



Issues and Ideas Paper

Reassessing the Value of University Lectures

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Over the past few years the question of whether the lecture is an effective teaching method has been one of the most heatedly debated topics in the field of higher education. While research on the effectiveness of lectures has been carried out since at least the 1960s, the value of the lecture has been increasingly questioned recently for a number of reasons that include waning lecture attendance rates by students, the heightened emphases on active learning and interactive modes of teaching, and technological advances that allow for the instructional component of lectures to be delivered online.

In a series of recent articles and opinion pieces, academics variously defend or deride the lecture as a mode of teaching and learning. Many argue that the lecture is a boring, passive, ineffective and antiquated teaching method that will soon be obsolete (Dodd, 2015; Clark, 2014; Lambert, 2014; Palmer, 2012; Ben-Naim, 2012; Biggs & Tang, 2011; DiPiro, 2009). Donald Clark, for example, describes the face-to-face lecture as “a lazy and damaging pedagogy” that is “a throwback to a non-literate age” (2014). The authors of a recent study comparing traditional lectures to active learning in the STEM disciplines go so far as to equate their article on the harm done by lectures to the Surgeon General’s 1964 report on the harms of smoking (Bhatia, 2014). Commenting on the same study, Harvard physicist Eric Mazur suggests that “it’s almost unethical to be lecturing” (Bajak, 2014).

Yet there are equally strong arguments for the continued relevance and pedagogical value of the lecture. Those in favour of retaining face-to-face lectures suggest that when done well lectures can be informative, engaging, inspiring and even transformational learning experiences (Charlton, 2015; Worthen, 2015; Cowling & Brack, 2015b; Wolff, 2014; Small, 2014; Gunderman, 2013; Furedi, 2013; Penson, 2012; Charlton, 2006). Richard Gunderman describes a great lecture as a work of art, “a kind of dance, in which lecturer and listeners watch, respond to, and draw energy and inspiration from each other” (2013). While some claim that “digital natives” are killing the “sage on the stage” (Cowling & Brack, 2015a), for others the role of the lecture has become more significant in the digital age. For example, Molly Worthen suggests that “Professors should embrace – and even advertise – lecture courses as an exercise in mindfulness and attention building, a mental workout that counteracts the junk food of nonstop social media” (2015).

The recent discussions on the lecture are often driven by passionate opinions and tend to depict the lecture either at its very worst or as a romantic ideal. In this paper we try to move beyond the polarised and often polemical perspectives that characterise the debates and consider both the potential problems and the possible pedagogical benefits of the lecture. We propose that the lecture remains a valuable teaching method for both practical and pedagogical reasons. However, we also suggest that in many cases lectures need to be improved and their scope broadened to incorporate more dialogic, active and interactive teaching and learning approaches. Recent descriptions of lecture practices suggest that in many institutions the lecture has already evolved beyond the traditional idea of a unidirectional monologue and that the lecture format is becoming increasingly interactive (Dawson, 2015; Palaima, 2014). It is also important that lectures are used in combination with a range of other teaching methods to provide flexibility and diversity for students as well as to enhance their learning. Thus, while the lecture remains a useful mode of teaching, we suggest that more innovative approaches to lecturing as well as alternatives to lectures are needed to adapt to a changing educational environment.

The evolution of the lecture

Since the emergence of the first universities in medieval Europe the lecture has been the dominant mode of academic teaching. The term 'lecture' derives from the Latin *lectura* meaning 'to read' and the terms 'lecturer' or 'reader,' from *lecture*, meaning 'to read aloud' (Exley & Dennick, 2004: 3). The historical and traditional understanding of the lecture adheres very strongly to this etymology. In the thirteenth century lectures were presented in monasteries where a monk would stand at a lectern and recite passages from a manuscript to a group of students who wrote down what he said verbatim. At this time books were difficult to make or reproduce and universities often only had one copy of a book which may be the only copy in the world. Thus scholars would travel long distances to gain access to rare texts (Bates, 2014).

