Developing a questionnaire to assess interdisciplinary project management skills

Alongside the disciplinary knowledge and skills that make up the core of higher education programmes students are also expected to learn “transversal” or “21st century” skills, including creativity and innovation, collaborating and communicating effectively, working in interdisciplinary teams, and taking personal and social responsibility. One challenge with integrating these skills into higher education curricula is measurement. Hargreaves has described assessment as the tail that wags the curriculum dog: being able to measure whether students develop these skills is likely to be crucial to their successful implementation in curricula.

The paper discusses the development and the validation of a questionnaire aimed at assessing interdisciplinary project management skills. As such it specifically covers questions related to challenges of organising group and project work, and how to address them.

The structure of the paper is as follows. Section 1 presents the context and rationale for developing the questionnaire. It builds on programs and learning experiences in which students need to apply project management skills. Section 2 describes the initial development of the questionnaire. It was developed based on a systems framework for teaching and analysing project management, but the assessment of its validity and reliability demonstrated that there were some differences between the students’ implicit conceptions of project management and those which emerged from the literature. Section 3 describes the development of a second iteration of the questionnaire drawing on the analysis from version one. Section 4 discusses the initial results following the iteration. It presents some data from the administration of the questionnaire to a new sample.

The final section reflects on the overall process and and maps out the following steps in terms of validation and use of the questionnaire as a tool for effective integration of 21st century skills in higher education curricula.


