ABSTRAK

Srinadi, Desak Nyoman (2024). Pengembangan Tes Bertahap Terpadu (*Progressive Integrated Test*) untuk Mengidentifikasi Pemahaman Konsep IPA dan Miskonsepsi Peserta Didik SMP Kelas VII.

Tesis, Pendidikan IPA, Program Pascasarjana, Universitas Pendidikan Ganesha. Tesis ini sudah disetujui dan diperiksa oleh Pembimbing I: Prof. Putu Budi Adnyana, M.Si. dan Pembimbing II: Dr. Putu Artawan, S.Pd., M.Si.

Kata-kata kunci: tes bertahap terpadu, pemahaman konsep, miskonsepsi, IPA

Penelitian ini bertujuan menghasilkan tes bertahap terpadu (*progressive integrated test*) yang valid, reliabel, dan praktis untuk mengidentifikasi pemahaman konsep IPA dan miskonsepsi peserta didik. Penelitian ini dilakukan berdasarkan model Plomp dan Nieveen terintegrasi langkah-langkah pengembangan tes oleh Oriondo dan Dallo-Antonio. Subjek penelitian ini adalah tes bertahap terpadu. Objek penelitian ini meliputi karakteristik, validitas, reliabilitas, kepraktisan, dan profil pemahaman konsep dan miskonsepsi peserta didik pada pembelajaran IPA. Data dikumpulkan melalui wawancara, studi dokumen, angket dan tes. Data dianalisis secara kualitatif dan kuantitatif. Hasil penelitian diperoleh: (1) karakteristik tes bertahap terpadu termasuk tes diagnostik empat tingkat. (2) Validitas tes bertahap terpadu yaitu validitas teoritis pada aspek isi memperoleh skor 0,98 dengan kategori validitas sangat tinggi, validitas teoritis pada aspek bahasa memperoleh skor 98,48 dengan kategori sangat tinggi dan validitas empiris memperoleh kategori butir soal valid. (3) Reliabilitas tes bertahap terpadu diperoleh nilai r_{11} yaitu 0,796 dengan kateori reliabilitas tinggi. (4) Kepraktisan tes bertahap terpadu meliputi uji kepraktisan oleh guru IPA memperoleh skor 93,53 dengan kategori sangat praktis dan uji kepraktisan oleh peserta didik memperoleh skor 82,11 dengan kategori sangat praktis. (5) Profil pemahaman konsep IPA peserta didik yang tertinggi yaitu kemampuan membedakan sebanyak 18% dan yang terendah yaitu kemampuan menjelaskan sebanyak 10%. Rata-rata pemahaman konsep IPA peserta didik yaitu 35% dengan kategori sedang. Profil miskonsepsi tertinggi yaitu 34% peserta didik mengalami miskonsepsi utuh. Rata-rata miskonsepsi peserta didik adalah 63% dengan kategori tinggi. Hasil penelitian tersebut menujukkan tes bertahap terpadu tergolong valid, reliabel, dan praktis dan mampu mengidentifikasi pemahaman konsep dan miskonsepsi peserta didik pada pembelajaran IPA.

ABSTRACT

Srinadi, Desak Nyoman (2024). Development of Progressive Integrated Test to Identify the Understanding of Science Concepts and Misconceptions of Junior High School Students in Grade VII.

Thesis, Science Education, Postgraduate Program, Universitas Pendidikan Ganesha. This thesis has been supervised and aapproved by Supervisor I: Prof. Putu Budi Adnyana, M.Si. and Supervisor II: Dr. Putu Artawan, S.Pd., M.Si.

Keywords: progressive integrated test, concept understanding, misconceptions, science

This research aims to produce a valid, reliable, and practical progressive integrated *test* to identify students' understanding of science concepts and misconceptions. The study was conducted based on the Plomp and Nieveen model of integrated test development steps by Oriondo and Dallo-Antonio. The subject of this study is a progressive integrated *test* The object of this research includes the characteristics, validity, reliability, practicality, and profile of students' understanding of concepts and misconceptions in science learning. Data were collected through interviews, document studies, questionnaires and tests. The data was analyzed qualitatively and quantitatively. The results of the study were obtained: (1) characteristics of progressive integrated *test* including four-level diagnostic tests. (2) The validity progressive integrated *test* of teoritical validity in the content aspect obtained a score of 0.98 with a very high validity category, the teoritical validity in the language aspect obtained a score of 98.48 with a very high category and the empirical validity obtained a valid question item category. (3) The reliability of the progressive integrated *test* was obtained with an r11 value of 0.796 with a high reliability theory. (4) The practicality of the progressive integrated *test* includes a practicality test by science teachers with a score of 93,52 in the very practical category and a practicality test by students with a score of 82,11 in the very practical category. (5) The highest profile of students' understanding of science concepts is the ability to defferentiate as much as 18% and the lowest is the ability to explain as much as 10%. The average understanding of science concepts of students is 35% with a medium category. The highest misconception profile is complete misconceptions as much as 34%. The average misconception of students is 63% with a high category. The results of the study show that the integrated gradual test is classed as valid, reliable, and practical and is able to identify students' understanding of concepts and misconceptions in science learning