ABSTRACT

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This study aims to analyze students' spatial thinking processes in the material of flat sided spatial shapes in terms of Van Hiele's thinking level. This research is a qualitative research with explorative method. Data collection techniques were selected through the Van Hiele thinking level test, spatial thinking tests and interviews. The instruments in this study were researchers, questions on the Van Hiele thinking level test and questions on the spatial thinking test. The taking of the subject of this research was carried out in a purposive way, namely students who were able to work on the Van Hiele thinking test questions in stages from level 0 to level 2, students who were able to work on level 0 questions and fulfilled the category were then given level 1 test questions, then students who able to work on level 1 questions given level 2 questions and categorized into level 0, level 1, level 2 as well as students in each level category who answered the spatial thinking test questions without seeing right or wrong. The subjects of this study consisted of three class VIII C students at SMPN 1 Panjalu at level 0 (visualization), level 1 (analysis) and level 2 (informal deduction) at the Van Hiele thinking level. Data analysis techniques used include data reduction, data presentation and drawing conclusions. The results of the study concluded that the visualization subject's spatial thinking process was dominated by the accommodation process, while the informal analysis and deduction subject was dominated by the assimilation process, but the visualization and analysis subject experienced an imbalance in the thinking process marked by the visualization subject being wrong in calculating the surface area of the hall, besides that both did not concluded the relationship formed from the comparison of the surface area and the ratio of the volume of the roof, while the subject of informal deduction answered the questions correctly so that there was a balance. The three subjects described the geometrical nets and gave accurate information from the visuals. Judging from the process of spatial thinking, based on Van Hiele's level of thinking, the three subjects were able to describe a spatial object accurately as seen from the visuals, but the visualization subject had not been able to understand the nature and elements and relationships of a spatial object. The subject of informal analysis and deduction understands the nature and elements of a geometric object, the subject of informal deduction can conclude the relationship between a geometric object, while the subject of analysis cannot conclude the relationship that is formed between geometric object

Keywords: Spatial Thinking proccess, assimilation, accommodation, Van Hiele level