

Analysis Of Mathematical Critical Thinking Ability of Vocational School Students Based on Cognitive Style and Initial Mathematical Abilities

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ABSTRACT

Critical thinking ability is a process where we have to make rational, logical, systematic and well thought out judgments and critical thinking ability is one of the main aspects of mathematics learning that students need, however students' critical thinking ability is still low as proven by the Program for International Student Assessment (PISA) in 2022. The aim of this research is to determine the results of the analysis of students' critical thinking abilities based on cognitive styles, namely field independent and field dependent and initial mathematical abilities. The type of research used is descriptive qualitative, namely producing descriptive data in the form of words which are the meanings of an event. The subjects of this research were 6 students of class from the critical thinking ability category, the student's cognitive style is then determined, namely whether it falls into a category with a field independent cognitive style or a field dependent cognitive style. The data collected is in the form of tests, student response questionnaires and interviews. The findings of this research are currently in the research process and this research can provide more in-depth information regarding the results of vocational school students' mathematical critical thinking abilities based on cognitive style and initial mathematical abilities.

Keywords: Critical Thinking Ability, Cognitive Style, Initial Mathematical Ability

