

## **Promoting Deep Learning among First-Year Undergraduate Medical Students Using Journal Articles**

K.N. Nilmini\* and K.J. Wijesinghe

*Department of Biochemistry, Faculty of Medicine,  
Sabaragamuwa University of Sri Lanka, Hidellana, Ratnapura 70012, Sri Lanka  
\*nadeesha@med.sab.ac.lk*

Students who engage in surface learning tries to commit information into memory using rote learning. Deep learning involves comprehension of underlying concepts, patterns, or meanings of a given learning task while promoting development of analytical and critical thinking skills. With surface learning, students' accomplishments are often limited to recalling and reproducing. Hence the objective of this study was to engage students in deep learning. The study was conducted as a cross-sectional survey involving 75 undergraduates from the Faculty of Medicine, Sabaragamuwa University of Sri Lanka. Briefly, the lesson was divided into two sessions and at the first session, students were provided with two journal articles to read and summarize. Summarization required students to participate in deep learning by allowing them to tie new information from the articles to their prior knowledge. In the second session, a discussion among students was facilitated on how this new information can be incorporated to manage health and wellbeing of themselves and their close communities. Data were collected using a self-administrated online questionnaire and simple descriptive analysis was used to analyze data. Fifty six percent students agreed that learning activity demonstrated how the subject concepts are translated into clinical scenarios and 57% have tried to expand on these concepts by adopting lifestyle changes and/or by advising their close communities based on new information they have learned. Fifty eight percent students have agreed that learning activity motivated them to seek an in-depth understanding of the subject than memorizing it. Data suggested that the learning activity was successful in promoting deep learning. Therefore, we intend to continue this learning approach as an effective method. The minority of the negative responses were likely due to student's preference for passive assimilation of information and their reluctance to engage in deep learning due to the belief that it increases their workload.

**Keywords:** Deep learning, Journal articles, Self-administrated, Surface learning