

ABSTRAK

SITI NURIYATIN: Pengembangan Perangkat Pembelajaran Berbasis Penemuan Terbimbing untuk Meningkatkan Kemampuan Berpikir Kritis dan Motivasi Belajar Matematika pada Bangun Ruang di SMP. **Tesis. Yogyakarta: Program Pascasarjana, Universitas Negeri Yogyakarta, 2014.**

Penelitian ini bertujuan mendeskripsikan langkah pengembangan perangkat pembelajaran berbasis penemuan terbimbing untuk meningkatkan kemampuan berpikir kritis dan motivasi belajar matematika serta mendeskripsikan kualitas hasil perangkat pengembangan tersebut. Kualitas hasil pengembangan ditentukan berdasarkan pada kriteria dari Nieveen, yaitu valid, praktis dan efektif. Kompetensi yang digunakan dalam pengembangan adalah kompetensi bangun ruang sisi datar di kelas VIII dan bangun ruang sisi lengkung di kelas IX.

Penelitian ini merupakan penelitian pengembangan. Model pengembangan perangkat pembelajaran dalam penelitian ini diadaptasi dari model pengembangan model 4-D yang terdiri dari tahap *define*, *design*, *develop*, dan *disseminate*. Uji coba dilakukan tiga tahap yaitu (1) uji coba/validasi ahli; (2) uji coba terbatas; dan (3) uji coba lapangan. Uji coba lapangan dilaksanakan di SMPN 15 Yogyakarta dan SMPN 6 Yogyakarta. Instrumen penelitian yang digunakan adalah lembar validasi, lembar penilaian guru terhadap perangkat pembelajaran, lembar penilaian peserta didik terhadap penggunaan handout dan LKS, lembar observasi terhadap keterlaksanaan pembelajaran, tes ketercapaian kompetensi, tes kemampuan berpikir kritis, dan angket motivasi belajar matematika. Analisis data kevalidan dan analisis data kepraktisan masing-masing dilakukan dengan cara mengkonversi data kuantitatif berupa skor hasil penilaian menjadi data kualitatif berupa nilai standar skala lima. Analisis data keefektifan tes ketercapaian kompetensi dilakukan dengan cara menentukan persentase ketuntasan minimal, sedangkan analisis tes kemampuan berpikir kritis dan motivasi belajar matematika ditentukan peningkatannya.

Penelitian ini menghasilkan perangkat pembelajaran yang terdiri dari silabus, 3 RPP, 8 handout, 8 lembar kegiatan siswa (LKS), dan tes ketercapaian kompetensi pada kompetensi bangun ruang sisi datar; silabus, 3 RPP, 2 handout, 4 lembar kegiatan siswa (LKS), dan tes ketercapaian kompetensi pada kompetensi bangun ruang sisi lengkung. Masing-masing komponen perangkat pembelajaran bangun ruang sisi datar memenuhi kualitas valid, praktis, dan efektif. Masing-masing komponen perangkat pembelajaran bangun ruang sisi lengkung memenuhi kriteria valid.

Kata kunci: *pengembangan, perangkat pembelajaran, penemuan terbimbing, berpikir kritis, motivasi belajar matematika*

ABSTRACT

SITI NURIYATIN:*Development of Guided Inquiry-Based Learning Package to Increase Critical Thinking Ability and Motivation to Learn Mathematics on Solid Figure in Junior High School. Thesis. Yogyakarta: Graduate School, Yogyakarta State University, 2014.*

This research is aimed to describe the development phase of guided inquiry-based learning package to increase critical thinking ability and motivation to learn mathematics on solid figures and describe the quality of the developed product. This quality is determined based on Nieveen criteria, including validity, practicality and effectiveness. The competence developed is plane solid figures for grade VIII and curve solid figures for grade IX junior high school.

This research is a developmental research study. The model of the instructional package in this research was adapted from 4-D development model. It consisted of five phases: *define, design, develop, dan disseminate*. The try out was done in three stages, i.e. 1) try out/ expert judgment; 2) limited try out; and 3) field try out. The field try out was conducted in SMP N 15 Yogyakarta and SMPN 6 Yogyakarta. The instruments used in this research were validation sheets, teacher's response sheets, student's response sheets, teaching observation sheets, competency achievement tests, critical thinking ability tests, and motivation questionnaires to learn mathematics. The analysis of the validity and practicality of the data was done by converting the quantitative data in the form of assessment result scores into qualitative data in the form of five scales. Effectiveness of data analysis was done by determining the percentage of the students' minimum criteria of competency achievement test results, but the analysis of critical thinking ability test results and the results of questionnaires of student's motivation to learn mathematics was done by determining the increasing.

The research produced an instructional package consisting of the syllabus, 3 lesson plans, 8 handouts, 8 student work sheets, and a competency achievement test on plane solid figures; the syllabus, 3 lesson plans, 2 handouts, 4 student work sheets, and a competency achievement test on curve solid figures. Each instructional package component on plane solid figures is valid, practical, and effective. Each instructional package component on curve solid figures is valid.

Keywords: *development, instructional package, guided inquiry, critical thinking, motivation to learn mathematics*