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What Makes Lectures ‘Unmissable’? Insights into Teaching Excellence and Active Learning

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ABSTRACT This research explores ‘teaching excellence’ by examining the perceptions of geography academics and students at Brunel University as to what makes a lecture ‘unmissable’. The findings from 10 interviews with lecturers and five focus groups with undergraduate students suggest that whilst there is probably no such thing as an entirely unmissable lecture, attendance rates are significantly enhanced by three key factors: (i) a high degree of participation and interactivity (‘active learning’), (ii) a clear structure which enables integrative links to be more easily made, and (iii) a passionate, enthusiastic lecturer, who can bring a subject to life for students. As research has shown that a high degree of interactivity encourages deeper approaches to learning, the paper argues that a move away from conventional lecturing towards more applied methods and small-group teaching may be a way of improving teaching excellence. Yet as large-group lectures are unlikely to be replaced any time soon, making them as participative as possible is one way to ensure that higher cognitive functions are at least partially acquired.

KEY WORDS: Active learning, teaching excellence, geography

Introduction

The debate over what constitutes ‘teaching excellence’ in higher education has reached a crescendo in recent years, no doubt because lecturing styles and techniques are as numerous as they are diverse. The current emphasis in the pedagogic literature is that teachers should try to encourage ‘active learning’ in order to make lectures ‘unmissable’ (Race, 1993). Active learning refers to the idea that students are actively engaged in the learning process, rather than passively absorbing lectures. Active learning involves discussion, problem-solving, presentations, group work such as buzz groups, brainstorming, role plays, debates—anything that gets students interacting with each other and engaging with the lecture material. Indeed, with an emphasis on practice rather than theory, a recent book by Healey & Roberts (2004) is devoted to showing how active learning techniques can be implemented effectively in geography and related disciplines.

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In this paper, we explore the perceptions of geography staff and students of teaching excellence and the role of active learning in developing cognitive and communication skills. By hearing the voices of both lecturers and students, and by drawing on the broad range of pedagogic literature on the teaching of geography, this study argues that applied and participative methods are more likely to encourage deeper processes of learning.

Active Learning

Until recently, there was no common definition of 'active learning'. All learning was presumed to be inherently active, and thus students were considered to be actively involved while listening to formal presentations in the classroom. However, empirical research has shown that even in the most interesting lecture, attention levels naturally tend to drop (often dramatically) after the first 20 minutes of the presentation (Newble & Cannon, 1995).

The prevailing wisdom amongst pedagogic scholars now is that students do not actively listen very much at all in formal lectures, unless they are broken up with multiple rest periods and activities that help to lift attention levels back up again. Making lectures as interactive as possible is thus crucial to achieving higher levels of attention and retention (Jenkins & Pepper, 1988).

Exley & Dennick (2004) argue that active learning methods are comparable to traditional lectures in promoting mastery of content, but superior in promoting the development of students' cognitive and communication skills. Gibbs (1992) highlights that students gain a deeper level of comprehension when they desire to understand something and are given the opportunity to discuss and participate in the learning process. Fuller *et al.* (2000) highlight that whilst the depth of understanding as a result of active learning techniques is difficult to assess objectively, it may accumulate over time with the consistent use of interactive methods. And in an assessment of problem-based learning among geography undergraduates, Spronken-Smith (2005, p. 214) found that students deemed this approach better than traditional lectures as it was 'hands-on, active and interactive', hence engendering an active learning experience (see also Burkhill, 1997 and Pawson *et al.*, 2006).

