

The impact of geography information system integrated teaching on underachieving students' intrinsic motivation

ABSTRACT

Research shows that the number of Malaysian upper secondary school students electing geography as a study choice and their achievement level in the subject has declined. One reason appears to be a lack of motivation to study geography. However, limited research has been conducted to explore the impact of geographic information system (GIS) integrated teaching on underachieving geography students' intrinsic motivation. The current study applied a mixed-method model to investigate this issue. Quantitative data were gathered through a quasi-experimental design, while qualitative data were collected through interviews with students. The treatment group included 44 students, with a control group of 40 students. A unit on type and distribution of world vegetation with GIS-integrated lesson material was given to the treatment group students. The same material was presented to the control group using conventional teaching methods. The quantitative data analysis revealed that the post-test mean score for intrinsic motivation among the experimental group student participants was significantly higher than that of the control group. The interview analysis results were consistent with the quantitative findings. The triangulation of the quantitative and qualitative data revealed that GIS-integrated teaching had a significantly positive impact compared to conventional teaching methods in enhancing participants' intrinsic motivation.