# Do good learners still need help with learning or Do you have to be bad to get better?

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**Abstract**

There is often an assumption that if we get our selection right and attract only the best candidates we can afford to spend less time and devote fewer resources to helping students to engage effectively with learning. Yet even some of the very best qualified students suggest in interviews that they are confused about the academic conventions and expectations of university learning. Their testimony provides a strong argument that we have a clear responsibility for explicitly structuring experiences that help all students better understand what it means to learn within their own disciplines and in broader contexts. This paper draws on qualitative data collected in interviews with students at Oxford and expands ideas taken from successful programmes which use students as a resource to address learning-to-learn issues. We argue that, far from being seen as a problem, 'learning skills' should be addressed as an inherent part of the learning experience in HE and as way of fostering the development of even the most promising learners.

**Keywords**

Learning development; study skills; peer support; adaptive expertise.

The transition to university is stressful for many students, if not all (Fisher and Hood 1987). Incoming students need to integrate into new social structures, frequently away from home for the first time, and may lack social support to make that adjustment (Wilcox et al. 2005). The types of learning required of university students may be both unfamiliar and unexpected (Lowe and Cook 2003). The academic adjustment, just like the social, must be adequately supported if students are to make the best use possible of their time at university.

Authors differ in the extent to which they stress the discipline-specific aspects of students' learning. Entwistle (2005), McCune and Hounsell (2005) and their colleagues introduced the useful term *ways of thinking and practising* to highlight distinctive characteristic features of a discipline and, importantly, of how the discipline is taught and learned. Over a period of twenty-five years Donald (2002) teased out evidence of significant differences between disciplines in the ways students are expected to think in the classroom, but also stressed essential commonalities. Other authors stress the generic and transferable aspects of university learning, favouring terms such as 'generic graduate attributes' (Barrie 2006). Such attributes might include intellectual skills such as the ability to present complex arguments in writing, or more personal dispositions such as social responsibility. These descriptions of what it is that graduates should have acquired, entailing on the one hand familiarity with distinctive features of a discipline and on the other hand generic skills, may appear to suggest contradictory models of how students ought to be supported to acquire the learning skills that they need. To the extent that students are required to develop distinctive ways of thinking and practising, they need discipline-specific learning skills (Durkin and Main 2002; Smith 2004) and authentic experiences in which to acquire them. Barnett (2007) has addressed this as a central feature in his recent text on becoming a student in an age of uncertainty. By contrast, to the extent that students will be expected to develop generic attributes at university, they should perhaps be provided with generic study skills support before they arrive (Marland 2003).

In reality, the situation is not so dichotomous. As Barrie (2007) points out, sophisticated conceptions of how generic graduate attributes are acquired recognise that students come to learn these attributes through the way that they engage with university life, including the taught curriculum. It is precisely through engagement

with disciplinary learning, as well as with less structured aspects of student life, that students become effective graduates as well as effective learners of their subject in particular. Moreover, it is not clear that a 'generic' graduate attribute looks the same for graduates of all disciplines. Graduates in both History and Biology, to take two of the examples investigated by Entwistle (2005) and his colleagues, should be familiar with the selection and evaluation of evidence; but the ways in which disciplinary thinking and learning will have enabled students to acquire that familiarity will differ. Generic attributes, in other words, can be seen as 'transcending disciplinary boundaries even though they are initially developed within disciplinary contexts' (Barrie 2006).

The idea of transcending boundaries is very appealing and recruits the notion of transfer of learning, that is the capacity to apply, in different contexts, ways of thinking and doing that have been learned elsewhere and for apparently different purposes. Such transfer or adaptability is by no means an inevitable consequence of all learning and much of the earlier literature fails to reveal powerful transfer effects. However it now seems clear that it is possible to develop learners' intellectual flexibility through relatively simple principles of practice. The crucial aspect revolves around the variation experienced by the learner (Fazey and Marton 2002; Marton and Pang 2006; Runesson 2006).