Kolb's (1984) famous experiential learning cycle highlights the importance of active learning, or as Race (2002) refers to it, 'learning by doing'. Kolb was keen to underline the centrality of subjective experience in the learning process and wanted to differentiate experiential learning from the more rationalist cognitive theories that gave primacy to abstract reasoning and theoretical knowledge. Kolb highlighted the dialectical nature of learning, whereby immediate concrete experience forms the basis for observation and reflection, observations and reflections are then assimilated into a theory (abstract conceptualization), and finally active experimentation transforms that theory into practice by testing it. This of course leads back to concrete experience again. Kolb argued that the learner undergoes a continuous process of integrating theory with practice, action with observation:

Learning requires abilities that are polar opposites, and the learner as a result must continually choose which set of learning abilities he or she will bring to bear in any specific learning situation. Thus in the process of learning, one moves in varying degrees from actor to observer, and from specific involvement to general analytical attachment. (Kolb, 1984, p. 148)

For Kolb, learning thus works best when students are encouraged to be actors as well as observers, to interact and experience as well as to apply abstract reasoning and theoretical constructs to issues.

This emphasis on experiential learning is a far cry from the traditional 'transmit and receive' model of the past, where lecturers were seen as experts passing on their wisdom to fresh-faced students who studiously copied down the 'facts' to rote learn for an assessment exercise. Paulo Freire (1975, p. 58) likened this model to a 'banking' concept of education, where:

Education becomes an act of depositing, in which the students are like depositories and the teacher is the depositor. Instead of communicating, the teacher makes deposits which the students patiently receive, memorize and repeat. In the last analysis, it is men [*sic*] themselves who are filed away through lack of creativity, transformation and knowledge in this (at best) misguided system. For apart from inquiry, men [*sic*] cannot be truly human.

As Brown & Race (2002) point out, the transmit and receive model is clearly out of date, not least because the receivers were rarely tuned in, but also because nowadays students just have to log on to university intranets and the web to have a world of information at their fingertips. Pedagogic scholars have thus shifted away from this traditional view and now emphasize the lecturer as a *facilitator* rather than teacher, whose primary role is to give students the tools to learn for themselves.

Deep versus Surface Approaches to Learning

Interestingly, Wright (2005) highlights that students may have rather different views on this subject. Wright details a study by the UK Higher Education Academy Subject Centre for Geography, Earth and Environmental Science (GEES), which ran a national student essay competition asking GEES students what made a good lecturer and what the best learning experience entailed. Of the 19 essays received, respondents highlighted the importance of two key factors: (i) the degree to which the lecturer is enthusiastic, passionate and personable (indicating the importance of the personality of the lecturer), and (ii) the degree to which the lecturer can bring a subject to life (via good presentations skills, and the use of real-life examples, and anecdotes). What students themselves did in lectures was of much less importance, with only a minority of responses arguing that active involvement in the learning process was preferable to passively receiving information. The focus of students was thus very much on what the lecturer is or does, rather than what they themselves did in the classroom. Wright (2005, p. 6) asserts that students tended to see themselves as: "empty vessels, emotionally neutral, ready to be engaged by a 'performance'". Wright concludes that either pedagogic research findings were not being translated into classroom practices, or that the students had a very superficial understanding of their own learning processes.

Crawford (1988) highlights the widespread superficiality of students' typical classroom learning experiences in her book *Teaching Students to Teach Themselves*. She argues that in order to encourage students to take responsibility for their own learning, a more innovative way to structure a class is to divide students into groups and get them to take on the role of both the teacher and the learner. Students thus engage in the researching, organizing,

explaining, questioning and grading that is normally associated with the teacher, as well as the writing, reading and answering that is usually the role of the student. The teacher is there to ensure that there is a structure to the proceedings, and has the important role of locating where students' difficulties lie and designing activities to overcome those problems. The rest is up to the students. Crawford argues that getting students actively learning by teaching themselves overcomes the traditional emphasis on information acquisition and encourages a more self-actualized, socially responsible and creative thinker to emerge. This kind of approach can be considered student-focused, and is thus designed to encourage conceptual change, versus approaches that emphasize information transmission to meet the formal requirements of the department (teacher-focused).

Entwistle *et al.* (2000) concur that shifting away from the goal of information transmission to the goal of conceptual change through active learning is essential to teaching excellence and high-quality learning. They highlight that content should be there, but it should be a means to an end, not an end in itself.

