

**ANALISIS KEMAMPUAN *COMPUTATIONAL THINKING* SISWA
DALAM MENYELESAIKAN MASALAH MATEMATIS
PADA MATERI SISTEM PERSAMAAN LINEAR DUA VARIABEL
DITINJAU DARI *SELF-REGULATED LEARNING***



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**PROGRAM STUDI PENDIDIKAN MATEMATIKA
FAKULTAS PENDIDIKAN MATEMATIKA DAN ILMU PENGETAHUAN ALAM
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Sarjana Pendidikan (S.Pd) pada Program Studi Pendidikan Matematika

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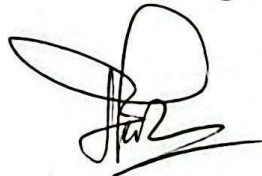
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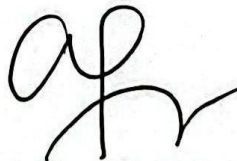
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ABSTRAK

Nisa Novita Ardina Putri (2104896). Analisis Kemampuan *Computational Thinking* Siswa dalam Menyelesaikan Masalah Matematis pada Materi Sistem Persamaan Linear Dua Variabel Ditinjau dari *Self-Regulated Learning*.

Di era globalisasi dan digitalisasi abad ke-21, keterampilan pemecahan masalah menjadi salah satu kompetensi penting yang harus dimiliki siswa untuk menghadapi perkembangan zaman. Namun, hasil survei *Programme for International Student Assessment* (PISA) menunjukkan bahwa kemampuan pemecahan masalah siswa di Indonesia masih tergolong rendah. *Computational thinking* merupakan pendekatan pemecahan masalah yang mencakup berpikir sistematis, analitis, serta penyusunan solusi berbasis algoritma. Salah satu faktor yang dapat memengaruhi kemampuan ini adalah *self-regulated learning* (SRL), yaitu kemampuan siswa dalam mengatur proses belajar secara mandiri. Penelitian ini bertujuan mendeskripsikan kemampuan *computational thinking* siswa SMP dalam menyelesaikan permasalahan matematis pada materi Sistem Persamaan Linear Dua Variabel (SPLDV) ditinjau berdasarkan tingkat SRL yang tinggi, sedang, dan rendah. Metode penelitian yang digunakan adalah kualitatif dengan pendekatan studi kasus. Subjek penelitian adalah siswa kelas VIII di salah satu SMP Negeri di Kota Bandung, dengan instrumen berupa tes kemampuan *computational thinking*, angket SRL, dan pedoman wawancara. Hasil penelitian menunjukkan bahwa siswa dengan SRL tinggi mampu memenuhi seluruh indikator *computational thinking*. Siswa dengan SRL sedang hanya memenuhi indikator dekomposisi, sementara indikator pengenalan pola, berpikir algoritma, dan abstraksi belum terpenuhi sepenuhnya. Adapun siswa dengan SRL rendah hanya mampu memenuhi indikator dekomposisi, sedangkan pada indikator pengenalan pola belum terpenuhi sepenuhnya, dan pada indikator berpikir algoritma serta abstraksi tidak tercapai.

Kata kunci: *Computational Thinking*, *Self-Regulated Learning*, Sistem Persamaan Linear Dua Variabel.

ABSTRACT

Nisa Novita Ardina Putri (2104896). *Analysis of Students' Computational Thinking Ability in Solving Mathematical Problems on the Topic of Two Variable Linear Equations Reviewed from Self-Regulated Learning.*

In the era of globalization and digitalization in the 21st century, problem-solving skills have become one of the essential competencies that students must possess to face contemporary challenges. However, the Programme for International Student Assessment (PISA) surveys showed that Indonesian students' problem-solving abilities were relatively low. Computational thinking is a problem-solving approach that involves systematic, analytical, and algorithmic processes in designing solutions, and one of the factors that may influence this ability is self-regulated learning (SRL), which refers to students' capacity to manage their own learning processes independently. This study aimed to describe the computational thinking abilities of junior high school students in solving mathematical problems on the topic of Linear Equations in Two Variables (SPLDV), viewed from high, medium, and low levels of SRL. The research employed a qualitative approach with a case study design. The subjects were eighth-grade students at a public junior high school in Bandung, and the instruments included a computational thinking test, an SRL questionnaire, and interview guidelines. The results reveal that students with high SRL are able to meet all computational thinking indicators, students with medium SRL only fulfill the decomposition indicator while the indicators of pattern recognition, algorithmic thinking, and abstraction are not fully achieved, and students with low SRL only meet the decomposition indicator, with pattern recognition partially achieved, and algorithmic thinking as well as abstraction not achieved at all.

Keywords: *Computational Thinking, Self-Regulated Learning, Linear Equation System of Two Variables*

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