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PRACTICE PAPER

Learning Outcomes in Higher Education: Implications for Curriculum Design and Student Learning

Angela Maher (amaher@brookes.ac.uk)

Oxford Brookes University

Gipsy Lane, Oxford, OX3 0BP, UK.

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Abstract

Higher Education (HE) in the UK has experienced a series of remarkable changes over the last thirty years as successive governments have sought to make the sector more efficient and more accountable for investment of public funds. Rapid expansion in student numbers and pressures to widen participation amongst non-traditional students are key challenges facing HE. Learning outcomes can act as a benchmark for assuring quality and efficiency in HE and they also enable universities to describe courses in an unambiguous way so as to demystify (and open up) education to a wider audience. This paper examines how learning outcomes are used in HE and evaluates the implications for curriculum design and student learning.

Keywords: Learning outcomes, curriculum development, pedagogy

Learning outcomes in Higher Education

Watson (2002:208) defines a learning outcome as 'being something that students can do now that they could not do previously ... a change in people as a result of a learning experience'. It has long been recognised that education and training are concerned with bringing about change in individuals, and the use of learning outcomes to describe these changes is certainly not a new practice. Carey and Gregory (2003) point out that as long ago as the 1930s in the USA, Ralph Tyler pioneered an 'objectives-based' approach to education in schools. Perhaps though, the most well known contribution to the development of outcomes-based curricula was the publication of *A Taxonomy of Cognitive Objectives* by Benjamin Bloom in 1956. Bloom's taxonomy provided a framework for classifying learning in cognitive terms that expressed different kinds of student thinking (i.e. knowledge, comprehension, application, analysis, synthesis and evaluation). Recently updated by Anderson and Krathwohl (2001), Bloom's taxonomy has stood the test of time and underpins the

Angela Maher is a Senior Lecturer at Oxford Brookes University. She teaches hospitality at undergraduate and postgraduate levels and was Director of Hospitality Programmes at Oxford Brookes University between 1998 and 2003. Angela is interested in a range of pedagogic issues that impact on the higher education sector, and her recent work has been directed towards research on graduate employability. She is currently leading an LTSN-funded project on career management skills and co-directing an FDTL project on embedding employability skills development in the curriculum.

design of many outcomes-based curricula the world over (Coates, 2000). In the UK, recent educational reforms in HE as a result of the Dearing Report (National Committee of Inquiry in Higher Education, 1997) have resulted in significant awareness and increase in use of Bloom's taxonomy across the entire HE sector. Dearing's recommendations have had a profound influence on the way in which HE institutions describe their programmes of study and have led to important changes in quality assurance procedures in the sector. The establishment of the Quality Assurance Agency (QAA) in 1997 was quickly followed by a series of developments, including the establishment of a Qualifications Framework for HE, subject benchmarking, programme specifications and institutional audit, that pushed the HE sector as a whole towards a learning outcomes approach. Although Dearing represented a catalyst for promoting the explicit use of learning outcomes in HE, it is important to understand why learning outcomes are viewed so positively in many quarters. This necessitates a review of literature that both precedes and follows the publication of the Dearing report.

Proposed benefits of learning outcomes

Putting the student at the centre of the learning experience: from teaching to learning

A key focus of the debate surrounding the use of learning outcomes has centred around their proposed benefits for the learner. It has been argued that traditionally, HE has tended to focus on the content and process of learning rather than on its outcomes (UDACE, 1989). Consequently universities usually described their provision in terms of courses and syllabuses and have required students to adjust themselves to an established curriculum and mode of delivery. The past decade however has witnessed something of a culture change in HE and there is recognition that much is to be gained by moving away from the conception of a content-based focus of curriculum to a more student-centred approach (Robertson, 2001). An influential paper published by Barr and Tagg in 1995 entitled 'From Teaching to Learning: A New Paradigm For Undergraduate Education' strongly advocated the need to move from what the authors termed the traditional 'instructional paradigm' with its focus on teaching and instruction to a 'learning paradigm' that enables students to discover and construct knowledge for themselves. Barr and Tagg (1995) present some powerful arguments to support this shift towards an environment in which students are empowered to take responsibility for what they learn (guided by explicit learning outcomes that clearly link to assessment), and their work gained much credence in both academic circles and the wider public domain. Learning outcomes offer a means by which attention can be focused on the actual achievements of students and this represents a more realistic and genuine measure of the value of education than measures of teaching input. Thus, the adoption of a 'learning paradigm' in HE puts the learner at the heart of the educational process, a proposition that appeals to both teachers and students alike. Knight and Trowler (2001) argue that if students are given a real stake in their own learning in this way, they will learn better and will be more motivated and enthusiastic about what they are learning. This approach, it is argued, should also encourage them to become more independent and autonomous learners.

