

What place is there for teacher-directed learning at university?

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***Abstract:** The paradigm of traditional teaching relies on the stereotype of a teacher or lecturer standing in front of a class, expounding on the subject of choice. If a student doesn't learn, then the implication is that something is wrong with the student.*

Traditional teaching, or teacher-directed learning, has earned a bad name. It sits at one end of two poles – the end where bad learning occurs. At the other end sits student-centred learning where educators expect good learning to occur.

However, it is important to balance the downside of teacher-directed learning against the practicalities of teaching. In a university system where more and more teaching is expected from each lecturer, it is important to reassure lecturers that teaching has a robust and rightful place in universities today.

This paper explores some of the issues involved in supporting teacher-directed learning at Australian universities.

What is understood by the term 'teacher-directed learning'?

Cannon and Newble (2000) see the 'control and coverage of academic content' as the hallmark of the traditional teacher-directed learning. Biggs (1999a) sees the concept as meaning the transmission of information, or getting "it" across, where "it" can be anything from information to concepts – but the focus is always on what the teacher does.

Certainly it has long been recognised that teachers can do a great job of teaching through traditional means of motivational lectures, focussed insights to the course material, and probing questions that address the fundamental issues. The successful lecturers often have either innate abilities for motivating students, or use learned techniques developed by observing others, or experimenting and acting on feedback. Ramsden (2003), for instance, says that 'good teachers' have known for centuries that effective teaching occurs when the lecturer: desires to share their love for the subject; is able to stimulate, interest and engage the students; explains the key concepts clearly while respecting and encouraging the students; uses flexible and innovative teaching methods that encourage students to learn thoughtfully, cooperatively and responsibly; uses valid assessment methods and returns effective feedback, while taking feedback from students and other sources in order to learn how to improve their teaching.

What are the arguments against 'teacher-directed learning'?

One argument against teacher-directed learning is that the attention span of the average student in a lecture situation is barely fifteen minutes (Biggs 1999b). So, unless the lecturer initiates an attention grabbing demonstration four times every hour, students are likely to lose focus. Moreover, the retention span for the information passed over to passive students is minimal (see for instance Ramsden, 2003).

Other research shows that the syllabus of a course, the core knowledge that needs to be stored in the head of the students, is at least equally well imparted by private study of textbooks as from lectures (Biggs, 1999b).

More critically, perhaps, teachers do not take responsibility for the learning of the students, only the teaching. Teachers push the information out to the students, and it is up to the students to do with it what they will. In the worst case, this attitude can result in very poor learning, but we also need to understand what happens in the best case. Only then can we address the place of teacher-directed learning in the university system.

Before addressing the issues here, let us first address the other end of the two poles.

What is understood by the term ‘student-centred learning’?

Lea et al. (2003) maintain that student-centred learning involves the students taking an active and responsible part in learning rather than a passive role that relies wholly on the teacher. The learning process is a partnership between teacher and learner in a relationship of mutual respect.

Biggs (1999a) sees student-centred learning as focusing on what students do to achieve learning and grasp new concepts. The prime duty of the teacher, therefore, is to get the student to engage in effective learning activities to achieve ‘desired outcomes’. This means that assessment should be based on demonstrating that the students have achieved the desired outcomes (criterion-based assessment), rather than demonstrating that some students are better than other students (norm-referenced assessment).

What are ‘desired outcomes’?

Biggs (1999a) maintains that desired outcomes should involve the concept of deep learning. This idea stems from the research of Marton and Säljö (1976) into the methods that students use to learn from a given text.

They identified two main methods. The first is to look for and memorise the facts to use when answering anticipated questions. This is dubbed ‘surface learning,’ and is effective in answering questions that relate to stated ‘facts’ within the text, but poor preparation for answering questions requiring an understanding of the central theses.

The other method, dubbed ‘deep learning’, involves students trying to understand the concepts expressed in the text. This method is effective in helping students answer high level questions that are proposed using active verbs such as ‘hypothesise why...’ or ‘reflect on...’, but is less useful in acquiring ‘the facts’.

Since ‘desired outcomes’ should reflect ‘deep learning’ the assessment process should demonstrate deep learning. So the very highest marks should be awarded to students who theorise or generalise on the basis of the concepts they have learned about, while the lowest pass might only display a surface understanding of the concepts. There is no point in teachers promoting the learning of concepts but only assessing the retention of facts.

Why does the teaching and learning literature support student-centred learning?