In his examination of the impact of the invention of the printing press on universities, Gavin Moodie usefully traces some of the ways in which approaches to curriculum and pedagogy emerged as a result of technological developments, highlighting in particular the influence of printing on lectures. He explains that in the later middle-ages curricula were largely uniform across institutions due to the scarcity of manuscripts. At this time it was customary for each course of lectures to be "limited to an intensive examination of just one text or part of a text" (Moodie, 2014: 457). Early European universities such as Oxford adopted the practice of cursory lectures in which students who had achieved a bachelors degree were admitted to read books aloud to undergraduate students who could not afford the manuscripts. However, there were also two other forms of lectures at this time: the *exposito*, "which was restricted to elucidating the arguments of the author being presented" and lectures *cum questionibus*, "expository lectures which posed problems and questions arising from the text" (Moodie, 2014: 460). Thus lectures gradually progressed beyond the reading of texts to include some discussion of the subject matter. Nevertheless, the practice of dictation "remained common during lectures well into the eighteenth century" (Moodie, 2014: 462).

Moodie explains that from the late 1400s scholars began to question the need for lectures since printing had increased the availability of books and students could acquire knowledge through the private study of texts (2014: 462). He also finds evidence to suggest that scholars were concerned that lectures may fail to engage students; for example, the Flemish grammarian Clenardus gave the following advice to a fellow lecturer in the early 1500s:

The speech is long, and there are others you might be able to teach without boring the students so much. They do like short texts. I cannot understand why you do not teach Plato's *Laws* since you

have fifty copies of it. It is easier and more fun, and would get you more students (quoted in Moodie, 2014: 461).

This correspondence reveals that educators have long been concerned about making lectures more enjoyable for students, as well as increasing lecture attendance rates. It also demonstrates that the existence of the 'boring' lecture is as old as the teaching method itself.

Moodie shows that the invention of the printing press "had a major role in changing universities' curriculum, broadly from one organised around authorities who addressed various subjects, to more diverse curricula organised around subjects which were informed by various authorities" (2014: 458). He adds, however, that "printing did not revolutionise university teaching by, for example, replacing lecturers or their lectures" (2014: 462). By increasing access to books, the invention of printing changed the nature of what was communicated in lectures. Students could read the books themselves and lectures could focus on the analysis and discussion of questions arising from the texts. While the increased availability and affordability of books resulted in the end of the cursory lecture, "lectures *cum questionibus* persisted after printed books became ubiquitous despite problems with attendance" (Moodie, 2014: 469). By extension, Moodie suggests that similar observations might be made about the impact of contemporary information technology on the role of lectures.

The view that lectures might be replaced with other teaching methods has been expressed for a long time, often as a response to the educational possibilities offered by new technologies. George Veletsianos argues that "the idea of automating aspects of education and replacing instructors with machines" has existed since at least the 1920s when American psychologist Sidney Pressey invented the automatic teacher, a machine that "presented information, accepted a response and returned pre-recorded feedback" (Veletsianos, 2014). Since then, various technologies have assisted with the delivery of higher education and expanded the availability and accessibility of resources to students including radio transmissions, television and video and more recently the computer and the internet. The internet is likely to have an increasingly more significant impact on the ways in which teaching and learning are carried out, and it has some unique educational benefits. For example, unlike most previous technologies employed for educational purposes, the internet is potentially interactive and social, opening up possibilities for interactive learning to occur in off-campus study modes (Wolff, 2014). While in some instances online teaching methods can be used as an alternative to campus-based learning, it is also the case that the internet can be effectively used to supplement, support and enhance face-to-face lectures without necessarily displacing them.

The limitations of the literature on the lecture

Donald Bligh's 1971 book *What's the use of lectures?* was the first comprehensive analysis of the lecture and it remains one of the most influential texts on the subject. Bligh argues that while the lecture "may be used appropriately to convey information . . . it cannot be used effectively on its own to promote thought or to change and develop attitudes without variations in the usual techniques" (1971: 13). Bligh's findings are frequently employed in arguments against the lecture, however, they are often simplified and misconstrued to support the view that lectures are inherently ineffective for promoting thought, changing attitudes and inspiring students (Bates, 2014; Light & Cox 2001: 98). Yet Bligh presents a far more nuanced argument than this, emphasising that while "the lecture method alone is rarely adequate" this statement "does not imply (as is sometimes misconstrued) that the lecture method is rarely appropriate." "The lecture has a place" he argues, "but the place it is given is often too prominent" (1971: 182).

