ABSTRAK

Satria, O.I., 2022, Analisis Kesalahan Siswa Dalam Memecahkan Soal HOTS Ditinjau dari Gaya Kognitif Siswa, Universitas Muhammadiyah Semarang. Pembimbing: I. Eko Andy Purnomo, M.Pd., II. Abdul Aziz, M.Pd.

KEMENDIKBUD menyebutkan 40% siswa kesulitan menjawab pertanyaan yang membutuhkan daya nalar tingkat tinggi pada Ujian Nasional 2018. Hasil PISA tahun 2018 Indonesia berada pada peringkat 72 dari 78 negara dalam bidang matematika. Semakin rendah kemampuan siswa dalam bidang matematika maka semakin tinggi kesalahan-kesalahan yang dilakukan siswa. Kesalahan biasa dilakukan oleh siswa, namun jika tidak diminimalisir akan menjadi kebiasaan buruk bagi pendidikan di Indonesia. Tujuan penelitian ini untuk mendeskripsikan kesalahan-kesalahan yang dilakukan siswa dalam memecahkan soal HOTS ditinjau dari gaya kognitif siswa. Gaya kognitif merupakan karakteristik siswa dalam menerima, mengolah, serta merepresentasikan suatu informasi. Subjek pada penelitian ini yaitu siswa kelas IX SMP N 1 Batangan. Penelitian ini menggunakan metode deskriptif kualitatif. Instrumen pengumpulan data pada penelitian ini menggunakan tes soal HOTS, wawancara, GEFT, dan angket dengan tahap reduksi data, penyajian data, dan penarikan kesimpulan. Analisis kesalahan pada penelitian ini menggunakan teori Newman. Hasil penelitian menunjukan seluruh siswa tidak melakukan kesalahan pada tahap membaca serta persentase kesalahan siswa dengan gaya kognitif *field dependent* yaitu kesalahan memahami masalah 42%, kesalahan transformasi 50%, kesalahan ketrampilan proses 61%, dan kesalahan penulisan jawaban akhir 68%. Sedangkan persentase kesalahan siswa dengan gaya kognitif *field independent* yaitu kesalahan memahami masalah 33%, kesalahan transformasi 47%, kesalahan ketrampilan proses 58%, dan kesalahan penulisan jawaban akhir 67%. Perbandingan persentase kesalahan terbesar antara siswa *field dependent* dan *field independent* adalah pada tahap kesalahan memahami masalah yaitu 9% lebih besar siswa *field dependent* daripada siswa *field independent* sehingga berpengaruh pada kesalahan tahap selanjutnya. Demikian dapat disimpulkan siswa *field dependent* dan *field independent* melakukan kesalahan pada tahap memahami masalah, transformasi, ketrampilan proses, dan penulisan jawaban akhir namun dari tahap kesalahan tersebut siswa *field dependent* lebih banyak melakukan kesalahan dibandingkan dengan siswa *field independent*. Berdasarkan kesimpulan tersebut peneliti memberikan saran untuk beberapa pihak khususnya untuk peneliti selanjutnya, setiap siswa tidak dapat terlepas dari kesalahan baik siswa *field independent* maupun *field dependent* dengan demikian penelitian mengenai kesalahan penting untuk dikembangkan agar dapat mengetahui keberhasilan pembelajaran yang dilakukan.

Kata Kunci : Kesalahan, HOTS, Gaya Kognitif, Newman

ABSTRACT

Satria, O.I., 2022, Analysis of Student Errors in Solving HOTS Questions in View of Students' Cognitive Style. Thesis, Mathematics Education Study Program, University of Muhammadiyah Semarang. Advisor: I. Eko Andy Purnomo, M.Pd., II. Abdul Aziz, M.Pd.

The Ministry of Education and Culture stated that 40% of students have difficulty answering questions that require a high level of reasoning in the 2018 National Examination. Indonesia's 2018 PISA results are ranked 72 out of 78 countries in the field of mathematics. The lower the students' ability in mathematics, the higher the errors made by students. Mistakes are usually made by students, but if they are not minimized, they will become a bad habit for education in Indonesia. The purpose of this study was to describe the errors made by students in solving HOTS questions in terms of students' cognitive style. Cognitive style is a characteristic of students in receiving, processing, and representing information. The subjects in this study were grade IX students of SMP N 1 Batangan. This study used descriptive qualitative method. The data collection instruments in this study used HOTS test questions, interviews, GEFT, and questionnaires with the stages of data reduction, data presentation, and drawing conclusions. The error analysis in this study uses Newman's theory. The results showed that all students did not make mistakes at the reading stage and the percentage of students' errors with field dependent cognitive style were errors in understanding the problem 42%, transformation errors 50%, processing skills errors 61%, and writing errors in the final answer 68%. While the percentage of students' errors with field independent cognitive style are 33% misunderstanding the problem, 47% transformation error, 58% process skill error, and 67% final answer writing error. The comparison of the largest percentage of errors between field dependent and field independent students is at the stage of understanding the problem, which is 9% greater for field dependent students than field independent students so that it affects the error in the next stage. Thus, it can be concluded that field dependent and field independent students made mistakes at the stage of understanding the problem, transformation, process skills, and writing the final answer, but from the error stage, field dependent students made more mistakes than field independent students. Based on these conclusions, the researcher provides suggestions for several parties, especially for further researchers, each student cannot be separated from the errors of both field independent and field dependent students, thus research on errors is important to be developed in order to determine the success of the learning carried out.

Keywords: Error, HOTS, Cognitive Style, Newman