

ABSTRAK

RIADI. Analisis Kesulitan Pemahaman Konsep dan Berpikir Kreatif Siswa dalam Matematika Melalui Pembelajaran Berbasis Masalah Pada Siswa SMA Angkasa Lanud Soewondo. Tesis. Medan: Program Pascasarjana Universitas Negeri Medan, Januari 2020.

Penelitian ini bertujuan untuk mengetahui: 1) tingkat kemampuan Pemahaman Konsep dan berpikir kreatif matematis siswa yang dibelajarkan menggunakan model Pembelajaran Berbasis Masalah; 2) deskripsi proses jawaban siswa dalam pembelajaran menggunakan model Pembelajaran Berbasis Masalah; 3) kesulitan proses Pemahaman Konsep dan berpikir kreatif matematis siswa yang dibelajarkan menggunakan model Pembelajaran Berbasis Masalah; 4) aktivitas aktif siswa selama proses pembelajaran menggunakan model Pembelajaran Berbasis Masalah. Penelitian ini merupakan penelitian kualitatif dengan pendekatan deskriptif. Instrumen penelitian ini adalah tes kemampuan Pemahaman Konsep dan berpikir kreatif matematis siswa, lembar observasi aktivitas aktif siswa, pedoman wawancara. Perangkat pembelajaran yang disiapkan adalah rencana pelaksanaan pembelajaran (RPP), Buku Siswa (BS) dan lembar Kerja Peserta Didik (LKPD). Dari hasil penelitian diperoleh bahwa: tingkat kemampuan pemahaman konsep dari 21 siswa dengan kemampuan 'sangat rendah' sebanyak 1 siswa (4,78%), Kategori 'rendah' sebanyak 3 siswa (14,28%), Kategori 'sedang' sebanyak 11 siswa (52,38%), Kategori "tinggi" sebanyak 5 siswa (23,80%) Kategori 'sangat tinggi' sebanyak 1 siswa (4,78%). Tingkat berpikir kreatif matematis dari 21 orang siswa dengan kemampuan berpikir kreatif 'sangat rendah' sebanyak 3 siswa (14,28%), kemampuan berpikir kreatif 'rendah' sebanyak 3 siswa (14,28%), kemampuan berpikir kreatif 'sedang' sebanyak 9 siswa (42,85%), kemampuan berpikir kreatif 'tinggi' sebanyak 4 siswa (19,04%), dan kemampuan berpikir kreatif 'sangat tinggi' sebanyak 2 siswa (9,52%); analisis kesulitan proses pemahaman konsep dan berpikir kreatif matematis penelitian ini adalah kesulitan dalam menerapkan prinsip dan menyelesaikan masalah verbal bersamaan dengan ketidakmampuan merinci pemecahan masalah yang ditandai dengan adanya kesulitan prinsip dan prosedur yang meliputi ketidakmampuan merencanakan penyelesaian; ketidakmampuan melakukan kegiatan penemuan; ketidakmampuan mengabstraksikan pola-pola, ketidakmampuan mengutarakan artinya dan tidak dapat menerapkan prinsip. Di samping itu juga, adanya ketidakmampuan memberikan banyak ide, ketidakmampuan menyelesaikan masalah dari sudut pandang yang berbeda, ketidakmampuan menyelesaikan masalah dengan cara sendiri, dan ketidakmampuan mengembangkan atau merinci secara detail suatu situasi; keseluruhan prosentase aktivitas aktif siswa sudah berada pada interval toleransi waktu ideal yang ditetapkan sehingga pembelajaran dengan menerapkan model pembelajaran berbasis masalah khususnya dalam proses pemahaman konsep dan berpikir kreatif matematis memberikan kesempatan kepada siswa untuk mengeksplorasi berbagai macam jawaban maupun cara penyelesaian.

Kata Kunci: Kemampuan Pemahaman Konsep, Kemampuan Berpikir Kreatif Proses Berpikir Kreatif Matematis, Model Pembelajaran Berbasis Masalah

ABSTRACT

RIADI. Analysis Of The Difficulty Of Understanding Concepts and Creative Thinking Of Students In Mathematics Through Problem-Based Learning In Students of SMA Angkasa Lanud Soewondo. Thesis. Medan: Postgraduate Program, State University of Medan, January, 2021.

The objectiveness of this study are to find out: (1) the level of students' understanding concepts and creative thinking ability mathematically learned using Problem Based Learning model; 2) description of student's answer process in learning using Problem Based Learning model; 3) the difficulties of students' mathematical understanding concepts and creative thinking process that is learned using Problem Based Learning model; 4) active activities of students during the learning process using Problem Based Learning model. This research is a qualitative research with descriptive approach. The instrument of this research is test of students' understanding concepts and mathematical creative thinking ability, observation sheet of student active activity. The learning tools prepared are the lesson plan (RPP), Book Students (BS) and student activity sheet (LKPD). From the research result, it was found that: the level of understanding concepts ability of 21 students with 'very low' understanding concepts ability as much as 1 Student (4,78%), 'low ability' understanding concepts as much as 3 Student (14,28%), 'moderate' understanding concepts ability as much as 11 student (52,38%), 'high' understanding concepts as much as 5 student (23,80%), and 'very high' understanding concepts ability as much as 1 Student (4,78%); the level of mathematical creative ability of 21 students with 'very low' creative thinking ability as much as 3 student (14,28%), 'low ability' creative thinking as much as 3 Student (14,28%), 'moderate' creative thinking ability as much as 9 student (42,85)%, 'high' creative thinking as much as 4 student (19,04%), and 'very high' creative thinking ability as much as 2 students (9,52%); analysis of the difficulty of the understanding concepts and mathematical creative thinking process of this research is the difficulty in applying the principles and solving verbal problems together with the lack of detailed problem solving characterized by the difficulties of principles and procedures including the inability to plan the settlement; Inability to undertake discovery activities; The inability to abstract patterns, the inability to express the meaning and not to apply the principle. In addition, the inability to give many ideas, the inability to solve problems from different perspectives, the inability to solve problems in one's own way, and the inability to develop or detail in a situation; the overall percentage of students' active activity is in the ideal time tolerance interval set so that the learning by applying the model of Problem Based Learning especially in the process of mathematical creative thinking provides an opportunity for students to explore various answers and ways of completion

Keywords: Understanding Concepts, Mathematical Creative Thinking Process, Problem Based Learning model