These studies highlight a key distinction between 'deep' versus 'surface' approaches to learning. According to Ramsden (1991), a surface approach to learning tends to be characterized by rote learning and regurgitation of information in a mechanical manner in order to pass an assessment exercise. Learning in this manner tends to be motivated by a concern to pass a course or a fear of failure. On the other hand, a deep approach to learning is characterized by a genuine interest in the subject, which motivates students to digest, ponder and interpret information, and crucially to make integrative links with what they already know and what they are learning in other areas. Ramsden highlights that active learning methods are more likely to encourage this latter approach.

What Makes a Lecture 'Unmissable'?

Clearly then, the key to a good lecture is the degree to which students are encouraged to think for themselves and to engage in deep versus surface approaches to learning. Lectures should thus be participative and engaging, as well as challenging and thought-provoking. But is this really what makes lectures 'unmissable'—or are there other more practical factors involved in ensuring high levels of attendance? Perhaps it does not matter how inspiring or engaging a lecture is; if students feel they are under acute time pressures, they may attend classes 'tactically' so that they are present only for those lectures that link directly to a piece of coursework or examination question. Or perhaps students see lectures as eminently 'missable' if they believe that all they have to do is read the handouts in order to pass the course.

Once again, these points highlight the key distinction between deep versus surface learning, for what makes a lecture unmissable in the eyes of students may in fact involve an emphasis on surface learning (i.e. focusing narrowly on assessment), rather than deep learning (or being genuinely interested in the subject). So, what do lecturers perceive to be the best way to encourage students to learn because they want to learn, not because they have to pass a course? What do students identify as the key factors motivating them to adopt a deep versus surface approach to learning? This research aimed to explore these questions.

Research Aims and Methodology

The objectives of the study were to examine the views of students and lecturers in the Geography and Earth Sciences (GES) department at Brunel University as to:

- what makes for a good lecture;
- what makes a lecture 'unmissable';
- what teaching approaches and delivery methods facilitate a deep versus surface approach to learning

In view of the fact that these aims required an understanding of the subjective attitudes and perceptions of academic staff and students regarding teaching excellence, a qualitative methodology was chosen for this study. The advantage of using a qualitative approach is that the data collected are rich, contextual and detailed, enabling a more holistic analysis and explanation. The researcher can thus delve much more deeply and uncover social meanings that would be very difficult to gain from quantitative research (Valentine, 1997).

A mixed methodology was used for the study, involving both interviews and focus groups. All 10 of the full-time human and physical geography lecturers in the department were interviewed face to face for an hour or more. Five focus groups were also conducted, each comprising four or five second-year undergraduate physical and human geography students. In 2006, Brunel's geography department had 39 second year geography students. The sample of 24 students included all those who took the core second-year module 2021, 'Environmental issues: social and physical processes'. Students were chosen from this module as it included a mix of both physical and human geography students, and a mix of genders (13 males and 11 females).

Interviews were considered the most appropriate method for collecting data on lecturers' views as they allowed a more detailed exploration of the underlying rationale for individual teaching styles and delivery techniques utilized in the classroom. Focus groups were considered the most appropriate method for facilitating a discussion with students, as they are a particularly creative and productive method of data collection (Hussey & Hussey, 1997). Due to their collaborative nature, focus groups are a good way of promoting debate and discussion, encouraging respondents to spark ideas off each other and think about issues from fresh perspectives. It was also thought to be a less intimidating way for students to reveal their perceptions about teaching practices compared with a private face-to-face interview.

The data collection took place in February and March 2006. Each interview and focus group was recorded and subsequently transcribed. The analytical procedure employed followed an interpretivist approach to the data collected (Miles & Huberman, 1994). This involved the researcher becoming highly familiarized with the material collected (by listening to the audio-tapes, reading and re-reading the transcripts and any notes made after each interview/focus group). This process allowed themes and patterns to emerge from the raw data. In some instances these themes followed the structure of the interview/topic guide, whilst in others they came to light from the unstructured discussion with respondents. The emergent themes were then coded and classified, and summaries were drawn up to provide source material for the first draft of the findings and discussion. This approach allowed a general analysis of the perceptions of respondents, as well as a comparison between staff-student responses.