Bligh's conclusions do not suggest that the lecture should be abandoned, but rather that that it should be given a less prominent place in the curricula and used in conjunction with other teaching techniques. He further implies that with "variations in the usual techniques" it might be possible for lectures to exceed some of the limitations he identifies. For example, to promote thought in large lectures, Bligh proposes the inclusion of visual displays, handouts and pre-reading requirements as well as a reduction in speed to allow for thinking time. He suggests that thought can also be stimulated by problem-centred lectures that present a chain of argument and require students to follow a line of reasoning (1971: 162). Bligh's observations on some of the potential problems with the traditional lecture format and practical advice on how lectures might be improved remain highly relevant and illustrate that the recent arguments regarding the pedagogical value of the lecture are neither new nor unique to the digital age.

There are two distinct foci that permeate scholarly literature on the role of the lecture. The first defines the lecture as a format or teaching method in which the lecture is contrasted with other teaching formats, especially small group teaching. Since at least the 1960s educational scholars have presented a range of pedagogical arguments for the superiority of one teaching method over the other. Such arguments tend to construct an unhelpful dichotomy between lectures and small group teaching and obscure the fact that both teaching modes require great skill in their design and delivery to successfully engage students and facilitate learning. The second focus is more recent and positions the live lecture in opposition to the pre-recorded online lecture either in audio or video form. Thus developments in technology have resurfaced old debates about the place of the lecture in higher education. In some recent articles, face-to-face lectures are characterised as traditional, old-fashioned and antiquated teaching methods while online formats are perceived to be inherently more innovative (Dodd, 2015; Ben-Naim, 2012). Such arguments tend to underestimate the skill required to effectively utilise the online medium. They also perpetuate a problematic dichotomy between face-to-face and online learning rather than recognising the potential for the two modes to be utilised in a complementary manner.

A key problem that emerges in the recent debates is that the lecture tends to be discussed in isolation, yet the lecture is rarely, if ever, employed as the sole teaching method in a course but as one element in a suite of teaching and learning activities. Criticisms of the lecture often focus on what it can't do such as develop practical skills and applied knowledge or teach 'transferrable skills,' like communication skills, to prepare students for employment. Arguably, such criticisms are misdirected since lectures are rarely intended to serve these purposes. Certainly there are some aspects of teaching and learning that are not able to be achieved within the lecture format, and it is for this reason that lectures need to be integrated with a range of other teaching methods such as tutorials, practical workshops, labs and internships. Equally, it is not the purpose of lectures to merely transmit information since this can be achieved through other means such as readings or pre-recorded instructional videos. Thus the role of the lecture, and its potential value, must be considered in relation to its purpose within the curriculum as well as within the context of the learning experience as a whole, as we discuss in more detail shortly.

A further problem that underscores discussions on the lecture is a lack of evidence to support claims of the capacity of either the lecture or other teaching modes to advance learning. Arguments both for and against the lecture are generally highly subjective and mostly based on personal perspectives and experiences of lectures rather than evidence-based research. While there is some evidence to suggest that students appear to value lectures and view them as a good way to learn (Gyspers et al, 2006; Mitchel & Forer, 2010), there is insufficient evidence to support the notion that lectures are either pedagogically superior or inferior to other teaching methods. Studies measuring the effectiveness of lectures generally either use student evaluations

or academic outcomes of students as the primary metrics, both of which are problematic. Student evaluations produce unreliable data since student perceptions do not necessarily correlate with learning outcomes and can even stand in direct contradiction to them; students might respond very positively to a course yet learn little from it and vice-versa (Symonds, 2014). Studies that focus on academic outcomes compare student performance in courses that use lectures as a primary teaching method with courses that mostly use other teaching methods. Overwhelmingly, these studies find that there is no significant difference between lectures and various other teaching methods (Costin, 1972; DaRosa et al, 1991; Coleman et al, 1998; Kangari et al, 2007; Huggins & Stamatel, 2015). However, these comparative studies are problematic as there are a range of uncontrolled independent variables across conditions making definitive conclusions untenable.

