
Assessing reflective learning

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Abstract

The purpose of this paper is to identify the main problems in assessing reflective learning and to seek ways of tackling them. Lessons are sought from HE's long engagement with critical thinking that can be transferred to reflective learning. A solution to the problems is offered that is based on a questioning approach to reflective learning. In so doing, the paper explores the nature of reflective learning and advances the idea that the distinction between "surface" and "deep" learning can be generalised to the domain of reflective learning. It concludes with some implications for the development of reflective learning.

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Introduction

The purpose of this paper is to identify the main problems in assessing reflective learning and to propose how they might be resolved. In so doing, the paper looks at the nature of reflective learning and the reasons for assessing reflective learning. The core strategy of the paper is to look at what we can learn from the assessment of critical thinking that is transferable to the domain of reflective learning. First, however, it is necessary to establish the significance of reflective learning in higher education (HE) today.

Over the last decade, reflective learning has made increasing inroads into the HE curriculum. Recognition of the accelerating pace and impact of technological change, economic change and social change has created awareness of the need for graduates to be lifelong learners. Insofar as HE seeks to prepare students for work and for life it increasingly seeks to develop their capacity for lifelong learning. Lifelong learning can be partitioned into planned learning and unplanned learning. Much learning across the lifespan is unplanned, experiential and emergent. The key to this sort of learning is reflection, which turns experience into learning (Boud *et al.*, 1985). Developing students' capacity for reflective learning is part of developing their capacity to learn how to learn.

Reflective learning has become increasingly important in postgraduate programmes, where reflective learning is often combined with taught and research elements. According to the Quality Assurance Agency for Higher Education (QAAHE):

Progression within postgraduate study has traditionally implied an increasingly narrow, and increasingly research-dependent deepening of knowledge in a specific field. *The Harris Review* ... however, noted that the distinction between taught, research and reflective elements of postgraduate study had become blurred and that programmes were increasingly combining two or more of these elements (QAAHE, 1998, p. 4).

This is particularly true in those academic disciplines most closely related to higher professional learning such as nursing and education. In those areas, Schon's notion of the "reflective practitioner" has been very influential (Schon, 1983). In those areas, a HE normally seeks to develop reflective practitioners.



Another tributary bringing reflective learning into the HE curriculum is the work of educational development units in universities and other institutions of HE. This work has expanded rapidly over the last decade (Gosling, 2001). A core element of the work is the provision of courses for staff development in teaching and supporting student learning. A recent survey of the promotional literature on these courses suggested that the conceptual underpinnings of these courses were dominated by two ideas: Kolb's experiential learning cycle; and Schon's reflective practitioner (Bourner *et al.*, 2000). Reflective learning plays a key role in both ideas. The courses are intended to prepare and develop teachers from across the spectrum of the subject disciplines of HE. In so doing, they bring the concept of reflective learning into academic subjects across every part of the academy.

Whether HE is preparing students for lifelong learning, delivering CPD to experienced practitioners or preparing academics for teaching in HE, the role of reflective learning is increasing.

This paper looks at problems in assessing reflective learning arising from the subjective nature of the knowledge outcomes of reflective learning, seeks lessons from HE's long engagement with critical thinking and offers a solution based on a questioning approach to reflective learning.

Why assess reflective learning?

It is important to assess reflective learning to be able to provide feedback to students and to be able to certify that students have developed the capacity to learn through reflection.

If a learning outcome of a course is to develop the capacity for reflective practice then assessment is necessary for certification that the learning outcomes have been achieved. If a significant part of the purpose of a course of HE is to produce reflective practitioners, then it is difficult to know if the course is achieving its purpose unless reflective learning is assessed.

If reflective learning is not assessed it is most likely to be neglected. Assessment has been described as "the tail that wags the dog". Attention follows assessment and behaviour follows attention. Most students pay most attention to what is assessed. That which is

not assessed is most likely to be most neglected.