One limitation of the study, however, was the fact that the interviewer/moderator was a member of the lecturing staff and was well known to both staff and students. Responses—particularly for students—might therefore have been influenced by the personal relationship between moderator and respondent. However, this research bias was minimized as much as possible by the use of student focus groups (the collective nature of

which allowed respondents the comfort of ‘safety in numbers’ when being critical about teaching styles), and also by stressing the anonymity of responses. To de-personalize responses, students and staff were asked for comments to be directed towards the process of lecturing rather than individual lecturers themselves. The validity of the research was also enhanced by the fact that both academic staff and students were interviewed, adding triangulation to the research design by allowing themes and issues to be explored from different perspectives.

Another limitation of the study was the small sample size. Whilst clearly this precluded a statistical analysis of responses, ‘thick descriptions’ from detailed, triangulated data were felt to inform the research objectives more appropriately than ‘thin descriptions’ using quantitative data from a larger sample. The intimacy of the focus group/interview setting, along with the length of each discussion, enhanced the depth and richness of response and enabled a greater rapport to develop between moderator and staff/students.

Findings

Reassuringly, the responses of staff and students as to what makes for a good lecture were very similar. Respondents consistently highlighted three aspects that defined teaching excellence in lectures:

- a high degree of student participation and interaction;
- a clear structure which enabled students to identify key points and make integrative links with other areas of the course;
- the passion and enthusiasm of the lecturer, and the degree to which she/he can bring a subject to life.

Staff and students all agreed that the best kind of lecture was a participative one, where the emphasis was on active rather than passive learning. One lecturer emphasized: “If students can apply what they are learning, and explain this to the group, that is paramount. It’s the application and being able to articulate it . . . Doing it for themselves means they really have internalized that . . . If they can articulate it then they have to understand it.”

A good lecture was felt to include regular breaks for discussion and group activities, such as buzz groups, brainstorming, debates, role playing, plenary sessions, problem-solving, presentation work—anything that got students involved and thinking for themselves. Students also liked to be given encouraging feedback on their thoughts and reflections, which in turn helped to stimulate their desire to learn more and communicate their ideas more effectively. Breaking the lecture up with activities was also considered a good way of avoiding the decline in attention levels that tends to develop as the lecture proceeds.

Some lecturers liked to begin their lecture with a question or series of questions for students to discuss and debate, as this got students interacting right at the start of the lecture, and also helped the lecturer to see how much students already knew on the subject. Participation and discussion was consistently highlighted as key to getting students engaged, so that they broke out of the ‘passive receiving’ mode that they naturally fell into when listening to the lecturer. Students themselves emphasized their desire to be active learners rather than passive receivers:

[We like] activities, expressing your opinion, debate and discussion, controversial topics that fire you up . . . Having a discussion means you have to think about it, it helps you to form your own ideas as you have to come up with for and against arguments in your mind.

If you come up with ideas yourself in the group you tend to remember it a lot more.

Students highlighted that lectures or seminars where there was reading set in advance for discussion the following week was a particularly good way of encouraging active learning. The difficulties encountered in encouraging students to engage with assigned readings has been recognized by authors such as Williams (1997), especially when they are not directly linked to assessment. However, it has also been acknowledged that students find assigned readings useful and that there are ways of enhancing their effectiveness, for instance by linking them clearly to specified learning outcomes and by discussing them in small cooperative learning groups (Hassard, 1990).

Students in this study gave three reasons for valuing assigned readings. First, by setting a deadline it ensured that students engaged in regular independent reading. Second, having read the material in advance, students were more familiar with the issues, and therefore had more confidence to engage in meaningful discussions and ask pertinent questions in class. Third, the group discussion helped students to internalize and understand what they had read, and to explore different perspectives and opinions within the group. The more lively the discussion, the more students felt they got out of the session, and the more they retained afterwards.

I think compulsory reading for the next lecture is fantastic—because it makes you do it. It helps you in the lecture to ask questions and talk about it more knowledgeably.