The problem of characterising the lecture

The way in which the lecture is characterised is central to evaluating its effectiveness yet debates are frequently complicated by the absence of a consistent or agreed upon understanding. Those in favour of removing the lecture from the curricula tend to adopt a narrow, exaggerated characterisation of the lecture as inherently passive and didactic: “55 minutes of largely uninterrupted discourse from a lecturer with no discussion between students and no student activity other than listening and note taking” (Gibbs, Habeshaw and Habeshaw, 1992: 9). This perhaps describes a pervasive mode of lecturing and the prevalence of such an approach understandably raises concerns that lectures might lack the capacity to engage students in active or interactive forms of learning. There is strong support in educational literature that students develop their understanding of concepts and best retain knowledge by engaging with so called ‘active learning’ methods that include problem solving and critical thinking (Bligh, 1971; Prince, 2004; Lambert, 2012). It is often argued that non-lecture based teaching formats, including small group teaching, have the strongest capacity to promote such forms of learning, while lectures are perceived to be didactic experiences that turn students into passive observers (DiPiro, 2009; Clark, 2014). While this is certainly sometimes the case, it is by no means true of all lectures. As Peter Penson suggests, it could be argued that such criticisms are stereotypes that “only apply to poorly prepared lectures or badly designed courses” (2012:72). A well designed and well delivered lecture that involves students in the processes of questioning, analysing, and critical thinking has the capacity and be a highly engaging experience. Even purely instructional lectures comprised of ‘uninterrupted discourse’ can provoke deep intellectual engagement when presented by an effective lecturer.

The narrow characterisation of the lecture employed by many of its critics can be contrasted with the very broad understanding of the lecture format that is most often adopted by supporters of the lecture. Many suggest that the lecture need not be limited in scope or methodology, and propose that it is possible to reimagine the lecture format in a variety of innovative ways, including through the incorporation of dialogue, problem solving and other interactive teaching approaches (Hattie, 2015; Exley & Dennick 2004: 11; Light & Cox, 2001: 99; Penson 2012: 73). Exley and Dennick suggest that “by blurring the boundaries between teaching formats it is possible to transfer many of the interactive and more discursive teaching strategies to the lecture theatre and expand the range of learning possibilities of the lecture format” (2004: 11). Biggs and Tang (2011) provide a list of practical techniques that can be employed within the lecture situation (and the lecture theatre) that would resolve many of the problems identified by critics of the lecture, including the use of concept maps, learning partners, work-along exercises and minute papers. In the lecture scenario they describe, the lecturer would deliver the content in segments of no more than 15 minutes, which would be interspersed with a range of interactive activities designed to enable students to gain a deeper

understanding of the material and better retain knowledge. For example, students may be asked to explain the key points of the lecture segment to their learning partner, to solve a problem or address a question. Person argues that lectures need to be reconceived as “a learning event in which one member of faculty *interacts* with a number of students” (2012: 73, italics added). He suggests that while the lecture may predominantly involve the lecturer talking, “it can also include activities such as short discussions between students, question-and-answer sessions, group work, and other “enhancements” usually associated with smaller class sizes” (2012: 73).

The ambiguities and inconsistencies in characterisations of the lecture complicate arguments both for and against the value of lectures and suggest that the two perspectives may not be as polarised as they at first appear. Both perspectives recognise that teachers need to do more than merely transmit information to their students via a didactic lecture format and agree that active and interactive teaching approaches are crucial for learning and knowledge retention. Those in favour of retaining lectures widely agree that lectures frequently fail to engage students and that universities need to adopt innovative approaches to improve them (Cowling & Brack, 2015b; Dawson, 2014; Gunderman, 2013). Further, both critics and supporters of the lecture acknowledge that there is an escalating problem with poor lecture attendance rates by students.