Within the academy assessment confers legitimacy. The academy is reluctant to accredit that which cannot be assessed. A good recent example of this principle is the accreditation of work-based learning within HE (Brennan and Little, 1996). The accreditation of work-based learning has followed the development of forms of assessment of work-based learning; the legitimacy of work-based learning in HE depended on its accreditation. Until relatively secure methods of assessment for work-based learning were developed it remained on the margins of HE. Reflective learning will not achieve full legitimacy within the academy until the assessment of reflective learning is secure.

What are the main obstacles to assessing reflective learning?

The main impediment to assessing reflective learning is that a significant and variable proportion of the learning outcomes of reflection is subjective knowledge rather than objective knowledge. Only the person doing the reflection can assess whether learning has occurred that is significant to them. However, the notion of secure assessment implies some form of evaluation against an independent standard. If the rest of the world is to find the assessment useful, the standard of assessment must be explicit. In the case of personal learning, it is difficult to see what external standard can be used for measuring the worth of the learning.

There is another related obstacle that impedes assessment of reflective learning. Assessment normally involves a judgement of the extent to which planned learning outcomes have been achieved by students. Reflection is the process of turning experience into learning and that learning is emergent rather than planned. It is difficult to specify, *a priori*, planned learning outcomes for a process that yields emergent learning outcomes. In the absence of planned learning outcomes there is nothing against which to assess the learning.

Faced with these two substantial obstacles to the assessment of reflective learning the strategy of this paper is to look for a way forward by transferring ideas from the area

which has been well thought-through in HE, the domain of critical thinking.

What can we learn from critical thinking?

In 1991, Sir Douglas Hague, who was chair of the Economic and Social Research Council for much of the 1980s, wrote that critical thinking, the ability to judge ideas and evidence, is the primary aim of HE:

Academics must believe that acquiring the ability to test ideas and evidence is the primary benefit of a university education (Hague, 1991, p. 64).

This statement is probably an accurate reflection of the view of most university academics during most of the twentieth century. Certainly the majority would have agreed with the proposition that a hallmark of a university graduate is that they have well-honed critical faculties.

An implication is that we have a great deal of experience in detecting the presence or absence of critical thinking in assessing the work of students. How do we recognise the presence of critical thinking when we are assessing students' work? What is the evidence of critical thinking that we look for in assessing the work of students?

Traditionally, we have looked for evidence that the student has asked searching questions of the material with which they have engaged and of their own ideas. What sort of searching questions does critical thinking imply? Table I contains a dozen questions that we might recognise as the tools of the critical thinker in the process of interrogating ideas, evidence and assertions.

When we assess student work and we spot evidence of the use of these sorts of questions

we can reasonably conclude that the student has developed the capacity for critical thinking.

The rest of this paper addresses the question: can we transfer this approach from the assessment of critical thinking to the assessment of reflective learning? In other words, we are looking for correspondence between the generic processes of critical thinking and reflective learning.

The first step is to notice the difference in terminology between "critical thinking" and "reflective learning". We rarely speak of "critical learning" or "reflective thinking". Noticing this different use of language allows us to make the adjustment in our pursuit of parallels; from now on we will be looking for similarities between "critical thinking" and "reflective thinking".

Replacing the term "reflective learning" by "reflective thinking" is also important, because it separates out the process of reflection (i.e. reflective thinking) from the content of that thinking and it is the subjective nature of the content that is a major barrier to the assessment of reflective learning.

When a person interrogates some past experience by asking searching questions of that experience they are thinking about it reflectively. Simply reviewing what happened does not constitute reflective thinking; it is as possible to review an experience unreflectively as it is to read a book uncritically.

