ABSTRAK

ENDANG HUTAURUK. Analisis Kesulitan Proses Berpikir Kreatif Matematis Berbasis Metakognisi Siswa dalam Penerapan Model Problem Based Leraning (PBL). Tesis, Medan: Program Pascasarjana Universitas Negeri Medan, April 2020.

Penelitian ini bertujuan untuk menganalisis dan mengetahui: (1) tingkat kemampuan berpikir kreatif matematis berbasis metakognisi siswa yang diajar menggunakan model *Problem Based Learning* (PBL); (2) deskripsi proses jawaban kemampuan berpikir kreatif matematis berbasis metakognisi siswa dalam pembelajaran menggunakan model *Problem Based Leraning* (PBL); (3) kesulitan proses berpikir kreatif matematis berbasis metakognisi siswa yang diajar menggunakan model *Problem Based Learning* (PBL). Penelitian ini merupakan penelitian kulaitatif deskriptif. Subjek penelitian ini adalah siswa SMP Negeri 27 Medan kelas VII-5 yang berjumlah 32 orang. Adapun hasil penelitian sebagai berikut: (1) terdapat 6 siswa yang memiliki tingkat kemampuan berpikir kreatif matematis kategori tinggi dengan metakognisi tingkat *reflective use* berjumlah 1 siswa dan metakognisi tingkat *strategic use* berjumlah 5 siswa; terdapat 12 siswa yang memiliki tingkat kemampuan berpikir kreatif matematis kategori sedang dengan metakognisi tingkat *strategic use* berjumlah 10 siswa dan metakognisi tingkat *aware use* berjumlah 2 siswa; terdapat 14 siswa yang memiliki tingkat kemampuan berpikir kreatif matematis kategori rendah dengan tingkat metakognisi *aware use* berjumlah 11 siswa dan metakognisi tingkat *tacit use* berjumlah 3 siswa; (2) Proses jawaban siswa diamati berdasarkan teori Wallas, maka disimpulkan bahwa: a) siswa dengan kemampuan berpikir kreatif matematis tingkat tinggi dengan metakognisi tingkat *reflective use* dan *strategic use* dengan proses jawaban yang memenuhi tahapan persiapan, inkubasi, iluminasi dan verifikasi, b) siswa dengan kemampuan berpikir kreatif matematis tingkat sedang dengan metakognisi tingkat *strategic use* bahwa proses jawaban siswa memenuhi tahapan persiapan, inkubasi, iluminasi dan verifikasi sedangkan siswa dengan metakognisi tingkat *aware use* beberapa siswa tidak mencapai tahapan verifikasi, c) siswa dengan kemampuan berpikir kreatif matematis tingkat rendah dengan metakognisi tingkat *aware use* dan *tacit use* dengan proses jawaban yang tidak memenuhi tahapan iluminasi dan verifikasi; (3) Siswa yang mengalami kesulitan yang dialami oleh siswa tingkat sedang dan rendah yang mencakup pada kesulitan fakta, konsep, prinsip, dan prosedur.

Kata kunci: Proses Berpikir Kreatif, Metakognisi, Model Problem Based Learning (PBL)

ABSTRACT

ENDANG HUTAURUK. Analysis of the Difficulties of the Mathematic Creative Thinking Process Based on Metacognition in the Application of Problem-Based Learning Model. Tesis, Medan: Graduate Program School in Mathematics Education, State University of Medan, April 2020.

This study aims to analyze and find out: (1) the level of mathematical creative thinking ability based on the metacognition of students taught using the Problem Based Learning (PBL) model; (2) description of the answer process of mathematical creative thinking ability based on students' metacognition in learning using the Problem Based Leraning (PBL) model; (3) the difficulties of mathematical creative thinking process based on metacognition of students who are taught using the Problem Based Learning (PBL) model. This research is a descriptive qualitative study. The subjects of this research were 32 students of SMP Negeri 27 Medan in class VII-5, amounting to 32 people. results of the study are as follows: (1) there are 6 students who have a high level of mathematical creative thinking ability with a metacognition level of reflective use totaling 1 student and metacognition level of strategic use totaling 5 students; there are 12 students who have a level of mathematical creative thinking ability of the medium category with 10 students using the strategic use metacognition level and 2 students using the metacognition level of aware use; there are 14 students who have a low level of mathematical creative thinking ability with 11 students aware of metacognition level and 3 students of metacognition level of tacit use; (2) The students' answer process is observed based on Wallas's theory, it is concluded that: a) students with high-level mathematical creative thinking abilities with metacognition levels of reflective use and strategic use with answer processes that meet the stages of preparation, incubation, illumination and verification, b) students with a moderate level mathematical creative thinking ability with metacognition at the level of strategic use that the process of student answers meets the stages of preparation, incubation, illumination and verification while students with metacognition at the level of aware use some students do not reach the verification stage, c) students with low level mathematical creative thinking skills with metacognition of the level of aware use and tacit use with the answer process that does not meet the stages of illumination and verification; (3) Students who experience difficulties experienced by moderate and low level students which include difficulty of facts, concepts, principles, and procedures.

Keywords: Creative Thinking Processes, Metacognition, Problem Based Learning Models