

ABSTRAK

Penelitian ini didasarkan atas permasalahan pembelajaran kimia di sekolah yang masih menggunakan metode ceramah dan latihan-latihan soal yang jarang mengangkat fenomena atau permasalahan yang terjadi di kehidupan nyata. Pembelajaran di kelas seharusnya melibatkan aktivitas siswa yang lebih dominan dalam memperoleh pengetahuannya. Hal ini bertujuan untuk membuat siswa mampu mengembangkan potensi dirinya dan menjadikan siswa memiliki kualitas pribadi dalam mencerminkan keutuhan penguasaan sikap, pengetahuan dan keterampilan. Penelitian ini dilaksanakan untuk memperoleh informasi mengenai implementasi pembelajaran berbasis masalah tipe Tan pada konteks pengaruh pH air laut terhadap keberadaan terumbu karang, kinerja, sikap dan penguasaan siswa terhadap konsep larutan penyangga. Metode penelitian yang digunakan adalah metode pra-eksperimen dengan *one group pretest-posttest design*. Subyek penelitian terdiri dari 39 orang siswa kelas XI MIA pada salah satu SMA Negeri di Kota Bandung. Instrumen yang digunakan adalah lembar observasi perencanaan dan keterlaksanaan pembelajaran, lembar observasi penilaian sikap dan kinerja siswa, LKS dan butir soal. Penguasaan konsep siswa dinilai berdasarkan hasil *pretest* dan *posttest* pada butir soal yang diukur melalui N-gain dari analisis secara frekuensi kumulatif. Hasil penelitian menunjukkan bahwa pada perencanaan, keterlaksanaan pembelajaran dan performa kinerja siswa dikategorikan sangat baik dengan persentase sebesar 93,5, 92,4 dan 90,63, sedangkan kemampuan kinerja dan sikap siswa dikategorikan baik dengan persentase sebesar 78,72 dan 80,25. Penguasaan konsep siswa terhadap larutan penyangga berada pada kategori sedang ($N=0,5$).

Kata Kunci : *Implementasi PBL tipe Tan, penguasaan konsep, larutan penyangga, pengaruh pH air laut, keberadaan terumbu karang.*

ABSTRACT

This research was based on the problem in learning chemistry course at schools are often applying lecture method and exercise book, also rarely to applying real life problem or life phenomena. Implementation of student's mastery concept in chemistry course is requiring developing the practice in learning that involving student activity for acquiring their knowledge. The aim were for making students be able to evolve their self-potential and making students to have a personal quality which are reflect on their knowledge, skill and attitude. The purpose of this study was obtaining information about implementing problem based learning with Tan model approach in the effect of seawater pH in coral reefs existence context. These implementations were in the planning and learning process, student's performance and student mastery concept's in buffer subject. This study was pre-experiment with one group pre-test post-test design. Subject of this study was consisted of 39 science student at 11th grade from one of high schools in Bandung. The instruments were consisted of planning and implementing observation sheets, attitude and performance of student's observation sheets, worksheets assessment form and items in written test. Student's mastery concepts was assessing from the result of pre-test and post-test and measured using the N-gain from cumulative frequencies. The result of this research showed that the planning and implementing learning and also student's performance obtained excellent in category by the percentage 93,5, 92,4 and 90,63, whereas toward the student's activity and attitude obtained good in category by the percentage 78,72 and 80,25. Student mastery concept's in buffer subject in medium (N=0,5).

Key Words : *Implementation, PBL with Tan model, student's mastery concept, buffer subject, effect of seawater pH, existence of coral reefs.*