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Connecting Reflective Learning, Teaching and Assessment

Occasional Paper 10

Edited by Helen Bulpitt and Mary Deane

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Foreword

Connecting Reflective Learning, Teaching and Assessment is the 10th occasional paper from the Higher Education Academy Centre for Health Sciences and Practice, and is published appropriately as we approach the 10th anniversary of the establishment of the Subject Centres in 2000.

Reflection and reflective practice in simple terms can be summarized as learning from experience. However beneath this simplicity is a minefield of questions that arise from the need to incorporate this approach into learning and teaching. The inclusion of critical reflection into the curriculum is promoted in the health professions by the requirements of professional and statutory bodies, and is well developed in some professional courses.

This paper explores the theory, different contexts of reflection, and examples from case studies of reflective practice. It includes discussions of practical issues, for example the conflict between crammed curricula and the time required for critical reflection, reflective writing strategies, guidelines with relevant questions for the learner to start the process of reflection, and marking criteria to assist in the thorny issue of assessment of critical reflection.

We hope that the experiences outlined in this paper will be of help to those who are involved in the teaching of reflective practice.

Professor Catherine Geissler

Director

HEA Centre for Health Sciences and Practice

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Part One: Theoretical Paradigms

Chapter One

Promotion of Reflective Learning, Teaching and Assessment through Curriculum Design

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Abstract

In this chapter I argue that if reflection is to be a central tenet of learning, teaching and assessment it is necessary to embed it at a curriculum design level. By implementing a whole curriculum approach (Schuell, 1986) links are forged between the elements so that both process and outcome are considered. The aim should be to encourage student engagement by providing a framework to facilitate development of students' reflective capability. Although considerable attention has been paid to models and frameworks that support reflective teaching and learning (see for example, Kember et al, 2001; Moon, 1999; Brookfield, 1995; Johns, 1995; Boud, Keogh & Walker, 1985) and to issues surrounding the assessment of reflective capability (Brockbank & McGill, 2007; Clouder, 2004; Moon, 2001; Hinett & Knight, 1996) scant attention has been paid to its integration at a curriculum design stage and throughout the entire learning experience. My intention in this chapter is to encourage academics involved in course design or redesign to consider the implementation of two curriculum concepts used in tandem to provide a framework that promotes congruence between reflective learning, teaching and assessment. The two concepts are constructive alignment (Biggs, 1996) and the spiral curriculum approach (Bruner, 1960).

Keywords

Constructive alignment, spiral curriculum, curriculum design

What do we mean by curriculum design?

A curriculum is an artefact, constructed within a frame. It has form and structure. It has dimensions of time and space. It is experienced. The framing is important ... what to place inside the frame and what to exclude. The critical decision then concerns how the contents within the frame are composed in relation to each other in order to create an integral and harmonious entity.

(Paul Kleiman, 2002. P.3)

The absence of attention to curriculum design related to fostering reflective capability is consistent with the paucity of serious general debate about curricula in contemporary higher education (Barnett & Coate, 2005). Curriculum is described as a 'missing term' despite the assertion that 'through curricula, ideas of higher education are put into action.... values, beliefs, and principles in relation to learning,

understanding, knowledge, disciplines, individuality and society are realized (Barnett & Coate, 2005, p. 25).

Paul Kleiman (2002 p.4) argues that the curriculum can be conceptualised in a variety of ways; 'as content, and/or experience, and/or intentions, and/or cultural reproduction'. As a consequence he stresses the need for clarity about the function of each individual curriculum. Exploring the tacit notions of curricula, Barnett and Coate (2005) identify a recent shift towards outcome-based, employment related and market oriented curricula, that has generated a range of pedagogies to cope with the change. They argue that in the process of course design issues of pedagogy are discussed 'more occasionally', otherwise attention focuses on pragmatic issues, such as the topics to be included, the approaches to be adopted and technical issues such as assessment approaches, rather than broaching fundamental issues such as the relative pedagogic responsibilities of teacher and taught' (Barnett & Coate, 2005, p. 25). This matter-of-fact approach to integrating reflective practice into curriculum design is, in fact, illustrated in a recent Higher Education Academy resource (UK Centre for Legal Education, <http://www.ukcle.ac.uk/resources/reflection/curriculum.html>). The resource addresses issues such as alignment of outcomes with assessment and practical concerns about dealing with disclosure, providing feedback and plagiarism.

