

## ABSTRAK

**Ainul Ahdalina Pohan.** NIM. 8126142001. Penerapan Model Problem Based Learning (PBL) Berbasis Kolaboratif dengan Pemanfaatan Media Komputer Terhadap Hasil Belajar dan Kreativitas Siswa. Tesis. Medan: Program Studi Pendidikan Kimia Pascasarjana UNIMED, 2014.

Penelitian ini bertujuan untuk mengetahui: 1) perbedaan hasil belajar kimia antara siswa yang diajarkan model *Problem Based Learning* (PBL) berbasis kolaboratif memanfaatkan media komputer dengan siswa yang diajarkan model *Direct Instruction* (DI) tanpa media komputer; 2) perbedaan hasil belajar kimia antara siswa yang memiliki karakter kreativitas tinggi dengan yang memiliki karakter kreativitas rendah; 3) interaksi antara model pembelajaran dan karakter kreativitas terhadap hasil belajar kimia siswa; 4) perbedaan karakter kreativitas antara siswa yang diajarkan model PBL berbasis kolaboratif memanfaatkan media komputer dengan yang diajarkan model DI tanpa media komputer; dan 5) ranah kognitif yang berkembang antara siswa yang diajarkan model PBL berbasis kolaboratif memanfaatkan media komputer dengan yang diajarkan model DI tanpa media komputer.

Penelitian ini termasuk penelitian quasi eksperimen. Populasi penelitian ini adalah siswa kelas XI IPA di SMA Negeri 1 Rantau Utara sebanyak 6 kelas dan SMA Negeri 2 Rantau Utara sebanyak 4 kelas. Sampel penelitian ini sebanyak 2 kelas dari SMA Negeri 1 dan 2 kelas dari SMA Negeri 2 Rantau Utara. Instrumen penelitian menggunakan tes hasil belajar berjumlah 20 soal dalam bentuk pilihan berganda, angket dan lembar observasi tentang karakter kreativitas yang telah divalidasi oleh validator. Teknik analisis yang digunakan teknik Analisis varians dua jalur (*Two Ways Anova*) dan uji *Independet Sampel T-Test* (uji-t) dengan bantuan program SPSS 16.0.

Hasil penelitian disimpulkan bahwa: 1) terdapat perbedaan yang signifikan hasil belajar kimia antara siswa yang diajarkan dengan model PBL berbasis kolaboratif memanfaatkan media komputer dengan siswa yang diajarkan model DI tanpa media komputer ( $p = 0,000 < 0,05$ ); 2) terdapat perbedaan hasil belajar kimia antara siswa yang memiliki karakter kreativitas tinggi dengan siswa yang memiliki karakter kreativitas rendah ( $p = 0,004 < 0,05$ ); 3) terdapat interaksi antara model pembelajaran dan karakter kreativitas terhadap hasil belajar kimia siswa ( $p = 0,000 < 0,05$ ); 4) terdapat perbedaan yang signifikan nilai karakter kreativitas antara siswa yang diajarkan dengan model PBL berbasis kolaboratif memanfaatkan media komputer dengan siswa yang diajarkan model DI tanpa media komputer ( $0,013 < 0,05$ ); dan 5) ranah kognitif yang berkembang untuk kelompok siswa yang diajarkan dengan model PBL berbasis kolaboratif memanfaatkan media komputer yaitu:  $C_1$  sebesar 91% (tinggi),  $C_2$  sebesar 76,7% (tinggi),  $C_3$  sebesar 61,5% (sedang), dan  $C_4$  sebesar 60,9% (sedang).

## ABSTRACT

**Ainul Ahdalina Pohan.** NIM. 8126142001. Implementation Model of Problem Based Learning (PBL) with Utilization-Based Collaborative Media against Computer Learning Outcomes and Student Creativity. A Thesis. Chemistry Education Program, Postgraduate School, State University of Medan. 2014.

This study aims to determine: 1) differences in learning outcomes between students who were taught chemistry model of Problem Based Learning (PBL) based on utilizing collaborative computer media with students who are taught Direct Instruction models without computer media; 2) differences in learning outcomes between students who have a chemical character of high creativity with which has the character of low creativity; 3) the interaction between the model of learning and creativity to the character chemistry student learning outcomes; 4) differences in the character of creativity between students taught by PBL-based collaborative models utilize media to teach computer model of Direct Instruction without computer media; and 5) cognitive domains that develop between students who were taught PBL-based collaborative models use the media to teach computer model of Direct Instruction without computer media.

This study includes quasi-experimental study. The population of this research is the students of class XI Science SMAN 1 North seacoast as 6 classes and SMAN 2 North seacoast as much as 4 classes. The sample of this study was 2 classes of SMA Negeri 1 and 2 classes of SMAN 2 North Rantau. The research instrument used achievement test is 20 questions in multiple-choice form, questionnaire and observation sheet about the character of creativity that has been validated by the validator. The analysis technique used Two Ways ANOVA and Independents test sample T-test (t-test) with SPSS 16.0.

The results of the study concluded that: 1) there are significant differences between students' learning outcomes chemistry taught with PBL-based collaborative models utilize computer media with students who are taught without DI model of computer media ( $p = 0.000 <0.05$ ); 2) there are differences in learning outcomes between students who have a chemical character of high creativity with students who have low creativity character ( $p = 0.004 <0.05$ ); 3) there is an interaction between the model of learning and creativity character chemistry student learning outcomes ( $p = 0.000 <0.05$ ); 4) there are significant differences between students' creativity character values taught by the model-based collaborative PBL utilizing computer media with students who are taught without DI model of computer media ( $0.013 <0.05$ ); and 5) developing cognitive domains for the group of students who were taught with PBL-based collaborative models utilize computer media, namely: C1 amounted to 91% (high), C2 amounted to 76.7% (high), C3 amounted to 61.5% (medium), and C4 amounted to 60.9% (medium).