

ABSTRAK

Mahnar Sinaga: Pengembangan Penuntun Praktikum Kimia Berbasis Pendekatan STEM Terintegrasi Pendidikan Karakter. Tesis. Medan: Program Studi Pendidikan Kimia, Pascasarjana Universitas Negeri Medan, 2021.

Penelitian ini bertujuan untuk mengetahui; hasil analisis terhadap penuntun praktikum kimia yang digunakan di sekolah, tingkat kelayakan penuntun praktikum kimia berbasis pendekatan STEM terintegrasi pendidikan karakter menurut standar BSNP, tingkat pemahaman dan respon siswa setelah menggunakan penuntun praktikum berbasis pendekatan STEM terintegrasi pendidikan karakter, sikap rasa ingin tahu, kerja sama/kolaborasi, berpikir kritis, dan tanggung jawab serta komunikatif siswa pada saat menggunakan penuntun praktikum kimia berbasis pendekatan STEM terintegrasi pendidikan karakter. Penelitian ini merupakan penelitian pengembangan dengan model ADDIE (*Analysis, Design, Development, Implementation, and Evaluation*). Populasi dalam penelitian ini seluruh siswa kelas XII SMAN 1 Tanjungbalai T.A 2020/2021. Sampel penelitian terdiri dari 40 siswa yang diambil secara *purposive sampling*. Instrumen penelitian terdiri dari angket berdasarkan BSNP, lembar observasi karakter siswa, tes uraian uji pemahaman siswa, serta angket respon siswa. Teknik analisis data yang digunakan *One-Shot Case Study* pada aplikasi SPSS 21. Hasil penelitian menunjukkan penuntun praktikum kimia yang digunakan di sekolah kurang layak dan perlu revisi menurut standar penilaian BSNP dengan rerata nilai sebesar 2,50; penuntun praktikum kimia berbasis pendekatan STEM terintegrasi pendidikan karakter yang dikembangkan memperoleh hasil validasi 3,78 tergolong dalam kategori sangat layak; pada uji pemahaman siswa setelah menggunakan penuntun praktikum kimia berbasis pendekatan STEM terintegrasi pendidikan karakter diperoleh nilai rata-rata sebesar 91,50 lebih tinggi dari nilai KKM (76), karakter siswa pada saat menggunakan penuntun praktikum kimia berbasis pendekatan STEM terintegrasi pendidikan karakter sangat baik dengan nilai rata-rata 86,37 dan respon siswa terhadap penggunaan penuntun praktikum kimia berbasis pendekatan STEM terintegrasi pendidikan karakter sangat baik dengan nilai rata-rata 91,16%.

Kata kunci: penuntun praktikum, STEM, tingkat pemahaman, karakter, respon

ABSTRACT

Mahnar Sinaga: Development of a Chemistry Practicum Guide based on an Integrated STEM Approach in Character Education. Thesis. Medan: Department of Chemistry Education, Postgraduate of State University of Medan, 2021.

This study aims to determine; the results of the analysis of the chemistry lab guide used in schools, the feasibility level of a chemistry practicum guide based on the integrated STEM approach to character education according to the BSNP standard, the level of understanding and student response after using a practicum guide based on the STEM integrated approach to character education, curiosity, cooperation / collaboration, critical thinking, and responsibility and communication of students when using a chemistry lab guide based on an integrated STEM approach to character education. This research is a development research using the ADDIE (Analysis, Design, Development, Implementation, and Evaluation) model. The population in this study were all class XII students of SMAN 1 Tanjungbalai T.A 2020/2021. The research sample consisted of 40 students taken by purposive sampling. The research instrument consisted of a questionnaire based on BSNP, student character observation sheets, essay test, student understanding test, and student response questionnaires. The data analysis technique used is the One-Shot Case Study in the SPSS 21 application. The results showed that the chemistry lab guide used in schools was not feasible and needed revision according to the BSNP assessment standards with a mean score of 2.50; the chemistry lab guide based on the integrated STEM approach to character education that was developed obtained a validation result of 3.78 which was categorized as very feasible; In the student understanding test after using a chemistry practicum guide based on the integrated STEM approach, character education obtained an average value of 91.50 higher than the KKM value (76), the character of students when using a chemistry lab guide based on the integrated STEM approach, character education is very good with The average value is 86.37 and the student's response to the use of a chemistry lab guide based on the integrated STEM approach to character education is very good with an average value of 91.16%.

Keywords: practicum guide, STEM, level of understanding, character, response