Determining students' higher thinking skills profile Using creative problem-solving model indicators Integrated with predict-observe-explain

ABSTRACT

This study intends to investigate the profile of students' higher-order thinking skills through the model integration of Creative Problem Solving Predict-Observe-Explain (CPSPOE). Data collection was carried out both quantitatively and qualitatively (mixed method). The mixed method sequential explanatory design consisted of two distinct phases: quantitative and qualitative. In this design, the researchers first collected and analyzed quantitative (numeric) data, then proceeded with qualitative data to help decipher the quantitative results. Using a purposive sampling technique, the research sample used two junior high schools in the city of Bengkulu to determine the experimental and control classes in each school based on the average academic scores before the study. The research instrument was a high-level thinking cognitive test in the form of 10-item test items describing the interaction of living things with their environment. The results of student scores on the test were analyzed using the MANOVA significance test and obtained a p-value <0.05, meaning that there is a significant influence on classifying, problem-solving, generating hypothesizing, and decision-making. Based on the CPSPOE model reference, which is integrated with a complete and interactive sequence of learning stages that can facilitate students to be involved in efforts to train higher-order thinking skills and can effectively activate students, being facilitated by teachers, complex social systems are considered practical and easy to implement to train high-level thinking skills. This study concludes that the sequence of learning stages of the CPSPOE model can be effective in improving classifying, problem-solving, generating hypothesizing, and decision-making skills for junior high school students' high-level thinking skills.