

Relationship between Learning Methods and Learning Outcomes: Focusing on Discussions in Learning

Authors : Jaeseo Lim, Jooyong Park

Abstract : Although there is ample evidence that student involvement enhances learning, college education is still mainly centered on lectures. However, in recent years, the effectiveness of discussions and the use of collective intelligence have attracted considerable attention. This study intends to examine the empirical effects of discussions on learning outcomes in various conditions. Eighty eight college students participated in the study and were randomly assigned to three groups. Group 1 was told to review material after a lecture, as in a traditional lecture-centered class. Students were given time to review the material for themselves after watching the lecture in a video clip. Group 2 participated in a discussion in groups of three or four after watching the lecture. Group 3 participated in a discussion after studying on their own. Unlike the previous two groups, students in Group 3 did not watch the lecture. The participants in the three groups were tested after studying. The test questions consisted of memorization problems, comprehension problems, and application problems. The results showed that the groups where students participated in discussions had significantly higher test scores. Moreover, the group where students studied on their own did better than that where students watched a lecture. Thus discussions are shown to be effective for enhancing learning. In particular, discussions seem to play a role in preparing students to solve application problems. This is a preliminary study and other age groups and various academic subjects need to be examined in order to generalize these findings. We also plan to investigate what kind of support is needed to facilitate discussions.

Keywords : discussions, education, learning, lecture, test

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