In addition to interactive and advanced reading approaches in lectures, fieldtrips were also considered another important way of encouraging deep versus surface learning, as students got so much out of seeing and experiencing things for themselves, and gaining fresh perspectives on everyday life. Fieldwork is widely regarded as an essential component of undergraduate teaching in geography (Haigh & Gold, 1993; Kent *et al.*, 1997), and it has been widely discussed in the pedagogic literature on teaching geography in higher education (see Cottingham *et al.*, 2002). Stoddart and Adams (2004, p. 46) suggest that “the field is central to the way we have experienced Geography, both as a discipline within which we have lived and worked since our first degree, and as a context within which to think about the way the world works”. Fuller *et al.* (2006) highlight that field trips are an important tool for promoting active learning. Lecturers in this study agreed with these appraisals, and also felt that what students learned on field trips tended to be more memorable. These comments on fieldwork highlight the general advantages of active and participatory learning and the benefits of transferring these modes into other teaching areas, like lectures, which have traditionally been more passive in approach.

Students highlighted that embedding lectures in the ‘real world’ increased the relevance of what they were learning and encouraged them to make integrative links with their own experiences and interpretations of reality. Applied methods and the use of real-life examples in lectures were thus considered powerful ways of encouraging deeper approaches to learning. Some of the students interviewed had taken a level two module called ‘Applied research in the community’, which involved working in partnership with a

community organization. For these students, applied methods had been an especially important means of working theoretical and substantive knowledge into practice (see Buckingham-Hatfield, 1995 and Waddington, 2001), and this had led to positive and memorable learning experiences.

Case studies that were ‘hot off the press’ also tended to get students’ attention and interest—this was also a key reason why students enjoyed hearing about lecturers’ latest research findings (especially findings that were not yet in the public domain).

We like it when lecturers use case studies that are in the news or really current as it makes it more interesting for us.

Real-life examples help you to remember because you can apply theory to everyday life.

The Role of Structure

The second aspect that both staff and students had strong opinions about was the degree to which lecturers should follow a clear structure in the lesson plan. Students were particularly keen to emphasize that having a clear structure was crucial to helping them learn, for it provided them with a guiding pathway through what sometimes felt like a morass of information. A good structure enabled students to prioritize information, to learn things in bite-sized chunks, and to integrate those chunks in order to see the ‘big picture’. They preferred lectures that used simple, accessible language (avoiding academic jargon) and that did not present too much information in one go, as there was only so much that they could process and retain in one session.

[A good lecture] is one that has good structure—everything is set out and you know what you are doing and the lecturers don’t ramble on about irrelevant things. And it’s good to have lectures, handouts and essays that all relate to each other systematically ... the lecturer needs to relate the subjects to one another to show the big picture.

Students particularly liked PowerPoint lectures with handouts of the slides, as each slide clearly showed the key points and thus clarified the structure of the lecture. PowerPoint is generally considered a successful means of presenting the range of written material and visual images that are commonly used in geographic teaching (Rocklin, 1998; Nicholson, 2002). Students found it particularly challenging when lecturers digressed from the key points outlined on the slides, claiming that it was difficult to know which were the key issues and which were illustrative or less important.

Without structure it makes it harder to understand which are the important points. Sometimes a lecturer will put up a slide with 3 points on it and then talk for ages, but we don’t know which are the important points to write down.

Most lecturers agreed that there was a mix of styles in the department, from highly structured to more free-flowing approaches to lecturing, and that each style had its merits. A highly structured approach was considered one that was well prepared in advance, with the lecturer covering points systematically on slides with only a limited degree of

digression. The advantages of this approach were felt to be the logical sequencing of points which aided comprehension, and the explicit signposting of key issues so that students could separate the 'wood from the trees'. Moreover, a clear structure helped students to see linkages with previous lectures and with other parts of the course. Clearly linking the individual learning outcomes of lectures with the broader goals of the module and the course itself was felt to encourage students to construct meaning using a deep rather than surface approach to learning.