By building variation into the curriculum it is possible to enhance the probability of developing what Hatano (1988) referred to as adaptive expertise (readers are also directed to Lin, Schwartz and Bransford (2007) for a short account of the principle and its major implications). The distinctive nature of different types of expertise is an important construct that we must take into account in curriculum planning. Hatano described as 'routinised' experts those who can do a limited range of things very well, and as 'adaptive' experts those who are skilful in the deployment of their capability over a wide range of varied contexts. Investigations into variation in practice conditions have revealed the power of such variation. The most intuitive finding is that those who have experienced high levels of varied practice can outperform those who have had an equal amount of less varied practice, in attempts at novel (i.e. unpractised) variations. A less intuitive finding is that what is learned in conditions of high variation lasts longer, it is retained and has become more permanent. The really counterintuitive finding is that high variation in learning experiences allows

individuals to perform more effectively and efficiently even those tasks that individuals with limited variation in their experience have specifically practised (Fazey and Marton 2002).

The important principle, then, is that to be useful in new contexts skills must be practised in diverse contexts. This enables learners to become more efficient and skilful than they would by concentrating on practising just one skill in a given context. We can recognise that the intellectual requirements of an academic discipline are distinctive and specific, but we take the converging lines of evidence to suggest that to develop adaptive expertise in *using* what is learned requires a rich set of variations in the learner's experience.

In order for this richness of experience to be provided, the need for development of learning skills must be recognised. However, there seems to be an assumption in some Higher Education institutions that academics can avoid the need to support the processes of learning development if only they get their selection right. For example, many medical schools in the UK, including our own (Oxford University) use intellectual aptitude tests as part of their selection procedure (McManus et al. 2005). These tests are specifically designed to test skills such as critical thinking, although there appears to be no agreed definition of what that actually means. Nor is there yet any convincing evidence that they do much more than ascertain who will be selected out as the 'winners' in our current processes and practices.

The utility of such tests is based upon several assumptions, among them that students who have developed a particular set of learning skills before they come to university are likely to be well equipped for university learning. In other words, it is possible to detect and to select at the time of admission those candidates that 'already know how to learn'; and by doing so, it is presumably also possible to avoid having to teach students how to learn once they are at university.

These assumptions suggest a conception of learning as skills that are precursors to university study which should ideally be acquired at school. That conception in turn suggests a belief i) that learning skills that have proved successful at school will be helpful, and sufficient, at university; ii) that HE need be concerned with learning

development only to the extent necessary to remedy the deficiencies of students' prior education.

Both these conclusions are reflected to some extent in the provision of support for learning skills at many HEIs. Institutional practices that tend to mark out provision as remedial would include:

- offering bolt-on study skills sessions;
- having dedicated study skills supporters or trainers who are distinct from academic staff;
- targeting provision at students who self-diagnosed or are diagnosed by tutors as having particular difficulties.

Bolt-on provision (Bennett et al. 2000) is provision that is not embedded in disciplinary learning but rather taught separately. Bolt-on sessions are based on the premise that the skills required for effective study are separable from disciplinary content. Basing provision on this premise sends important messages about epistemology (namely that knowledge is an external body of facts that can be acquired with the aid of a set of tools external to itself); and about transfer (namely that the learning of study skills is not situated but rather that skills learned in a bolt-on session can readily be transferred to disciplinary contexts).

Dedicated study skills supporters may be dissociated from academics and, on occasion, associated with those making provision for specific learning difficulties (SpLDs), either because study skills supporters are the same people as those supporting students with SpLDs, or because services to support study skills are situated in the same unit as services to support students with SpLDs[1]. This association reinforces the idea that support for learning is not the province of mainstream academic teaching, a view that is certainly held by some academics (Barrie 2007) and may be prevalent (Newell-Jones et al. 2005).

Targeted provision again sends a message that it is only where students' prior education is deficient that their learning skills at university need be supported; in other words, that students should not struggle with university learning if they 'already know how to learn' from school (as all successful applicants would in an ideal world).

[1] Data from a survey of learning development services at UK HEIs recently conducted by Caroline Cash at Falmouth are available at http://www.aldinhe.ac.uk/docs.htm (accessed 9 July 2008).

