An evaluation of the use of interactive approaches and integrated on-line resources.

Summary: The article discusses aspects of approaches taken to increase engagement using interactive teaching elements and includes survey results from consecutive sets of student cohorts who have trialled resources contained in an Electronic Student Toolkit for Engagement in Engineering Mathematics under development at the University of Leeds. The survey results show strong support for the inclusion of a range of interactive approaches for improving engagement. Further to this, a summary of results from a quantitative study comparing engagement with an out-of-lecture online teaching and assessment tool, when used both as a formative tool and a summative tool, is included. These results demonstrate that there can be substantial engagement by students with online formative assessment tools when students feel it is integral to their course. Furthermore, engagement can be further improved when a small summative mark is associated with each task (with over 91 percent of the cohort actively engaging).

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