ABSTRAK

Rena Mahriani Nasution. Pengembangan Instrumen Penilaian Hasil Belajar Berbasis Higher Order Thinking Skill (HOTs) Pada Materi Biologi Semester Ganjil Kelas XI SMA Negeri 2 Kotapinang T.P. 2023/2024. Tesis. Medan. Program Studi Pendidikan Biologi, Pascasarjana, UNIMED, 2024.

Penelitian ini bertujuan untuk menghasilkan instrumen penilaian hasil belajar berbasis HOTs pada materi biologi semester ganjil kelas XI SMA, ditinjau dari aspek kelayakan, kualitas instrumen, keefektifan dan respon guru biologi. Penelitian ini termasuk jenis penelitian dan pengembangan menggunakan model 4D (*define, design, develop* dan *disseminate*) dengan target sasaran yaitu siswa kelas XI SMA Negeri 2 Kotapinang. Data penelitian dikumpulkan dengan teknik wawancara, lembar validasi ahli dan angket. Teknik analisis data yang digunakan meliputi: analisis kelayakan, analisis kualitas butir tes (tingkat kesukaran, daya pembeda, validitas dan reliabilitas tes), analisis keefektifan dan analisis respon angket guru. Instrumen penilaian hasil belajar berbasis HOTs dikembangkan dalam bentuk pilihan berganda sebanyak 50 soal pada level C4 (31 soal), C5 (13 soal) dan C6 (6 soal). Hasil penelitian menunjukkan bahwa hasil penilaian validator ahli diperoleh rata-rata persentase skor keseluruhan sebesar 85,0% atau telah memenuhi kriteria layak. Hasil ujicoba pengembangan untuk tingkat kesukaran butir tes, dari 50 soal terdapat 7 soal tergolong sukar dan 43 soal tergolong sedang; hasil uji daya pembeda terdapat 8 soal tergolong cukup dan 42 soal tergolong baik; hasil uji validitas butir tes dari 50 soal seluruhnya dinyatakan valid (sahih) dan reliabel dengan tingkat kepercayaan atau kehandalan yang tergolong sangat tinggi (r_{11} = 0,884). Instrumen penilaian hasil belajar berbasis HOTs yang dihasilkan juga efektif dalam mengukur kemampuan HOTs biologi siswa berdasarkan rata-rata nilai dan persentase ketuntasan belajar siswa klasikal (3 kelas) mencapai 92,2%. Respon guru biologi juga tergolong sangat baik dengan rata-rata persentase sebesar 82,2%. Dengan demikian, disimpulkan bahwa instrumen penilaian hasil belajar berbasis HOTs pada materi biologi semester ganjil kelas XI SMA yang dikembangkan telah memenuhi kriteria layak, berkualitas dan efektif digunakan dalam mengukur kemampuan HOTs siswa, serta respon guru biologi terhadap instrumen juga tergolong sangat baik.

Kata Kunci: Instrumen Penilaian Hasil Belajar, HOTs, Biologi, SMA.

ABSTRACT

Rena Mahriani Nasution. Development of Learning Outcome Assessment Instruments Based on Higher Order Thinking Skill (HOTs) in Odd Semester Biology Material for Class XI SMA Negeri 2 Kotapinang T.P. 2023/2024. Thesis. Medan. Biology Education Study Program, Postgraduate, UNIMED, 2024.

This research aims to produce an instrument for assessing learning outcomes based on HOTs in odd semester biology material for class XI SMA, in terms of feasibility, instrument quality, effectiveness and biology teacher response. This research is a type of research and development using the 4D model (define, design, develop and disseminate) with the target group being class XI students at SMA Negeri 2 Kotapinang. Research data was collected using interview techniques, expert validation sheets and questionnaires. Data analysis techniques used include: feasibility analysis, test item quality analysis (difficulty level, distinguishing power, test validity and reliability), effectiveness analysis and teacher questionnaire response analysis. The learning outcomes assessment instrument based on HOTs was developed in the form of multiple choice with 50 questions at levels C4 (31 questions), C5 (13 questions) and C6 (6 questions). The research results showed that the results of the expert validator assessment obtained an average overall score percentage of 85.0% or met the appropriate criteria. The results of development trials for the level of difficulty of the test items, of the 50 questions, 7 questions were classified as difficult and 43 questions were classified as medium; the results of the differentiating power test showed that 8 questions were classified as sufficient and 42 questions were classified as good; The test results for the validity of the test items from all 50 questions were declared valid (valid) and reliable with a very high level of confidence or reliability (r_{11} = 0.884). The learning outcomes assessment instrument based on HOTs which was produced was also effective in measuring students' biology HOTs abilities based on the average score and percentage of classical student learning completion (3 classes) reaching 92.2%. Biology teacher responses were also classified as very good with an average percentage of 82.2%. Thus, it is concluded that the learning outcomes assessment instrument based HOTs in biology material for the odd semester of grade 11 high school that was developed has met the criteria of feasible, high quality and is effectively used in measuring students' HOTs abilities, and the biology teacher's response to the instrument is also classified as very good.

Keywords: Learning Outcome Assessment Instrument, HOTs, Biology, SMA