However, some lecturers also emphasized that there was a balance to be had, as too much structure could border on spoon-feeding, and that a more free-flowing approach encouraged creativity and spontaneity, which helped students to think for themselves.

Lecturers' ambivalent views on handouts showed a similar concern for achieving a balance between structure and creativity, and between note-taking and note-making. Whilst most lecturers tended to give handouts of their slides as a way of communicating the key points of the lecture, many were concerned that students might become over-reliant on their handouts for revision instead of making notes of their own thoughts and ideas on the subject. This concern was exacerbated by the easy access students had to lecture notes and handout material on the university intranet.

You don't want them thinking that it's all in the handout, because it's not. If they only have the handout they've got the key message but not in depth.

Some lecturers attempted to make handouts more like worksheets by leaving gaps, which kept students on their toes as they had to fill in the missing information themselves. This also meant that students who missed lectures could not just rely on the handouts for their revision. Interestingly, students reported that they liked handouts with gaps because it encouraged them to be more attentive in lectures.

Ultimately, lecturers all agreed that whatever approach individual teachers used, the important thing was that lectures should give students a framework which helped them to identify the key issues, but which also challenged them to think critically and formulate their own ideas. Lectures were thus seen as having two roles: one to transmit content and the other to stimulate students' own learning and reading on a subject. Because the latter was felt to be more important than the former, lecturers tended to see themselves in more of a facilitating than a teaching role:

I think we are facilitators rather than teachers—you put (the students) in touch with the reading, get them to relate to their experiences, but they have to make that leap.

The Passion and Enthusiasm of the Lecturer

The third aspect highlighted by all respondents as crucial to engaging students was the personality and charisma of the lecturer, and the degree to which she/he could bring a subject to life. Cooke (in Healey & Roberts, 2004, p. vii) notes that teaching excellence depends to a considerable extent on qualities such as charisma, stimulation, humour, motivation, excitement, and what can be termed 'magic in the classroom'. In our study, students considered expertise in delivery and pacing, along with the use of real-life stories and anecdotes, as important ways of animating a lecture. Nevertheless, by far the most

important factor was the passion and enthusiasm of the lecturer, and the degree to which she/he could inspire students to “*get fired up*” about the subject. Some lecturers felt that as well as ‘facilitators’, part of their role was thus to be ‘entertainers’, or ‘performers’.

To a certain degree lecturers also have to put on a bit of a performance. Students like to be entertained, and this helps to encourage them to keep coming to lectures. If you have that gift it helps you to engage with the students more.

If you are impassioned about something, if you feel something really matters, I think (students) can relate to (that).

Students highlighted that the personal attributes of the lecturer and her/his ability to create a rapport with the class greatly influenced their engagement with a subject. The more approachable the lecturer, the less intimidated students felt about asking and answering questions, and admitting when they did not understand something. Students also felt that the small class sizes in geography at Brunel meant that lecturers tended to take a more relaxed, informal and personal approach to teaching, which strengthened the rapport between staff and students.

I enjoy the fact that geography is taught quite informally. It makes you feel more relaxed, you know you can ask for help, get guidance—it’s definitely one of the best things about the department, its informal approach. My friends in engineering really hate their lectures, whereas I come home still talking about my lectures because I find them so interesting—they hate that! They can’t believe I call my lecturers by their first name. You know you can get help with coursework—it’s really helpful to get that one-on-one guidance.

Unmissable Lectures

Most lecturers agreed that, actually, there was no such thing as an ‘unmissable’ lecture. However, one of the key factors that was felt to encourage high attendance was the degree to which the lectures were considered by students to be interesting and engaging. Encouragingly, some students highlighted that what makes lectures ‘unmissable’ was the learning experience itself:

We always go to our lectures because we want the learning experience. We always turn up—we don’t look at the module guide and go ‘that’s a really boring subject, let’s miss it’—we go ‘oh that’s what we’re doing today’. We want to get the most out of our education, we want to use everything we’re given, we want to make our parents proud. That’s the point of coming to university—furthering your study is what drives you.

