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Making lectures more interactive – a student's informed view and an academic's implementation

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Introduction

Background: the challenges and opportunities in teaching

- There is an increasing move within HE to transcend from traditional teacher-focused, didactic teaching to more student-focused methods that actively engage students in the learning process, such as enquiry-based learning (Hutchings, 2006). The reason for this move is in order to better promote student success and produce graduates with transferable skills (Healey, 2005; Land and Gordon, 2008).

- However, simultaneously there are also increasing student numbers and greater demands on academics' time, in terms of teaching ever-more students while maintaining a scholarship profile.

⇒ Thus, it is important to develop and implement ways of teaching that can simultaneously serve large numbers of students while more actively engaging them in the learning process.

⇒ One such method could include making large-scale lectures more interactive.

The aims of the current project

1. To ascertain methods of making lectures more interactive, and so more student-focused, based on pedagogical literature and students views and experience of teaching in lectures.

2. To implement activities in lectures and evaluate their impact on learning.

A student's informed view on making lectures more interactive – how to do it & why

- An undergraduate student (second author) was employed (Pritchard et al., 2008) to consider the merits of both traditional lecturing and interactive lectures and so ascertain if the trend towards interactive lecturing is justified.

Methods

- Engage with recent relevant pedagogical literature on traditional and interactive lectures;
- Solicit the views of interactive lectures from both staff and students.

Conclusions

- Interactive lectures are a superior way to teach and encourage learning (e.g. Gulpinar & Yegen, 2005; Michael, 2006), because:
  - Different activities can help the student focus and refocus their attention to the topic (Gulpinar and Yegen, 2005);
  - They can encourage active learning, group learning, and deeper processing of material (Copper, Robinson and Ball, 2006) instead of rote learning;
  - They can provide immediate feedback to the lecturer on students' comprehension of material (Strinert and Snell, 1999).

Strategies for making lectures more interactive

- Tell students at the start of the lecture what they are meant to learn – engages students with lecture content.

- Think-Pair-Share: students asked to think about a question, then discuss with partner, then discuss with another pair - allows students to discuss each others' ideas and correct each other.

- Minute paper: at end of lecture, students asked to take 1min to answer question(s) about the lecture – encourages students to keep attention high during the lecture, and provides feedback to lecturer re: learning.

- Public Response System: students vote or answer closed multiple choice questions - can be used stimulate discussion, and provides immediate feedback to lecturer re: students' views/comprehension.

- Real-time use of ICT: lecturer and students communicate over wireless LAN during lecture, e.g. students ask questions, respond to questions or give feedback by composing a MMS message and sending it to the lecturer – encourages student participation and allows seeking of clarification during learning.

Implementation and evaluation of interactive methods

Comprehension questions

- On the basis of these recommendations, some small-scale interactive activities (e.g. comprehension questions for discussion in pairs) were introduced into Cognitive Psychology lectures for Level 3 students at the start of the academic year. As students move to honours the course becomes more difficult and therefore requires escalated engagement in their learning, thus it is important to support this transition.

Evaluation

- These activities were evaluated in terms of whether students engaged with the questions, whether the questions supported students' learning of lecture content and assisted with re-focusing of attention.

	1	2	3	4	5	mean
How often did you engage with the comprehension questions and activities that were introduced in the lecture?	Never / 1	Not very often / 10	About half of the time / 21	Most of the time / 48	Always / 15	
When you engaged with the comprehension questions and activities, did you do this on your own or with people around you?	Always on own / 4	Mostly on own / 10	Sometimes on own, sometimes with other people / 28	Mostly with other people / 28	Always with other people / 22	
To what extent were the comprehension questions and activities easy/difficult?	too easy / 1	11	74	8	too difficult / 0	2.9
Whose responsibility is it, do you think, to answer the comprehension questions and activities in the class?	lecturer's / 8	11	38	21	student's / 17	3.3
To what extent was it helpful to go over the answers to the comprehension questions and activities in the class?	not very useful / 0	2	12	48	very useful / 33	4.2
To what extent were the comprehension questions and activities useful?	not very useful / 2	4	16	61	very useful / 12	3.8
How useful were these questions in engaging you with the learning process itself?	not very useful / 0	7	19	50	very useful / 19	3.9
How useful did you find these questions for reflection after the lecture, in assisting you with your studying?	not very useful / 2	13	29	41	very useful / 10	3.5
How useful was taking part in these activities in helping you retain the lecture content more effectively?	not very useful / 3	6	22	48	very useful / 16	3.7
Overall, to what extent do you think it is a good idea to include comprehension questions and activities in lectures?	not very good idea / 0	6	10	38	very good idea / 41	4.2
How useful was the change in focus (from lecture to interactive) in making it easier to concentrate on the second half of the lecture?	not very useful / 3	3	17	33	very useful / 39	4.1

Discussion

- The evaluation results show that students engaged with the interactive activities (comprehension questions) in lectures, and valued them in terms of encouraging engagement with learning, discussion with peers, consolidating learning, and changing the lecture pace.

- Comments from students also suggested that the comprehension questions were useful to students' self-assessment of comprehension of lecture content, and that feedback from peers was helpful in this.

- Nevertheless, there is still scope to improve the interactive activities in order to further engage students and promote active learning.

- Overall, it seems that introducing interactive activities into lectures might be one way to combat the problem of how to better engage students in more active learning within the constraints of large-scale teaching methods.

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