A UQ Assessment Brief on “Improving feedback in large classes: application of task evaluation and reflection instrument for student self-assessment (TERISSA) in a unit on business statistics”

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All previous ‘briefs’ in this series are available on the TEDI website at: http://www.uq.edu.au/teach/assessment/resources.html#briefs

This paper was presented at a session I attended at the recent annual ATN Assessment Conference at RMIT. I found it an original and feasible approach to engaging students from large classes in the assessment process.


The full paper is available online through the conference website. http://emedia.rmit.edu.au/conferences/index.php/ATN/ATNAC09/paper/view/135/26

All peer-reviewed papers from the 2009 conference can be viewed at http://emedia.rmit.edu.au/conferences/index.php/ATN/ATNAC09/schedconf/presentations

Keywords
student feedback, self-assessment, reflection, staff feedback, large classes

Abstract

This paper presents findings and lessons learnt from the implementation of Task Evaluation and Reflection Instrument for Student Self-Assessment (TERISSA) in a unit on Business Statistics with over 500 students enrolled, which was conducted in semester one of 2009. Four out of six unit tutors used TERISSA in their tutorials, involving 231 students in the application of TERISSA. It has been found that students who used TERISSA gave an overall higher Good Teaching Scale (GTS) score in the formal RMIT Course Experience Survey (CES), than the students who did not use TERISSA. Students who used TERISSA during three tutorial tests also achieved significantly better marks in their final examination. Results of additional staff and student surveys revealed that by employing TERISSA, the unit coordinator and the tutors were able to gain valuable feedback on students' progress in the unit. Over 40% of the surveyed students agreed that TERISSA has helped them to identify the learning areas that required their immediate consideration. Furthermore, a perceptible shift in student attitude on the issue of whether the lecturers/tutors or the individual students are responsible for the feedback on learning has been identified. Lessons learned as well as ideas on how to use TERISSA in large classes effectively are also discussed in this paper.

The focus of this study differs from many other approaches in the literature in that the metacognitive assessment tool - Task Evaluation Reflection Instrument for Student Self-Assessment (TERISSA) - is employed by students both before and after completing a task.

First, the reflection process requires students to evaluate the complexity of an assigned problem prior to attempting it. Using a simple template (appended to the paper) students rate the problem...
using a five-point scale that ranges from ‘Very easy’ (1) to ‘Very difficult’ (5). Students then briefly explain why they have not evaluated the problem as one level less difficult.

After completing the problem students again rate its complexity using the same five-point scale. They are then asked to explain:

- why they have not evaluated it as one level more difficult
- any discrepancies between their original and final ratings
- actions that will help them approach similar problems with more confidence in future.

The authors (citing a previous study) argue that the reason TERISSA works is that ‘thinking is stimulated when a discrepancy between the initial and final evaluations of the task complexity level occurs. This discrepancy makes the students experience ‘a state of doubt, hesitation, perplexity and mental difficulty in which thinking originates’ (Dewey 1933 cited in Belski 2009). Earlier studies had suggested that this metacognitive, self-assessment process was considered a useful learning process by engineering students in that it provided immediate feedback and was helpful in identifying knowledge gaps. In addition the use of TERISSA led to improvement in Good Teaching Scales (GTS) scores.

The study reported in this paper compared the outcomes of first-year Business Statistics students utilising TERISSA (treatment group) with those who did not (control group). The paper provides quite detailed information about the methodology employed – timing of the evaluation, process used, data collection from staff and students and so on.

Results of the study showed a statistically significant improvement of student performance in examinations when TERISSA was used, a result consistent with literature that argues that reflection leads to improvement of learning outcomes. GTS scores also improved for the treatment group. The investigation of mixed reactions from some staff and student groups suggested improvements that could be made to the implementation process. These included:

- ensuring that all tutors have opportunities to gain an understanding of the theoretical underpinnings of the process and how to explain its use and benefits to their students
- encouraging tutors and lecturers to enhance feedback quality by sharing selected student responses with class groups
- more fully utilising TERISSA as a formative assessment and feedback tool.