan *problem solving* dan kemandirian belajar peserta didik berdasarkan respon peserta didik, (3) efektivitas modul untuk mengembangkan kemampuan *problem solving*, dan (4) kemandirian belajar peserta didik kelas VII SMP

Penelitian ini merupakan penelitian pengembangan (R&D) dengan model 4-D. Tahap-tahap penelitian ini meliputi tahap *define* (pendefinisian), *design* (perancangan), *develop* (pengembangan), dan *disseminate* (penyebarluasan). Subjek penelitian adalah peserta didik kelas VII SMP Negeri 1 Muntilan. Instrumen penelitian yang digunakan berupa lembar validasi untuk dosen dan guru IPA yang berfungsi untuk mengetahui kelayakan *e-module* IPA, angket respon peserta didik untuk mengetahui kepraktisan *e-module* IPA berpendekatan *authentic inquiry learning* berdasarkan respon peserta didik, lembar observasi *problem solving* dan soal *pretest* dan *posttest* untuk mengetahui keefektifan *e-module* untuk mengembangkan kemampuan *problem solving*. Lembar observasi kemandirian belajar dan angket kemandirian belajar untuk mengamati keefektifan *e-module* untuk mengembangkan kemandirian belajar peserta didik.

Hasil penelitian ini adalah (1) *e-module* IPA berpendekatan *authentic inquiry learning* yang dikembangkan layak digunakan menurut para ahli dengan mendapatkan nilai A dengan kategori sangat baik (2) Kepraktisan *e-module* IPA berpendekatan *authentic inquiry learning* yang mengintegrasikan kemampuan *problem solving* dan kemandirian belajar peserta didik berdasarkan respon peserta didik mendapatkan nilai B dengan kategori baik. (3) Keefektifan *e-module* IPA untuk mengembangkan kemampuan *problem solving* berdasarkan lembar observasi mengalami pengembangan sebesar 18,9%, sedangkan melalui soal *pretest-posttest* dengan perhitungan *gain score* menunjukkan angka 0,31 dengan kategori sedang. (4) Keefektifan *e-module* IPA untuk mengembangkan kemandirian belajar melalui lembar observasi yaitu mengalami pengembangan sebesar 5,3%, sedangkan melalui angket kemandirian memperoleh jumlah rerata skor 70,5 dari skor maksimal 96 dengan kategori sangat baik.

Kata Kunci: *E-module*, *Authentic Inquiry Learning*, *Problem solving*, Kemandirian Belajar

**DEVELOPMENT OF THE SCIENCE E-MODULE BY USING
AUTHENTIC INQUIRY LEARNING APPROACH IN ORDER
TO DEVELOP THE STUDENTS' PROBLEM SOLVING SKILL
AND THE LEARNING INDEPENDENCE FOR
THE FIRST GRADE OF JUNIOR HIGH SCHOOL**

By:
Wahyu Meidiana Armiyanti
12315244011

ABSTRACT

This aims of this research are: (1) to identify the suitability of the development of the science e-module's result by authentic inquiry learning approach according to some experts, (2) to find practicability of the science e-module by using authentic inquiry learning approach which is integrates problem solving skill and the student's learning independence through the students' response, (3) the modul's effectiveness in order to develop the problem solving skill and (4) the learning independence for the first grade of junior high school.

This research is R&D research which is using 4-D model. The steps of this research are defining, designing, developing and disseminating. The research subject is the first grade of SMP N 1 Muntilan. This instruments use in this research are validation sheet for the lecturer and science teacher which is use for identifying the skill of the science e-module, the questionnaire which is use for investigating the students's response, the observation sheet for assessing the problem solving skill, the pre-test and post-test intruments for identifying the effectiveness of e-module in order to develop the students' problem solving skill. The observation sheet and the questionnaire related to the students' independence to observe the effectiveness of e-module to develop the student's learning independence

The results of thi research are (1) The science e-module by using authentic inquiry learning approach which I develop by some experts is best and it get an A score, (2) The pratibility of the use the science e-module by using authentic inquiry learning approach which is integrate with the prolem solving skill and the students' learning independence towards the students' response is good and it get an B score, (3) According to the student' response, the efeectiveness of the the science e-module in order to develop the students' problemsolving skill is increase for aout 18,9% whereas base on the gain score towards the pre-test show 0,31 (medium category), (4) According to th observation results, the effectiveness of the science e-module in order to develop the learning independence is inscreas for about 5,3% whereas base on the independence questionnaire. the tudents' learning independence is best category with average score 70,5 from the maximal\ score 96

Key words: E-module, Authentic Inquiry Learning, Problem Solving, Learning Independence