

ABSTRAK

ASMAUL HUSNA. Perbedaan Peningkatan kemampuan Penalaran Matematis dan *Habits of Mind* Siswa Melalui Model Pembelajaran *Problem Based Learning* (PBL) dan *Inquiry Based Learning* (IBL) di SMA Negeri 1 Takengon. Tesis. Medan: Program Studi Pendidikan Matematika Pasca Sarjana Universitas Negeri Medan, 2017

Penelitian ini bertujuan untuk mengetahui: (1) Perbedaan peningkatan kemampuan Penalaran Matematis siswa yang diberi PBL dan IBL, (2) Perbedaan peningkatan *Habit of mind* siswa yang diberi PBL dan IBL, (3) Interaksi antara model (PBL dan IBL) dengan kemampuan awal matematika (KAM) dalam meningkatkan kemampuan penalaran matematis siswa, (4) Interaksi antara model (PBL dan IBL) dengan kemampuan awal matematika (KAM) dalam meningkatkan *Habit of mind* siswa, (5) Proses jawaban siswa dalam menyelesaikan masalah penalaran matematis setelah proses pembelajaran PBL dan IBL. Penelitian ini merupakan penelitian semi eksperimen. Populasi penelitian ini adalah siswa kelas XI SMA Negeri 1 Takengon. Dan sampel penelitian ini adalah kelas XI-3 dan XI-4. Analisis data dilakukan dengan analisis kovarian (ANACOVA) Hasil penelitian menunjukkan bahwa (1) Tidak terdapat perbedaan peningkatan kemampuan Penalaran matematis antara siswa yang diberi PBL dan IBL. Hal ini terlihat dari hasil ANACOVA untuk $F_{hitung} = 0.219$ lebih kecil dari $F_{tabel} = 3.962$, dengan selisih kecil antara konstanta persamaan regresi untuk IBL yaitu 51.667 lebih besar dari PBL yaitu 50.022. (2) Terdapat perbedaan peningkatan *habit of mind* antara siswa yang diberi PBL dan IBL. Hal ini terlihat dari hasil ANACOVA untuk $F_{hitung} = 7.015$ lebih besar dari $F_{tabel} = 3.962$. Konstanta persamaan regresi untuk PBL yaitu 23.361 lebih besar dari IBL yaitu 4.554. (3) Tidak terdapat interaksi antara model pembelajaran dan kemampuan awal matematika siswa terhadap peningkatan kemampuan Penalaran matematis. (4). Tidak terdapat interaksi antara model pembelajaran dan kemampuan awal matematika siswa terhadap peningkatan *habits of mind*. (5) Proses penyelesaian jawaban siswa kemampuan penalaran matematis yang diberi model PBL lebih baik dibandingkan dengan model IBL.

Kata Kunci: Penalaran matematis, *Habit of mind*, *Problem Based Learning* (PBL) dan *Inquiry Based Learning* (IBL)

ABSTRACT

ASMAUL HUSNA. The Differences of This Improvement in Reasoning Mathematics Abilities and Habits of Mind Students with Learning model Problem Based Learning (PBL) and Inquiry Based Learning (IBL) in SMA Negeri 1 Takengon. A Thesis. Medan: Post Graduate Program, State University of Medan, 2017.

This research aim to: (1) The difference of improvement reasoning mathematics abilities between students who were given PBL and IBL, (2) The difference of improvement habits of mind students who were given PBL and IBL, (3) the interaction between the learning model and prior knowledge math students to improvement of reasoning mathematics abilities, (4) the interaction between the learning model and prior knowledge math to improvement of habits of mind, (5) the process of the students answers to solve the problems of reasoning mathematics after learning PBL and IBL. This research is quasi experimental. The population of this research was student class XI of SMA Negeri 1 Takengon. And the sample is a class XI-3 and XI-4. Analysis is done using analysis of covariance (ANACOVA) The results showed that (1) There are no differences of improvement reasoning mathematics abilities between students who were given PBL and IBL. It can be seen from the results of analysis of covariance for F count is 0.219 smaller than $F_{table} = 3.962$. with little difference between regression equation constants for IBL is 51.667 greater than the PBL is 50.022. (2) There are differences of improvement study habits between students who were given PBL and IBL. It can be seen from the results of analysis of covariance for F count is 7.015 bigger than $F_{table} = 3,962$. Regression equation constant for the PBL is 23.361 greater than IBL is 4.554. (3) There is no interaction between the learning model and prior knowledge math students to improvement of reasoning mathematics abilities (4) There is no interaction between the learning model and prior knowledge math to improvement of habits of mind (5) the process of students answers by PBL is better than IBL.

Keywords: Reasoning mathematics, Habits of mind, Problem Based Learning (PBL) dan Inquiry Based Learning (IBL)