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ABSTRACT

This study aimed to evaluate the effectiveness of the Experiential-learning Approach in enhancing the development of scientific literacy of students in Biological Science (NSCS002).

A total of 62 students participated in the study. They were divided into two sections and each section was randomly assigned to either the Traditional Lecture method (TLM) or the Experiential Learning Approach (ELA) group. The researcher employed the Experiential-learning Approach (ELA) in teaching the topics in Biology to the students in the ELA group while the Traditional Lecture Method (TLM) of teaching that involved lecture was used in the TLM group.

The improvement in the three dimensions of scientific literacy and skills of the students in both groups was determined through the use of the pre-post Scientific Literacy Test. The t-test was conducted to determine any significant difference in the performance of the students in both groups. The results, however, were triangulated with Jourdan writing and interview.

The study found out that the posttest score of the ELA group was computed to be 32.7% higher than the mean score of the TLM and is significant at $p = 0.05$. In terms of the level of scientific literacy, 61% of the population in ELA group achieved personal constructivism after the intervention while there was none in the TLM group. It was also the ELA group that showed more progress in the achievement of different skills. These results may imply a greater improvement in the retention and understanding of biological concepts among the students in the former than in the latter group. The results underscore the fact the ELA has an edge over TLM.