Analysis of Metacognitive Ability of D4 Informatics Engineering Students in Thesis Preparation Using Fuzzy Tahani

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ABSTRACT

This research aims to analyze the metacognitive ability of D4 Informatics Engineering students in thesis preparation using the Fuzzy Tahani method. The measurement was conducted using the Metacognitive Awareness Inventory (MAI) questionnaire, which covers two parameters: Knowledge of Metacognitive and Regulation of Metacognitive, with a Likert scale of 1–5. From a population of 150 students, 60 samples were taken using random sampling technique with a 10% margin of error. Data were analyzed through a fuzzification process of the Knowledge of Metacognitive and Regulation of Metacognitive values, and then the metacognitive ability level was determined using Fuzzy Tahani queries. The analysis results showed that out of 60 students, 17 students (28,3%) were classified as having high metacognitive ability and 43 students (71,7%) as moderate, with no students in the low category. The web-based system developed for this measurement was tested using Black Box Testing (100%) and User Acceptance Test (UAT) with a result of 86%, indicating that the system functions well and is accepted by Users.

Keywords*: Metacognition, MAI, Fuzzy Tahani, Thesis, Informatics Engineering*