ABSTRAK

Perkembangan dunia pendidikan global dan meningkatnya jumlah pengguna *mobile device* menjadikan *mobile learning* sebagai suatu alternatif untuk memecahkan permasalahan pendidikan. Penelitian ini bertujuan untuk mengetahui peran penggunaan *mobile learning* terhadap peningkatan keterampilan proses sains dan hasil belajar siswa SMP pada konsep pencemaran lingkungan. Penelitian dilakukan pada kelas VII di salah satu SMP Negeri di Bandung Barat. Metode yang digunakan adalah *quasy* eksperimen dengan *non-equivalent control group design*. Instrumen untuk menilai peningkatan keterampilan proses sains berupa 10 soal essay dan lembar observasi keterampilan proses sains, untuk menilai peningkatan hasil belajar kognitif berupa 20 soal *multiple choice*, sedangkan untuk afektif dan psikomotorik dinilai dengan menggunakan lembar observasi. Selain itu, juga dijaring respon siswa terhadap pembelajaran *mobile learning* melalui angket. Hasil penelitian menunjukkan kelas eksperimen mengalami peningkatan keterampilan proses sains lebih baik dengan *n-gain*=0,31 (sedang), sedangkan kelas kontrol *n-gain*=0,21 (rendah). Hasil belajar kognitif kelas eksperimen juga mengalami peningkatan lebih baik dengan *n-gain*=0,36 (sedang), sedangkan kelas kontrol *n-gain*=0,14 (rendah). Hasil tersebut didukung oleh hasil observasi keterampilan proses sains dan psikomotorik, rata-ratanya menunjukkan kelas eksperimen dengan pembelajaran *mobile learning* lebih baik dibandingkan dengan kelas kontrol. *Mobile learning* di sini berperan sebagai pemberi pembekalan pengetahuan prosedural awal untuk siswa yang mempengaruhi keterampilan dan tindakannya saat pembelajaran praktikum berlangsung. Respon siswa terhadap penggunaan *mobile learning* baik.

Kata Kunci: Keterampilan Proses Sains, Hasil Belajar, *Mobile Learning*

ABSTRACT

The development of global education and increasing the number of mobile device users make mobile learning as an alternative to solve educational problems. This study aims to determine the role of using mobile learning to improve science processes skills and learning outcomes of junior high school students on environmental pollution concept. The research was conducted in class VII of the State Junior High School in West Bandung. The method used was quasy experiments with non-equivalent control group design. The instruments to assess the students science process skills were 10 essay questions and observation sheets of science process skills, to assess the improvement of student's cognitive learning outcomes was 20 multiple choices questions, and to assess student's affective and psychomotor was observation sheets. Besides was, also captured student's responses to the mobile learning through questionnaires. The results showed that experimental class improved the science process skills better than control class with n-gain = 0.31 (medium), while the control class n-gain = 0.21 (low). The experimental class cognitive learning outcomes also improved better with n-gain = 0.36 (medium), while the control class n-gain = 0.14 (low). The results were supported by the observation of science process skills and psychomotor, the average shows that the experimental class with mobile learning was better than the control class. The role of mobile learning is as a provider of initial procedural knowledge for students that influence their skills and actions when practical learning took place. Student's response to the use of mobile learning is good.

Keywords: Science Process Skills, Learning Outcomes, Mobile Learning