As a consequence of the 1997 *Dearing Report*, which called for students to be better informed about their studies (Hussey & Smith, 2008) there has been a noticeable shift, with respect to curricula, from concern with the quality of learning processes to the quality of outcomes. Subsequently the concept of setting learning outcomes has become accepted practice promoted by the Quality Assurance Agency (QAA). Notwithstanding arguments that 'outcomes-based education' de-emphasises process in favour of outcomes (Davis & Harden, 2003), use of learning outcomes has been deemed complementary to the objectives of experiential learning (Mortimer, 1999). Mortimer's assertion that they provide a way of supporting the development of learner autonomy and a more concrete focus for helping students develop key skills, suggests that they might have potential value in supporting the development of reflective capability.

Professional higher education is according to Watson (2000, p. 6) 'the antithesis of the 'secret' garden image of the curriculum. It requires negotiation, shared purpose and above all, transparency of aims and outcomes'. Harvey (2000) highlights the importance afforded to employability and the requirement placed on producing flexible, critical, reflective and empowered graduates, illustrating stakeholder pressure from the government and industry. However, the commodification of higher education means that students as 'consumers' also exert a powerful influence and control over the educational process (Barnett, 2005). As a consequence of increasing influence from outside interests, the curriculum is pulled in different directions. For example, curriculum design in one medical school, incorporates several design elements, including a core curriculum defining essential knowledge, derivatives of problem based learning, the incorporation of a spiral design, as well as an outcome-based approach (Davis & Harden, 2003). This example serves to remind that although attention will be turned to focus on suggestions about curriculum design that supports the inculcation of reflective capability there are always other discourses that will influence the final curricula.

In considering the design of curricula for a rapidly changing world, Barnett and Coate (2005) identify three challenges: knowing, acting and being. Acknowledging that responses to these challenges will differ across institutions and subjects, they suggest that integration between these elements is essential. In the context of

professional subjects, they develop a model illustrating the perceived relative importance of the three challenges by the size of the circle.

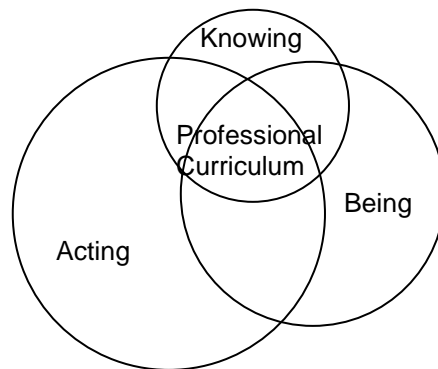


Figure 1. Curricula in Professional Subjects (Adapted from Barnett & Coate, 2005)

The model suggests that while propositional knowledge is crucial, being able to apply that knowledge in practice is of even greater importance. However, the integration of the action domain and self is of particular relevance; the prominence of 'being' highlights the importance of the 'capacity for critical reflection and self development through knowledge and actions' (Barnett & Coate, 2005, p. 78). I have adapted the model to highlight the area of overlap of the three domains that I suggest is the space which must be capitalized on to create a professional curriculum. Inevitably it is likely to be contested ground; for example, notwithstanding differences between professions, the discourse promoting development of skills and competencies could well predominate. Nevertheless, Barnett and Coate's interpretation of the perceived relative importance of each domain provides simple yet important insight into the extent to which the curriculum might respond to the future needs of graduates and the necessity for multi-faceted curriculum design, which pays specific attention to the development of reflective capability.

The curriculum challenges posed by reflection

A potentially major stumbling block in designing a curriculum to foster critical reflection is that it is still considered by some to be a contested concept, which results in lack of clarity about how it might be taught (Russell, 2005). Russell engages in debate over whether or not it can in fact be taught. However, there is even greater debate about whether it can be adequately or even should be assessed (Williams, *et al.*, 2000; Hinett & Knight, 1996). Notwithstanding these challenges, the extensive literature and equally extensive evidence of adoption of the concept in practice seems to suggest that the theory and practice of reflection has attained a significant role in contemporary professional education (Moon, 2004).

