

Do Students Know Best?

Experiences of allowing students to become course designers.

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1. Introduction

Computing departments are in an exclusive position to utilise students, as it is the nature of the subject area that ensures students have both the knowledge of the course material and the ability to develop resources for online environments. They have greater computer literacy levels than peers in other domains and can adapt the skills learnt through their curriculum to the context of online resource creation for education.

2. The team

The development team consisted of four developers and a learning technologist. Four out of the five members of the team had actually been students on the face to face version of the first year programming course being re-developed, with the fifth member being representative of the advanced entry students that the new online course was aimed at helping. An agile project management methodology called SCRUM [1] designed for software development was implemented.

3. Course Development

The team concluded that the course must not only consist of self explanatory content, but the content should be structured to provide an engaging learning environment [2]. They worked on rewording and elaborating on the original content to make it more instructive. Interactive content was identified as being central to motivating and engaging online learners [3] and a framework of interactive elements were designed, centring on the learning outcomes of the module. Numerous different learning technologies were incorporated. Additional tools also allowed various different formats (visual, audio, kinaesthetic,

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read/write) to be available for students to use or ignore, according to their individual learning styles.

4. The Results

There have been seven successful runs of the Java Online course, and it is now accredited by the university and is worth 20 Scotcat points to participants upon successful completion. The project appears to have had a positive impact on the development team and has led each of them to further involvement in elearning activities.

The experiences of this project have led to observations of relevance for other institutions and course development projects:

- SCRUM can be used as an effective methodology for managing a project with student employees.
- Students must be given the freedom to re-work existing course materials, and overcome the 'initial loyalty' felt towards the materials lecturers taught them with.
- Computing students are well equipped to advise on the structure of online courses and materials, as they represent the target user group the materials will be aimed at. The digital generation work differently online and materials should be matched to their expectations.
- Students can offer valuable insights based on first hand experience of learning the material you are trying to teach. Knowledge of the learning processes involved can lead to intuitive decisions on how best to present and teach topics.
- The advanced technology skills of computing students can be utilised for the creation of re-usable learning objects.
- Online course creation cannot be constrained by conventional teaching if it is to succeed. Learning online is a different experience and process to attending face to face classes. Involving students in course design is one way of ensuring 'fresh thinking'.

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