A recent study conducted at the Australian National University provides evidence that students are not attending lectures, supporting anecdotal perceptions that student attendance rates have declined across Australian universities (Hughes-Warrington, 2015b). The study also illustrates that students are not necessarily replacing live lectures with lecture recordings; data shows that students are not downloading lectures beyond week three, until there is a spike in downloads prior to exams (ibid). Thus the majority of students in the study (approximately two thirds) were neither attending lectures nor listening to the lecture recordings during the semester. As Marnie Hughes-Warrington observes, this decline in lecture attendance by students has a demoralising effect on academic staff who are increasingly lecturing to half- empty rooms (2015a). Academic staff are losing the ability to interact with their students in lectures, which in turn might have a detrimental impact upon the quality of lectures (and the lecture recordings).

Is there an argument to be made for the value of lectures?

While the fact that fewer students are attending lectures is not in dispute, the point of contention is whether this problem can best be resolved by removing the lecture from the curricula entirely to focus on a combination of online instruction and small group interactive teaching, or whether there is a way to re-think the delivery of the lecture to better engage students and strengthen the lecture’s pedagogical value. For many, the fact that students are not attending lectures serves as a primary reason to remove them from the curricula, however it seems questionable logic to attribute the waning attendance rates at lectures to the teaching format itself. The circumstances impacting upon student attendance are numerous and include factors such as family commitments, the need for students to undertake paid employment and the travel time and distance to campus. In an Australian context competing demands on students, especially part-time work, is a key reason for poor attendance. Another factor that is likely to impact upon attendance is poor assessment practices, where students are not expected to engage in an overall reflection of the subject in a final essay or exam.

While studies suggest that students continue to value lectures (Gyspers et al, 2006; Mitchel & Forer, 2010), the decline in attendance suggests that they may be prioritising other commitments over lecture attendance. If this is the case, removing lectures does not address the core problem of why students are not turning up. Instead, solutions are needed that highlight the value for students in attending lectures and

viewing them as an integral part of their learning. In order to achieve this, it is essential that the potential benefits of lectures are better understood. If, as some suggest, lectures may soon be abandoned, what do we stand to lose?

Arguments in favour of retaining lectures suggest that the lecture has particular pedagogical, practical and social benefits that are crucial to the student experience and not easily replicated by other teaching methods (Charlton, 2015; Worthen, 2015; Cowling & Brack, 2015b; Wolff, 2014; Small, 2014; Gunderman, 2013; Furedi, 2013; Penson, 2012; Charlton, 2006). Drawing upon the recurring themes in the literature on the topic, below we identify seven reasons as to why the lecture is valuable in higher education.

1. Lectures can provide context and structure for a subject

Lectures are often used to develop the overarching view of a subject, providing students with a structure or framework for the material and a “disciplinary context for the topic under discussion” (Furedi: 2013). Penson argues that lectures play a crucial role in the higher education curricula because they offer a “grand-view,” forming “the backbone of the university learning experience, from which all other elements of learning emulate, and by which they are supported” (2012: 73). Thus lectures might be especially important at the beginning of a subject to facilitate an understanding of the learning aims, as well as at the end to summarise the content and prepare students for assessment. Lectures can also provide an ongoing structural element for the subject as a whole. Bruce Charlton argues that “the proper unit of educationally-valuable lectures is a course of lectures, not a one off talk” (2006). Unlike the single seminar, lectures can be used to develop a narrative logic and a sequential, structured learning path across the weeks of the semester.

2. Lectures can allow the lecturer to offer a sustained argument and narrative

When designed and delivered expertly, one of the most important features of the lecture is its capacity to build a sustained and complex argument. The temporal nature of the lecture potentially facilitates the development of an idea which can progress in complexity over the hour. Engaging lecturers don’t merely present factual information; they develop a narrative around the subject matter. The lecture format provides a unique opportunity for the lecturer to engage students in a step-by-step approach, taking them through the various perspectives on a topic and highlighting the questions and problems that emerge. Lectures that require students to follow a line of argument or reasoning also have the capacity to promote deep engagement by asking students to persist with layers of detail and analysis over time. However such lectures also require concentration and effort from the students.