Accreditation of learning: recognising student achievement outside of the class

Learning outcomes are also seen to have direct benefits for accrediting students' learning outside of the class, by providing a clear indication of what students are expected to achieve in relation to specific awards. The development of the Credit Accumulation and Transfer Scheme (CATS) devised by the Council for National Academic Awards (CNAA) relied on universities defining levels of achievement both qualitatively (i.e. learning outcomes) and quantitatively (i.e. number of credits to be accumulated for a specific award). CATS presented an opportunity to accredit learning no matter where, when or how it was achieved. This development was welcomed by some students, particularly mature students and those on vocational programmes, as a means of allowing their prior experiences and learning to be recognised as contributing directly towards their educational award (Robertson,

2001). The Unit for the Development of Adult and Continuing Education (UDACE) supports the use of learning outcomes in this way, stating that:

Outcomes describe explicitly what learners will be able to do as a result of learning as well as the standards which will be required in the accreditation and assessment of that learning. This can help improve quality of choice for the learner and help to avoid drop-out. It can also help both learner and tutor to recognise existing learning more efficiently. (1992:7)

Enhancing employability: benefits for employers and students

A dominant discourse in relation to educational provision to emerge in the last decade is the notion of student employability. Learning outcomes enable universities to express student achievement beyond the narrow boundaries of subject knowledge and to articulate other important skills that are developed during the educational process. Key or transferable skills, relevant professional skills and personal qualities, formerly seen as by-products of the educational process, are now regarded as a core part of studying for a degree. Employers have long argued that they are more interested in what students can 'do' rather than what they 'know' and this added weight to the arguments for the adoption of a learning outcomes approach (Jackson, 2000). More importantly, students themselves are able to more clearly identify and articulate those skills they have developed that make them more attractive to potential employers, and this may help them make the transition to work more easily (Knight and Yorke, 2004). Whilst the role of HE in contributing to economic development and student employability may have been implicitly assumed for many years, it is only recently that this has become an explicit requirement for institutions.

A more open educational system: public information, quality and accountability

Education is promoted as a key means of improving economic prosperity and the rapid increase in student numbers over the last 15 years has led to escalating costs for the taxpayer. In turn, the pressure for public accountability of how money is being spent in HE has increased greatly, requiring far more open statements from universities about what they are achieving. This pressure is likely to increase as the government introduces policies to expand HE provision and widen participation even further. Learning outcomes can help institutions meet government priorities in two ways. Firstly, the specification of programmes of study using explicit learning outcomes allows government to 'benchmark' courses across the HE sector against nationally established standards, thus ensuring that universities are delivering high quality and achieving value for money from public investment. Secondly, it is argued that the specification of study programmes in terms of learning outcomes has transformed 'UK higher education from a highly selective, elitist system to a more accessible, multi-purpose mass system.' (Jackson, 2000). The publication of programme specifications and league tables that rank universities against each other on different aspects of their provision have provided both parents and potential students (including those from non-traditional backgrounds) with much more information on the quality of courses available. This is seen as important if government targets and widening participation policies are to become a reality.

Potential drawbacks of learning outcomes

Stifling creativity: the disempowerment of teachers and learners

Although recent years have seen wider adoption of learning outcomes in HE there remain some concerns about the way in which they are currently used. A key concern is that learning outcomes, if taken too far, can endanger more critical open-ended notions of student-centred learning. Ecclestone (incidentally a keen supporter of outcomes-based curricula) summarises this point quite well:

If unchecked, there is a real danger that uncritical acceptance of increasingly prescriptive, standardised outcomes will create cynical, instrumental attitudes to learning in teachers and students alike and remove critical dimensions of student-centeredness from higher education. (1999:29)

