

**ANALISIS PROSES *PLANNING*, *EXECUTION* DAN *REVISION* DALAM
PEMECAHAN MASALAH MATEMATIS DITINJAU DARI
KEMAMPUAN KOGNITIF SISWA**

TESIS

**Diajukan sebagai Salah Satu Syarat untuk Memperoleh Gelar Magister
Pendidikan pada Program Studi Pendidikan Matematika**



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UNIVERSITAS PENDIDIKAN INDONESIA
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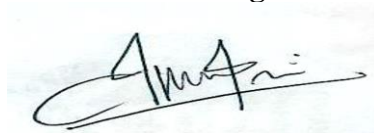
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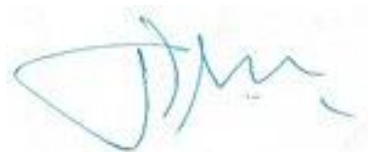
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ABSTRAK

Desy Eka Puspito Rini. (1803627). Analisis Proses *Planning*, *Execution* dan *Revision* dalam Pemecahan Masalah Matematis Ditinjau dari Kemampuan Kognitif Siswa.

Penelitian ini bertujuan untuk merumuskan suatu teori yang berhubungan dengan proses perencanaan (*planning*), pelaksanaan (*execution*), dan pemeriksaan (*revision*) dalam pemecahan masalah matematis ditinjau dari kemampuan kognitif siswa. Penelitian ini menggunakan pendekatan kualitatif dengan desain *grounded theory*. Subjek penelitian berjumlah 28 siswa kelas IX di salah satu SMP di Subang yang telah mempelajari materi luas persegi panjang. Dari hasil penelitian diperoleh kesimpulan bahwa aspek proses *planning* dalam menyelesaikan masalah matematis: (1) siswa KKT dan KKS yaitu mampu mengumpulkan informasi yang diketahui dan mampu menentukan fokus permasalahan serta memahami permasalahan dengan memberikan bukti atau alasan, mampu menentukan strategi untuk menyelesaikan masalah. (2) siswa KKR yaitu cenderung memahami permasalahan walaupun tidak berusaha menghimpun informasi yang tersedia terlebih dahulu sebagai langkah awal menemukan penyelesaian, tidak lupa mereka juga menyertakan bukti atau alasan, selanjutnya menentukan strategi yang digunakan untuk menyelesaikan masalah. Proses *execution* dalam menyelesaikan masalah matematis (1) siswa KKT yaitu mampu menyelesaikan masalah sesuai rencana, mampu menjelaskan atau menginterpretasikan hasil sesuai rencana. (2) siswa KKS dan KKR yaitu mereka cenderung hanya mampu melakukan dengan baik pada tahap menyelesaikan masalah sesuai rencana dan mereka cenderung merasa kesulitan pada saat harus menjelaskan atau menginterpretasikan hasil sesuai rencana. Proses *revision* dalam menyelesaikan masalah matematis siswa KKT, KKS dan KKR yaitu mereka hanya mampu jastifikasi terhadap kebenaran jawaban dan masih kesulitan saat memeriksa kebenaran jawaban.

Kata Kunci: *Planning*, *Execution*, *Revision*, Pemecahan Masalah, Kemampuan Kognitif, Luas Persegi Panjang

ABSTRACT

Desy Eka Puspito Rini. (1803627). Analysis of Planning, Execution and Revision Processes in Solving Mathematical Problems Viewed by Students' Cognitive Abilities.

This study aims to formulate a theory related to the planning, execution, and revision processes in solving mathematical problems in terms of students' cognitive abilities. This study used a qualitative approach with a grounded theory design. The research subjects were 28 students of junior high school class IX in Subang who had studied the rectangular area material. From the research results, it was concluded that there were some aspects of the planning process in solving mathematical problems such as: (1) KKT and KKS students were able to collect the available information, were able to determine the focus of problems, comprehended the problems by providing evidence or reasons, and were able to determine strategies to solve the problems. (2) KKR students tended to understand the problems even though they did not try to collect available information before as a first step to find solutions, they were capable to include evidence or reasons, and determine the strategies used to solve the problems. In the execution process in solving mathematical problems it was concluded that (1) KKT students were able to solve problems according to plan, they were also able to explain or interpret results according to plan. (2) KKS and KKR students only afforded to do well in solving the problems according to plan step, and they disposed to find it difficult when they had to explain or interpret the results according to plan. In the revision process in solving the mathematical problems of KKT, KKS and KKR students indicated that they were only able to justify the correctness of the answers and still have difficulties in checking the correctness of the answers.

Keywords: Planning, Execution, Revision, Problem Solving, Cognitive Ability

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