While the assertion that the attention span of students declines after 10-20 minutes is frequently cited in arguments against the lecture (McKeachie, 1999; Khan, 2012; Clark, 2014), others have argued that there is little evidence to support these claims and that they fail to account for individual differences in attention (Wilson & Korn, 2007; Dawson, 2014). Bligh’s 1971 study suggests that although lecturers do face psychological limitations in relation to the attention span and memory capabilities of students, concentration can be stimulated with enthusiasm from the lecturer, by motivating students through social interaction and activity, and by ensuring that the material being communicated is relevant and meaningful to the students. Thus it might be argued that the capacity of students to concentrate for the duration of an hour long lecture is influenced less by the attention span of students than by the ability of individual lecturers to engage their students in different activities over a sustained period.

3. Effective lecturers can motivate, stimulate and challenge students

Well-designed and well-presented lectures can play a central role in motivating students to learn. Lectures have the capacity to enthuse and inspire students through their liveness and the physical presence of the lecturer in real time and space. Drawing upon student statements in a survey conducted at the University of Sydney that compared face-to-face and online lectures, Gypers et al note that “comments most often indicated students perceive that they learnt better, engaged more and even enjoyed themselves more when attending lectures in person” (2006:25). They further found that students “revealed an emotional attachment to this mode of teaching” and “were passionate about retaining lectures” (ibid). One of the key reasons that students like attending lectures, they suggest, is the potential to be motivated to learn as a result of the group dynamic in the lecture setting and the presence of the lecturer (ibid). Lecturers have a strong capacity to generate enthusiasm for the topic through their own passion and interest. However, the lecturer’s skill and commitment have a significant impact on their capacity to motivate students and poorly delivered lectures are clearly likely to deter students.

4. Lectures potentially promote skills in listening and note taking to enhance learning

A number of recent articles suggest that lectures play an important role in developing skills in listening and note taking which are thought to enhance the learning process (Worthen, 2015; Parsons, 2015; Palaima, 2014; Charlton 2006). Tom Palaima (2014) argues that “the art of listening is essential for learning,” and suggests that listening to lectures personalises the course, making it a shared learning experience. Keith Parsons (2015) uses the phrase ‘critical listening,’ in contrast to the notion of passive absorption, to describe the type of listening that potentially occurs in lectures. The notion of critical listening involves thinking, questioning and evaluating and is therefore suggestive of some of the ways in which lectures might facilitate learning not only through interactive engagement but through the act of listening. These claims are generally speculative rather than evidence-based, however lectures do provide one of the few instances in university curricula in which students are encouraged to listen for a sustained period of time. Thus lectures might offer a rare opportunity for students to develop the ability to think through and synthesise ideas.

The capacity for lectures to develop listening skills is often discussed in conjunction with the practice of student note taking, which some suggest has an important pedagogical function (Hattie, 2015; Worthen, 2015; Crook, 2015; Mueller & Oppenheimer, 2014; Charlton, 2006). Bruce Charlton argues that lecture notes enable students to more readily remember the content of the lecture than hand-outs or slides. He suggests that “as well as increasing immediate attentiveness, lecture notes also make the lecture into an active mode of learning because note-taking requires ‘deep processing’ forms of memorizing, by imposing a requirement to understand, abbreviate and re-structure in-coming information” (2006: 1263). The purpose of taking notes in lectures is not so much to create a record (since the speed of lectures is generally too fast to allow for verbatim transcription), but to allow students to synthesise the information as they listen.

The benefits of note-taking also potentially extend beyond synthesising content in a given course. Learning to take good notes is an important skill in itself, and a transferrable skill that is likely to be useful, if not essential, for students in the workplace. A range of different career paths require the ability to report on meetings, conferences and briefings in both oral and written forms, necessitating the skills to listen discriminatingly and take accurate notes.

However, effective note-taking is a skill that may be difficult for all students to master; as Frank Furedi argues lectures can be challenging for students because “listening and taking notes requires commitment and effort” (2013). Mueller and Oppenheimer suggest that students exhibit differences in note-taking behaviour and differentiate between generative note-taking which involves “summarising, paraphrasing, concept mapping” and nongenerative or ‘verbatim’ note-taking which they link to “relatively shallow cognitive processing” (2014, 1160). Thus positive educational outcomes may be reliant upon students having the ability (or being taught) to summarise and synthesise information as they take notes rather than merely transcribing the content of the lecture. Moreover, the ways in which students utilise their notes after the lecture might also be important. John Hattie argues that “it is not the taking [of notes] but the review that matters” (2015, 84). Drawing upon a meta-analysis conducted by Henk and Stahl (1985), Hattie notes that “students taking notes improved their learning modestly ($d = .34$), but reviewing those same notes increased learning dramatically ($d = 1.56$)” (84).