Just as the process of critical thinking implies asking searching questions, so the process of reflective thinking implies asking searching questions. What distinguishes reflective thinking about an experience from unreflective thinking is the process of interrogating the experiencing with searching questions. What sort of searching questions

Table I Questions as tools for critical thinking

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| 1. | What explicit assumptions are being made? Can they be challenged? |
| 2. | What implicit/taken-for-granted assumptions are being made? Can they be challenged? |
| 3. | How logical is the reasoning? |
| 4. | How sound is the evidence for the assertion(s)? |
| 5. | Whose interests and what interests are served by the assertions? |
| 6. | What values underpin the reasoning? |
| 7. | What are implications of the conclusions? |
| 8. | What meaning is conveyed by the terminology employed and the language used? |
| 9. | What alternative conclusions can be drawn from the evidence? |
| 10. | What is being privileged and what is off-the-agenda in this discourse? |
| 11. | What is the context of this discourse? From what different perspectives can the discourse be viewed? |
| 12. | How generalisable are the conclusions? |

do reflective thinkers use to interrogate their experience? Table I comprised a set of questions of the kind that characterise critical thinking; Table II contains a set of questions of the kind that characterise reflective thinking.

When we assess student work and we spot evidence of the use of these sorts of questions we can reasonably conclude that the student has developed the capacity for reflective thinking.

In other words, the solution to the problem of assessing reflective learning proposed in this paper is to base it on evidence of the capacity to interrogate experience with searching questions. As is the case when we assess the capacity for critical thinking, sometimes those questions will be explicit and sometimes they will be implicit in the students' work.

How does this solution deal with the obstacles to the assessment of reflective learning: the subjective nature of reflective learning and the absence of prior learning outcomes against which to assess reflective learning which is emergent rather than planned.

Although the content of reflective learning may be subjective, the process of reflective learning is not. This is because: the core of the reflective learning process is interrogating experience with searching questions; and we can identify searching questions independently of the content of the reflection. Reflective learning is not what happens to a student, it is what the student does with what has happened. When we assess reflection it is important that we do not assess the content of

an experience but rather that we assess what the student has done with the content.

There is a parallel here with project work. Students are often allowed to select the topic content of their own projects and, despite this, we still feel confident in marking their project reports. This is because we are assessing the processes employed in undertaking the project as evidenced in project reports rather than the project content *per se*. In terms of the education of students, we are more concerned with how they did it than the content of the project outcomes. Likewise with reflective learning, we are less concerned with the content of experience than how the students process it. We should be most concerned with whether they take the experience at face value or ask searching questions of it. The content of a student's experience may be subjective, but the process of reflective thinking is not.

The other main problem in assessing reflective learning is that learning outcomes of reflective learning can only be determined after the process of reflective learning. This is a problem insofar as assessment is viewed as forming a judgement about whether the prior learning outcomes of a course of study have been achieved by the student. It should now be clear that this argument has force only if we are interested in assessing the content of learning but not if we are interested in assessing the process of reflective learning. Once we have distinguished the process (i.e. reflective thinking) from the content (i.e. the experience itself) this obstacle to assessment dissolves. In fact, once the content/process distinction has been made, it does then become possible to specify in

Table II Questions as tools for reflective thinking

1.	What happened that most surprised you?
2.	What patterns can you recognise in your experience?
3.	What was the most fulfilling part of it? And the least fulfilling part of it? What does that suggest to you about your values?
4.	What happened that contradicted your prior beliefs? What happened that confirmed your prior beliefs?
5.	How do you feel about that experience now compared with how you felt about it at the time?
6.	What does the experience suggest to you about your strengths?
7.	What does the experience suggest to you about your weaknesses and opportunities for development?
8.	How else could you view that experience?
9.	What did you learn from that experience about how you react?
10.	What other options did you have at the time?
11.	Is there anything about the experience that was familiar to you?
12.	What might you do differently as a result of that experience and your reflections on it? What actions do your reflections lead you to?

advance a learning outcome – at the level of the capacity for reflective thinking. The intended learning outcome could then be phrased in terms of “the capacity to think reflectively” or, less abstractly, “the capacity to capture the lessons of experience”. In assessing students’ work we should look for evidence of this learning outcome, i.e. reflective thinking, in much the same way as we look for evidence of critical thinking, i.e. evidence that the student has asked searching questions of the content.

