

## ABSTRAK

Pembelajaran kimia efektif dapat tercapai dengan perencanaan pembelajaran yang sesuai, meliputi pemilihan model pembelajaran, bahan ajar, dan penilaian. Berdasarkan hasil observasi dan wawancara diketahui bahwa pelaksanaan pembelajaran belum maksimal dan guru merasa kesulitan dalam penilaian, hal tersebut mengakibatkan kurangnya keaktifan dan keterampilan proses sains peserta didik. Berdasarkan permasalahan tersebut, diperlukan pengembangan asesmen berbasis keterampilan proses sains melalui *discovery learning* pada pembelajaran kimia. Tujuan penelitian ini adalah mengembangkan produk asesmen berbasis keterampilan proses sains dan mengetahui kelayakannya.

Penelitian ini merupakan penelitian pengembangan yang mengadaptasi model Borg and Gall dengan tahapan, meliputi pengumpulan data, perencanaan, pengembangan produk, validasi dan uji coba terbatas (1 dan 2), dan revisi hasil uji coba. Produk asesmen divalidasi oleh 3 ahli. Subjek uji coba terbatas yaitu 10 peserta didik dan seorang guru. Uji coba terbatas 2 melibatkan 60 peserta didik. Metode pengumpulan data dengan observasi, wawancara, dokumentasi, dan kuisioner. Produk asesmen berbasis keterampilan proses sains memperoleh persentase kelayakan dari ahli materi sebesar 97,71%, 96,43% dari ahli asesmen, dan 86,67% kelayakan dari ahli bahasa. Hasil uji coba terbatas produk menerima kelayakan sebesar 88,06% dari pendidik, serta kelayakan sebesar 88,8% dari peserta didik. Hasil uji coba lapangan pada 60 peserta didik, diketahui produk asesmen memiliki validitas dan reliabilitas tinggi, memiliki tingkat kesukaran beragam, daya beda yang sangat baik, dan keefektifan yang tinggi. Berdasarkan hasil demikian dapat disimpulkan bahwa produk pengembangan asesmen berbasis KPS ini sangat layak untuk digunakan dalam pembelajaran kimia.

Kata kunci : Asesmen autentik, Keterampilan proses sains, Kimia, *Discovery learning*

## ABSTRACT

Effective chemistry learning can be achieved with proper lesson planning, including the selection of learning models, teaching materials, and assessments. Based on the results of observations and interviews, it is known that the implementation of learning has not been maximized and the teacher has difficulty assessing, this results in a lack of students' science process skills. Based on these problems, it is necessary to develop an assessment based on science process skill. The purpose of this research is to develop an assessment product and determine its feasibility.

This research is a development research that adapt a Borg and Gall model with several stages, including research and information collecting, planning, develop preliminary form of product, preliminary field test (1 and 2), and main product revision. The product assessment is validated by 3 experts. The subjects of the preliminary field test were 10 students and a teacher. The second preliminary field testing involved 60 students. Methods of data collection by observation, interviews, documentation, and questionnaires. Assessment products based on science process skills obtained 97,71% eligibility percentages from material experts, 96,43% from assessment experts, and 86,67% eligibility from linguists. The results of the limited trial of the product obtained eligibility of 88.06% from educators, and eligibility 88.8% from students. The results second preliminary test on 60 students, it is known that the assessment product has high validity and reliability, has various levels of difficulty, has a variety of difficulties,, and high effectiveness. Based on these results, it can be concluded that the product of developing assessment based on science process skills is very good for use in chemistry learning.

Keywords : Assessment, Science process skills, Chemistry, Discovery learning