5. Lectures provide the opportunity for academics to present up-to-date research and model behaviour

For Biggs and Tang “the best defence of the lecture” lies “in exposing students to the most recent developments in the field, and to the ongoing workings of a scholarly mind” (2011: 138). Through their research, the lecturer potentially has access to the most current information and can guide students through the developments and debates in the field. They can communicate both their own research and that of others in the field, as well as provide a critical perspective on the topic. As Light and Cox observe, one of the advantages of the lecture format is that it integrates the lecturer’s role as a teacher and as a researcher/scholar (2001: 98).

The lecturer can also function as a model for the students, illustrating to them the way an expert approaches the topic. In his account of his own lecturing techniques, Alex Small argues that modelling the ways in which an expert approaches questions or problems is the primary function of the lecture, not presenting factual information (which students can learn prior to the lecture), nor necessarily enabling students to work towards a deeper understanding of the topic (which can be done after the lecture through private study and/or collaborative problem solving) (2014). For Small the value of the lecture lies in its presentation of “the process by which [the lecturer] reasoned through complex issues, and the methods of problem-solving that they demonstrated” (ibid). As an expert on the topic at hand, the lecturer has the capacity to summarise material from different sources, demonstrate their own reasoning, help students to interpret and analyse the content and assist them in the construction of their own knowledge. An important feature of the face-to-face lecture is the capacity for lecturers to monitor students and determine their level of understanding. This may be more difficult to achieve in large lectures with hundreds of students than in smaller group lectures. Nevertheless, through eye contact and observation in the room it is generally possible to detect whether students are following the logic of the lecture. Thus the lecturer can potentially adapt the lecture in real-time to ensure that it is being taught at an appropriate level and is being understood by the group as a whole.

6. Lectures are a cost-effective and efficient method for teaching at scale

While the efficiency of lectures is not related to the pedagogical considerations outlined above, the need to be more efficient and cost-effective are realities facing contemporary higher education that need to be taken into account in any discussion of approaches to curriculum and pedagogy. Australian universities are experiencing increasing pressures due to a range of factors that include rapid increases in student numbers

and rising costs combined with reduced funding levels. Higher education institutions face the difficult challenge of needing to simultaneously reduce costs, cater to large student numbers, and ensure that quality teaching is retained or improved. Lectures remain perhaps the most pragmatic and cost-effective method for teaching to large student numbers.

However, the capacity to facilitate active and interactive approaches undoubtedly becomes more difficult on a large scale, leading to concerns that large numbers of students in lecture theatres may impact upon the quality of teaching and learning. In developing more innovative approaches to lectures then, the issue of scale is a key consideration. Many scholars suggest that there are a range of effective strategies that can be employed within large-group lectures (Hattie, 2015; Hornsby, 2015; Penson, 2012; Light & Cox, 2001). For example David Hornsby recommends properly structuring moments of interaction, integrating problems into the lecture, and deviating from the standard teaching approach through the use of YouTube videos and podcasts (2015). One of the advantages of the lecture over other formats is its unique capability to combine live face-to-face contact with large student numbers. As Light and Cox observe, while face-to-face teaching can be done well in tutorials, and large student numbers can be potentially be catered for efficiently online, only the lecture combines both (2001: 98). They suggest that by repositioning the lecture “within an intersubjective (or dialogical) model,” it is possible for lectures to “take advantage of the tremendous potential of the live plus large group experience” (2001: 99).

