

ABSTRAK

RIZKI KURNIAWAN RANGKUTI. Perbedaan Peningkatan Kemampuan Metakognisi dan Komunikasi Matematis Antara Siswa yang Mendapat Pembelajaran Ekspositori Berbantuan Media Autograph Dengan Siswa yang Mendapat Pembelajaran Penemuan Terbimbing Berbantuan Media Autograph. Tesis. Medan: Program Pascasarjana Universitas Negeri Medan, 2016.

Penelitian ini bertujuan untuk mengetahui: (1) apakah terdapat perbedaan peningkatan kemampuan metakognisi matematis antara siswa yang mendapat pembelajaran ekspositori berbantuan media Autograph dengan siswa yang mendapat pembelajaran penemuan terbimbing berbantuan media Autograph, (2) apakah terdapat perbedaan peningkatan kemampuan komunikasi matematis antara siswa yang mendapat pembelajaran ekspositori berbantuan media Autograph dengan siswa yang mendapat pembelajaran penemuan terbimbing berbantuan media Autograph, (3) bagaimana proses dan kesalahan jawaban siswa dalam menyelesaikan soal-soal yang menuntut kemampuan metakognisi dan komunikasi matematis, (4) bagaimana respon siswa terhadap pembelajaran ekspositori berbantuan media Autograph dan respon siswa terhadap pembelajaran penemuan terbimbing berbantuan media Autograph. Penelitian ini merupakan penelitian eksperimen semu. Populasi penelitian ini adalah siswa kelas XI SMA Harapan 1 Medan, kemudian secara acak dipilih dua kelas dari lima kelas. Kelas eksperimen 1 mendapat pembelajaran ekspositori berbantuan media Autograph dan kelas eksperimen 2 mendapat pembelajaran penemuan terbimbing berbantuan media Autograph. Instrumen yang digunakan terdiri dari: (1) tes kemampuan metakognisi matematis, (2) tes kemampuan komunikasi matematis, (3) angket respon siswa terhadap pembelajaran, (4) angket hasil aktivitas siswa dalam pembelajaran, dan (5) angket kemampuan guru dalam mengelola pembelajaran. Analisis data dilakukan dengan analisis kovarian (ANACOVA) dan N-Gain. Hasil penelitian menunjukkan bahwa (1) tidak terdapat perbedaan peningkatan kemampuan metakognisi matematis antara siswa yang mendapat pembelajaran ekspositori berbantuan media Autograph dengan siswa yang mendapat pembelajaran penemuan terbimbing berbantuan media Autograph, (2) terdapat perbedaan peningkatan kemampuan komunikasi matematis antara siswa yang mendapat pembelajaran ekspositori berbantuan media Autograph dengan siswa yang mendapat pembelajaran penemuan terbimbing berbantuan media Autograph, (3) proses jawaban siswa dalam menyelesaikan soal-soal yang menuntut kemampuan metakognisi dan komunikasi matematis pada kelas eksperimen 2 lebih baik daripada kelas eksperimen 1, dan kesalahan jawaban siswa dalam menyelesaikan soal-soal yang menuntut kemampuan metakognisi dan komunikasi matematis pada kelas eksperimen 2 lebih sedikit daripada kelas eksperimen 1, (4) respon siswa terhadap pembelajaran ekspositori berbantuan media Autograph dan pembelajaran penemuan terbimbing berbantuan media Autograph sama-sama memberikan respon positif.

Kata Kunci: *Pembelajaran Ekspositori Berbantuan Media Autograph, Pembelajaran Penemuan Terbimbing Berbantuan Media Autograph, Kemampuan Metakognisi dan Komunikasi Matematis*

ABSTRACT

RIZKI KURNIAWAN RANGKUTI. The Differences of Improvement in Metacognition and Communication Mathematics Abilities Between The Students Who Get The Expository Learning by Using Autograph with The Students Who Get The Guided Discovery Learning by Using Autograph. A Thesis. Medan: Post Graduate Program, State University of Medan, 2016.

This research aim to: (1) the differences of improvement metacognition mathematics abilities between students who get the expository learning by using Autograph with the students who get the guided discovery learning by using Autograph, (2) the differences of improvement communication mathematics abilities between students who get the expository learning by using Autograph with the students who get the guided discovery learning by using Autograph, (3) how the process and mistakes of students answers on solve the tests who representate the metacognition and communication abilities, (4) how the students responses in expository learning by using Autograph and the students responses in quided discovery learning by using Autograph. This research is a quasi-experimental research. The research population are students of class XI SMA Harapan 1 Medan, then randomly selected two classes of five classes. The experimental class 1 get the expository learning by using Autograph and the experimental class 2 get the quided discovery learning by using Autograph. The instrument used consisted of: (1) test of mathematical metacognition abilities, (2) test of mathematical communication abilities, (3) the response questionnaire of students on the learning, (4) the questionnaire of students result activities on the learning, and (5) the questionnaire of teacher abilities on manage of learning. The data analysis by using analysis of covariance (ANACOVA) and N-Gain. The results of research show that (1) there are no differences of improvement metacognition mathematics abilities between students who get the expository learning by using Autograph with the students who get the guided discovery learning by using Autograph, (2) there are differences of improvement communication mathematics abilities between students who get the expository learning by using Autograph with the students who get the guided discovery learning by using Autograph, (3) the process of the students answers on solve the exercises who representate the metacognition and communication abilities in experimental class 2 is better than the experimental class 1, and the mistakes of the students answers on finish the exercises who representate the metacognition and communication abilities in experimental class 2 is lower than the experimental class 1, (4) the responses of students in the expository learning by using Autograph and responses of students in the quided discovery learning by using Autograph equally representate the positive response.

Keywords: *The Expository Learning by Using Autograph, The Guided Discovery Learning by Using Autograph, The Abilities of Metacognition and Communication Mathematics.*