

Learning and Teaching Conference 2012

Abstract 3B

A Case Study of Summative Assessment Methods and Feedback in Chemistry

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A case study was carried out over three years in which three different methods for delivering Class Tests in 2nd Year Chemistry were developed and critically compared. Throughout the year, Chemistry 2 students have to sit multiple Class Tests, which contribute 15% of their final assessment. These class tests are delivered to 200-300 students, which cause a great burden on staff to administer, deliver and mark. The traditional paper-based exam format was modified into an electronic Moodle based test and also into a test using Intelligent Character Recognition (ICR) based software. Over four years, the methods have been critically compared in this case study by assessing:

- Average class exam results between the three methods;
- Impact on final examination results;
- Improved learning experience for the students;
- Ease and speed of formative feedback to the students;
- Teaching efficiency for staff; and
- Overall student satisfaction.

The methodology used to explore these issues includes the quantitative comparison of results, analysis of feedback questionnaires and the use of focus groups to assess best practice. The general merits and disadvantages of each method will be compared and conclusions for future practice in Chemistry will be developed. Further innovations and plans for future developments will also be discussed.

Outcomes

-Recall and evaluate three approaches to conducting class tests for a large class. - Critically reflect on the relative merits of the various technologies developed to run the tests as well as to provide feedback to the students. -Reflect on the results of the study to identify transferable elements to improve current practices.