# Student Perceptions of Lecture Quality (A work in progress)

#### Colin Kestell

The School of Mechanical Engineering, The University of Adelaide colin kestell@adelaide.edu.au

# **Dorothy Missingham**

The School of Mechanical Engineering, The University of Adelaide dorothy.missingham@adelaide.edu.au

Abstract: In 2006 the authors analysed the effective use of humour in engineering lectures (Kestell and Missingham 2006) and concluded that appropriate humour was an extremely valuable tool to employ for a multitude of reasons that all improved the students' learning experience. While the survey had a primary focus on the use of humour, it also indicated that students had a number of significant concerns, criticisms and opinions regarding the overall quality of some lectures.

A similar yet more comprehensive study was therefore undertaken in 2007 to determine how students perceived and evaluated the quality of lectures and where they believed strengths, weaknesses and opportunities for improvement existed.

Students at both level 1 and level 3 were quantitatively and qualitatively surveyed. While the results were unsurprising in that students believe that there are both good and bad lectures as well as good and bad teachers, the results of the presentation of the findings may help both new and existing lecturers alike provide a more positive learning experience for their students.

This paper is presented as a work in progress with a more detailed analysis of the data planned for the near future

# Introduction

There is wide recognition that to help promote the students' cognitive development, the focus must remain on what is being learnt rather than what is being taught (Scott et al 2003). An ideal learning environment encourages collaborative knowledge transfer and development between the teacher and the scholar and the student must not simply be regarded as a passive sponge, ever ready to absorb what is preached (Smith et al 2005). The students' ultimate comprehension of the subject matter, rather than the week by week incremental regurgitation of the curriculum must therefore be the goal of each and every teacher.

The lecture hall is a less than ideal environment for such a process to occur, or to evaluate if the learning process is occurring during the communication of the subject matter. However, with an increasing student population it remains the only viable option to convey large quantities of information to large groups of students within extremely densely packed curricula. Lecturers must therefore ensure that they maintain the interest of the students throughout the duration of a lecture and in doing so the students are more likely to become fully engaged in the learning experience. This in turn will encourage participation and interaction when it is sought and will improve the students' overall satisfaction with the course and assists in their personal development (Astin 1993). This therefore gives rise to the question "what makes a good lecture and what makes a bad lecture?" Or, more pertinently, what can a lecturer do to ensure that students recognise their lectures to be of high quality? If the goal is to improve the students' perception of quality then it is the opinion of the students that should be sought in order to achieve this.

In 2006 the authors examined existing research on effective teaching practices, the psychology or learning and the physiology of learning and then complimented this with their own research to

Proceedings of the 2007 AaeE Conference, Melbourne, Copyright © C. Kestell & D. Missingham, 2007

conclude that humour is an effective tool to increase the enjoyment factor of an engineering lecture and hence improve the sometimes stressful learning experience of engineering students (Kestell and Missingham 2006). While their level-3 student survey was primarily focused on the students' appreciation of appropriate humour, the significant student bipolar responses to the numerous 'true/false' statements also revealed dissatisfaction with the overall quality of lectures and that those students had constructive ideas on how engineering lectures might be improved. This implied the need for a more comprehensive student survey and analysis to provide guidelines for improving lecture quality from the students' perspective.

The following sections therefore detail the logic and method of the research, the results that were revealed and a conclusion on how lecturers might consider their overall approach to teaching.

# **Method**

The survey was conducted via the students' on-line education tool "MyUni". It was divided into a quantitative and qualitative section so that data could be compiled towards assessing the general opinion of the student populous whilst also allowing individual comments to exemplify the opinions of the majority. Two year levels (Level-1 and Level-3) were canvassed to establish if there were differing opinions between more experienced and less experienced engineering students.

