Transforming Disengaged Computing Students to Active Learners by Peer-Evaluated Case Study

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Abstract

It is a common experience for a teacher that the majority of students remain silent or passive when attending lectures or even participating in small group activities. The level of activeness in class is observed to be even worse for science discipline students due to the possibility of their shy personality. As academic engagement plays an essential role in achieving learning outcomes, how to create a positive and inclusive learning environment that motivates students remains a challenge for every university teacher (Hockings, Cooke, Yamashita, McGinty, & Bowl, 2008). This paper explores the effectiveness of peer-evaluated case study as a key methodology for evoking such kind of learning environment.

Peer evaluation is the educational arrangement which involves students giving and receiving feedback on each other's work (Pearce, Mulder, & Baik, 2009). While previous literature focused on the reflective nature of this kind of assessment, this study emphasizes its role in engaging students and creating an active learning environment.

This peer-evaluated case study approach was developed in a subject during 2014/15. Other than reading, discussing and sharing in a normal case study class, students are required to create their own cases and take responsibility for assessing their classmates' learning of their cases. This new approach was implemented in a class of 75 computing students. Data collected in a post-class survey demonstrated students favoring this new approach and this enhanced their motivation towards their learning. A further investigation of the reported narrations reveals the positive correlation between the changes in the teaching approach and students improved engagement. Students naturally favor a learning environment resembling the real-world experience and making sense of their life. Living in a culture of "create, share, re-use", students in this subject have the autonomy and ownership of their own learning, and thus become more enthusiastic and motivated. Co-creation of the learning environment is also one key element contributing to the success. Playing the role of both learner and assessor, students together create an active and collaborative learning atmosphere transferring personal understanding to socially identified knowledge through a process of sharing and negotiation.

References

Hockings, C., Cooke, S., Yamashita, H., McGinty, S., & Bowl, M. (2008). Switched off? A study of disengagement among computing students at two universities. *Research Papers in Education*, 23(2), 191-201.

Pearce, J., Mulder, R.A. & Baik, C. (2009). *Involving students in peer review: case studies and practical strategies for university teaching*. Centre for the Study of Higher Education, University of Melbourne.