PENGEMBANGAN ASESMEN PORTOFOLIO ELEKTRONIK (APE) UNTUK MENILAI SIKAP ILMIAH DAN PENGUASAAN KONSEP SISWA SMA PADA LAPORAN PRAKTIKUM PENCEMARAN LINGKUNGAN

ABSTRAK

Tujuan penelitian ini adalah untuk mendeskripsikan pengembangan APE yang dapat menilai sikap ilmiah dan penguasaan konsep siswa pada laporan praktikum pencemaran lingkungan. Subjek penelitian adalah siswa kelas X SMA Swasta Laboratorium Percontohan UPI Bandung. Data dikumpulkan dengan menggunakan rubrik penilaian sikap ilmiah, *self assessment*, soal penguasaan konsep, lembar angket, format wawancara, dan catatan lapangan. Kegiatan penelitian dibagi menjadi tahap pengembangan APE dan tahap pelaksanaan APE. Tahap pengembangan APE meliputi perangkat APE, Instrumen APE, dan *web* APE. Tahap pelaksanaan APE meliputi tahap uji coba dan penggunaan APE dalam menilai sikap ilmiah dan penguasaan konsep siswa pada laporan praktikum. Hasil penelitian menunjukkan bahwa APE memuat fitur-fitur yang dapat mengembangkan sikap ilmiah siswa, APE dapat mengungkap indikator-indikator sikap ilmiah siswa berdasarkan skor rata-rata rubrik penilaian sikap ilmiah dan *self assessment*, APE dapat mengungkap penguasaan konsep siswa terkait pencemaran lingkungan pada kategori cukup (63%), Guru dan siswa menanggapi positif terhadap APE, serta APE yang dikembangkan memiliki keunggulan dan keterbatasan dalam pelaksanaannya. Dengan demikian dapat disimpulkan bahwa APE dapat menilai sikap ilmiah dan penguasaan konsep siswa.

Kata kunci: *sikap ilmiah, penguasaan konsep, asesmen portofolio elektronik (APE), laporan praktikum, pencemaran lingkungan.*

THE USE OF ELECTRONIC PROTFOLIO ASSESSMENT (APE) TO ASSESSING SENIOR HIGH SCHOOL STUDENTS' SCIENTIFIC ATTITUDE AND CONCEPT MASTERY OF PRACTICAL REPORT ON ENVIRONMENT POLLUTION

ABSTRACT

The purpose of this study was to describe the APE that can assess the students scientific attitude and concept mastery of practical reports on environment pollution. The subjects were students of SMA Laboratorium Percontohan UPI Bandung Grade X. Data was collected using a scientific attitude assessment rubrics, self assessment, test mastery of concepts, sheet questionnaires, interview format, and field notes. Research activities are divided into the development phase APE and implementation phase APE. This study are divided into two stages: fist, development and second, implementation of APE. The development stage encompasses the equipment, instruments, and web of APE. The implementation stage includes trial procedures and using APE in assessing students' scientific attitude and concept mastery of the practical report. The results showed that: 1) APE includes features can develop students 'scientific attitude; 2) APE can reveal indicators of students' scientific attitude is based on the average scores of the scientific attitude assessment rubrics and self assessment; 3) APE can reveal the mastery of concepts students related to environmental pollution in enough categories (63%); 4) Teachers and students show positive respond to the APE, and 5) Developed APE has advantages and limitation in the implementation.

Keyword: *scientitfic attitude, concept mastery, electronic portofolio assessment (APE), practical journal, environmental pollution*.