A consequence of any remedial model that separates support for learning skills from other teaching, offers such support only to certain students, and labels those that 'need' provision differently from those that do not, is that it fails to offer students in the 'remedial' group structured opportunities to benefit from contact with those of their peers that can provide the best models. This could be demotivating and lead to the isolation of ideas about approaching learning within the 'remedial' and the 'non-remedial' groups, i.e. inability of members of each group to benefit from the ideas and approaches of the other group. It is the case that supplementary activities can help if they are open to all. A Kingston University study of a peer supported intervention (Longfellow et al. 2008) concluded that 'the results support constructivist and situated learning theories about how students create meaning, and that, in the specific area of writing skills, successful students are better equipped and better placed than lecturers to pass on these skills to novice students in a peer-facilitated environment. The data supports to [sic] conclusion that, in this study, PAL [peer assisted learning] enables them to become better learners' (p 93).

These findings are consistent with those of studies where students who are performing at a higher level of expertise report the benefits of critically assessing other students' work, such as Fazey and Parker (2001) and the earlier Guidance and Learner Autonomy Project (GALAP) at the University of Wales, Bangor. Reporting on that project, Fazey and Fazey (1996) demonstrated the powerful effects of using experienced students as peer mentors to help the development of good learning habits in novices and to reinforce them for more experienced students. We are investigating the impact at Oxford of a somewhat similar scheme led by one of us (BY).

In reality, it is not the case that students who have been extremely successful at school will necessarily already have an appropriate range of learning skills to cope with higher education. Even the brightest students are sometimes confused by the demands placed upon them at university. Academic expectations may be unclear, and students may not feel well equipped to tackle academic tasks effectively. Investigations at Oxford bear out this claim. One of us (BY) interviewed students studying various subjects at various colleges. The interviewees were a convenience sample and, with one exception, it was not known in advance whether students had had any particular difficulty adjusting to university study. As illustrated below, students from various

subjects were able to articulate specific experiences where they felt that their learning had been hampered by an insufficient understanding of *how* to go about academic tasks such as selecting books from long reading lists, revising for exams, or solving science problems.

> To be honest, sometimes I do feel like I'm just sitting there and just reading the same thing over and over again, because a lot of reading lists that tutors will give you, will give you [a choice of books on the very similar subjects as well as a range of books covering a broad subject] – they're trying to take into account that not everyone is going to be able to get all the books but they don't specify that. They don't say like, you know, "Read one of these two"… so sometimes it is wasted time.
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> — Geography, 2nd year

> I do think they should teach us how to like – some exam skills, though; I feel like they kind of expect everyone to really know that, and I mean to some extent we all do because we've taken like A levels and stuff like that but it would help to, you know, have like an Oxford-specific or subject-specific, you know, exam skills kind of thing.
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> — Law, 1st year

> I wasn't really making my own notes, 'cos I'd been so used to being sort of spoon fed at sort of secondary school level that when it came to Mods [first-year exams that contribute to the final degree class] I just didn't have a plan whatsoever, and my notes were all sort of scattered all over the place. I think it'd be quite helpful if tutors could sort of maybe give us a crash course on how to make notes for revision – how to go about structuring, you know. I mean there was a little bit when – they gave us a little handbook for Law, my tutor did – sort of prepared us about revision… but I didn't think they were detailed enough in their advice for revision, so when it came to Mods I was pretty much – I was all over the place; I was very disorganised.
>
> — Law, 2nd year

> The tutorials are fine; they'll give you the teaching and again I'm saying I'm very lucky that I've got good tutors that will thoroughly go through questions; but there's also that side of doing a tutorial [problem] sheet where it's kind of understanding how to answer the question in the first place and what's best to write down and what is a waste of time writing down and what is the best way of doing it; because a tutor will tell you whether you're right or wrong – they won't tell you, you know, maybe you shouldn't be doing it – you should be tackling this problem sheet this way.
>
> — Physics, 2nd year