7. Lectures are social events that produce and reproduce a sense of community and a shared communal understanding

Many scholars argue that the value of the live lecture lies predominantly in its status as a social event with the capacity to produce a sense of community that promotes learning (Cowling & Brack, 2015; Bates, 2014; Woolf, 2013; Charlton, 2006). Attending lectures provides students with an important opportunity to make connections and build relationships with peers. It also transforms the act of learning into a collective experience that can facilitate a shared communal understanding among students. Although the social nature of the lecture might be viewed as a peripheral benefit, many argue that these social elements have tangible pedagogical outcomes. For example, Bruce Charlton argues that “the real-time, human-presence of a lecturer and the social context of a formal lecture makes it easier for most students to remain alert, focus attention and remember what is said than when students are required to work alone” (2006: 1262). Attending lectures also increases the opportunities for students to benefit from informal learning and engage with the broader campus experience.

As discussed above, lectures are increasingly becoming large-scale events and while this mass-scale aspect of lectures is usually viewed in critical terms, Light and Cox suggest that the ‘largeness’ of lectures (along with their liveness), potentially enhances their capacity for engagement. They suggest that for students “that feeling of sharing in large numbers can provide a wonderful feeling of intellectual security and exhilaration, of being part of a broader dialogue, a higher intellectual conversation that extends substantially beyond me into an extensive and inclusive network” (2001: 100). This notion of a broader dialogue suggests that lectures facilitate a form of discursive interaction that enhances the sense of being part of an intellectual community of scholars.

The future of the lecture

Just as many criticisms of the lecture might be applied only to ‘bad’ lectures, it is important to emphasise that many of the benefits of the lecture identified above will only be effectively realised in lectures that are

well designed and delivered. It is not possible to quantify the percentage of 'good' or 'bad' lectures and anecdotal evidence is highly contradictory. It is also not possible to ascertain to what extent lecturers currently employ innovative and creative strategies to develop active learning or whether the majority of lectures conform to the traditional idea of the didactic monologue. Tom Palaima suggests that while "the 50-and-75 minute mandatory lecture has long been the basic tool for education" in the United States, in recent years it has become "an increasingly interactive tool" (2014). Similarly, in an Australian context, Phillip Dawson suggests that if you "walk into a modern lecture," "you'll be unlikely to find a 60 minute monologue." For Dawson, this is "more a caricature than a common practice" (2015). On the other hand, many argue that the practice of delivering lengthy uninterrupted instructional speeches to a group of passive students remains the dominant mode of lecturing (Clark, 2014; Tickle, 2014; DiPiro, 2009). If this is the case, it is imperative that lectures are improved to include more engaging, discursive and interactive techniques that actively engage students in tasks such as problem solving and critical thinking.

Improving lectures is a challenging task that for many academics may require fundamentally rethinking the way they teach and the way that students learn. It is also a significant challenge for institutions as it necessitates a commitment to investing in the development of teaching practices. Superficially, it might seem that it is easier to remove lectures than to improve them, yet the potential benefits of the lecture identified above suggest that the lecture remains a valuable pedagogical tool that with improvements could offer even greater value to students. The capacity to improve lectures might depend upon a stronger recognition of their capacity to integrate active and interactive techniques.

While improving lectures might assist in altering student and staff perceptions and developing their pedagogical benefits, there remains a potential problem with the heavy reliance on the lecture format at the expense of other valuable teaching methods. Bligh's 1971 argument that the place given to the lecture is often too prominent continues to be an issue in contemporary higher education. In Australian institutions the use of lectures varies across universities and disciplines, but it is most common for undergraduate subjects to include between one and three one-hour lectures per week. Typically, the more lectures that are scheduled in a given subject, the less time there is available for tutorials or other classes. It may be problematic when teaching hours are predominantly dedicated to lectures, allowing little time for collaborative, active and interactive teaching and learning approaches. In many courses, the number of lectures might need to be reduced to accommodate a greater use of other teaching methods. Ultimately, the lecture is an effective teaching and learning method that is most effectively used in combination with a diversity of other complementary pedagogical approaches.

In this paper we have proposed that lectures offer some important pedagogical, practical and social benefits that support their continued presence in the university curricula. However, if lectures are to be retained, it is vital that both staff and students have a stronger understanding of their purpose and value. Thus, in addition to improving the delivery of lectures and better integrating them with other teaching methods, universities face the challenge to more effectively articulate the role of lectures in the curriculum. A stronger statement about the benefits of lectures for both staff and students is needed to ensure they are viewed as having a pedagogical value.

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