The requirement to pre-specify learning outcomes at the outset of a programme or module can also have potentially detrimental effects on the student learning experience. This can be attributed to a number of factors. Publication of pre-specified learning outcomes in course materials may inadvertently stifle creativity and originality in both staff and students. Used rigidly, there is a danger that learning outcomes become the driver of classroom interactions and prevent discussion of ideas or questions that do not clearly relate to the set outcomes for the course/module. Such a system may create what Ecclestone (1999:36) calls a 'subtle form of closure on ideas about what is important in learning' with critical or esoteric outcomes and discourses being marginalised. Rather than encouraging learner autonomy and deep engagement with the subject, learning outcomes may serve to restrict learning and encourage a reductionist approach where students merely aim to meet minimum threshold standards as specified in the learning outcomes. In pedagogic terms, good learning requires students to construct their own insights and understanding through questioning and interacting with the teacher, and too tight a focus on learning outcomes can lead to instrumental reasoning and surface learning (Biggs, 1999; Rust et al., 2003). Concern with pre-specification of learning outcomes therefore creates a tension with the realities and complexities (i.e. the constructive ambiguity) of the classroom (Lampert, 1985).

One size fits all: the problem with level descriptors

Hussey and Smith (2002) have criticised approaches to curriculum development that rely on a common set of generic level descriptors such as those based on Bloom's taxonomy for framing learning outcomes (Gosling and Moon, 2001). The view that cognitive development is unilinear and that degree students move from describing to understanding to analysing is too simplistic. They argue that different disciplines are very different in terms of the patterns of learning and skills required at different levels. For example, English literature students will be required to evaluate and criticise from year one of their course, but this will not be a requirement for medical or engineering students. Hussey and Smith (2002) assert that the clarity, explicitness and objectivity claimed for learning outcomes is largely spurious. With regard to knowledge for example, learning outcomes need to allow for different degrees (e.g. detailed and precise, or crude and vague) and this is very difficult to express precisely. Also, learning outcomes require interpretation and they only appear to be clear to those who already know what they signify based on their prior knowledge of the subject. Given that students are unlikely to have the appropriate levels of knowledge they have no reference levels with which they can interpret learning outcomes precisely. Attempting to add more detail to outcomes does not necessarily make them any more meaningful or clear for students.

The commodification of knowledge: a bleak house scenario?

The use of learning outcomes in programme specifications and benchmarking statements are central to the auditing process by the QAA. However, there is increasing evidence that this imposition has not been welcomed by teachers (Carey and Gregory, 2003). In requiring compliance with new processes of quality assurance there is a danger that teachers engage in a 'learning outcomes game' where learning outcomes are viewed as a chore rather than a useful exercise for improving teaching and learning. Treated with ambivalence, they become meaningless and even detrimental to the educational process. Indeed some commentators envisage a more sinister effect of imposing a 'learning outcomes regime' on universities in that they can 'distort and undermine knowledge by reducing it to commodified, decontextualised information... and that increasing emphasis on auditing and transparency in education has led to the decline of trust and the disempowerment and demoralization of academics' (Power, 1997 quoted in Hussey and Smith, 2002:221). A rather gloomy representation of the current state of higher education!

Recommendations for using learning outcomes effectively in HE

Although there have been many criticisms of learning outcomes and their use in HE, there is also recognition that considerable gains can be made by focusing on the *outcomes* of education rather than on *inputs*. Learning outcomes can be used in a way that meets the needs of all stakeholders in HE (i.e. the student, the teacher and external parties), but this may involve some rethinking at both a conceptual and practical level.

Developing a broader conception of learning outcomes

Even those most critical of learning outcomes (e.g. Hussey and Smith 2002; 2003) consider that their use can add value to the educational process, but only if they are used flexibly to guide rather than dictate student learning and curriculum development. An over-emphasis on specificity, transparency and measurability can lead to poor framing of learning outcomes in a way that severely limits their potential advantages. Whilst some degree of specificity is both necessary and desirable, learning outcomes need to be defined in a way that is both responsive and flexible within a given context. Account needs to be taken of the requirements of different subject disciplines as well as the way in which learning outcomes are pursued and addressed in learning and teaching settings (Coxall et al., 2001). Defining learning outcomes should not be seen as a 'once and for all' activity, but rather an iterative process that involves both learners and teachers as active participants in their development.

