

## Perceptions of Collaborative Learning outside of class – is there a link to deep, surface or strategic learning styles?

Galina Limorenko, Andrew M. Shore and Stephen M. Rutherford, *School of Biosciences, Cardiff University*

Self-directed independent learning is a fundamental activity for undergraduate students and forms the basis for learning in HE. However, little is known about the approaches undergraduate students take towards independent learning. In particular, there is very little research into the extent to which students collaborate with each other outside of structured classroom environments. Collaborative learning (CL) is a powerful learning approach, with evidence for beneficial outcomes in structured learning. However, evidence for student engagement with CL outside of structured learning is limited.

Using a mixed-methods approach, this study aims to identify prevalent trends in student attitudes towards CL, and highlight associations between perceptions of CL and learning styles (deep, surface or strategic). The ASSIST questionnaire<sup>1</sup> was used to identify learning styles in a sample of 527 undergraduate students. The learning strategies were tested for correlations to student preferences for individual or collaborative study environments, as well as perceptions of the validity of individual versus collaborative learning. The survey suggested a statistically significant preference for solitary learning over learning in pairs or small/large groups. There was significant correlation between surface learners with a preference for group study, and deep learners with a preference for solitary study, however, correlations were weak. Students perceived value of solitary, pair-wise and group learning equally, despite preferring to engage in solitary study for their own learning. A qualitative analysis using a Grounded Theory approach was undertaken of 33 structured interviews with Year 1 undergraduate students. 3 themes developed: Firstly, students strongly preferred solitary-based study approaches, with the language used to describe studying being highly egocentric. Secondly, there was considerable reluctance to engage in group-based learning activity, with the fear of being distracted from studying an almost ubiquitous concern. Thirdly, students recognised the value of working with others, though this perceived value was focused primarily on peers verifying and supporting individual learning.

These findings suggest that solitary study is the preferred study approach for undergraduate students, and that the reasons for this are likely to be strategic in nature, focusing on efficiency of study time. These findings also suggest that CL, despite being proven to increase impact and efficiency of learning, is not adopted voluntarily by students. These findings have implications for HE institutions in the support and development of student study skills.

1. Entwistle, N. and McCune, V. (2004). *Educational Psychology Review* 16: 325-346.