



Collaborative learning technologies

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Half day. Maximum participants 30. Intended audience: course instructors in any discipline; no particular expertise required.

Objectives To guide instructors in the use of the Aropä (peer-assessment) and PeerWise (student-generated Multiple Choice Questions (MCQs)) systems, giving sufficient detail for competent and confident independent use.

Activities Contributing student pedagogy (CSP) encourages students to contribute to the learning of their peers and to value the contributions of their peers (Hamer, et al., 2008). This workshop will explore the challenges and benefits of using CSPs, introducing two existing systems that support its use: in peer-assessment and in student-generated MCQs.

Introduction. Brief discussion of the nature and benefit of CSPs..We expect that participants will contribute to this discussion by describing CSP methods that they use.

Peer-assessment. Brief introduction to peer-assessment, including a discussion of when it is appropriate, and student learning advantages..Participants will be encouraged to think of an appropriate use of peer assessment in one of their own courses.

Defining a peer-assessment assignment. Different strategies and parameters for peer assessment; allocation of author-reviewer pairs (e.g. anonymity, self-review, streams). Demonstration of these features in Aropä..Participants will make their own strategy choices with respect to their own courses.

Choosing an appropriate rubric. Different possible types of rubric and consequences for students' learning and grades. Example rubrics in Aropä.. Participants will design their own rubric for their assignment

The student view. Demonstration of the student view, with respect to uploading and checking submissions, and reviewing. Viewing the assignment in the role of a student; checking the ongoing progress of the submissions and reviews..

Survey of student opinion. Using Aropä to gather comments from students about the use of the system after the peer-assessment exercise. .

Quality control: rating the reviews. Demonstration of how instructors can give all reviewers a rating, as a way of ensuring quality control.. Participants will consider a rubric to use for rating reviewers.

Calculating grades. Demonstration of different methods for assigning student grades, based on marks given by the student reviewers, and reviewer ratings. Eliminating 'rogue' reviewers.. Participants will discuss the criteria on which they would eliminate reviewers.

Aropä wrap-up. Includes participants' comments or questions.

Student-generated assessment questions. Introduction to the learning benefits of students' creating questions, and in particular, multiple choice questions.

Creating an empty repository. Options for setting up a PeerWise repository and granting students access. .Participants will consider which option would be most appropriate for their local context.

MCQ authoring, answering and evaluating. Familiarity with the interface for writing questions, as well as answering and evaluating questions. .Participants will

author questions of their own and share them with other participants in a special workshop repository.

Monitoring student activity. Overview of the administrator interface, including tracking student participation.. Several ideas for required student activity will be discussed and participant suggestions are welcome.

General discussion and questions. It is expected that the participants will have questions, suggestions, and examples of CSP from their own practise. Any that have not been addressed by this stage in the workshop will be discussed at its conclusion.

Participants will be provided with printed user manuals for both systems. A testing database will be set up in advance for participants to use in setting up test assignments; this will include some example assignments, and will remain available to participants for at least six months after the workshop.

While participants will be encouraged to design their own peer-assessment assignment during the Aropā session, they will not be expected to set it up online. Doing so (especially for the first time) can take considerable time. It is preferable for participants to be shown the full range of Aropā options, rather than focus on the actual use of the technology and the details of defining rubrics. Participants who have wireless laptops may set up a live online assignment during the workshop if they wish.

We do not intend to present our research results on the educational benefits of the use of these technologies (as these have been published elsewhere), but will refer to them as appropriate.

About the presenters

John Hamer is a Senior Lecturer in Computer Science at the University of Auckland, where he has worked since completing his PhD in 1989. His interest in education research began in 2004, when he developed the Aropā peer assessment system. He has also been involved with a number of multi-institutional, multi-national studies in Computer Science education and contributing-student pedagogy. He holds a Postgraduate Certificate in Academic Practice from the University of Auckland, and has received a Distinguished Teaching Award from the University of Auckland.

Paul Denny (MSc) is a Senior Tutor at the University of Auckland, and has been teaching large introductory classes in both the Science and Engineering faculties since 1999. He designed the internationally acclaimed PeerWise tool in 2007. Paul has been the recipient of numerous teaching awards, including a New Zealand Tertiary Teaching Excellence Award in 2009.

Helen Purchase is a Senior Lecturer at the University of Glasgow, and a Visiting Researcher at the University of Auckland. She has a PhD in Computer Science from the University of Cambridge (1992), in the area of Intelligent Tutoring Systems. She holds a Postgraduate Certificate in Education (Higher Education) from the University of Queensland, where she was a recipient of a University Teaching Excellence Award in 1999.

Aropā is regularly presented to participants in the University of Auckland Postgraduate Certificate in Academic Practice. Several research publications arising from both systems have been presented at international conferences.

References

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Websites

Aropä: <https://aropa.ec.auckland.ac.nz/>

Peerwise: <http://peerwise.cs.auckland.ac.nz/>