Practice Note

Three years ago students taking an introductory hospitality module at Oxford Brookes were invited to participate in the development of the learning outcomes for that unit of study. In the first lecture students were introduced to the concept of learning outcomes, their uses and how they could be written. In the seminar following the lecture, students were put into small groups and asked to work on three draft learning outcomes provided by the module leader. Although the draft outcomes broadly related to the learning on the module, they were deliberately written in a way that required some further development. Students were asked to look at the content and assessment for the module and to use action verbs selected from Bloom's taxonomy to improve the learning outcomes. Through a process of negotiation each seminar group agreed on three learning outcomes that reflected what they expected to achieve on the module. The module leader collated the results and produced three learning outcomes that broadly reflected the views of the students. These were presented to the students in the second lecture and comments invited. At the end of the module students were asked to feed back on the extent to which they felt the learning outcomes for the module had been achieved. One hundred per cent of students who completed the feedback questionnaire (74 per cent response rate) felt that the outcomes had been met, a considerable increase on the results from the year before when the outcomes had been set by the module leader alone. Feedback from tutors on the module was very positive. They believed that the approach empowered students to feel part of the learning process and made the learning outcomes more meaningful for them. Ironically, the pass rate on the module was not 100 per cent! This could mean that students who failed to meet the learning outcomes were part of the 26 per cent who did not complete a feedback questionnaire, or that students' perceptions of their achievement differed from that of the tutors assessing their work. This raises obvious questions about the extent to which students make links between learning outcomes and their use in assessment, and, more fundamentally perhaps, in the way that tutors use learning outcomes as a basis for assessment of student learning. The process of involving learners in the construction of learning outcomes did however, seem to have some positive effects on the student experience.

Recognition that learning outcomes can only be framed in general terms must also be accepted by those responsible for coordinating quality assurance procedures in HE (i.e. QAA and HE managers). An obsession with trying to pre-specify learning outcomes fails to grasp that any worthwhile learning experience has elements of uncertainty that makes precise pre-specification impossible. This does not mean that learning outcomes should be left tacit or that HE should not have them at all, they are an essential aspect of good teaching and learning. However, learning outcomes should be formulated in a way that is informative not constraining (Elton and Johnston, 2002). The development of a shared language is important but only in so far as this is helpful in ensuring the best possible learning experience for students. Hopefully the QAA's new 'light touch' approach will allow for a broader conception of learning outcomes at both course and module level, one that will open the way to a better understanding of the educational process.

Making learning outcomes congruent with good learning and teaching

Good teaching and learning stems from a range of complex interactions between student, teacher, setting and learning activities. The classroom is characterised by a degree of ambiguity between inputs and outputs, and good teachers are those that seek to motivate students by responding to questions and stimulating debate. Much is dependent on the experience and expertise of the teacher. A good teacher is able to think on their feet (reflection-in-action) about whether a classroom discussion should be pursued or not, and is adept at recognising learning outcomes that may emerge in the practical realities of teaching (Schon, 1991). These unplanned outcomes or 'learning moments' are extremely important in the educational process and can encourage deep learning in students. Teachers can also benefit enormously from such moments as they push students towards the boundaries of subject knowledge and encourage creativity in thinking. According to McAlpine et al. (1999, quoted in Hussey and Smith, 2002:366) 'excellent teachers reflect both in and on action, searching for student cues indicating engagement and comprehension of the subject matter....they are particularly adept at changing either content, methods or mood in response to perceived cues'.

Practice note

The Department of Hospitality, Leisure and Tourism Management at Oxford Brookes University has a long history of involving professional people in the development and delivery of its courses. The appointment of high-profile industry professionals as Visiting Fellows to the department has certainly enhanced the quality of provision. More recently the department has been making use of Associate Lecturers (ALs) who come from a range of backgrounds, both industrial and educational, to contribute on a more regular basis as seminar or workshop tutors. Whilst this adds a richness and variety to the learning culture, it has been extremely important to ensure that quality of the learning experience for students remains of the highest standards. A training course for new ALs has been developed by a team of specialist learning and teaching Principal Lecturers (PL) in the Business School. The PL posts relate specifically to Staff Development, Pedagogy, E-Learning and Work-based Learning developments. The introductory course for ALs is delivered in association with Chris Rust from the Oxford Centre for Staff Learning and Development based at the university. The course covers general induction to the university and specialist sessions on different aspects of learning and teaching. Particular attention is paid to the concept of constructive alignment and assessment of students' work, and the training ensures that new staff are aware of the role of learning outcomes in learning and teaching. ALs are introduced to an assessment grid devised by Margaret Price and Chris Rust that is designed to help lecturers design robust and consistent assessment criteria, and is also used by students to enable them to better engage with and understand tutor marking and feedback (the grid is available on the HE Academy website at <http://www.ltsn.ac.uk/genericcentre/index.asp?id=20265>). The training course is welcomed by ALs (who are paid to attend) and provides a useful introduction to teaching

and learning at the university.

