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Abstract 3D

Using Active Feedback to develop Professional Software Engineers Skills

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Professional software engineers need to be able to effectively and succinctly communicate with clients, managers and other developers through specification and design documents. Such documents contain technical writing along with explanatory diagrams. Mistakes, errors or omissions, at this point in the process, can lead to poor/wrong solutions and costly fixes. To develop the professional skills of software engineers in terms of both reporting and critically assessing such reports, we introduced peer feedback into the assessment process. This was supported by: (i) exemplar feedback on their own reports by staff each week, (ii) a list of questions/points to critical assess in peer reports, then once they had performed/received the feedback (iii) time to reflect and then respond to feedback provided, and perhaps crucially (iv) the opportunity to actively address the feedback (where the incentive was that their revised report was remarked so they could gain lost marks).

In 2010/2011, we ran the course with 91 students (masters and level 3)[1], where the students formed 19 groups and produced 19 reports of varying quality. Each student was asked to review 2 reports, so each report received 8-10 reviews[2]. The initial reports received 60% on average, while the resubmitted reports improved to 74% on average. We argue that the improvement comes from the “active” nature of the feedback, where the students needed to respond to the feedback, applied it, and then resubmit their work. While this appears to be the case, there were a number of other issues that arose from a survey conducted, which are worthy of discussion. They include how the students, developed an appreciation of the difficulty of assessing/critically appraising work, felt that providing feedback was more useful, than receiving it, and by reviewing reports this improved their learning experience. However, there was also problems associated with the introduction of peer feedback, i.e. controlling the quality of feedback and the perceived authority of peers to give feedback (which actually resulted in outright rejection of the peer feedback despite its intrinsic validity).

[1] The courses titles were Distributed Information Management 3, and Internet Technology (M), but they run as a combined course. See the course handbook for details of the assessments and the process along with the guidelines to students on reviewing: http://dl.dropbox.com/u/382885/iTech-DIM3/iTech-DIM3_Course_Handbook.pdf

[2] The system used to collect peer feedback was Aropa, see: http://www.dcs.gla.ac.uk/~hcp/aropa/index.html for further details.

Outcomes

- Appreciate the complexities of introducing Peer Feedback - Identify the key

requirements for the successful adoption of Peer Feedback - Explain the disadvantages and advantages of Peer Feedback