

## **ABSTRACT**

### **DEVELOPMENT OF HIGHER ORDER THINKING SKILLS ASSESSMENT INSTRUMENTS TO GROWING SELF REGULATED LEARNING STUDENT JUNIOR HIGH SCHOOL**

**By**

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Fundamentally self regulated learning (SRL) is one form of individual learning that is highly dependent on student learning motivation. Students who study with self motivation are easier to develop SRL and building learning achievement. One of the aspects that encourage optimal learning achievement is the application of assessment for learning. Assessment for learning activities using higher order thinking skills (HOTS) assessment instruments with feedback strategies can guide and develop complex thinking patterns so that over time the students feel challenged, motivated and responsible to develop cognitive abilities. The purpose of this development research is to produce assessment instruments that have met the HOTS criteria and are effective in growing the students of junior high school especially on the basic competence of the human circulatory system.

The design of the development research was done by adapting the education and development (R and D) model of Gall, et all (2003). The subjects of the trial study were limited involving 174 class IX students while the field trial included

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two groups of students in grade VIII at SMP Negeri 16 Bandar Lampung. The data collection instrument uses questionnaires, theoretical validation sheets, HOTS assessment instruments, interview guides, and observation sheets. Data analysis was performed with descriptive statistics, anates program, and inferential statistics. The result of data analysis shows that (1) theoretical validity includes the material aspect is valid criteria (84,00%), construction aspect criteria is very valid (93,35%), and language aspect is very valid criteria (87,13%); (2) empirical validity include the validity of the question high criterion (0,70), the reliability of the problem is very high (0,82), difficulty level about difficult criteria (7,50%); moderate criteria (77,50%); easy criteria (15,00%), better distinguishing power (10%); sufficient (90,00%), and effectiveness spotters works very well (67,50%); works well (32,50%); (3) student's response in learning in two experimental class is 90,76% that is giving very interesting learning response while teacher's response during learning in two experimental class is 95,42% that responds very interesting learning; (4) testing of the HOTS assessment instrument for developing the student's SRL in two experimental classes using t test obtained the sig (2-tailed <0,05) price of sig 2-tailed = 0,000 means reject  $H_0$  and receive  $H_1$ . The conclusions of this development study are (1) the HOTS assessment instrument has been produced in accordance with the eligibility criteria as HOTS assessment instrument; (2) HOTS assessment instruments are declared effective in growing the student's SRL especially on the basic competence of the human circulatory system.

**Keywords:** self regulated learning, higher order thinking skills.

## **ABSTRAK**

### **PENGEMBANGAN INSTRUMEN ASESMEN *HIGHER ORDER THINKING SKILLS* UNTUK MENUMBUHKAN *SELF REGULATED LEARNING* SISWA SMP**

**Oleh**

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Secara fundamental *self regulated learning (SRL)* merupakan salah satu bentuk belajar individual yang sangat bergantung pada motivasi belajar siswa. Siswa yang belajar dengan *self motivation* lebih mudah dalam mengembangkan *SRL* dan membangun capaian pembelajaran. Salah satu aspek yang mendorong capaian pembelajaran optimal adalah penerapan *assessment for learning*. Kegiatan *assessment for learning* menggunakan instrumen asesmen *higher order thinking skills (HOTS)* dengan strategi pemberian *feedback* dapat menuntun dan membangun pola berpikir secara kompleks sehingga lama kelamaan siswa merasa tertantang, bermotivasi dan bertanggungjawab untuk mampu mengembangkan kemampuan kognitif. Tujuan penelitian pengembangan ini adalah menghasilkan instrumen asesmen yang telah memenuhi kriteria *HOTS* dan efektif dalam menumbuhkan *SRL* siswa SMP khususnya pada kompetensi dasar sistem peredaran darah manusia. Desain penelitian pengembangan dilakukan dengan mengadaptasi model *education research and development (R and D)* Gall, dkk. (2003). Subjek penelitian uji coba terbatas melibatkan 174 siswa kelas IX

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sedangkan uji coba lapangan meliputi dua kelompok siswa kelas VIII di SMP Negeri 16 Bandar Lampung. Instrumen pengumpulan data menggunakan lembar angket, lembar validasi teoritis, instrumen asesmen *HOTS*, pedoman wawancara, dan lembar observasi. Analisis data dilakukan dengan statistik deskriptif, program anates, dan statistik inferensial. Hasil analisis data menunjukkan bahwa (1) validitas teoritis meliputi aspek materi berkriteria valid (84,00%), aspek konstruksi berkriteria sangat valid (93,35%), dan aspek bahasa berkriteria sangat valid (87,13%); (2) validitas empiris meliputi validitas soal berkriteria tinggi (0,70), reliabilitas soal berkriteria sangat tinggi (0,82), tingkat kesukaran soal berkriteria sukar (7,50%); berkriteria sedang (77,50%); berkriteria mudah (15,00%), daya pembeda soal baik (10,00%); cukup (90,00%), dan efektivitas pengecoh berfungsi sangat baik (67,50%); berfungsi baik (32,50%); (3) respon siswa dalam pembelajaran di dua kelas eksperimen sebesar 90,76% yaitu memberikan respon pembelajaran sangat menarik sedangkan tanggapan guru selama pembelajaran di dua kelas eksperimen sebesar 95,42% yakni menanggapi pembelajaran sangat menarik; (4) pengujian instrumen asesmen *HOTS* hasil pengembangan untuk menumbuhkan *SRL* siswa pada dua kelas eksperimen menggunakan uji t diperoleh harga *sig* (*2-tailed* < 0,05) yaitu *sig 2-tailed* = 0,000 berarti tolak  $H_0$  dan terima  $H_1$ . Kesimpulan dari penelitian pengembangan ini adalah (1) telah dihasilkan instrumen asesmen *HOTS* yang sesuai dengan kriteria kelayakan sebagai instrumen asesmen *HOTS*; (2) instrumen asesmen *HOTS* dinyatakan efektif dalam menumbuhkan *SRL* siswa khususnya pada kompetensi dasar sistem peredaran darah manusia.

**Kata kunci:** *self regulated learning, higher order thinking skills.*