Shifting the locus of control back to students may reduce the chances of achieving pre-specified learning outcomes, but it may maximise opportunities for deeper learning and enhance the educational experience for both staff and students. Hussey and Smith (2003) present a useful model that can be used by teachers to better predict learning outcomes, both planned and emergent. The model can also be modified for use by other interested parties (e.g. students, institutions and monitoring bodies). A key issue in an era of mass higher education is the increasing use of part-time or associate lecturers, especially on business and vocational courses, who may have little or no experience of teaching. Whilst recognising the value that such people can add in terms of their knowledge of 'real world' businesses, it is necessary to ensure that they are given appropriate training to develop their teaching skills.

Encouraging creativity through learning outcomes

Thirty years ago it was a commonly held view that students should be motivated by their love for a subject (Carey and Gregory, 2003). Although it is unlikely that even students of the time actually held such a view, it has become increasingly apparent that current HE students are motivated by earning marks. Grades are now considered 'campus currency' and it is clear that students place more value on that which is measured. In such a climate there is a danger that student learning may be driven only by those learning outcomes that are explicitly assessed and this may severely constrain the educational experience. Such a relentless pursuit of marks may 'squeeze out' emergent learning outcomes that can be so rewarding for both students and teachers. Also, learning outcomes are often written in way that represents 'threshold achievement' or what a student needs to do to obtain a minimum pass grade. Such an approach may restrict creativity and new knowledge and even encourage students to aim for the threshold level, thus 'purchasing their credit points at the lowest price' (Hussey and Smith, 2002:228). Assessment is at the core of students' experience of HE and it is important that learning outcomes are designed to encourage creativity within assessment tasks.

Practice note

Encouraging creativity in assessment is the focus of a major new project in the hospitality, leisure, sport and tourism subject areas that will start in January 2005. The project has been awarded funding of £250,000 by the Higher Education Funding Council for England's Fund for the Development of Teaching and Learning (FDTL). The project will be jointly run by consortium partners Southampton Institute, Oxford Brookes University and Bournemouth University, and will also involve other subject providers as 'cascade partners'. The project is titled 'Towards Inclusive Assessment: unleashing creativity' (TIAUC) and the key aim is to develop and implement a diverse range of assessments that encourage students to work more creatively and to use different media to present the outcomes of their learning (e.g. oral, video, exhibition, poster, on-line or negotiated choice). An important part of the project will involve staff development activities and resources designed to encourage lecturers to make use of creative assessments and also to feed back to students in more creative ways. One idea to come out of initial discussions with one of the Project Directors could be the use of personal video-diaries as part of the assessment for a Career Planning module at Oxford Brookes. This form of media would encourage students to display their skills for employment in an innovative way that is not possible using a traditional CV or written job application. For further information on the TIAUC project, please see LINK 11, published by the Higher Education Academy Network for Hospitality, Leisure, Sport and Tourism.

<http://www.hlst.heacademy.ac.uk/resources/link11/link11.pdf>.

Not all learning outcomes can (or should be) assessed and it needs to be accepted that a degree of academic judgement is inherent in both teaching and assessment. Once this is realised, academics may feel more empowered to introduce different/innovative teaching and assessment activities in a climate of mutual trust. This may necessitate some changes to the curriculum, but often very small changes can produce dramatic results (see Barr and Tagg, 1995). Encouraging creativity does not mean abandoning traditional teaching and assessment methods, but it may mean taking a less controlling approach in learning activities and being more careful about how learning outcomes are presented to students. Taking a more open view of both learning outcomes and assessment can also encourage teachers to consider inclusivity of the curriculum, especially in relation to widening participation and meeting the requirements of recent disability legislation (Special Education Needs and Disability Act, 2001). These are pressing policy issues for all HE institutions.

Conclusion

This paper has presented a brief overview of the development and use of learning outcomes in HE, and has evaluated some of the key benefits and drawbacks of adopting this approach. It is widely recognised that learning outcomes can enhance the educational process, but they can also be potentially damaging if used in an overly prescribed way. Whilst it is impossible to try and cover the myriad issues associated with learning outcomes in such a short paper, it is hoped that this review has given the reader some insights on their use and presented useful suggestions for improving current practices. To conclude;

...accepting that student motivation is an essential element in learning, we propose that those who teach should begin to reclaim learning outcomes and begin to frame them more broadly and flexibly, to allow for demonstrations and expressions of *appreciation, enjoyment and even pleasure*. (Hussey and Smith, 2003:367, emphasis added).

I, for one, wholeheartedly agree!

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