Professional and statutory review bodies such as the Health Professions Council and the Nursing and Midwifery Council (NMC) have been influential in 'writing' critical reflection into the curriculum at policy level by setting standards, such as '*Standards to Support Learning and Assessment in Practice*' (NMC, 2006). Nevertheless, whilst some professions, such as occupational therapy, and nursing have fully embraced and embedded the notion of fostering critical reflection in programme design, others are more tentative about the value of its contribution and as a consequence give it less prominence (Clouder, 2004). It must also jostle for position with other influential discourses, such as evidence-based practice (EBP) and the promise of propositional knowledge underpinned by rigorous research. EBP which was keenly promoted, initially within health and social care, is now more widely influential in education, economics and architecture, despite critiques that suggest that it is open to similar criticisms that it directs at other discourses. These criticisms

include lack of empirical evidence (Rolfe, 2005) and biased evidence as a result of publications not being representative of all completed studies in an area (Friedman & Richter, 2004). Nevertheless, it evokes a paradigm, which supports a technical rational and positivistic view of the world, that although not totally at odds with conceptions of reflection, considered by some to be a rational cognitive process (Dewey, 1933; Schon, 1983) is at odds with its more affective conceptions.

Emphasis on competency based education and the requirement for vocational skills exerts yet another robust influence on curriculum design. The case for reflection is not helped by claims that critical reflection is dependent on very different skills and premises to those on which everyday practice in the workplace is based (Price, 2004). For instance, it is argued that practice is dependent on collective rather than personal learning (Seymour et al, 2003). There is also doubt that individual reflection can resolve collective problems or whether mentors can adequately support reflective problem-solving (Taylor, 2003). All of these arguments challenge the perceived instrumental value of critical reflection in this setting, although it can be argued that contrary to popular belief critical reflection is not confined to being solely an individual activity but is strengthened and can be translated into action through dialogue with others.

Prefixing the word 'reflection' with the word 'critical' lends it greater credibility and certainly conceptions of reflection seem to have moved away from the view that it is no more than 'navel gazing' (Fade, 2004). Its power stems from its potential to make sense of experiential learning in the context of practice, whilst simultaneously gaining personal insight. As such, its iterative, emotional and potentially transformative nature does mean that it is potentially at odds with the linear, rational and specified outcomes focus of higher education, especially given that outcomes of critical reflection can be at least partially unintended.

Curriculum Design for Fostering Critical Reflection

Acknowledging the need to consider values, goals, content, structure, flexibility, teaching strategies and assessment (Toohey, 1999) there is a need to question whether there is an optimal curriculum design that will foster critical reflection, as well as possibly fulfilling other curricula demands. Moon (1999) advocates one that is not overfilled allowing time and space. I have argued elsewhere that 'a crammed curriculum is not conducive to facilitating reflection' (Clouder, 2004, p. 105). In agreement, Barnett (1997, p. 110) suggests students need 'to have the space genuinely to form their own critical evaluations and to engage in critical acts'. He advocates 'abandoning teaching' in favour of a student-led approach; a sentiment acknowledged by Brockbank and McGill (1998) although moderated by the suggestion that some form of structure and process must be adopted if learning is to occur.

The notion of providing some structure leads to thoughts about the extent to which the curriculum might be student-led and to alternative pedagogies that encourage less control on behalf of the teacher and greater control by the learner, for example, problem-based learning. Critical reflection seems to increase the emphasis on what the learner does and their part in the 'construction' of meaning and although structure might be essential it must also be flexible enough to accommodate the needs of individual learners.

The current popularity of learning outcomes might seem at first to be at odds with the process of critical reflection. However, Moon argues reflection is likely to involve a

conscious and stated purpose or an anticipated outcome. Identifying a number of 'outcomes' that result from the reflective process, which include learning, knowledge, understanding, emotion, problem-solving, development and action as well as unexpected outcomes, she is persuasive that a learning outcomes approach can be integrated with other approaches that foster critically reflective processes.

