Chapter X
Designing, Implementing and Evaluating a Self-and-Peer Assessment Tool for E-Learning Environments

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ABSTRACT

There is considerable evidence of student scepticism regarding the purpose of team assignments and high levels of concern for the fairness of assessment when all team members receive the same grade. This chapter considers online self-and-peer assessment (SAPA) as a fair, valid and reliable method of assessing team processes and individualising grades. A pilot study is detailed that evaluated an online self-and-peer continuous assessment (SAPCA—a particular form of SAPA) tool originally developed for small classes of architecture students. The tool was adapted for large classes of up to 1,000 business communication students in a semester. The student sample trialling SAPCA studied on three dispersed campuses, as well as in off-campus and off-shore modes. The chapter proceeds from a literature review of SAPA, to a description of findings from four years of research, testing and development, and finally to a case study of SAPCA implementation with a total of 1,800 students enrolled in a business communication program.
INTRODUCTION

How can students be helped to develop teamwork skills at university and how can instructors assess these skills? During four years of researching these questions at an Australian university, focus has sharpened on the development of an online Self-and-Peer Continuous Assessment (SAPCA—a particular form of self-and-peer assessment) tool allowing for the individualisation of grades in teamwork assignments. Research has examined three interconnected areas: fair assessment, formative assessment, and reflective learning. Studies have involved diverse course cohorts, ranging from eighty to close to 1000 students, drawn from two faculties: a faculty of Science and Technology and one of Business and Law. Three courses offered in three degree programs have tested the SAPCA model. In one, around 1800 students enrol in a course offered in two semesters each year, on three campuses, in off-campus mode and at two offshore partnership campuses. Up to fourteen different members of staff are involved in the delivery of this unit at any one time, with uniform teaching materials and a strict comparability of assessment protocol. Approximately 60% of the cohort comprises full-fee-paying, International students, primarily from South East Asia, China and the Indian Sub-continent. Team compositions in this cohort can range from monocultural teams consisting Caucasian Australian same-gender students with English as their first language, to mixed-sex multicultural teams where the majority of students have English as a second language. It could be said that the SAPCA model has been piloted under the most testing of educational conditions. What follows is a synopsis of our findings; starting with a literature review, moving on to a description of the findings from four years of researching, testing and developing SAPCA, and finally to a case study of the SAPCA model tested in 2007 by way of the 1800 student, two-semester Business and Law course described above.

BACKGROUND

The reasons for the use of student teamwork in the completion of assessment tasks are many (Fermelis, 2006). It is posited that teamwork can lead to an improvement in student learning (James, McInnis, & Devlin, 2002). This improvement might be due to one or more of the following factors: the development of social behavioural skills and higher order thinking skills as well as promoting inclusive participation (Cohen, 1994); the development of critical thinking skills (Dochy, Segers, & Sluijsmans, 1999; Gokhale, 1995; Sluijsmans, Dochy, & Moerkerke, 1999); moving students from a passive to more active learning role (McGourty, Dominick, & Reilly, 1998); the ability to tackle more substantially-sized assessment projects (Goldfinch & Raeside, 1990); or that students learn from their peers within the team (van den Berg, Admiraal, & Pilot, 2006). It is also commonly identified that teamwork can develop skills that are sought by employers (Clark, Davies, & Skeers, 2005; Goldfinch & Raeside, 1990; Hanrahan & Isaacs, 2001), especially a range of non-technical ‘generic’ skills (James, et al., 2002; McGourty, et al., 1998), including interpersonal skills (Goldfinch & Raeside, 1990) and the capacity for lifelong learning (Hanrahan & Isaacs, 2001). Teamwork is cited as being more representative of the real world of work in a professional practice context, and, for students from the design-based disciplines, ideas and experience can be combined collectively for a superior result (Barber, 2004). Finally, used appropriately, student teamwork is one option for addressing issues related to rising student numbers in higher education (Ballantyne, Hughes, & Mylonas, 2002; Goldfinch & Raeside, 1990; James, et al., 2002), including: the expanding demand for physical resources in assessment (Brown, 1995); increasing student-to-staff ratios (Davies, 2000); and the drive from governments and other funding bodies for increased efficiency in higher education (Hanrahan & Isaacs, 2001).