Self and peer assessment in groupwork using TeCTra

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The ability to assess the work of others is a core attribute for professionals. To develop this graduate attribute in our students requires the learning of self and peer evaluation, feedback, review and assessment skills. The poster presents a self and peer assessment tool - TeCTra **Te**am **C**ontribution **Tra**cking – that is being developed, implemented and evaluated with a 2006 Carrick Institute Priority Grant and disseminated within Australia in the second half of 2008.

Through the poster we are interested in identifying pilot-testers amongst the Ascilite community for Autumn Semester 2008.

In many disciplines higher education courses include significant capstone subjects involving projects that require large student teams. When facilitating peer assessment with a holistic approach (Schechtman 1992; Schechtman and Godfried 1993) the common assessment strategy for groupwork of allocating the same or almost the same mark to all team members (Rosen 1996; Lejk and Wyvill 2001; Kennedy 2005) is not adequate as the project tasks are extensive, the teams are large in number (more than 4 members), extend for the whole semester and groupwork can constitute 100% of the final student assessment. The subject coordinator has limited opportunities to observe and assess the complex group and teamwork dynamics that are taking place. A peer-assessment strategy is required which is ideally formative, diagnostic and summative (Goldfinch 1990; Gatfield 1999). This ideal has been difficult to achieve (Lejk and Wyvill 2001; Li 2001) and remains as an important and unresolved feedback and assessment issue.

Peer assessment has been shown to support not only students learning but also improve their understanding of the assessment processes themselves (Bloxham and West 2004). Peer assessment is also required to assess individual contributions to group assignments (Johnston and Miles 2004). The development of the evaluation, feedback and review skills required to peer assess these complex teamwork processes is a key learning objective of such large project-based capstone subjects. These are skills every professional should possess and be able to use for different purposes. It is also important for the novice professional to experience being on the receiving end of peer-reviews and assessment and to learn to benefit from any feedback received.

Peer-assessment for assessing individual contributions to groupwork is controversial not only because it can produce ‘unreliable’ results caused by the inexperience of the student assessors and often by rather undifferentiated marks (Kennedy 2005). Also the labour intensive processes the subject coordinators have to administer are problematic (Clark et al 2005). This paper addresses these concerns and presents a peer-assessment strategy and online tool for the peer-identification of students’ individual contributions in large groupwork-based capstone subjects.

The presented learning and teaching strategy and online tool requires the students to rate and comment on each other on a weekly basis. This task is informed and supported by evidence of the work done and outcomes achieved by each student. The strategy creates a formative, diagnostic and summative assessment environment in which the students can learn the skills of peer-assessing their peers using quantitative ratings and qualitative comments. This peer-assessment strategy has delivered greater differentiation of student marks than those reported in the literature and experienced by the authors in the period before the introduction of the TeCTra online tool. The online tool and system for data collection, presentation and calculating contribution factors has released the subject coordinator from the enormous work otherwise required to process any similar paper-based strategy.

TeCTra provides visibility of individual efforts and outcomes. Apart from time records collected in the earlier system, TeCTra also records deliverables produced. While rating their team members, the students are presented with all the individual results produced in the week being assessed. It ensures that the rating process is evidence-based.

TeCTra supports peer evaluation, feedback and review – both a quantitative rating and qualitative comment – throughout the duration of the project and thus formatively and positively influences individual contributions and behaviours within the team. This improved capacity for peer-review facilitates diagnostic attributes and thus significantly influences the overall project management process and outcomes.

TeCTra supports the development in students of the ability to evaluate, give feedback, review and assess the work of others, to make professional judgments, to articulate well-justified decisions and to communicate in a non-confrontational manner to their peers – core skills and graduate attributes for most novice professionals. Knowledgeable yet inexperienced individuals are supported to act professionally and take responsibility for and accept the consequences of their own contributions to large groupwork projects.

TeCTra is relatively simple for the students and the staff to operate and avoids complexities and additional work that present in other online tools (Clark 2005). The online tool's user-friendliness is important as increasing academic teacher workloads leave minimal time for the administration of elaborate self-and-peer assessment methods and tools (Fisher 1999).

There is still a question about whether TeCTra produces marks that do reflect the true individual contribution of each team-member. The students are not under obligation to use TeCTra contribution factors for their peer-mark allocation and indeed the majority of groups choose not to use the TeCTra contribution factors. Yet there has been no return to the previous practice of allocating marks close to an equal distribution. It has to be concluded that the online tool did make the difference. It seems to have changed the group dynamics although the mechanisms behind that are not quite clear and will be investigated through student usability evaluations in future research.

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