The ‘teaching and learning literature’ support student-centred learning because studies such as Hall and Saunders (1997) show that this paradigm results in better learning outcomes. In their study, Hall and Saunders compared first-year information technology students who were taught using either ‘traditional’ methods consisting of lectures and a final exam; or using ‘active’ methods expounded by (Cannon & Newble, 2000), which include continuous assessments, quizzes and student presentations. This kind of teaching requires more effort from staff, but does result in better grades, higher participation rates and is more recommended by students than traditional courses. It is not hard, however, to conceive of better models for teacher-directed learning than the lectures and exams model, without having to resort to the classic student-centred learning approaches of Cannon & Newble. In other words, basing learning simply on lectures and exams may unfairly distort the evidence against

teacher-centred learning, and in favour of student-centred learning. It may be that practically any other form of learning is superior to lecture plus exam.

What is the cost of student-centred learning?

The special learning needs of students depend on many factors. Australian mature age students, for instance, have different needs to teenagers, and different needs again to the variety of ethnic groups flooding the Australian education market. Students with disabilities need special attention, and there are significant differences in the ways males and females learn best. Biggs (1999a) contends that the needs of all the disparate groups can be accommodated through student-centred learning as long as the students communicate their special needs. But consider the cost to the lecturers.

Today's lecturers are entreated to create an atmosphere that allows the students to gain deep understanding, never mind the pressures from the school administration for adding to the syllabus, or the expanding student numbers, or the implication that in order to cope the lecturer is expected to take work home just to keep up with the work load – for no extra pay (see Felder & Brent, 1996). Race (2003) and Angelo (1996), for instance, have pointed to serious deficiencies in assessment practices in UK and US, respectively. The situation is unlikely to be any better in Australian universities.

One of the gaps that Boud (1990) suggests lies between assessment practice and theory is that between how universities say their staff should assess students, and how they actually assess students. This issue is addressed in this conference by Russell (2009). In other words there is a disconnect between the theory of good teaching, learning and assessment practices, and what lecturers actually do. The fact that they act one way, and are expected to act another way, adds to the stress of the lecturers' work-life-balance. So it is hardly surprising that a crisis has been flagged in Western education systems.

What place is there for teacher-directed learning at university?

Biggs (1999a) admits that lecturers often see no alternative to teaching a large class than by lecturing. Universities all say they support a student-centred learning focus and good assessment practices. They have to, for, as Flint (2008) put it:

...publications of national teaching standards, good university guides, and comparative ranks of universities have prompted universities to be more accountable in their assessment practices since these affect students' perceptions of the quality of courses, programs and universities.

Yet they still retain teacher-directed methods. It is time to be realistic. Universities need to admit that their teaching methods don't meet the ideal, but lie somewhere between the two poles of learning. Is that so bad?

The reality of lectures is a far step from the stereotype of 'lectures and a final exam'. In reality lecturers provide their particular 'slant' or 'focus' to the subject material. Instead of repeating the many facts loaded into the average textbook, the lecturer picks the most important facts, and imparts a story connecting the facts together to create an image in the student's mind – a concept – a paradigm for understanding the world. In reality teacher-directed learning includes tutorials, excursions and laboratories (depending on the discipline), opportunities for questioning during tutorials, reflective thought during private study periods, problem solving during regular tests and tutorials, continuous assessment and peer discussions to share ideas and concepts.

This is not so very different from the student-focussed learning ideals set out by Biggs (1999a). If the lecturers were entreated to teach students using methods they are comfortable with, but with a focus on deep learning, and crucially, to base assessments on the students demonstrating their deep learning, then the system may be workable, even politically acceptable, in practice. Certainly the universities should encourage activities that may assist the process, such as concept mapping, student seminars, group work, and peer assessment, but these are nice to haves, and the world is not perfect. Lecturers

are just ordinary people, and they need the motivation and encouragement to help them do the best job they possibly can within their own limitations.

Russell (2009), for instance, shows that universities are not capable of influencing the assessment outcomes of students through publishing good assessment practice guidelines for lecturers. Something more is required, and this will be the subject of future research. If sound teaching and learning practices were acknowledged through equitable career pathways on a par with research-based pathways, it may make it worthwhile for lecturers to make the effort to try new ways of teaching. Systematic and effective mentoring of new lecturers may, for instance, stimulate them to excite their students with effective teaching methods, humour and good judgement. However, treating teacher-centred learning as the bad pole of teaching practice just isn't working.

Good lecturers plant seeds in the minds of students that translate not into facts, but into concepts, views of how the world works. The excitement of those vignettes, glimpses of the workings of the universe, motivates students towards life goals they might never otherwise have considered. With proper encouragement the wisdom of the masters of teacher-centred lectures could be passed on to younger generations. As Whitehead (1929) put it (quoted in Ramsden, 1992):

A fact is no longer a bare fact if it is invested with all its possibilities. It is no longer a burden on the memory: it is energising as the poet of our dreams, and as the architect of our purposes.

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