The first quantitative section of the survey presented students with a number of provocative statements to which they either agreed or disagreed (True or False). While this did not provide an opportunity for broad open ended responses it did provide a statistical indication for the opinion of the general student body. The questions that were asked are shown with their respective statistical results in Table 1. The second qualitative section encouraged students to provide written answers to a number of broad-based, open ended questions to qualitatively elaborate upon the findings of the first section. The questions included:

- 1. What motivates you to attend a lecture?
- 2. What do you believe is the most important aspect of a lecture?
- 3. When you have left a good lecture, what generally makes you conclude it was a "good" lecture?
- 4. When you have left a bad lecture, what generally makes you conclude it was a "bad" lecture?
- 5. What annoys you the most about lectures?
- 6. What do you enjoy the most about lectures?
- 7. What percentage of your lectures are wastes of time? And why?
- 8. What is the most significant improvement you would like to see?
- 9. Do you learn the most through lectures, practicals, tutorials, completing assignments or through independent research?
- 10. What are the most important attributes of a good lecturer / teacher?

Students were not harassed to complete the surveys and were simply asked and reminded once that they please consider completing them. While this approach probably resulted in fewer respondents, it was believed that it minimised the influence of a nuisance element upon the results.

#### Results

Forty eight out of one hundred and eighty level-1 engineering students and thirty five out of one hundred and sixty five level-3 students completed the survey and the statistical results of the are presented in Table 1. While it would be thorough to also present the entire results of the second qualitative part survey, the comprehensiveness of each participating students' response to every question, resulted in a body of data far too large to effectively and cohesively present within the context and constraints of this paper. Many of the respondents wrote multiple answers to each question at length. Therefore, only a small pertinent selection of these results that are representative of the common opinion are used to qualitatively compliment the statistical results of the survey. In addition

to the multitude of students' written statements, a number also felt compelled to provide more elaborate comments via email. The following section therefore presents a discussion of these results in which student quotes are shown in italic.

### **Discussion of Results**

Motivated students accept that they play an important role in the quality of own education and one student in particular states:

"Keeping the interest level in a lecture is my responsibility. It does not depend on outside influences. I am committed to pay attention and have an interest in the lectures that I attend. I think outside influences such as disruptions, or if the lecture is difficult to understand is no excuse for a student to loose interest."

While this is an admirable statement from an obviously conscientious student, the student goes on to state that:

"Outside influences are annoying, and can reduce the efficiency and effectiveness of learning"

The slight contradiction in the latter part of the statement reveals that even the most diligent student becomes frustrated by aspects of their learning environment. While this particular student clearly wants to be interested in all that they are taught, the level of interest in the subject and the effectiveness of the learning environment is a responsibility of the teacher, the lecturer or the facilitator. Students stated that they like to attend lectures when "the subject is interesting", when there is "interesting content that stimulates learning" and when "the lecturers are reasonably interesting and know their stuff".

From Table 1 it can be seen that nearly all of the students that responded agreed that it is important for them to remain interested in a lecture and that it is far easier to concentrate in an interesting lecture.

Regardless of a student's commitment to learn, it is therefore essential to maintain student interest by creating a positive learning environment and every care must be made to ensure that the subject matter is made to be interesting. The subject matter however is not sufficient to retain interest, with only a few students agreeing that their own interest in the subject matter was sufficient for them to remain attentive. The lecturer therefore must endeavour to make it interesting, regardless of the subject and accept that it is their responsibility to do so. Most students agreed that it is difficult to learn even the easiest of subjects in a boring lecture and that they will quickly loose interest through boredom. Students also agreed that a lecture on a boring subject can be made interesting by a good lecturer which reinforces the idea that level of interest in a lecture remains the responsibility of the lecturer, rather than being an inevitable outcome of the subject. Lectures and lecturers can also soon establish a reputation as is reflected by the fact that students have preconceived ideas about whether they are likely to be interested in a particular lecture.

Subjects that are obviously harder for the general populous of students to comprehend demand that they do concentrate harder. Once their concentration is broken, it becomes very difficult to get back on track and many students 'tune-out'. What was interesting was that considerably more Level-3 students 'tune-out' than Level-1 students, implying that students' tolerance diminishes with their experience. This concept is further substantiated by the fact that more Level-3 students than Level-1 students only do what needs to be done to get good grades and also loose interest more readily for a number of other reasons.

