

Improvement of foundation student performance in biology through intensive station based learning approach

ABSTRACT

A growing revolution is underway in teaching introductory science to foundation studies. Recent educational research explains that traditional teaching approaches in large classes often fail to reach many students. To address this problem, we conducted an intensive station rotation-based workshop called “Bio Made Easy” for a group of students who obtained F grade in the first Biology assessment, N = 120. The workshop was designed to improve students’ understanding of selected Biology topics by providing simple examples, analogy, and explanation of the concept using various active and interactive approaches. The goal was to change the students’ perception of biology and deliver the content within a short period of time. The students were divided into small groups and required to complete all stations conducted by different instructors. For each station, students were directed to perform activities that required them to actively participate, interact, and discuss among the group members. A comparison was made between their performance during the first test and the second test of the semester. From F grade in the first test, about 88.3% of the students accomplished higher performance grades in the test 2 assessment. This reflects an encouraging sign that active-learning practice and direct engagement of students in the station rotation-based learning approach improve student performance in biology subject and serve as one of the strategies to motivate students for better grades.

Keyword: Biology; Station rotation based learning; Grades improvement; Interactive; Intensive workshop; Science education