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EFFECTIVENESS OF 5E-FLIPPED CLASSROOM IN FACILITATING HIGHER ORDER THINKING SKILLS IN LUNAR AND SOLAR ECLIPSES AMONG YEAR 6 PUPILS

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Abstract
Previous studies and government documents made it abundantly evident that implementation of astronomy in primary-level especially in the context of the Malaysian curriculum comes with several challenges and concerns. Topics such as Lunar and solar eclipse in year 6 are intangible and can be hard for children to visualize. Furthermore, cognitive development at the primary level is often not mature enough to grasp such abstract concepts easily. In line with that, the aim of this research is to study the effectiveness of 5E-Flipped Classroom approach on tendency of students to acquire High Order Thinking Skills (HOTS) focusing in astronomy related topics. The basis of theoretical foundation of the study is based on Constructivist Theory by Vygotsky views. It is a quantitative study, data collection was obtained through questionnaires, which were distributed randomly to students selected from Bangsar zone Kuala Lumpur. The data obtained from the research will be analysed using descriptive and inferential statistics. The objective of this study is the 5E-Flipped Classroom enhance students' HOTS in the dimensions of problem solving, critical thinking and creative thinking. The items measured in the questionnaire are also evidence that the 5E-Flipped Classroom strategy impacted students to use the technology and proclivity to communicate and cooperate with peers, contributing to students' engagement. Mixed method which are quantitative and qualitative data collection methods will be the focus of the research. Therefore, this study concluded that students can acquire HOTS in astronomy topics by integrating an appropriate pedagogical approach.

Keywords: 5E-Flipped Classroom, Astronomy, Engagement, High Order Thinking Skills

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