Organisational skills also play an important aspect. While most students lose interest with an unorganised lecturer, Level-3 students once again show less tolerance. One of these students equates poor organisational skills to laziness and states "a lazy lecturer means poor lecturing, poor lecture notes, poorly written exams, poor assignments etc". Good organisational skills with a clear lecture structure, a roadmap, a logical flow that is easy to follow, the use of application examples and a variation in delivery format will all help to maintain the students' interest (Cannon and Newble, 2000).

Students believe that "Communication between student and lecturer" is an important aspect of learning. They want the" lecture material to be presented clearly and concisely" and they want

lecturers to be heard and understood. In the words of one student "it sucks for those at the back, especially if there are heaps of people there". Most of these students quickly lose interest if they can not hear or understand their lecturer. The ability to see or read the slides is also considered to be important and once again the Level-3 students were less tolerant of shortfalls in this aspect of a lecturers presentation and communication skills.

Table 1: Results of the survey "What Makes a Good Lecture or Lecturer"

#	Table 1: Results of the survey "What Makes a Good Lecture Statement	% Agree		Diff.
		Level	Level 3	>10%
1	Maintaining interest in a lecture is important in order to grasp concepts.	100%	97%	
2	It is easier to concentrate in an interesting lecture.	100%	97%	
3	My attention in a lecture is proportional to my preconceived interest.	59%	64%	
4	Interest in the subject matter alone will keep me concentrating.	12%	9%	
5	It is difficult to learn (even easy subjects) in a boring lecture.	85%	91%	
6	I lose interest in a boring lecture.	97%	100%	
7	A lecture on a boring subject can be made interesting by a good lecturer.	97%	97%	
8	I sometimes tune out in a difficult lecture.	71%	85%	14%
9	I have left a lecture that has been too difficult	6%	12%	
10	I lose interest with an unorganised lecturer.	79%	94%	15%
11	A well organised lecture is easier to follow	100%	100%	
12	I am ONLY interested in what I NEED to do to get good grades.	12%	24%	12%
13	I lose interest if I can not hear the lecturer.	88%	94%	
14	I lose interest if I cannot read the slides	65%	79%	14%
15	I lose interest if the lecturer can not speak clear English.	68%	70%	
16	I lose interest if I can not see the lecture material.	68%	85%	17%
17	I lose interest in a disruptive class.	79%	73%	
18	Being too strict can make it unpleasant.	71%	88%	17%
19	I enjoy a lecturer who effectively controls the attention of the whole class.	97%	100%	
20	Lecturers need to relate to the students perspective (empathise) more so.	74%	88%	14%
21	Most lecturers aim a lecture at our level of understanding.	88%	61%	28%
22	Lecturers often assume we know more than we do.	41%	67%	25%
23	Expert lecturers need to spend more time considering the divide between their knowledge and the students'.	71%	82%	11%
24	If a lecture is made to be enjoyable it will help to keep my interest.	100%	100%	
25	I am more likely to enjoy a lecturer who enjoys teaching.	97%	97%	
26	If a lecturer enjoys the lecture, I'm more likely to as well.	91%	94%	
27	Humour helps to establish rapport with the lecturer.	100%	100%	
28	'Smokescreen' humour is obvious and awkward	82%	73%	
29	Good humour shows a lecturer's comfort and reinforces my opinion of their expertise	91%	100%	

It is also obvious that a lecturer must bring far more to a lecture than the content of the curriculum when a number of students wrote remarks similar to this example: "Some lecturers just read from the lecture slides in parrot form". Students also have observed lecturers "droning on in a monotone". They've experienced "Lecturers rushing through because they don't want to be there or have somewhere better to be". All of these observations provide the student with a clear indication of the lecturer's interest and they are likely to reciprocate with similar levels of interest.

