DESAIN DIDAKTIS PEMBELAJARAN TITRASI ASAM BASA DIDASARKAN HASIL REFLEKSI DIRI GURU MELALUI *LESSON ANALYSIS*

ABSTRAK

Penelitian ini bertujuan menyusun desain didaktis untuk mengurangi kesulitan belajar siswa. Metode yang digunakan dalam penelitian ini adalah kualitatif dengan desain penelitian yaitu Penelitian Desain Didaktis. Penelitian dilakukan pada salah satu SMA di Bandung dengan subjek penelitian siswa kelas XII dan siswa kelas XI. Hasil penelitian menunjukkan bahwa siswa mengalami kesulitan dalam menentukan alasan pemilihan indikator titrasi asam basa, menuliskan persamaan reaksi dan menyetarakan koefisien reaksi asam bervalensi dua dan basa bervalensi satu, menentukan konsentrasi asam bervalensi dua yang dititrasi basa bervalensi satu, menentukan jenis titrasi berdasarkan kurva dan menentukan jenis zat sebelum titik ekuivalen, daerah titik ekuivalen dan setelah titik ekuivalen pada kurva titrasi asam lemah dengan basa kuat. Desain didaktis materi titrasi asam dibuat dalam bentuk *chapter design* dan *lesson design*. *Chapter design* berisi materi esensi titrasi asam basa yaitu indikator, konsentrasi zat yang dititrasi dan kurva titrasi. *Lesson design* terdiri dari tiga kegiatan yaitu kegiatan awal, kegiatan inti, dan kegiatan akhir yang dilengkapi dengan prediksi respon siswa dan antisipasi guru. Hasil implementasi desain didaktis materi titrasi asam basa, respon siswa dan antisipasi sesuai dengan rancangan yang telah disusun, terdapat respon siswa diluar prediksi dan kurang tepatnya antisipasi guru. Hasil implementasi desain didaktis menunjukkan bahwa berkurangnya kesulitan belajar siswa namun terdapat kesulitan yang masih muncul yaitu siswa mengalami kesulitan dalam menyetarakan koefisien reaksi. Hasil refleksi diri guru melalui *lesson analysis* yaitu meningkatnya pembelajaran kolaboratif antar siswa tanpa keterlibatan guru. Hasil desain didaktis setelah implementasi yaitu menambahkan antisipasi guru dan pertanyaan pada LKS terkait dengan menuliskan persamaan reaksi dan menyetarakan koefisien reaksi.

Kata kunci: Desain Didaktis, Titrasi Asam Basa, Refleksi Diri Guru, *Lesson Analysis.*

DIDACTICAL DESIGN OF ACID BASE TITRATION LEARNING BASED ON THE RESULT OF TEACHER'S SELF REFLECTION USING LESSON ANALYSIS

ABSTRACT

This research aims to develop a didactic design to reduce students' learning difficulties. The method used in this study is qualitative research with Didactical Design Research. This study was conducted at Senior High School in Bandung with the participants were the 12th grade students and the 11th grade students. The results showed that the difficulties had in describing a reason for the titration of acid and base, write an appropriate answer of chemical equations divalent acid and monovalent base, determining the concentration of divalent acid that was titrated with monovalent bases, determine the type of titration based on the curve and determine the type of substance on the area before equvalence point, equvalence point, and after equivalence for titration curve of weak acid and strong base. The didactic design of acid base titration were formed into chapter design and lesson design. Chapter design the essential concept of the indicators, the concentration of the substance that being titrated and the titration curve. Then, lesson design consists of three activities which initial activity, core activities, and closing activities along with a predicted response of the students and teachers anticipation. The result of the design didactic's implementation was acid-base titration. In addition, the majority of student responses and anticipation were in line with the draft that has been prepared. But there was no response beyond prediction and less precise anticipation teachers. The result of the implementation of didactic design showed that the students' difficulties was decreased. The students' difficulties that still appeared was the students could not write the reaction coefficient. Furthermore, the results of the lesson analysis showed that collaborative learning among students without teacher's participation was increased. On the other hand, the result of didactical design after the implementation was actually it could add the teacher's anticipation and questions on worksheets related with the reaction equation and equalize the reaction coefficient.

Keyword: Didactical design, Acid base titration, Teacher's self reflection, Lesson analysis.