

ABSTRAK

MASHITAH PUTERI. Perbedaan Kemampuan Pemecahan Masalah dan Kemampuan Representasi Matematis Siswa yang Diberi Pendekatan PMR dan Pendekatan Kontekstual Berbantuan Macromedia Flash di SMKS Sartika Rantauprapat. Tesis. Medan : Program Studi Pendidikan Matematika Pasca Sarjana Universitas Negeri Medan, 2017.

Tujuan dari penelitian ini untuk mengetahui: (1) Apakah terdapat perbedaan kemampuan pemecahan masalah antara siswa yang diberi pendekatan PMR dengan siswa yang diberi pendekatan kontekstual berbantuan macromedia flash. (2) Apakah terdapat perbedaan kemampuan representasi matematis antara siswa yang diberi pendekatan PMR dengan siswa yang diberi pendekatan kontekstual berbantuan macromedia flash. (3) Bagaimanakah proses penyelesaian jawaban siswa terkait dengan pemecahan masalah matematika siswa dengan menggunakan pendekatan PMR dan pendekatan kontekstual berbantuan macromedia flash. (4) Bagaimanakah proses penyelesaian jawaban siswa terkait dengan representasi matematis siswa dengan menggunakan pendekatan PMR dan pendekatan kontekstual berbantuan macromedia flash. Jenis penelitian ini adalah eksperimen semu. Populasi penelitian ini adalah seluruh siswa SMKS Sartika Rantauprapat. Kemudian dipilih secara acak dua kelas berjumlah 53 orang. Kelas eksperimen 1 diberi perlakuan Pendekatan PMR berbantuan macromedia flash dan kelas eksperimen 2 diberi perlakuan pendekatan kontekstual berbantuan macromedia flash. Instrumen yang digunakan terdiri dari tes kemampuan pemecahan masalah dan tes kemampuan representasi matematis. Analisis data yang dilakukan menggunakan ANACOVA. Hasil Penelitian menunjukkan bahwa: (1) Terdapat perbedaan kemampuan pemecahan masalah antara siswa yang diberi pendekatan PMR dengan siswa yang diberi pendekatan kontekstual berbantuan macromedia flash atau $F_{hitung} = 3,939 > F_{tabel} = 3,38$. (2) Terdapat perbedaan kemampuan representasi matematis antara siswa yang diberi pendekatan PMR dengan siswa yang diberi pendekatan kontekstual berbantuan macromedia flash atau $F_{hitung} = 12,347 > F_{tabel} = 3,38$. (3) Perhitungan persentase hasil skor total rata-rata untuk kemampuan pemecahan masalah 57% dengan pendekatan PMR dan 50,36% dengan pendekatan kontekstual. (4) Perhitungan persentase skor total rata-rata untuk kemampuan representasi matematis siswa 74,40% dengan pendekatan PMR dan 31,66% dengan pendekatan kontekstual.

Kata kunci : Pendekatan PMR, pendekatan kontekstual, kemampuan pemecahan masalah dan kemampuan representasi matematis.

ABSTRACT

MASHITAH PUTERI. The Differences of Problem Solving Ability and Mathematical Representation Ability of Students Given by Realistic Mathematical Approach and Contextual Approach by Macromedia Flash at SMKS Sartika Rantauprapat. Thesis. Medan: Post-graduate Mathematics Education Program State University of Medan, 2017.

The aim of this research is to know: (1) Is there any differences of problem solving ability between students who are given realistic mathematical approach with students who are given contextual approach by macromedia flash?.(2) Is there any differences of mathematical representation between students who are given realistic mathematical approach with students who are given contextual approach by macromedia flash?.(3) How the student mathematics problem solving process by using realistic mathematical approach and contextual approach by macromedia flash?.(4) How the student mathematical representation by using realistic mathematical approach and contextual approach by macromedia flash?. Type of research is a quasi experiment. The sample select by randomly two classes amount to 53 people. The first experimental class was realistic mathematical approach treated by macromedia flash and the second experimental class was contextual approach treated by macromedia flash. The instrument that used is problem solving tests and mathematical representation tests. Data analysis was performed by using ANACOVA. The research result shows that: (1) There is differences of problem solving ability between students who are given realistic mathematical approach with students who are given contextual approach by macromedia flash or $F_{hitung} = 3,939 > F_{tabel} = 3,38$. (2) There is differences of mathematical representation ability between students who are given realistic mathematical approach with students who are given contextual approach by macromedia flash or $F_{hitung} = 12,347 > F_{tabel} = 3,38$. (3) The percentage of total mean score for problem solving ability is 57% by realistic mathematical approach and 50,36% by contextual approach. (4) The percentage of total mean score for students mathematical representation ability is 74,40% by realistic mathematical approach and 31,66% by contextual approach.

Keywords : Realistic mathematical approach, contextual approach, problem solving ability and mathematical representation ability.