One student wrote: "Lecturers who ignore noise and talking during their lecture seem to have a lot more difficulty connecting with the students than lecturers that are not afraid to confront the people making the noise." The majority of students surveyed also believed that a lack of discipline can be very disruptive and that they enjoy a lecturer who effectively controls the attention of the whole class. However Level-3 students (in particular) believe that a too strict environment can be extremely unpleasant. This may imply that effective control of the student behaviour is more successful by ensuring that the lecture remains interesting, rather than by trying to exercise excessive regimental authority.

Students also want lecturers to care and to be more human. Many students agree with one who wrote: "lecturers should be approachable for help and not get annoyed with wasting their time". Students wrote that they would prefer lecturers to "make it enjoyable, i.e. tell normal jokes, to talk about their own experiences and show that they know what is out in the real world". All of these statements indicate that students want the lecturer to appreciate their needs. They want to learn, they want to know what they will end up doing and they want a lecturer to be enthusiastic about helping them towards these aims. While lecturers clearly need to empathise with the students and have a better understanding of their expectations, it is surprising that the ability of lecturers to understand their students diminishes as students progress through the year levels. Far fewer Level-3 students (than Level-1 students) believe that lecturers can empathise with them or aim lectures at their level of understanding. The more senior students have a stronger belief that lecturers assume that students know more than they do and that they do not consider the divide between the students' and the lecturer's knowledge of the subject matter.

All of the students surveyed believe that humour helps to establish rapport with the lecturer and that good humour shows a lecturer's comfort and reinforces the student opinion of their expertise. Students stated that humour used to hide a lecturer's lack of understanding can be very awkward and unpleasant. Good humour in which the sensitivities of the entire class are considered clearly helps to create a pleasant enjoyable learning environment. Students like lecturers who use humour more than those who do not (Torok et al 2004).

All of the students who were surveyed remained more interested in enjoyable lectures and were similarly enthralled by lecturers who obviously enjoyed teaching.

#### Conclusion

The survey has proven to be successful in terms of gaining an insight into the student perception of lecture quality. The statistical results of the survey have revealed the areas in which students commonly agree on a number of aspects of the lectures and of what makes their learning environment more effective. Unsurprisingly, they see shortfalls in communication, organisation, empathy, respect and the use of good humour to establish rapport. These results were somewhat complemented by a few student quotes, but the magnitude of data that was generated in this section of the survey made it impossible to present the majority of the students' written responses effectively, cohesively and concisely within the context of this conference paper. Therefore, subsequent to feedback from the conference, the authors hope to more effectively present the views of their students that enthusiastically participated in the survey in a more comprehensive journal paper.

# References

Astin, A. What Matters in College? Four Critical Years Revisited, San Francisco, Cal, Jossey-Bass. 1993.

Cannon, R. and Newbie. A handbook for teachers in universities and colleges: A guide to improving teaching methods (4th edition). Kogan Page 2000.

Kestell, C.D. and Missingham, D. A Funny Thing Happened on the Way to the Lectern. Proceedings from the 17th Annual Conference of the Australasian Association for Engineering Education Auckland, New Zealand. December 2006.

Mills, J. and Treagust, D., *Engineering Education – Is Problem Based learning or Project Based Learning the Answer*. Australian Journal of Engineering Education. Online publication 2003.

#### Kestell & Missingham, Student Perceptions of Lecture Quality

- Smith, K. A., Sheppard, S. D., Johnson, D. W. & Johnson, R. T. *Pedagogies of Engagement: Classroom-Based Practices*. Journal of Engineering Education, pp. 87-101, 2005.
- Torok, S. E., McMorris, R. F. and Lin, W.C. *Is humor an appreciated teaching tool? Perceptions of professors' teaching styles and use of humor.* College Teaching v52, No.1, 2004.

Copyright © 2007 Colin Kestell and Dorothy Missingham: The authors assign to AaeE and educational non-profit institutions a non-exclusive licence to use this document for personal use and in courses of instruction provided that the article is used in full and this copyright statement is reproduced. The authors also grant a non-exclusive licence to AaeE to publish this document in full on the World Wide Web (prime sites and mirrors) on CD-ROM and in printed form within the AaeE 2007 conference proceedings. Any other usage is prohibited without the express permission of the authors.