

Student perceptions and use of pre-specified criteria in constructing complex concept maps in physiology

Roger W. Moni, Eileen Beswick, Alex Forrest and Karen B. Moni, School of Biomedical Sciences The University of Queensland, St. Lucia, QLD 4072, Australia.

Constructing quality assessment criteria can be challenging, especially when used for integrated, group-centred, applied learning. In this paper, we describe a project investigating the development and use of criteria in a collaborative assessment task (weighted as 6%). The task involved groups (four students in each) from Second-Year Dentistry working to construct a complex concept map. The students were given a written, simulated, medical history of a patient and were required to construct a concept map illustrating relevant pathophysiological concepts and pharmacological interventions. This paper describes the second phase of this research project aimed at making educational goals of the task more explicit through investigating student and staff understandings of the criteria. The findings from the first phase (Moni, Beswick & Moni, 2005) were used to revise the assessment criteria for the task with the aim of making them more accessible to learners. The new criteria used adopted the language of both staff and students to more clearly represent expectations of each criterion and standard. The new criteria were used for the first time in 2005.

This paper presents data from a cohort survey undertaken to determine students' perceptions about the concept map and the criteria. In addition, two groups of student volunteers were videotaped during a regular, three-hour workshop as they worked to draw their concept map. The aim of this was to capture student interactions as they constructed their concept maps with the support of the new criteria sheet.

Survey data were analysed using non-parametric methodologies. Differences in students' opinions about the assessment task were identified and mapped against their final mark awarded for the task. Evidence was found that for some groups, attitudes towards the assessment task played a role in influencing their final mark. Transcripts were developed from the videotapes and these were analysed using two complementary approaches. First, an inductive strategy was adopted to define emergent categories of behaviour. Second, a deductive strategy was used to explore student behaviours according to how they aligned with principles of effective learning. Most students reported that they found the criteria sheet useful in completing the group concept map. This was more the case for students who had not used a criteria sheet before. However, there was little other evidence (e.g. from video recordings) that most students actually used the criteria sheets to guide the construction of concept maps. Our conclusion was that students perceived the criteria sheet as being more useful for lecturers to mark their work, rather than as a tool to enhance their own learning.

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