Even where provision is not explicitly remedial as described earlier, it may betray conceptions of learning skills similar to those that underlie remedial provision. One of us (BY) has recently undertaken an extensive audit of provision for learning development at Oxford University. Teaching at Oxford is split between departments[2], which provide lectures, practicals, classes, field trips, etc., and colleges, which provide tutorials. A typical tutorial involves one academic and between one and three students, and entails an hour of intensive discussion and analysis of a topic, frequently taking as its starting point – but rarely confined to – a student essay, problem sheet or other piece of written work. The review of provision at Oxford was based largely on interviews with academics, who typically have both departmental and college affiliations. Interviewees were asked about provision organised centrally by their department to help students with the process of studying the discipline; analogous provision organised centrally by their college (though the nature of the provision is likely to be rather different, given that colleges usually admit students from a wide range of disciplines); and support for learning development that they offer as individuals in their own tutorials.

One striking finding of this audit is that several departments have a policy that provision to support students' development as learners should be left to colleges, as illustrated below.

> If we're talking really here about sort of orientation to study skills and what is it like, you know, to research a topic, and what is it like to, you

[2] These are almost always called 'Department of…' or 'Faculty of…', depending on the discipline, and are referred to at Oxford as 'departments/faculties'. We have used 'departments' for simplicity.

> know, to do a subject at university level, I think that's the sort of thing that we probably thought was really [for] College tutors and Colleges to do.
>
> — Humanities subject

> The principle that I've been applying is that the skills that you need [to read certain technical documents in the discipline] are best done locally in colleges. I don't think it's something we can teach as a Faculty as effectively as in Colleges.
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> … I don't think we, as a Faculty, can say, "This is how you write an essay", because I think it's got to be done in a very small group, or one-to-one.
>
> — Social science subject

> I suppose, on the sort of advice for undergraduates [about adjusting to studying at Oxford and about studying the discipline], that would largely come through from the College tutors and so on.
>
> — Natural science subject

Interviewees were able to provide convincing rationales for this view. They pointed out that college tutors know their tutees and, in small group teaching, can provide intensive support that is tailored to the needs of individual students. This is a persuasive argument: it is clearly impossible to provide the same kind of personalised support in a lecture as in a tutorial. And yet a decision to leave *all* of the provision for learning development to tutorials can be taken only from a position that regards the skills needed to learn effectively as somehow separable from the content of learning – for if learning development were inseparable from disciplinary learning, then there would be no disciplinary teaching from which support for learning development could be excluded.

Provision that is either overtly remedial or inadequately co-ordinated across the degree programme, then, is suggestive of a view on the part of the HEI that at least their brightest students will know how to study at university by virtue of having studied successfully at school. We may think of this view as the HEI's *theory-in-use* – that is, the beliefs about support for learning skills evinced by the HEI's behaviour –

by analogy with an individual's theory-in-use as inferred from his behaviour (Argyris and Schön 1974). This theory-in-use may be contrasted with the HEI's *espoused theory* (*ibid.*) – that is, the institution's expression of the ideals that are claimed to underlie provision for learning development. (We find it helpful to think in terms of an *institution's* views rather than those of its individual academics, inasmuch as institutions inevitably constrain the freedoms of individual teachers by defining the educational policy contexts in which curriculum development and teaching take place.)

Many HEIs would espouse the theory that their provision for learning development is based on a developmental model, i.e. a model that says that all students can improve their learning skills no matter how effective they have been as learners before entering university. Institutional practices that tend to mark out provision as developmental contrast with those that we delineated earlier for 'remedial' provision, and would include:

- having learning development embedded in disciplinary teaching;
- making provision for the development of students as learners an aspect of the way that all teaching is done;
- offering support for learning development to all students.

Minderhout and Loertscher (2007) provide a really good example of espoused theory playing out in practice and they record that, at the end of their course, most students in their lecture-free, process-oriented and guided biochemistry programme 'report feeling confident in their knowledge of biochemistry and report substantial gains in independence, critical thinking, and respect for others' (p172). For both staff and students on this course, learning is developmental and transforming.

If practice is to match the espoused theory that all students can benefit from learning development, it is essential that learning development be embedded in disciplinary teaching – that is to say learned in the context of, and to meet the needs of, disciplinary study rather than as an adjunct to that study.

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