



Randomized Quiz System

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## Mathematics Quizzes

At Macquarie University the Mathematics Department has been developing<sup>1</sup> a web-based system for producing quizzes which allow students to test their knowledge of mathematical ideas required in the courses that we teach. Currently these quizzes are used mainly at the most elementary level, for revision of the basic skills which the students should have acquired from mathematics courses at high school.

### Examples

- **Basic Math Skills:** MATH130, examples
- **Discrete Math Quizzes, with answers:** MATH237

<sup>1</sup>This project has received funding via a 'Targeted Flagship Grant' from the Center for Flexible Learning, Macquarie University, and the Division of Information and Communication Sciences, Macquarie University as well as an equipment grant from Apple Computer, Australia Pty Ltd, via the Apple Universities Consortium.

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## Training not Testing

The aim of the quizzes is not so much for assessment as for self-testing and practice of material covered previously in lectures or back at school. Why use quizzes?

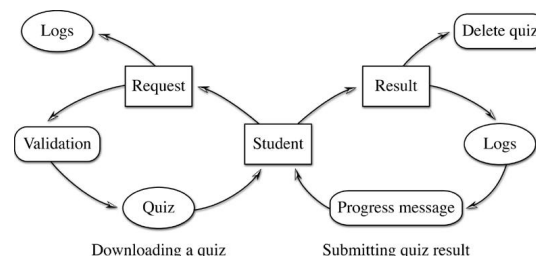
For various practical reasons, related to the students ...

- **wide range in ability and mathematical background;**
- **not their main area of study, so need to identify holes in their mathematical knowledge;**
- **several years since last studied any mathematics;**
- **maybe only a refresher course may be needed;**
- **insufficient staff to help every student.**

The quizzes can be used by students to **identify for themselves** where they are weak and may need to seek the extra help that *can* be provided.

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## Student Interaction



When a student requests a quiz, the identity is first validated; if authorized, a quiz is sent to the student's browser. A record is kept of all request details.

After completing the quiz, submitted results are recorded in the student's log and in the overall quiz log. A personalized message concerning the student's progress is returned as FDF data. This appears in a form field at the end of the PDF quiz document.

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