The Spiral Curriculum

King and Kitchener (1994) maintain that reflection must be supported throughout the curriculum. Certainly, a factor that seems to gain some level of agreement is that reflection cannot be successfully bolted on to the curriculum, although this is frequently the approach that appears to be adopted (LTSN, 2004). Critical reflection requires higher order learning, which suggests a curriculum designed to foster depth of learning both across years and over the duration of the programme. My suggestion is that this points to a curriculum that recognises value in revisiting experiences, and building on less well-developed conceptions of knowledge and practice at later stages of the programme, which can be achieved by implementing a spiral curriculum approach. However, this might usefully be coupled with a constructive alignment approach to ensure that learning, teaching and assessment operate in harmony in fostering reflective capability.

The term 'spiral curriculum' was originally coined by Bruner (1960) as a means of describing a curriculum based on an iterative revisiting of topics, subjects or themes throughout the course. Other curriculum designs use planned revisiting of topics, however, the spiral curriculum provides opportunity to deepening understanding; each encounter builds on the previous one so that the competence of students gradually develops without proving too overwhelming (Harden & Stamper, 1999). For instance, Harden et al (1999) advocate the use of the spiral curriculum approach as a means of helping students to engage with increasing complexity of medical education in its various phases, moving through learning about normal structure, function and behaviour to abnormal and transferring and building on and applying this knowledge in clinical practice and through on-the-job learning.

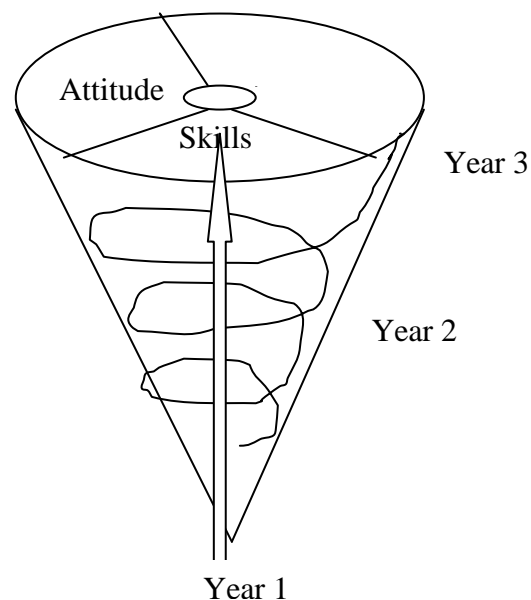


Figure 2. The Spiral Curriculum (Adapted from Bruner, 1960)

The spiral curriculum has been widely applied across a range of disciplines (Harden & Stamper, 1999) not least medical education in which it has been found to complement the much favoured outcome-based educational approach (Harden et al,

1999). It is possible to see the ways in which the spiral curriculum might also provide a means of developing reflective capability, possibly by encouraging students to experiment with alternative models and frameworks and through the use of different reflection promoting strategies suited to different contexts and stages in their programme. Written reflections might provide the vehicle to enable students to record and subsequently revisit experiences so engaging in meta-reflection that might result in unintended outcomes, such as increased personal insight. This approach would necessitate forging connections across the entire course, spacing and sequencing experiences and adopting suitable pedagogies that structure and support this iterative process without detracting from a student-led approach.

Constructive Alignment

The concept of 'constructive alignment' (Biggs, 1996) has been widely embraced by the academic community. It is built on Shuell's (1986) notion that curriculum components constitute a system in which 'elements complement one another to form an integrated whole, creating a web of consistency that optimizes [students'] learning' (Biggs, 1999, p. ix). When its 'constructive' and 'alignment' components are considered it is possible to see how it might be a useful adjunct to the spiral curriculum in terms of helping to foster critical reflection.

