IMPLEMENTING AND EVALUATING ONLINE META-LEARNING COMMUNITIES TO ENCOURAGE THE DEVELOPMENT OF LEARNING SKILLS IN FIRST YEAR STUDENTS

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Introduction

The transition from secondary to tertiary education is fraught with challenges for students (Kantanis, 2000; van der Meer, Jansen, & Torenbeek, 2010). University students need to cope with changing academic expectations surrounding independent learning, time management and levels of academic challenge. Therefore, there is a need for students to re-assess the efficacy and efficiency of their learning strategies when transitioning to university, and it is imperative that the meta-cognitive skills required to evaluate learning are taught explicitly (Krause, 2005). This study evaluated the use of online meta-learning communities to encourage students to reflect on the development of their learning skills through collaboration within a social context.

Methods

First year anatomy and physiology students participated in online meta-learning communities as part of their course assessment. In previous iterations of the course students completed four 'individual' meta-learning tasks, each consisting of six questions completed individually through Blackboard as a short answer test. Meta-learning questions were aimed at encouraging students to think about their learning to date, their learning strategies, and possible changes to strategies leading up to exams. Students received a small percentage (2-3%) towards their overall grade for completing each task. In the current project, students self-allocated to a 'meta-learning blog' containing up to five students. Students posted selected answers to meta-learning questions on the group blog, and subsequently reflected on their peer's blog responses as part of the next meta-learning task. Responses to selected meta-learning questions from consenting students (n=194; 78%) were subsequently analysed for research using inductive thematic analysis.

Results

After sharing their learning strategies with group members in the first meta-learning task, students were prompted in the second meta-learning task to reflect on the usefulness of their peer's strategies for their own study routine leading up to the mid-semester exam. Of the 177 students who responded to this question, 88% identified new strategies they could incorporate. In the final meta-learning task, students were asked about the impact of the meta-learning communities on their learning. Of the 171 students who responded to the question, 86% indicated that the task had at least one positive impact on their learning, 2% indicated that the task had a negative impact by taking up time, and 18% reported a neutral impact on their learning. Students could report a combination of positive, negative and neutral impacts. The most frequent positive impacts included 'identifying new strategies' (n=60), 'sharing ideas on learning' (n=33) and 'identifying effective or efficient strategies' (n=31). The most frequently reported neutral impact was 'already aware of learning strategies' (n=10). Thirty-four students provided suggestions for future improvements, including making the task 'more interactive' (n=9), providing 'more shared content questions' (n=8) and 'increasing the group size' (n=8).

Conclusions

The results from this study suggest that many first year students are still refining their learning strategies as they transition to university. The meta-learning communities prompted students to consider new learning strategies by providing a scaffolded, social environment for sharing strategies with each other online.

References

Kantanis, Tanya. (2000). The role of social transition in students': adjustment to the first-year of university. *Journal of Institutional Research, 9*(1), 100-110.

Krause, Kerri-Lee Dawn. (2005). Serious thoughts about dropping out in first year: Trends, patterns and implications for higher education. *Studies in Learning, Evaluation, Innovation and Development, 2*(3), 55-68.

van der Meer, Jacques, Jansen, Ellen, & Torenbeek, Marjolein. (2010). It's almost a mindset that teachers need to change: first-year students' need to be inducted into time management. *Studies in Higher Education, 35*(7), 777-791.

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