Discussion

This paper has attempted to apply to reflective learning lessons drawn from the academy’s long engagement with critical thinking. A key step was shifting the focus from reflective learning *per se*, to reflective thinking. This enabled the separation of the process of reflection from the content of reflection.

Critical thinking and reflective thinking share a common two-stage structure:

- (1) Bringing into conscious awareness.
- (2) Asking and responding to searching questions.

In the case of critical thinking, the first stage is achieved by such means as reading a book or listening to a lecture; the second stage is achieved through what the student does with the content of the book or the lecture. In the case of reflective learning the first stage is achieved by reviewing a past experience to recall it as vividly and comprehensively as possible; the second stage is achieved through what the student does with what has been recalled.

The literature on students’ orientations to study often makes the distinction between “deep” and “surface” learning. Surface learning is associated with uncritical accumulation of facts and opinions, whereas deep learning is associated with critical thinking. Surface learners, like uncritical thinkers, read a book without asking the sort of searching questions of it that enable them to create their own meanings from the text; they take it in at face value. By contrast, deep learners, like critical thinkers, read in a questioning way. Deep learners, like critical thinkers, find more in what they read because they ask searching questions of it.

Within the domain of reflective learning, the distinction between surface learning and deep learning is equally applicable. In this domain, surface learning is associated with unreflective thinking and deep learning is associated with reflective thinking. Surface learners are those who can describe their experience but do not ask searching questions of it; they simply take it at face value. Deep learners, by contrast, engage with their experience in a questioning way. In the domain of reflective learning, deep learners, like reflective thinkers, find more from their experience because they ask searching questions of it.

The distinction between passive learning and active learning is also applicable to reflective learning: experience is what happens to a student, reflective thinking is what the student does with what happens to them.

What clues does this discussion provide to guide the development of reflective learners? It suggests that one reason why some people are poor at reflective learning is that they have a limited repertoire of searching reflective questions. It further suggests that the key to developing reflective learners is developing such a repertoire of reflective questions and providing opportunities to practice using them.

Conclusion

This paper has proposed a solution to the problems of assessing reflective learning based on a questioning approach to learning, explored the nature of reflective learning, and advanced the idea that the distinction between surface and deep learning can be generalised to the domain of reflective learning.

The academy has a great deal of experience in detecting good critical thinking from poor critical thinking or its absence. It is possible, in like manner, to detect good reflective learning from poor reflective learning. Good reflective learning is the product of reflective thinking, i.e. the interrogation of experience with searching questions. Poor reflective learning is evidenced by a descriptive account of the experience. Assessing reflective thinking is no more difficult than assessing critical thinking, since they share a common process: the interrogation of material in

conscious awareness by means of searching questions.

Proposed solutions almost always generate new questions. In this case the questions include:

- How much of the academic debate on critical thinking can be interpreted as discussion about which questions are implied by the notion of critical thinking and what priority should be given to different questions? Should we now be seeking to develop, refine and prioritise questions for reflective thinking?
- How can we help students to broaden their repertoire of reflective questions and practice their use?
- Much work has been done on student (and staff) orientations to planned learning – particularly through the use of phenomenographic methods of research. What can we learn from phenomenographic methods about conceptions of reflection and orientations to reflective learning?

A university education is often seen as “developing the powers of the mind”. Sometimes this term has been construed quite narrowly as developing the power to test ideas, assertions and evidence, i.e. critical thinking. Increasingly, universities and other institutions of HE see the need to construe the term more broadly and prepare students

for lifelong learning that will comprise reflective learning as well as planned learning. Developing a secure means of assessing reflective learning is an essential pre-requisite for this. By bringing reflective thinking into the same focus as critical thinking this paper seeks to contribute to that outcome.

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