Lecturers highlighted assessment as a key factor which had the potential to significantly influence attendance levels. Gibbs (1999) argues that, among other functions, assessment should be used to capture students’ attention and effort. Other studies have highlighted that students are increasingly assessment-oriented, with Innis (1996) finding that level 3 students spend as little as 10 per cent of their time on work which is not assessed.

In this study, the relationship between assessment and attendance was considered a complex one. Whilst it was agreed that lectures/seminars/field trips that were explicitly

linked to assessment tended to have higher than average attendance levels, such explicit linking was also felt to have the potential to encourage 'tactical attendance'. Tactical attendance is when students make decisions on whether to attend classes or field trips on the basis of whether it will help them to pass examinations or coursework. For instance, some students might attend only those field trips that are linked with assessed coursework, or they may work out the minimum number of lectures that they need to attend in order to answer the examination questions. Lecturers agreed that:

(Tactical attendance) is a bad habit students get into so we point out to students that they could potentially miss the overarching themes running through the modules.

A minority of students, who admitted that they sometimes skipped lectures, claimed that assessment was one of the key factors they took into consideration when deciding which lectures to attend. As many geography modules are team taught at Brunel, and each lecturer in the team contributes one or more questions to the examination paper, a few students claimed that they tactically worked out how many lectures they needed to attend for each lecturer in the team, to cover themselves for the exams. Lectures were also missed because of factors such as low levels of motivation, attention or comprehension:

You look at the module guide—if it's a boring subject going on for 3 weeks you might skip it. You can tactically work out which lectures to go to.

In a 3 hour lecture sometimes we leave after one and a half hours as we can't concentrate after that.

Interestingly though, by far the most pervasive reason for missing lectures was reportedly outside distractions, such as part-time jobs, sport, social life and family commitments. These have been variously discussed by Broadbridge and Swanson, (2005), Hunt *et al.* (2004), Smith (2004) and Wainwright & Marandet (2006). Lecturers in this study were concerned that factors outside the classroom were having a key impact on lecture attendance levels, especially as many students were taking on part-time work to pay for their education.

Whilst students felt that participative teaching styles certainly made lectures more enjoyable and therefore less 'missable', this was not always enough to overcome external factors for non-attendance, particularly financial ones. Since the 1990s key changes in student funding, including the replacement of a grant-based system by loans, the withdrawal of most students' rights to claim a number of benefits, and the introduction of tuition fees, have led to the 'routinization' of students having to combine work with study (Curtis & Williams, 2002) something which has been common practice in the United States for many years. Surveys have found that a substantial proportion of students are now undertaking paid work on a part-time basis during term time (59 per cent in Curtis & Williams, 2002; 41 per cent in Woodward, 2003 and Unite, 2006), and this is thought to be increasing. Though this very often impacts negatively upon course attendance, Curtis and Williams (2002, p. 5) have highlighted positive aspects such as:

... the acquisition of transferable skills, enhanced employability, increased confidence in the world of work, and the improvement of organizational and time management skills that can engender active learning and positively affect learning outcomes.

Clearly, the relationship between attendance and academic achievement is a complex one, as non-attendance due to work commitments may not always result in lower academic achievement if key transferable skills are acquired.

Discussion

The findings from this study suggest that students who emphasize the learning experience itself as a key reason for attending lectures, and who focus as much on what they do as what the lecturer does in the classroom, are more likely to be engaged in deep versus surface approaches to learning. Fortunately, most students in this study saw themselves as active learners rather than passive receivers of knowledge.

It is interesting to note the similarities and differences in the findings of this research and Wright's (2005) conclusions from the Higher Education Academy's study. In defining what makes for a good lecture, students in both studies highlighted the importance of the passion and charisma of the lecturer in terms of inspiring students and bringing a subject to life for them. By contrast, however, Brunel students placed much more emphasis on active learning, stressing that a good lecture was one that gave them ample opportunity to discuss, debate, brainstorm and present their ideas in class.