The 'constructive' element of constructive alignment refers to what the learner does, which is to construct meaning through relevant learning activities. Biggs builds on the work of Tyler who argues that learning takes place through the active behaviour of the student: it is what he does that he learns [*sic.*], not what the teacher does'. This ideology supports the constructivist view of learning consistent with the underpinning philosophy of critical reflection. On the other hand, the lecturer's role is to ensure that 'alignment' occurs, which involves establishing a learning environment that supports the learning activities appropriate to achieving the desired learning outcomes. Alignment is dependent on consideration being given to establishing clear learning outcomes, teaching methods, assessment procedures, a climate conducive to student/teacher interaction and a supportive institutional climate (Biggs, 1996). Constructive alignment conjures up an image of learning that is largely prescribed and indeed Biggs maintains that 'the learner is in a sense 'trapped' and finds it difficult to escape without learning what is intended should be learned'(Biggs, 2003, p. 2) because alignment has been achieved'.

This idea of the learner being 'cornered' into learning might be potentially challenging to those interested in promoting critical reflection and open to the possibility of it leading to unintended outcomes. Indeed, Tate (2004) argues that critical reflection is at odds with an outcome orientated approach because it is associated with process, which a learning outcomes approach is not. This is possibly one of the greatest challenges in combining the two approaches especially with respect to the nature of assessment which would need to be robust enough to capture both the product and outcome of teaching and learning.

The emphasis that a constructive alignment approach puts on learning outcomes is in fact at the heart of much of the critique of Biggs' work, which focuses on the potential for reductionism, narrowly focused predictable learning outcomes, lack of scope to recognise unintended learning outcomes and 'the death of originality and serendipity' (Jervis & Jervis, 2005, p.4).

A recent analysis of the use of learning outcomes in higher education (Hussey & Smith, 2008) dispels their use at module or programme level but acknowledges relevance in more focused teaching and learning events, provided that there is acceptance that they are employed flexibly and cannot be stated precisely. Hussey and Smith (2008) highlight how some learning outcomes are emergent rather than intended and advocate that teachers employ a 'corridor of tolerance' to allow for

departures and to capture 'learning moments'. In agreement with Biggs, they advocate that whilst it is not unreasonable to suggest that we must have a clear idea about what we want students to learn, they suggest that this should not be interpreted too narrowly. Developing the notion of 'learning moments' further one might argue in favour of 'open ended' learning outcomes as distinct from 'unintended outcomes' in response to the increasing call for personalised learning that can then be applied to practice. Personalised learning and 'open outcomes' sit comfortably with the notion of critical reflection, and, in fact, have the potential to change perceptions of the applicability and usefulness of reflection in the contemporary workplace.

Conclusions

This chapter has attempted to encourage academics to think at a curriculum design level about the ways in which they can promote reflective learning, teaching and assessment and so see benefit in considering them as an entity or as Biggs (2002) suggests, as a 'system'. I acknowledge that advocating that academics should embrace the notion of constructive alignment is potentially contentious in the context of developing students' reflective capability, nonetheless I argue that it might encourage academics to think more formally about making the links that seem to be so often missing. Furthermore, combining a constructive alignment philosophy with a spiral curriculum approach might seem incongruent. However, I believe that together they can potentially enable the development of reflective capability because they are both underpinned by the notion of broadly uni-directional progress towards a goal.

The dynamic underpinning constructive alignment tends to feel rather linear in nature, although in practice the 'connections' which need to be made between reflective learning, teaching and assessment are likely to be far from linear. The spiral curriculum allows for a more tortuous or meandering route through a programme and accepts as given the cyclical and iterative nature of the learning experience but both lend themselves to achieving an end goal that might incorporate specified learning outcomes as well as other outcomes that could not have been foreseen. If as Hussey and Smith (2008) advocate we accept that learning outcomes are flexible and that 'learning moments' might lead to emergent or open ended outcomes I see no reason why they cannot be deemed to provide a means of structuring critical reflection in a positive way. Combining the two curricula approaches will not be without its challenges in practice, not least being to persuade students and staff to think in terms of more flexible learning outcomes and revisiting topics, subjects or themes throughout the course, which is often perceived negatively as repetition. However, overcoming such challenges could potentially benefit students in producing a curriculum that is responsive to a wider range of learning styles and personalised learning.

These suggestions are of course speculative in that they have not been formally tried out in practice. However, I suspect that like myself, others will be able to identify with aspects of the issues discussed that have already been tried out in the context of their own teaching. Next time the opportunity arises to design or redesign a programme I recommend considering going back to contemplate the fundamentals of curriculum design.

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