Wright (2005) concludes that because students in the Higher Education Academy study placed less emphasis on 'learning by doing', the superficiality of the students' own conceptions and expectations of learning was indicated. Does this mean that Brunel students have a more sophisticated understanding of their own learning processes and are therefore more likely to be engaged in deeper processes of learning? Or is it just that low staff-student ratios at Brunel have enabled lecturers to take a more informal, interactive approach?

Arguably it is the latter, for it is unlikely that one group of students would find interactive approaches less helpful in engendering deeper learning than another. Geography class sizes at Brunel are typically around 25 students or less, and the department itself is small. Students know their lecturers on a first-name basis, and an active open-door policy has enabled a natural rapport to develop between staff and students. This in turn has made it much easier for lecturers to use participative teaching methods, as students are less intimidated and therefore more likely to get involved. As students highlighted, the approachability of the teaching staff and the relaxed, informal approach of the department has helped to build the confidence of students to interact and engage in the learning process.

If participation and interactivity is really the key to teaching excellence, then arguably there should be a much greater emphasis on small-group seminars and applied project work within the curriculum. This is particularly important because:

Evidence suggests that only 10 percent of the words delivered in a lecture are recorded in the notes of the students, with only a small proportion effectively learning in the short term and with long term retention significantly reduced. In addition ... the nature of what is learned in conventional lectures is usually one of the factual and conceptual understanding variety; higher cognitive outcomes tend not to be acquired. (Exley & Dennick, 2004, p. 8)

Nevertheless, with the shift from an elite to a mass education system in the UK, resulting in increasing numbers of students entering higher education, large-group lectures are likely to continue to play a significant role within the curriculum. Fortunately, however, a

key message which derives from this paper is that formal lectures can still be considered a useful method of teaching provided that the following principles are applied:

- Lectures should be designed to provide a structure and framework so that students are better able to see the 'big picture'. Lecturers should synthesize information, highlight intended learning outcomes, and repeat key points so that integrative links are more easily made. Students often perceive the information given by lecturers as more valuable than information they can find in the library, as lecturers have already gone through a process of selection and synthesized the important information.
- Lectures should be used to bring a subject to life for students by lecturers conveying their enthusiasm and passion for the topic. Enthusiasm and commitment also comprise one of the few factors that cannot be conveyed by independent learning.
- Lectures should be used as a means for academics to communicate the findings of their research, and as an excellent medium for providing the most current information on a topic (information that may not yet be in the public domain).
- Most importantly, lectures—even large-group ones—should generally be interactive. While it might be true that higher cognitive outcomes are more likely to be acquired in small-group sessions, research shows that they may at least be partially acquired in conventional lectures with a high degree of participation (Exley & Dennick, 2004). Interactivity certainly becomes more difficult the bigger the group size, but there are techniques to ensure at least a reasonable level of participation amongst large groups. For instance, students can be divided into small 'buzz groups' where they discuss topics set by the lecturer; these can then 'snowball' by joining adjacent groups together to discuss conclusions. Students can also be asked (with advance warning) to make presentations to the class and written assignments can be read and critiqued by students instead of them simply listening to the lecture (Bonwell & Eison, 1991).

Conclusion

It is clear from this study and others that it is not just what the lecturer is or does, but what students do in the classroom that determines the degree to which lectures might be considered 'unmissable'. Whilst external factors such as part-time jobs will most probably continue to affect attendance levels in higher education, lecturers can take heart that their passion and enthusiasm, combined with an interactive and structured teaching approach, can greatly enhance the learning experience of students and lead to higher levels of attendance and academic achievement.

If the goal of education is ultimately to enable students to think critically and creatively, to formulate their own ideas, to challenge accepted wisdoms, and most of all to become *impassioned* and *inspired* by what they are learning, then scholars are right to emphasize the centrality of subjective experience and active learning in education. For, ultimately, learning is not just about knowledge acquisition—it is about expanding consciousness:

Knowledge emerges only through invention and reinvention, through the restless, impatient, continuing, hopeful inquiry men [*sic*] pursue in the world. (Freire, 1975, p. 58)

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